GENERA PLANTARUM.

VOLUMEN TERTIUM.

GENERA PLANTARUM

AD EXEMPLARIA IMPRIMIS IN HERBARIIS KEWENSIBUS SERVATA

DEFINITA;

AUCTORIBUS

G. BENTHAM ET J. D. HOOKER.

VOLUMEN TERTIUM,

SISTENS MONOCHLAMYDEARUM, GYMNOSPERMEARUM ET

MONOCOTYLEDONUM ORDINES LXXIII.

LONDINI:

VENIT APUD

L. REEVE & CO., 5 HENRIETTA STREET, COVENT GARDEN;

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MDCCCLXXXIII.

DICOTYLEDONES MONOCHLAMYDEÆ.

Perianthium simplex, lobis segmentisve 1–2-seriatis inter se similibus sæpius calycinis, nunc minutum v. plane nullum. Cætera *Polypetalarum*.

Excepta: Petala vera intra calycem adsunt in *Euphorbiaceis* nonnullis et in uno genere *Phytolaccaccarum*.

Perianthium subcorollinum calycis exterioris margine conspicuo in *Loranthaceis* nonnullis, et hinc inde staminodia seu tubi staminei lobi staminibus alterni petala simulant in *Amarantaceis* paucis et in *Batide*.

Excepta minora sub variis ordinibus quærenda.

Monochlamydeæ classem nec naturalem nec bene limitatam formant: Ordines plurimi inter se minime affines sæpe uni alterive inter *Polypetalas* propius accedunt et Botanices plures peritissimi conati sunt eos inter *Polypetalas* distribuere. Parum feliciter tamen succederunt et systema nullum Candolleano revera melius adhuc propositum est. Interea series sequentes hic receptæ potius artificiales ad usum practicum nuncupandæ quam cohortes naturales, etsi ordines in eadem serie conjuncti plerique characteribus essentialibus conveniant.

CONSPECTUS ORDINUM.

(*Exceptis neglectis, de quibus confer* Formas abnormes *sub quoque ordine*).

Series I. Curvembryeæ. Seminum albumen sæpius farinaceum, embryone curvo excentrico laterali v. peripherico, rarius rectiusculo subcentrali et angusto. Ovulum in ovario v. in quoque carpello unicum v. in *Amarantaceis* paucis plura in centro loculi erecta. Flores hermaphroditi v. in paucis generibus unisexuales v. polygami. Petala perrara. Stamina numero perianthii segmentis isomera v. pauciora, rarius plura.

CXXVIII. Nyctagineæ. Perianthii basis persistens, fructum arete includens eique sæpe adhærens. Stamina hypogyna. Carpellum 1, stylo simplici. Seminis radicula infera v. descendens. Herbæ frutices v. arbores.

CXXIX. Illecebraceæ. Perianthium herbaceum v. margine scariosum, persistens. Stamina perigyna. Ovarium 1-loculare; styli rami v. styli 2–3. Herbæ rarius fruticuli, foliis sæpissime oppositis, stipulis scariosis (v. in *Sclerantheis* 0).

CXXX. Amarantaceæ. Perianthium siccum nec herbaceum, bractea bracteolisque 2 stipatum. Stamina hypogyna v. perigyna filamentis basi connatis. Ovarium 1-loculare; stylus simplex v. 2–3-fidus. Utriculus indehiscens v. irregulariter ruptus v. circumscissus. Herbæ suffruticesve foliis oppositis v. alternis exstipulatis.

CXXXI. CHENOPODIACEÆ. Perianthii lobi v. segmenta membranacea v. herbacea. Stamina hypogyna v. perigyna, filamentis sæpissime liberis. Ovarium 1-loculare, 1-ovulatum; stylus simplex v. 2–3-lobus v. styli 2–5. Utriculus indehiscens. Herbæ v. frutices stipulis 0.

CXXXII. PHYTOLACCACEÆ. Perianthium herbaceum v. coriaceum, rarius membranaceum, in fructu totum persistens v. deciduum. Stamina hypogyna. Carpella sæpius ∞, in annulum approximata v. connata, stylis totidem simplicibus. Seminum radicula infera v. descendens. Arbores v. frutices rarius herbæ basi lignosæ, foliis alternis, stipulis 0 v. parvis.

CXXXIII. BATIDEÆ. Frutex maritimus carnosus, floribus dioicis in strobilis axillaribus. Ovaria 4-locularia, in syncarpium connata, loculis 1-ovulatis.

CXXXIV. POLYGONACEÆ. Perianthium herbaceum membranaceum v. coloratum, rarius basi ovario adhærens. Stamina perigyna. Ovarium 1-loculare, 1-ovulatum, styli ramis v. stylis 2–3. Seminum radicula supera v. ascendens. Herbæ frutices v. arbores. Folia alterna stipulis sæpissime ocreiformibus v. annulum transversum relinquentibus v. rarius opposita linea transversa juncta.

Series II. Multiovulatæ Aquaticæ. Herbæ immersæ. Ovarium syncarpicum, ovulis in quoque loculo v. placenta numerosis.

CXXXV. PODOSTEMACEÆ. Herbæ basi thalliformes v. cauliformes rupibus inundatis adnatæ, foliis v. frondibus bryoideis v. algiformibus. Perianthium parvum tenerum v. 0. Stamina varia. Ovarium superum, loculis placentisve 2–3. Semina exalbuminosa.

Series III. Multiovulatæ Terrestres. Herbæ fruticesve terrestres. Ovarium syncarpicum, ovulis in quoque loculo v. placenta numerosis.

CXXXVI. NEPENTHACEÆ. Suffrutices fruticesve scandentes, foliis alternis *in cirrhum ascidiophorum* desinentibus. Flores dioici. Ovarium superum. Seminum albumen carnosum.

CXXXVII. CYTINACEÆ. Herbæ parasiticæ, carnosæ, aphyllæ v. squamosæ. Ovarium inferum v. semi-inferum. Seminum albumen 0.

CXXXVIII. ARISTOLOCHIACEÆ. Herbæ rarius frutices interdum scandentes, foliis non cirrhosis. Flores hermaphroditi. Ovarium inferum. Seminum albumen carnosum.

Series IV. Micrembryeæ. Ovarium syncarpicum monocarpicum v. apocarpicum, ovulis in quoque carpello solitariis v. rarius 2 paucisve. Seminum albumen copiosum carnosum v. (in *Piperaceis*) farinaceum; embryo minimus, rarissime (in paucis *Monimiaceis*) major subextrarius.

* *Ovarium syncarpicum, uni- v. pauci-ovulatum, stylis v. stigmatibus 2–4 rarius in stigma pulvinatum coalitis.*

CXXXIX. PIPERACEÆ. Ovarium superum, 1-loculare, 1-ovulatum, v. placentis intrusis imperfecte v. subperfecte 3–4-loculare, pauciovulatum. Herbæ frutices v. rarissime arbores, foliis sæpius alternis. Flores sæpius minimi, spicati v. rarius racemosi, hermaphroditi v. rarius unisexuales. Perianthium rarissime adest.

** *Ovarii carpellum unicum v. plura distincta* 1-*ovulata, stigmatibus totidem simplicibus sæpius obliquis.*

CXL. CHLORANTHACEÆ. Flores unisexuales. Perianthium 0 v. ovario adnatum. Stamina 1–3. Ovarium inferum v. nudum; ovulum pendulum, orthotropum. Radicula infera. Herbæ frutices v. arbores foliis oppositis.

CXLI. MYRISTICEÆ. Flores unisexuales. Perianthium calycinum, 3-lobum rarius 2- v. 4-lobum. Stamina in fundo perianthii monadelpha. Ovarium in fundo perianthii unicum; ovulum erectum, anatropum. Radicula infera. Arbores foliis alternis.

CXLII. MONIMIACEÆ. Flores hermaphroditi v. unisexuales. Perianthium calycinum, tubo intus disco staminifero vestito dentibus lobisve 2–∞. Stamina ∞. Ovarii carpella

sæpissime ∞, perianthio inclusa; ovula in quoque carpello solitaria, erecta v. pendula, sæpius anatropa. Radicula infera v. supera. Arbores fruticesve foliis oppositis v. rarius alternis.

Series V. Daphnales. Ovarium monocarpicum, rarissime syncarpicum loculis 2–4; ovula in ovario v. in quoque loculo solitaria v. gemina collateralia, rarissime paria pauca superposita. Arbores fruticesve rarissime herbæ floribus sæpius hermaphroditis. Perianthium perfectum sæpius calycinum, lobis 1–2-seriatis. Stamina perigyna, numero loborum æqualia v. dupla nisi hinc inde pauciora.

CXLIII. Laurineæ. Perianthii lobi 6 v. 4, 2-seriati. Stamina simplici v. duplici serie lobis opposita, antherarum locellis valva unica sursum v. rarius lateraliter dehiscentibus. Ovarium 1-loculare, ovulo unico pendulo. Radicula supera.

CXLIV. Proteaceæ. Perianthii lobi 4, valvati. Stamina totidem, iis opposita; antheræ longitudinaliter dehiscentes. Ovarium 1-loculare; ovula solitaria v. 2 collateralia, v. rarius pauca per paria superposita, ascendentia v. descendentia. Radicula infera v. lateralis.

CXLV. Thymelæaceæ. Perianthii lobi 4–5, imbricati. Stamina numero loborum æqualia v. pauciora iisque opposita v. dupla, rarissime tripla; antheræ normales. Ovarium 1–2-loculare; ovula in quoque loculo solitaria, pendula. Radicula supera.

CXLVI. Penæaceæ. Perianthii lobi 4, valvati. Stamina totidem, lobis alterna; antheræ normales. Ovarium 4-loculare, ovula in quoque loculo 2 v. 4, erecta v. pendula. Radicula infera v. supera.

CXLVII. Elæagnaceæ. Perianthium supra ovarium constrictum, basi persistens, superne deciduum, lobis 2 v. 4. Stamina numero loborum dupla, iis alterna et opposita. Ovarium 1-loculare; ovulum unicum, erectum. Radicula infera.

Series VI. Achlamydosporeæ. Ovarium uniloculare, 1–3-ovulatum, loculo ovulisque sæpe ante anthesin inconspicuis. Seminis albumen testa destitutum, intra pericarpium nudum v. parietibus pericarpii adnatum. Perianthium sæpius perfectum, calycinum corollinum v. in *Lorantho* subduplex.

CXLVIII. Loranthaceæ. Frutices suffruticesve in arboribus sæpissime parasitici. Ovarium inferum; ovulum post anthesin erectum. Radicula supera.

CXLIX. Santalaceæ. Arbores frutices v. rarius herbæ terrestres v. rarius parasiticæ. Ovarium inferum rarius superum; ovula 1–3, ab apice funiculi centralis liberi erectique pendula, (rarius ovulum 1 erectum ?). Radicula supera.

CL. Balanophoreæ. Herbæ carnosæ, squamosæ, aphyllæ, in radicibus parasiticæ.

Series VII. Unisexuales. Flores stricte unisexuales (exceptis perpaucis *Urticaceis* polygamis). Ovarium syncarpicum v. monocarpicum, ovulis in ovario v. in quoque loculo solitariis v. 2 collateralibus. Seminum albumen copiosum carnosum v. tenue v. 0. Embryo albumine vix v. parum brevior v. semen totum implens. Arbores fruticesve v. in *Euphorbiaceis Urticaceis*que interdum herbæ. Stipulæ sæpius adsunt. Perianthium calycinum v. minimum v. 0; petala interdum in *Euphorbiaceis* solis adsunt. Styli tot quot carpella sed haud raro 2-partiti.

— CLI. Euphorbiaceæ. Inflorescentia perianthium et stamina quam maxime varia. Ovarium 2–3- rarius ∞-loculare, rarissime monocarpicum. Fructus sæpius in coccos 2-valves dissiliens, sed interdum indehiscens carnosus v. varius. Seminis albumen sæpius copiosum carnosum, sed interdum tenue v. 0; radicula semper supera.

CLII. Balanopseæ. Inflorescentia ♂ amentacea. Perianthium 0 v. squamula minuta. Stamina 2–∞, antheris subsessilibus. Ovarium imperfecte 2-loculare. Ovula in loculis 2, erecta, anatropa. Fructus indehiscens. Seminis albumen copiosum, carnosum; radicula infera.

— CLIII. Urticaceæ. Inflorescentia ♂ cymosa capitata v. cymulis confertis amentiformis. Perianthium ♂ a bractea liberum, staminibus tot quot lobi iisque oppositis v. abortu paucioribus

rarissime pluribus. Ovarium 1-loculare, 1-ovulatum. Seminis albumen tenue v. 0, rarius copiosum carnosum. Radicula supera.

CLIV. PLATANACEÆ. Flores utriusque sexus globoso-capitati. Perianthium 0. Stamina in capitulis ♂, ovaria in ♀, in receptaculo centrali densissime conferta, bracteis paucis v. in ♂ 0 interstinctis. Ovarium 1-loculare, 1-ovulatum. Albumen tenue. Radicula infera.

CLV. LEITNERIEÆ. Inflorescentia ♂ amentacea. Perianthium 0. Stamina ∞, bracteæ affixa. Ovarium 1-loculare, 1-ovulatum. Albumen tenue. Radicula supera. Folia simplicia.

CLVI. JUGLANDEÆ. Inflorescentia ♂ amentacea. Perianthium bracteæ accretum v. 0. Stamina ∞, bracteæ affixa. Ovarium 1-loculare, 1-ovulatum. Semen basi 2–4-lobum. Albumen 0. Radicula supera. Folia pinnata.

CLVII. MYRICACEÆ. Inflorescentia ♂ spicata, subamentacea. Perianthium 0. Stamina 2–∞, basi bracteæ affixa. Ovarium 1-loculare, 1-ovulatum. Semen integrum. Albumen 0. Radicula supera. Folia simplicia.

CLVIII. CASUARINEÆ. Inflorescentia ♂ spicata. Perianthii segmenta 1–2, minuta. Stamen 1. Ovarium 1-loculare, 2-ovulatum. Semen unicum. Albumen 0. Radicula supera. Rami aphylli, articulati. Squamulæ angulos articulorum terminantes per 4–∞ verticillatæ.

CLIX. CUPULIFERÆ. Inflorescentia ♂ sæpius amentacea. Perianthium parvum v. 0. Stamina varia. Ovarium inferum v. nudum 2–3- (rarius 4–6-) loculare, loculis 2-ovulatis. Albumen 0. Radicula supera. Folia simplicia.

Series VIII. Ordines anomali, *Unisexualibus* subaffines, sed nec inter se nec ulli alii ordini bene conjuncti. Flores sæpe stricte unisexuales sed in *Empetro* polygami, in *Lacistemate* hermaphroditi et e cæteris characteribus unus alterve ab ordinibus præcedentibus discrepat.

CLX. SALICINEÆ. Inflorescentiæ amentaceæ unisexuales. Perianthium (v. discus) e squamis glanduliformibus v. cupulatum. Stamina 2–∞. Ovarium 1-loculare, placentis 2–4 ∞-ovulatis. Capsula 2–4-valvis. Semina minima longe comosa. Albumen 0. Radicula infera. Arbores fruticesve.

CLXI. LACISTEMACEÆ. Inflorescentia tenuiter spicata. Flores hermaphroditi. Perianthium 0 v. e squamulis distinctis. Stamen 1. Ovarium superum, 1-loculare, placentis 2–3 1–2-ovulatis. Capsula 2–3-valvis, 1-sperma. Albumen carnosum. Radicula supera. Frutices v. arbusculæ.

CLXII. EMPETRACEÆ. Flores sæpius unisexuales, axillares v. rarius in capitulo terminali. Perianthii segmenta 4–6, sub-2-seriata. Stamina 2–3. Drupa 2–∞-pyrena, pyrenis 1-spermis. Albumen carnosum. Radicula infera. Fruticuli ericoidei v. prostrati.

CLXIII. CERATOPHYLLEÆ. Flores unisexuales, axillares. Perianthium submembranaceum, ∞-partitum. Stamina ∞. Ovarium 1-loculare, 1-ovulatum. Nux sæpius 2–4-spinosa. Albumen 0. Radicula supera; plumula jam in semine ∞-phylla. Herbæ aquaticæ immersæ, foliis verticillatis dichotomis.

GYMNOSPERMEÆ.

Flores stricte unisexuales. Perianthium 0 v. in *Gnetaceis* anomalum. Ovarium et stylus 0, ovulis nudis, nucleo ipso vertice pollen recipiente. Cotyledones 2, v. interdum 3–∞.

Gymnospermeæ, olim in *Monochlamydeis* inclusæ, hodie ab omnibus botanicis pro subclasse *Dicotyledonum* v. pro classe distincta recipiuntur. Quoad florum homologiam difficillime cum cæteris *Dicotyledonibus* comparantur, nec ullo genere intermedio connectuntur. A *Monocotyledonibus* adhuc remotiores videntur, affinitates potius cum formis nonnullis antiquis *Cryptogamarum* quærendæ.

CONSPECTUS ORDINUM.

CLXIV. Gnetaceæ. Fruticum rami v. pedunculi e trunco lignoso interdum arboreo articulati v. nodosi, squamis foliisve oppositis indivisis. Florum spicæ amentiformes v. interruptæ. Perianthium ♂ membranaceum 2-lobum, ♀ utriculosum. Staminum columna 1–8-antherifera.

CLXV. Coniferæ. Arbores fruticesve. Folia indivisa, ad squamas reducta v. acicularia, rarius explanata. Flores ♂ amentiformes, antheris 2–∞-locellatis (amenti squamæ 2–∞-antheriferæ *auct. plur.*). Flores ♀ in amentum v. strobilum conferti, rarius solitarii, ovulis ad quamque squamam 1–∞.

CLXVI. Cycadaceæ. Folia ad apicem caudicis lignosi conferta, ampla, pinnatisecta. Flores utriusque sexus strobilacei, ♂ antherarum loculis ad quamque squamam numerosis, ♀ ovulis ad quamque squamam 2–∞.

MONOCOTYLEDONES.

Caules herbacei, rarius lignosi v. rhizoma in caudicem fruticosum v. arborescentem productum; fasciculi vasculares intra textum cellulosum sparsi. Folia parallelivenia, venis interdum venulis transversis connexis, rarius reticulato-pennivenia. Perianthium 2-seriatum rarius 1-seriatum v. in ordinibus nonnullis 0. Andrœcium 1–2-seriatum. Florum partes in quaque serie sæpissime 3, interdum 2, rarissime 4–∞, v. in ordinibus nonnullis varie reductæ. Embryonis extremitas cotyledonaris indivisa.

CONSPECTUS ORDINUM.

(*Exceptis neglectis, de quibus confer* Formas abnormes *sub quoque ordine.*)

Series I. Microspermæ. Perianthium saltem interius corollinum. Ovarium inferum, 1-loculare placentis 3 parietalibus, v. rarius 3-loculare placentis axilibus. Semina minima, numerosa, exalbuminosa; embryo semini sæpius conformis.

CLXVII. Hydrocharideæ. Herbæ aquaticæ. Flores regulares, sæpius unisexuales. Perianthium exterius calycinum, interius dum adsit corollinum. Stamina 3, 6, 9, rarius ∞, v. abortu pauciora.

CLXVIII. Burmanniaceæ. Herbæ terrestres, haud raro aphyllæ. Flores regulares, rarius segmento extimo maximo parum irregulares. Perianthium corollinum. Stamina 3 v. 6.

CLXIX. Orchideæ. Herbæ terrestres v. epiphyticæ, rarius altissime scandentes. Flores sæpius valde irregulares. Perianthium corollinum. Andrœcium cum gynœcio in columnam connatum; anthera unica, rarius 2, in columna sessilis v. subsessilis.

Series II. Epigynæ. Perianthium saltem interius corollinum. Ovarium (exceptis generibus paucis *Bromeliacearum* et *Hæmodoracearum*) inferum. Albumen copiosum.

CLXX. Scitamineæ. Flores irregulares. Perianthium exterius sæpius calycinum, interius corollinum. Stamina 1 v. 5 perfecta, 5 v. 1 in staminodia ananthera varie mutata. Ovarium inferum, loculis v. placentis 1–∞-ovulatis. Semina sæpius arillata. Embryo in canale centrali albuminis rectus incurvus v. hippocrepicus. (Foliorum venæ parallelæ a costa centrali divergentes.)

CLXXI. Bromeliaceæ. Flores regulares. Perianthium exterius calycinum. Stamina 6. Ovarium inferum semi-inferum v. in fundo perianthii liberum, 3-loculare, loculis ∞-ovulatis. Embryo in cavo parvo marginali albuminis farinosi collocatus, rarius longius intrusus nec inclusus.

CLXXII. Hæmodoraceæ. Flores regulares v. parum irregulares. Perianthium corollinum v. extus lanatum. Stamina nunc 6 æqualia v. 1–3 parum dissimilia, nunc 3 lobis interioribus opposita. Ovarium inferum semi-inferum v. in fundo perianthii liberum, 3-loculare, loculis 1–∞-ovulatis. Embryo in foveola marginali albuminis carnosi collocatus v. longius intrusus, nec omnino inclusus.

CLXXIII. Irideæ. Flores regulares v. oblique irregulares. Perianthium corollinum. Stamina 3, lobis exterioribus opposita. Ovarium inferum, sæpissime 3-loculare, loculis ∞-ovulatis. Embryo parvus, in albumine corneo inclusus.

CLXXIV. Amaryllideæ. Flores regulares v. parum irregulares. Perianthium corollinum. Stamina 6, rarissime 3 lobis interioribus opposita v. ∞. Ovarium inferum, sæpissime 3-loculare, loculis ∞- rarius 1–2-ovulatis. Embryo parvus, in albumine carnoso inclusus.

CLXXV. Taccaceæ. Flores regulares. Perianthium corollinum v. subherbaceum. Stamina 6, inclusa, cucullata, antheris intra cucullam sessilibus. Ovarium inferum, 1-loculare, placentis parietalibus ∞-ovulatis. Embryo minimus, in albumine solido inclusus.

CLXXVI. Dioscoreaceæ (quoad genera normalia). Flores regulares, unisexuales. Perianthium parvum, corollinum. Stamina 6 perfecta v. quæ lobis interioribus opposita imperfecta v. deficientia. Ovarium inferum, 3-loculare, loculis 2-ovulatis. Embryo parvus, in albumine carnoso inclusus. (Caules sæpius volubiles alte scandentes).

(Accedunt genera nonnulla valde anomala, floribus majoribus hermaphroditis.)

Series III. Coronarieæ. Perianthium saltem interius corollinum. Ovarium liberum rarissime basi breviter adnatum. Albumen copiosum.

CLXXVII. Roxburghiaceæ. Flores regulares, in quaque serie 2-meri. Ovarium liberum rarius *semi-inferum*, 1-loculare, ovulis 2–∞ in fundo loculi erectis v. ab apice pendulis. Embryo in albumine carnoso-corneo inclusus.

CLXXVIII. Liliaceæ. Flores sæpius regulares, in quaque serie 3-meri. Stamina 6, rarius 3 lobis interioribus opposita. Ovarium sæpissime 3-loculare, loculis 2–∞-ovulatis. Embryo minutus v. plus minus elongatus, in albumine carnoso v. corneo inclusus.

(Excepta plurima sub Formis abnormibus quærenda.)

CLXXIX. Pontederiaceæ. Herbæ aquaticæ. Flores regulares v. sæpe parum irregulares. Perianthium corollinum, in quaque serie 3-merum. Stamina 6 v. 3. Ovarium 3-loculare, v. 1-loculare placentis 3 loculis placentisve ∞-ovulatis, v. abortu 1-loculare 1-ovulatum. Embryo rectus, in canale centrali albumini farinaceo æquilongus.

CLXXX. Philydraceæ. Flores irregulares. Perianthium corollinum, in quaque serie 2-merum, exterioris segmentum posticum anticum includens, interioris segmenta multo minora. Stamen 1. Ovarii loculi v. placentæ 3, ∞-ovulati. Embryo in albumine subfarinaceo inclusus.

CLXXXI. Xyrideæ. Flores parum irregulares, in capitulo terminali sub bracteis imbricatis solitarii, sessiles, rigide 2-bracteolati. Perianthium corollinum, exterius e segmento unico lato interius involvente v. 0; interius 3-merum. Stamina 3. Ovarii loculi v. placentæ 3, ovulis ∞ orthotropis. Embryo parvus, ad apicem albuminis farinacei v. subcarnosi ab hilo remotus.

CLXXXII. Mayaceæ. Flores regulares, in capitulis terminalibus sub bracteis tenuibus imbricatis solitarii, pedicellati, bracteolis hyalinis. Perianthium exterius calycinum, interius corollinum, in quaque serie 3-merum. Stamina 3. Ovarium 1-loculare, placentis 3 parietalibus, ovulis ∞ orthotropis. Embryo parvus. ad apicem albuminis farinacei v. subcarnosi ab hilo remotus. Caules prostrati v. fluitantes foliosi.

CLXXXIII. Commelinaceæ. Flores regulares v. parum irregulares. Perianthium exterius calycinum, interius corollinum, in quaque serie sæpissime 3-merum. Stamina 6 v. abortu pauciora. Ovarium 3-loculare v. 2-loculare, ovulis in quoque loculo solitariis v. paucis orthotropis. Semina in loculis solitaria v. pauca, arcte contigua, latere interiore affixa, latere exteriore embryostega parva intra foveolam adnata instructo. Embryo sub embryostega in albumine farinaceo marginalis v. parum intrusus.

CLXXXIV. Rapateaceæ. Flores regulares. Perianthium exterius calycinum (interdum vix ullum), interius corollinum in quaque serie 3-merum. Stamina 6, antheris longis apice poro dehiscentibus. Ovarium 3-loculare, ovulis in loculis solitariis v. paucis erectis anatropis. Embryo lenticularis, prope hilum albumini farinaceo applicitum.

Series IV. Calycinæ. Perianthium calycinum parvum rigidulum v. herbaceum (interius rarius subcorollinum sed parvum). Ovarium liberum. Albumen copiosum.

CLXXXV. Flagellarieæ. Flores regulares. Perianthium utriusque seriei 3-merum, Stamina 6. Ovarium 3-loculare, ovulis in loculis solitariis anatropis. Fructus succulentus v. drupaceus. Embryo prope hilum lenticularis, albumini farinaceo applicitus.

CLXXXVI. Juncaceæ. Flores regulares. Perianthium utriusque seriei 3-merum. Stamina 6, rarius 3. Ovarium 1–3-loculare, ovulis solitariis v. ∞. Capsula 3-valvis. Embryo albumine plus minus carnoso inclusus.

CLXXXVII. Palmæ. Flores regulares. Perianthium utriusque seriei 3-merum. Stamina 6, ramis plura v. 3. Ovarium 1–3-loculare, ovulis solitariis. Fructus baccatus v. drupaceus, 1- rarius 2–3-spermus. Embryo parvus, in foveola parva juxta albuminis peripheriam immersus. Arbores v. frutices, foliis pinnatisectis v. flabellatim plicatis.

Series V. Nudifloræ. Perianthium 0 v. ad squamas setasve reductum. Ovarii superi carpella solitaria, v. si plura syncarpica, 1–∞-ovulata. Semina sæpissime albuminosa.

* *Flores in spadices dispositi. Arbores frutices herbæve terrestres.*

CLXXXVIII. Pandaneæ. Flores dioici. Perianthium 0. Fructus carpella sæpissime in phalanges confluentia. Frutices v. arbores erecti v. scandentes, foliis sessilibus elongato-ensiformibus basi vaginantibus marginibus et costa subtus sæpissime spinulosis, spadicibus fasciculatis v. paniculatis spathaceo-bracteatis.

CLXXXIX. Cyclanthaceæ. Flores dioici v. in diversis spadicibus monoici. Perianthium 0. v. segmenta brevia distincta v. connata. Herbæ v. frutices acaules v. caudicibus scandentibus, foliis petiolatis flabellatis vernatione plicatis, spadicibus solitariis spathis 2–6 deciduis stipatis.

CXC. Typhaceæ. Flores in diversis spadicibus monoici, rarissime dioici. Perianthium e squamis membranaceis v. paleis filiformibus. Herbæ aquaticæ v. paludosæ, rhizomate repente caulibus annuis, foliis lineari-elongatis integerrimis basi vaginantibus, spadicibus nudis v. basi foliaceo-1-bracteatis.

CXCI. Aroideæ. Flores hermaphroditi v. in eodem spadice monoici, rarissime dioici. Perianthium 0 v. e squamis 4 membranaceis imbricatis. Herbæ v. frutices habitu varii, foliis variis, spadicibus solitariis sæpius spatha basi convoluta v. aperta inclusis.

Flores solitarii v. 2-ni e rimis marginalibus. Herbulæ natantes lenticulares v. globosæ emergentes.

CXCII. Lemnaceæ. Flores minutissimi, monoici v. dioici. Perianthium 0. Spatha 0 v. membranacea.

Series VI. Apocarpæ. Perianthium 1–2-seriatum v. 0. Ovarii carpella supera, solitaria v. si plura distincta. Semina exalbuminosa.

CXCIII. Triurideæ. Flores monoici v. dioici. Perianthium regulare, segmentis 3–8 uniseriatis valvatis. Herbulæ annuæ, aphyllæ, caulibus simplicibus filiformibus v. capillaribus, floribus racemosis. Seminis nucleus homogeneus.

CXCIV. Alismaceæ. Flores hermaphroditi monoici v. dioici. Perianthium regulare, segmentis 6 2-seriatis, exterioribus herbaceis interioribus membranaceis. Herbæ aquaticæ v. paludosæ, foliis sæpissime radicalibus. Embryo complicato-hippocrepicus.

CXCV. Naiadaceæ. Flores monoici dioici v. hermaphroditi. Perianthium regulare, segmentis 2, 3, 4, v. 6 herbaceis v. 0. Herbæ aquaticæ v. rarius paludosæ, foliis variis. Embryo macropodus.

Series VII. Glumaceæ. Flores in capitula v. spiculas dispositi sub bracteis (v. glumis) sæpissime imbricatis solitarii, sessiles. Perianthii segmenta parva squamiformia glumacea v. 0. Ovarium 1-ovulatum v. in loculos 1-ovulatos divisum. Semina albuminosa.

CXCVI. ERIOCAULEÆ. Flores unisexuales, in capitula depressa v. subglobosa sæpissime androgyna dispositi. Perianthii segmenta 6 v. pauciora, parva scariosa v. hyalina. Ovarium 3- v. 2-loculare, ovulis pendulis orthotropis. Embryo parvus, ab hilo remotus, albumini farinaceo v. laxo carnoso applicitus.

CXCVII. CENTROLEPIDEÆ. Flores hermaphroditi v. polygami, in capitula parva v. spiculas dispositi, rarius solitarii. Perianthium 0. Ovarium 1-∞-loculare ovulis pendulis orthotropis. Embryo parvus, ab hilo remotus, in albumine subfarinaceo marginalis.

CXCVIII. RESTIACEÆ. Flores sæpissime dioici, in spiculas dispositi, glumis sæpius siccis rigidisve. Perianthii regularis segmenta 6 rarius pauciora, glumacea rigida scariosa v. hyalina. Ovarium 1–3-loculare, ovulis pendulis orthotropis. Embryo parvus, ab hilo remotus, albumini farinaceo v. carnoso applicitus.

CXCIX. CYPERACEÆ. Flores in spiculas dispositi, glumis imbricatis. Perianthium (excepto *Oreobolo*) 0 v. ad setas squamellasve hypogynas reductum. Paleæ et lodiculæ 0. Ovarium 1-loculare, ovulo erecto anatropo. Nux indehiscens. Semen a pericarpio liberum. Embryo intra basin albuminis farinacei v. carnosi parvus.

CC. GRAMINEÆ. Flores in spiculas dispositi, glumis imbricatis sæpius distichis. Perianthium 0. Flores sæpius palea 2-nervi et lodiculis 2–3 stipati. Ovarium 1-loculare, ovulo adscendente anatropo. Caryopsis indehiscens, pericarpio sæpius semini adhærente. Embryo ad basin albuminis farinacei rarius carnosi parvus sæpius minutus.

DICOTYLEDONES.

MONOCHLAMYDEÆ.

Ordo CXXVIII. **NYCTAGINEÆ.**

Endl. Gen. 310. Lindl. Veg. Kingd. 506. Baill. Hist. Pl. iv. 1.

Flores hermaphroditi, rarius unisexuales, regulares. *Perianthium* inferum, herbaceum v. corollinum, sæpius campanulatum hypocrateriforme v. infundibulare, fructu persistens et sæpissime accrescens, pericarpium arcte includens; tubus brevis v. elongatus, interdum longissimus, basi sæpius incrassatus v. induratus, fauce constricta v. aperta; limbus persistens v. deciduus, truncatus v. 3–5-dentatus v. lobatus, lobis dentibusve sæpissime plicato-valvatis, sinubus membranaceis et post anthesin involutis, rarius simpliciter valvatis et post anthesin rectis. *Stamina* 1–∞, hypogyna; filamenta libera v. basi in annulum connata, rarissime tubo perianthii cohærentia, inæquilonga, filiformia v. capillaria, in alabastro circinnatim involuta, rarissime unilateralia. *Antheræ* inclusæ v. exsertæ, dorso prope basin affixæ, didymæ, loculis rimis lateralibus dehiscentibus, rarius elongatæ loculo altero interdum altius inserto; pollen simplex. *Ovarium* tubo perianthii inclusum, sessile v. stipitatum, sæpius plus minusve elongatum, 1-loculare, membranaceum, apice sæpissime attenuato. *Stylus* brevis v. elongatus, filiformis v. capillaris v. 0: stigma parvum, simplex, capitellatum peltatum v. fimbriatum, v. e cruribus capillaribus, rarius laterale v. stylus uno lateri stigmatosus. *Ovulum* basilare, erectum, campylotropum, funiculo brevi. *Fructus* (*anthocarpium* dictus) e perianthii basi persistente coriacea carnosa v. indurata utriculum indehiscentem includente eique adhærente constans, costatus sulcatus v. alatus, humectatus mucilaginosus v. immutatus, v. angulis viscum exsudantibus, v. seriebus glandularum stipitatarum ornatus; utriculi pericarpium membranaceum tenuiter coriaceum v. carnosum. *Semen* erectum; testa hyalina v. cum pericarpio omnino coadunata; albumen parcum v. sat copiosum, farinaceum carnosum v. mucosum, interdum fere evanidum. *Embryo* nunc rectus, cotyledonibus latis foliaceis conduplicatis albumen longitudinaliter involvens, radicula brevi infera, nunc incurvus, cotyledonibus incumbentibus latis foliaceis convolutis albumen involventibus, v. cotyledonibus angustis albumini applicitis, radicula elongata extraria infera.

Herbæ, rarius frutices v. arbores, cortice non raro spongioso, di-tri-chotome ramosæ, tela cellulari raphidiis onusta. Folia opposita et alterna, sessilia v. petiolata, simplicia, integerrima, penninervia. Stipulæ 0. Flores interdum dimorphi, v. jam in alabastro fœcundati, sæpissime in cymas paniculatas v. corymbosas terminales et axillares dispositi, rarissime solitarii v. racemosi; non raro umbellulati v. capitati; sæpe involucro calyciformi. Involucrum calyciforme e bracteis connatis v. liberis, flores 1–∞ sæpe cingens, persistens v. deciduum, post anthesin immutatum v. accrescens, nunc explanatum coloratum et reticulato-venosum; bracteis in floribus exinvolucratis 0, v. 1–3 minutis. Perianthium parvum v. minutum v. rarius majusculum, obscurum v. coloratum. Fructus varius.

Species ad 215, regionum tropicarum et calidiorum totius orbis imprimis Americæ incolæ, in Australia rariores, in Africa *Boerhaavia* excepta rarissimæ.

Ordo nulli arcte affinis, sed evidenter juxta *Phytolaccaceas* bene collocatus; habitu, æstivatione, absentia stipularum, stylo simplici, et indole embryonis sat diversus.

FORMÆ ABNORMES.

Flores racemosi in *Senkenbergia*.

Stamina tubo perianthii cohærentia in *Abronia*; antheræ magnæ introrsum dehiscentes in *Leucastere*.

Perianthium simpliciter valvatum in *Boldoa*, *Collignonia* et ? in *Andradea*.

Stigma sessile, vertice ovarii longitudinaliter obductum in *Reichenbachia*.

Embryo fere annularis in *Cryptocarpo*; cotyledon unica in *Abronia*.

CONSPECTUS GENERUM.

Tribus I. Mirabilieæ. Utriculus basi perianthii accrescentis apice clausi inclusus. Embryo uncinatus; cotyledones latæ et convolutæ v. angustæ et planæ; radicula elongata, descendens, extraria.

Subtribus 1. Boerhaavieæ. *Perianthii limbus plicatus. Stamina hypogyna, sæpius exserta; antheræ didymæ. Stigma capitellatum. Cotyledones latæ. Folia opposita.*

* *Flores involucrati, bracteis connatis.*

1. MIRABILIS. Perianthium elongatum, rarius campanulatum. Involucrum post anthesin immutatum.—*Amer. occid.*

2. OXYBAPHUS. Perianthium breve, campanulatum v. infundibulare. Involucrum post anthesin sæpius accrescens, rotato-campanulatum, venosum.—*Amer. occid.*, *Himalaya.*

** *Flores involucrati, bracteis liberis.*

3. NYCTAGINIA. Involucrum polyphyllum, multiflorum. Stamina 5. Anthocarpium turbinatum, multicostatum.—*Texas.*

4. ALLIONIA. Involucrum 3-phyllum, 3-florum. Stamina 4. Anthocarpium hinc profunde sulcatum, marginibus incurvis spinoso-dentatis.—*Amer. bor. occid.*

*** *Flores exinvolucrati, bracteolati (in Boerhaaviis paucis involucellati).*

5. BOERHAAVIA. Flores paniculati v. umbellati. Stamina 1–5. Anthocarpium teres, costatum v. 5-gonum.—*Utriusque orbis reg. trop.*

6. SENKENBERGIA. Flores racemosi. Stamina 3–5. Anthocarpium costatum v. gibbosum. —*Mexico.*

7. ACLEISANTHES. Flores capitati. Stamina 2–5. Anthocarpium costatum.—*Texas, Nov. Mex.*

8. SELINOCARPUS. Flores 1–3. Stamina 2–5. Anthocarpium late alatum.—*Nov. Mex.*

9. OKENIA. Flores solitarii. Stamina 15–18. Anthocarpium costatum.—*Mexico.*

**** *Flores exinvolucrati, costis bractearum foliacearum imbricatarum singulatim inserti.*

10. HERMIDIUM.—*Amer. bor. (Nevada).*

Subtribus 2. Bougainvilleeæ. *Flores exinvolucrati, costis bractearum inserti. Perianthii limbus plicatus. Stamina hypogyna, inclusa v. exserta; antheræ didymæ. Stigma laterale. Cotyledones convolutæ. Frutices foliis alternis.*

11. BOUGAINVILLÆA. Bracteæ 3, omnes floriferæ, sub anthesin amplæ.—*Amer. merid.*

12. TRICYCLA. Bracteæ 3, una florifera, sub anthesin parvæ, demum ampliatæ.—*Chili.*

Subtribus 3. Abronieæ. *Flores involucrati. Perianthii limbus plicatus. Stamina inclusa, filamentis tubo perianthii cohærentibus; antheræ lineari-oblongæ. Stigma lineare. Cotyledones latæ, convolutæ.—Herbæ foliis oppositis.*

13. ABRONIA. Flores receptaculo communi inserti. Stamina 5. Anthocarpium costatum v. alatum.—*Amer. bor. occ.*

Subtribus 4. Boldoeæ. *Flores exinvolucrati v. involucrati. Perianthii limbus valvatus. Stamina hypogyna, filamentis liberis; antheræ didymæ. Cotyledones planæ v. conduplicatæ.—Herbæ v. frutices.*

14. Boldoa. Flores exinvolucrati. Stamina 3–4. Ovarium sessile; stylus filiformis, stigmate acuto. Cotyledones planæ.—*Mexico, Cuba.*

15. Collignonia. Flores umbellulati, involucrati. Stamina 5. Ovarium stipitatum; stylus filiformis, stigmate glanduloso v. fimbriato. Cotyledones planæ.—*Andes.*

16. Reichenbachia. Flores fasciculati, exinvolucrati. Stamina 2–3. Ovarium subsessile, stigmate sessili. Cotyledones conduplicatæ.—*Paraguay.*

Tribus II. Pisonieæ. Utriculus elongatus, perianthii tubo accrescente apice clauso inclusus. Embryo rectus; cotyledones latæ, convolutæ; radicula brevis.

17. Pisonia. Stamina 6–10, exserta. Stigma terminale.—*Utriusque orbis reg. trop.*

18. Neea. Stamina 5–10, inclusa. Stigma terminale.—*Amer. merid.*

19. Timeroya. Stamina ad 30, inclusa. Stigma laterale. Flores hermaphroditi.—*Nov. Caledon.*

20. Cephalotomandra. Stigma laterale. Flores dioici.—*Nov. Grenada.*

Tribus III. Leucastereæ. Achænium subglobosum, basi perianthii inclusum, liberum. Embryo brevis, curvus v. annularis. Arbores v. frutices foliis alternis.

21. Leucaster. Stamina 2, inclusa, filamentis brevibus; antheræ magnæ, latæ. Stigma sessile, elongatum.—*Brasil.*

22? Andradea. Stamina 12–20, exserta, filamentis elongatis; antheræ lineares. Stylus sigmoideus.—*Brasil.*

23. Cryptocarpus. Stamina 5, inclusa; antheræ didymæ. Stylus subterminalis.—*Amer. trop.*

GENERA EXCLUSA.

Epilithes, Blume est *Serpicula* inter **Halorageas**, supra, i. 675.

Torreya, Spreng., est *Clerodendri* species inter **Verbenaceas**, supra, ii. 1156.

Achatocarpus, Triana, est **Amarantacea.**

Tribus I. Mirabilieæ.

1. **Mirabilis,** *Linn. Gen. n.* 242. (Nyctago, *Juss. Gen.* 90. Jalapa, *Moench, Meth.* 508.)—Involucrum 1-∞-florum, calyciforme, 5-lobum, lobis erectis acuminatis imbricatis, post anthesin non ampliatum. Perianthii tubus elongatus, supra ovarium constrictus; limbus explanatus, 5-lobus, plicatus, deciduus. Stamina 5–6, inæquilonga, exserta, filamentis capillaribus circinnatim incurvis, ima basi in cyathum carnosulum connatis; antheræ didymæ. Ovarium ellipsoideum v. ovoideum; stylus filiformis, exsertus, stigmate capitellato papillis stipitatis onusto. Anthocarpium chartaceum crustaceum v. coriaceum, costatum, glabrum v. pubescens. Utriculus obovoideus, coriaceus. Seminis testa pericarpio adhærens; embryo uncinatus, cotyledonibus albumen parcum farinaceum involventibus, radicula elongata descendente extraria.—Herbæ di-trichotome ramosæ, glabræ v. glanduloso-pubescentes, radice elongata v. tuberosa. Folia opposita, inferiora petiolata, superiora sessilia. Involucra in cymas ramosas sæpe densas disposita. Flores majusculi, fragrantes v. inodori, albi coccinei v. versicolores.

Species ad 10, Americæ calidioris incolæ.

Genus in sectiones 2 dividitur:—

1. *Eumirabilis.* Involucrum 1-florum. Perianthii tubus valde elongatus, limbus latiusculus. Mirabilis, *Chois. in DC. Prod.* xiii. ii. 427. *Baill. Hist. Pl.* iv. 1, *fig.* 1–10. *Gaertn. Fruct.* ii. 207, *t.* 127. *Lam. Ill. t.* 105. *Sm. Exot. Bot.* i. *t.* 23. *Spach, Suites Buff. t.* 146 (*Nyctago*). *Bertol. in Nov. Comm. Bonon.* iii. *t.* 1. *Torr. Bot. Emory Exped. t.* 48. *Bot. Mag. t.* 371 (*Nyctago*). *J. A. Schmidt in Mart. Fl. Bras.* xiv. ii. *t.* 81.

2. *Quamoclidion.* Involucrum 3–∞-florum. Perianthii tubus cylindraceus; limbus parvus. Hic includuntur: *M. multiflora*, Gray (*Nyctaginia? Torreyana*, Chois.); *M. triflora*, Benth. (Quamoclidion, *Chois. in DC. Prod.* xiii. ii. 429); *M. coccinea* (*Oxybaphus*, Torr. Bot. Emory Exped. 169); et *M. Greenii*, S. Wats. Bot. Calif. ii. 2, ined.

2. **Oxybaphus**, *Vahl, Enum.* ii. 39. (Allionia, *Loefl. It.* 181, *non Linn. Gen.* Calyxhymenia, *Orteg. Dec.* 5, t. 1. Calymenia, *Pers. Syn.* i. 36. Vitmania, *Turra ex Cav. Ic.* iii. *Addend.*)—Involucrum 1–3-florum, æqualiter v. inæqualiter 5-fidum v. -lobum, post anthesin plus minus auctum, nunc rotato-explanatum et reticulato-venosum, lobis imbricatis v. plicato-valvatis. Perianthium campanulatum v. infundibulare, sæpius obliquum, tubo brevi supra ovarium constricto; limbus plicatus, brevis, explanatus v. suberectus, deciduus. Stamina 2–5, sæpius 3, inæquilonga, inclusa v. exserta, filamentis capillaribus circinnatim incurvis, ima basi in urceolum connatis; antheræ didymæ. Ovarium ovoideum v. subglobosum; stylus filiformis, stigmate capitellato papillis stipitatis onusto. Anthocarpium parvum, oblongum fusiforme v. obovoideum, teres v. costatum, læve rugosum v. tuberculatum, glabrum v. pilosum, humectatum mucilaginosum. Utriculus obovoideus. Seminis testa pericarpio adhærens; embryo uncinatus, cotyledonibus albumen parcum farinaceum involventibus, radicula elongata descendente extraria.—Herbæ erectæ v. prostratæ, dichotome ramosæ, glanduloso-pilosæ v. fere glabræ. Folia opposita, sessilia v. petiolata. Involucra oblonga v. cyathiformia, cymosa v. paniculata, rarius axillaria et solitaria. Flores inter minores, albi rosei v. coccinei. Fructus parvulus.

Species ad 20, Americæ occidentalis tam borealis quam australis incolæ, paucæ Americæ boreali civitatibus orientalibus indigenæ, una Himalaica.—*Chois. in DC. Prodr.* xiii. ii. 430. *Griseb. Pl. Lorentz.* 38. *A. Gray in Bot. Emory Exped.* 173. *Ruiz et Pav. Fl. Per. et Chil. t.* 75 (*Calyxhymenia*). *Cav. Ic.* i. *t.* 19, iv. *t.* 379 *et* 437 (*Mirabilis*). Genus a *Mirabili* ægre distinguendum, in sectiones 2 admodum naturales dividitur:—

1. Involucrum 1–3-florum, campanulatum v. rotato-explanatum, post anthesin auctum, demum membranaceum, reticulatum; anthocarpium costatum v. grosse tuberculatum v. rugosum, glabrum v. pilosum, rarius læve. Includit *O. viscosum*, L'Hér. (*Bot. Mag. t.* 434), speciem involucro post anthesin primum valvatim clauso demum explanato, aliasque involucro post anthesin simpliciter expanso. In *O. Cervantesii*, Lag. (*Sweet, Brit. Fl. Gard. ser.* 1, i. *t.* 84), planta hortis Europeis tantum cognita, involucrum post anthesin parum ampliatum, uti anthocarpium læve glabrum. Huc quoque pertinet *Quamoclidion oxybaphoides*, A. Gray in Amer. Journ. Sc. ser. 2, xv. 320; involucro 4–5-fido, lobis inæqualibus et anthocarpio globoso apiculato lævi.

2. Involucrum 1-florum, post anthesin immutatum v. parum ampliatum; anthocarpium ecostatum, læve, glabrum. Includit *O. cordifolium* Kunze, *O. micranthum* Chois., *O. californicum* (*Mirabilis*, A. Gr.), *O. himalaicum* Edgw., aliasque austro-americanas.

Calyxhymenia est nomen vitiosum, a Persoonio in *Calymeniam* mutatum, sed genus jam prius a Vahlio, duce Heritiero, *Oxybaphum* dictum, nomen hodie ab auctoribus omnibus acceptum.

3. **Nyctaginia**, *Chois. in Mém. Soc. Phys. Gen.* xii. 167, *t.* 1, *et in DC. Prod.* xiii. ii. 429. —Involucrum polyphyllum, multiflorum, bracteis lanceolatis inæqualibus post anthesin immutatis. Perianthii tubus elongatus, gracilis, supra ovarium constrictus; limbus infundibularis, late 5-lobus, plicatus, deciduus. Stamina 5, filamentis capillaribus inæquilongis pilosis longe exsertis ima basi dilatatis et infra basin ovarii connatis; antheræ didymæ. Ovarium ovoideum; stylus capillaris, exsertus, stigmate minuto capitato papillis stipitatis onusto. Anthocarpium crasse coriaceum, turbinatum, supra basin constrictum, vertice late umbonatum, multi costatum, humectatum mucosum. Utriculus obovoideus, pallidus, apiculatus. Seminis testa pericarpio membranaceo adhærens; embryo uncinatus, cotyledonibus latissime obcordatis albumen farinaceum involventibus, radicula elongata descendente extraria.—Herba annua, prostrata, dichotome ramosa, glanduloso-hirsuta. Folia opposita, petiolata, hastato-ovata, sinuato-lobata. Involucra axillaria et terminalia, longiuscule pedunculata. Flores pollicares, rosei, involucri foliola longe superantes, molliter pilosi.

Species 1, Texana.

4. **Allionia**, *Linn. Gen. n.* 117, *non Loefl.* (Wedelia, *Linn. in Loefl. It.* 180.)—involucrum 3-phyllum, 3-florum, bracteis inæqualibus v. subæqualibus fructiferis erectis. Perianthium membranaceum, infundibulare, tubo basi compresso supra ovarium con-

stricto; limbus inæqualiter 4-lobus, patens, plicatus. Stamina 4, hypogyna, exserta, filamentis capillaribus; antheræ didymæ. Ovarium ovoideum; stylus filiformis, stigmate capitellato papillis stipitatis onusto. Anthocarpium crasse coriaceum, obovoideum v. ellipsoideum, antice teres v. trigonum, dorso profunde sulcatum, marginibus inflexis spinulosis, sulco 2-carinato. Seminis testa pericarpio adhærens; embryo uncinatus, cotyledonibus latis albumen involventibus, radicula elongata descendente extraria.—Herbæ prostratæ, dichotome ramosæ, pubescentes v. pilosæ. Folia opposita, paribus inæqualibus, petiolata, basi inæqualia, acuta v. obtusa, integerrima, plana v. marginibus undulatis. Involucra axillaria, pedicellata, solitaria. Flores parvi, purpurei.

Species 1, regionum arenosarum calidiorum Americæ occidentalis tam borealis quam australis incola.—*Chois. in DC. Prod.* xiii. ii. 434. *S. Wats. Bot. Calif.* ii. 3, *ined.* *Gærtn. f. Fruct.* iii. 182, *t.* 214. *Lam. Ill. t.* 58. *L'Hér. Stirp. t.* 31.

5. **Boerhaavia,** *Linn. Gen. n.* 9 (Boerhavia).—Flores bracteolati, bracteolis minutis rarissime verticillatis et involucellum formantibus. Perianthii tubus brevis v. longiusculus, basi ovoideus, supra ovarium constrictus; limbus infundibularis, margine 5-lobus, lobis patentibus plicatis, deciduus. Stamina 1–5, exserta, filamentis capillaribus inæquilongis basi connatis; antheræ didymæ. Ovarium stipitatum, obliquum, in stylum capillarem attenuatum, stigmate peltato. Anthocarpium obovoideum turbinatum v. clavatum, obtusum v. truncatum, teres 5-costatum v. alte 5-gonum faciebus depressis, minute v. grosse glandulosum, humectatum mucosum. Utriculus oblongus. Seminis testa pericarpio adhærens; embryo uncinatus, cotyledonibus tenuibus latis albumen parcum involventibus exteriore majore, radicula descendente elongata extraria.—Herbæ erectæ v. diffusæ, basi lignosæ, glabræ glandulosæ v. pubescentes, ramis sæpius divaricatis. Folia opposita, subsessilia v. petiolata, paribus non raro inæqualibus, integerrima v. sinuata, crassiuscula. Flores parvi v. minuti, paniculati umbellati v. capitellati, sessiles v. pedicellati, pedicello cum flore articulato, bracteolis sæpe deciduis. Anthocarpium parvum, sæpe grosse glandulosum.

Species ad 30, sed paucæ inordinate multiplicatæ, per regiones calidiores late dispersæ.—*Chois. in DC. Prod.* xiii. ii. 449. *Walp. Ann.* iii. 298, v. 722. *Gærtn. Fruct.* ii. 208, *t.* 127. *Miq. Fl. Ind. Bat.* i. 991. *A. Gray in Amer. Journ. Sc. ser.* 2, xv. 321. *Benth. Fl. Austral.* v. 277. *Griseb. Fl. Brit. W. Ind.* 69. *Dalz. et Gibs. Bomb. Fl.* 213. *Griseb. Pl. Lorentz.* 40. *Jacq. Hort. Vind.* i. *t.* 4 *ad* 7; *Obs. t.* 84; *Fragm. t.* 46. *Cav. Ic. t.* 112. *Delile, Fl. Eg. t.* 3. *Wight Ic. t.* 874, 875, 1766. *F. Muell. Pl. Vict.* ii. *t.* 67. *Kotschy, Pl. Tinn. t.* 18. *J. A. Schmidt in Mart. Fl. Bras.* xiv. ii. *t.* 86.

6. **Senkenbergia,** *Schauer in Linnæa*, xix. 711. (Tinantia, *Mart. et Gal. in Bull. Acad. Brux.* xi. i. 240, *non Scheidw.* Lindenia, *Mart. et Gal. l.c.* x. ii. 357, *non Benth.*).—Flores spicati v. racemosi, bracteolati, bracteolis deciduis minutis. Perianthium membranaceum, infundibulare, tubo basi recto v. curvo supra ovarium constricto; limbus 5-lobus, plicatus. Stamina 3–5, exserta, filamentis capillaribus inæqualibus ima basi connatis; antheræ didymæ. Ovarium ovoideum; stylus capillaris, stigmate capitato lobulato. Anthocarpium v. erectum et ellipsoideum, v. clavatum et 5-costatum, v. pendulum et subcylindraceum latere gibbum. Utriculus stipitatus, obovoideus v. clavatus, membranaceus. Seminis testa pericarpio adhærens; embryo uncinatus, cotyledonibus latis tenuibus albumen farinaceum involventibus, interiore multo minore, radicula elongata descendente extraria.—Herbæ graciles, erectæ, basi sublignosæ, glabræ v. pubescentes, ramulis superne viscidulis. Folia opposita, petiolata, ovata v. hastato-ovata, integerrima v. sinuata. Flores parvi, in racemos spicasve terminales dispositi, albi v. rosei.

Species 4, Mexici borealis incolæ. *Chois. in DC. Prod.* xiii. ii. 457 (*Tinantia*). *A. Gray in Amer. Journ. Sc. ser.* 2, xv. 323 (*Boerhaaviæ sect.*).

Genus in sectiones 2 facile divisum.

1. Perianthium basi elongatum, curvum; anthocarpium pendulum, cylindraceo-clavatum, curvum, uno latere gibbum, vertice truncato 5-gibboso. *S. gypsophiloides* (*Tinantia*, Chois.).

2. Perianthium basi breviter ovoideum; anthocarpium erectum, clavatum v. ellipsoideum, crasse 5-costatum. Huc pertinent: *Boerhaavia erecta*, Chois., an Torr.? in Bot. Emory Exped. 171, anthocarpiis ellipsoideis, et species nova, *S. Coulteri*, Hook. f., anthocarpio clavato truncato.

7. **Acleisanthes,** *A. Gray in Amer. Journ. Sc. ser.* 2, xv. 259.—Flores subsolitarii, minute bracteolati. Perianthii tubus elongatus, ima basi ovoideus, inflatus, supra ovarium constrictus; limbus infundibularis, 5-lobus, plicatus. Stamina 2–5, filamentis filiformibus inæquilongis basi in cupulam connatis; antheræ didymæ, exsertæ. Ovarium ovoideum; stylus filiformis, exsertus, stigmate minuto peltato lævi. Anthocarpium oblongo-cylindraceum, truncatum, sub apice constrictum, 5-gonum v. 5-costatum costis crassis suberosis lævibus, humectatum mucosum. Utriculus oblongus, pericarpio tenui lævi. Seminis testa pericarpio adhærens; embryo incurvus, cotyledonibus latis tenuibus albumen farinaceum involventibus, exteriore majore, radicula elongata descendente extraria.—Fruticuli v. herbæ, suberecti v. diffusi, dichotome ramosi, cano-pubescentes v. glabrescentes. Folia opposita, petiolata, paribus interdum inæqualibus, integerrima, nunc crassiuscula. Flores terminales et axillares, sæpius solitarii, albidi, puberuli v. glabri.

Species 6, Texanæ et Novo-Mexicanæ. *Torr. Bot. Emory Exped.* 170, *t.* 46.

Genus a Baillonio Hist. Pl. iv. 4, ad sectionem *Mirabilis* reducitur. PENTACROPHYS, *A. Gray in Amer. Journ. Sc. ser.* 2. xv. 261, *et Torr. Bot. Emory Exped.* 170, *t.* 47 B, nobis videtur *Acleisanthis* species anthocarpiis dimorphis, quorum alia tuberculis 5 crassis costas terminantibus umbonata, alia glandulis minoribus demissius positis instructa. Stamina 2 ex descriptione Grayo et e flore unico a nobis scrutato, 4 in icone Torreyi.

8. **Selinocarpus,** *A. Gray in Amer. Journ. Sc. ser.* 2, xv. 262.—Flores 1–3-bracteolati. Perianthium infundibulare v. cyathiforme, tubo brevi v. elongato basi compresso vix inflato supra ovarium constricto; limbus breviter 5-lobus, lobis plicatis. Stamina 2, 3, v. 5, filamentis filiformibus inæquilongis, ima basi in cupulam connatis; antheræ didymæ, exsertæ. Ovarium ovoideum; stylus capillaris, exsertus, stigmate minuto peltato lævi. Anthocarpium compressum, late 3–5-alatum, nucleo coriaceo angusto humectato submucoso valide costato, alis membranaceis hyalinis enerviis. Utriculus membranaceus, lævis. Seminis testa pericarpio adhærens; embryo conduplicatus, cotyledonibus amplis albumen farinaceum involventibus, radicula elongata descendente extraria.—Herbæ multicaules, basi lignosæ, dichotome ramosæ, cano-pubescentes. Folia opposita paribus inæqualibus, petiolata, integerrima v. marginibus sinuatis. Flores breves v. elongati, terminales v. axillares, sæpe præcoces.

Species 3, Novo-Mexicanæ. *Torr. Bot. Emory Exped.* 170, *t.* 47.

9. **Okenia,** *Cham. et Schlecht. in Linnæa*, v. 92.—Flores solitarii, 3-bracteolati. Perianthium infundibulare, tubo gracili basi æquali supra ovarium constricto; limbus 5-lobus, lobis emarginatis plicatis post anthesin involutis. Stamina 15–18, filamentis capillaribus inæquilongis ima basi in cupulam connatis; antheræ didymæ. Ovarium oblongum; stylus filiformis, stigmate capitato lævi exserto. Anthocarpium suberosum, oblongum, basi paullo attenuatum et curvatum, 10-costatum, interstitiis transverse plicatis, endocarpio fragili. Utriculus oblongus, basi acutus, pericarpio tenui. Embryo conduplicatus, cotyledonibus magnis obovatis albumen farinaceum involventibus, radicula elongata descendente extraria.—Herba prostrata, glutinoso-tomentosa. Folia opposita, paribus inæqualibus, petiolata, integerrima. Pedunculi axillares, solitarii, 1-flori, primum breves, post anthesin elongati et terram intrantes ad fructum maturandum. Perianthium pollicare, tenerum, purpureum, extus glutinosum.

Species 1, in arenosis prope Vera Cruz, Mexici vigens.—*Chois. in DC. Prodr.* xiii. ii. 449. Fructus a nobis non visus.

10. **Hermidium,** *S. Wats. Bot.* 40 *Parall.* 286 *t.* 32, *et Bot. Calif.* ii. 6, *ined.*—Flores exinvolucrati, bracteati, costis bractearum singulatim inserti, bracteis ad 6 foliaceis amplis laxe imbricatis ovato-cordatis membranaceis. Perianthium subcampanulatum,

obscure 5-lobum, plicatum, nervis sinubus descendentibus, basi globosum, supra ovarium constrictum. Stamina 5–7, filamentis inæqualibus capillaribus basi in cyathum membranaceum connatis; antheræ didymæ, breviter exsertæ. Ovarium globosum; stylus capillaris, stigmate breviter exserto capitellato. Anthocarpium ellipsoideum, teres, læve v. leviter costatum, humectatum mucilaginosum. Utriculus globosus. Seminis testa pericarpio adhærens, tenuiter coriacea; embryo uncinatus, albumen sat copiosum involvens, cotyledonibus orbicularibus tenuibus concavis, radicula descendente crassa incurva compressa obtusa extraria.—Herba glabra, glauca, dichotome ramosa, ramis robustis. Folia opposita, breviter petiolata, ovato-oblonga, obtusa, integerrima. Flores in racemos strobilos simulantes terminales et axillares gracile pedunculatos dispositi, majusculi, pallide purpurei.

Species 1, civitatis Nevadæ Americæ boreali-occidentalis incola. Inflorescentia *Bougainvillææ*, sed stigma capitatum et semen *Mirabilis*. Corolla emarcida tantum visa.

11. **Bougainvillæa,** *Comm. ex Juss. Gen.* 91 (*Buginvillæa*) (Josepha, *Vell. Fl. Flum.* 154, *Ic.* iv. *t.* 16).—Flores exinvolucrati, bracteati, costis bractearum singulatim inserti; bracteæ 3, amplæ, foliaceæ, coloratæ. Perianthium tubulosum, leviter curvum, infra medium anguste fusiforme, dein anguste infundibulare et post anthesin tortum, ore breviter 5–6-lobo, marginibus loborum incurvis sæpe crispatis, sinubus plicatis longe intrusis. Stamina 7–8, filamentis capillaribus inæquilongis ima basi in cupulam connatis; antheræ didymæ, inclusæ. Ovarium stipitatum, anguste fusiforme; stylus brevis, lateralis, filiformis, inclusus, stigmate elongato unilaterali. Anthocarpium fusiforme, coriaceum, leviter compressum, acute 5-costatum, humectatum non mucosum. Utriculus stipitatus, cylindraceus v. clavatus. Seminis testâ tenuis; embryo uncinatus, cotyledonibus convolutis albumen involventibus, radicula descendente extraria.—Frutices v. arbusculæ rarius sarmentosi v. subscandentes, glabri v. tomentosi, inermes v. spinosi. Folia alterna, petiolata, ovato-rotundata v. elliptico-lanceolata, integerrima. Inflorescentiæ (strobilum mentientes), solitariæ v. fasciculatæ, axillares v. terminales. Flores infra medium bracteæ inserti, perianthii tubo infra medium sæpius virescente, superne roseo v. flavo.

Species 7–8, Americæ australis tropicæ et subtropicæ incolæ. *Chois. in DC. Prodr.* xiii. ii. 437. *Walp. Ann.* v. 721. *Griseb. Pl. Lorentz.* 40. *Gærtn. f. Fruct.* iii. 206, *t.* 216. *Humb. et Bonpl. Pl. Æquin. t.* 49. *Bot. Mag. t.* 4811, (*errore* 4810). *D'Orbign. Voy. Bot. t.* 8. *J. A. Schmidt in Mart. Fl. Bras.* xiv. ii. 349, *t.* 82. Semen a nobis non visum, ex icone Schmidtii descriptum.

12. **Tricycla,** *Cav. Ic.* vi. 78, *t.* 598, *et ex Endl. in Anal. Cienc. Nat.* v. 63, *t.* 40.—Flores bracteati, exinvolucrati; bracteæ 3, sub anthesi floribus multo breviores, demum dilatatæ amplæ membranaceæ, persistentes. Perianthium hypocrateriforme, tubo elongato sensim basin versus ampliato; limbus 5-lobus, subcoriaceus, lobis emarginatis, sinubus breviter induplicatis. Stamina 5–6, filamentis capillaribus inæquilongis ima basi brevissime connatis; antheræ late ellipsoideæ, inclusæ. Ovarium fusiforme; stylus lateralis, brevis, crassiusculus, leviter recurvus, uno latere stigmatosus. Anthocarpium fusiforme, coriaceum, striatum, bracteis inclusum. Utriculus immaturus cylindraceus, tenuiter coriaceus. Semen . . . .—Frutex spinosus, ramulis lignosis, spinis demum apice furcatis. Folia in ramulis abbreviatis fasciculata, parva, lineari-spathulata, coriacea, glabra. Flores ½-pollicares, ad nodos solitarii v. pauci, penduli, bracteis ovato-cordatis puberulis, fructiferis reticulato-venosis; perianthii tubo virescente, limbo luteo.

Species 1, Mendozæ in Chili incola. *Chois. in DC. Prod.* xiii. ii. 436.

13. **Abronia,** *Juss. Gen.* 448 (Tricratus, *L'Hér. ex Willd. Sp. Pl.* i. 807).—Involucrum 5–∞-phyllum, multiflorum, foliolis post anthesin immutatis. Perianthium hypocrateriforme v. anguste infundibulare, tubo elongato supra ovarium constricto; limbi parvi lobi 5, obcordati v. 2-partiti, induplicatim plicati. Stamina 3–5, filamentis capillaribus 2 alternis brevioribus basi in urceolum connatis sursum tubo perianthii

adnatis; antheræ lineari-oblongæ, inclusæ. Ovarium oblique ovoideum; stylus filiformis, stigmate fusiformi incluso. Anthocarpium fusiforme ellipsoideum v. turbinatum, 1–5-costatum v. 3-alatum, coriaceum v. induratum, eglandulosum, humectatum non mucosum. Achænium elongatum. Seminis testa pericarpio adhærens; embryonis cotyledone altera concava albumen farinaceum involvens, altera ad papillam reducta, radicula elongata descendente extraria.—Herbæ di-tri-chotome ramosæ, prostratæ, glanduloso-pubescentes. Folia opposita, paribus inæqualibus, petiolata, carnosula, integerrima. Involucra axillaria et terminalia, longe pedicellata, viridia v. colorata. Flores exserti, fragrantes, rosei, pubescentes.

Species ad 10, Americæ boreali-centralis et -occidentalis incolæ. *Chois. in DC. Prod.* xiii. ii. 435. *S. Wats. Bot. Calif.* ii. 3, *ined.*, *Bot.* 40 *Parall. t.* 31. *Gærtn. f. Fruct.* iii. 181, *t.* 214. *Lam. Ill. t.* 105. *Cav. Ic. t.* 326. *Lindl. in Journ. Hort. Soc.* iv. 82, *cum ic. xylog. Hook. Exot. Fl. t.* 193, 194. *Torr. in Marcy Exped. t.* 18. *Torr. et Gr. Bot. Beckwith Exped. t.* 10. *Bot. Mag. t.* 2879, 5544. *Fl. des Serres*, v. 425 *cum ic.*, xi. *t.* 1095.

A. cycloptera, S. Wats. Bot. 40 Parall. 285, pro parte, A. Gray in Amer. Jour. Sc. ser. 2, xv. 319, cum *A. micrantha*, Torr., specie annua 3–4-andra, duce A. Gray, subgenus *Tripterocalycem* efficiunt, anthocarpio magno 3-alato, alis lateralibus reticulatis, intermedia angusta.

14. **Boldoa**, *Cav. Cat. Hort. Madr.* 1803, *ex Choisy.* (Salpianthus, *Humb. et Bonpl. Pl. Æquin.* i. 154, *t.* 44.)—Flores exinvolucrati, ebracteolati. Perianthium campanulatum v. tubuloso-campanulatum, 4-fidum, lobis dentibusve brevibus subacutis simpliciter valvatis, post anthesin parum auctum. Stamina 3–4, disco parvo unilaterali carnosulo inserta, filamentis filiformibus inæquilongis; antheræ didymæ, exsertæ. Ovarium sessile, late ovoideum v. subglobosum, in stylum filiformem exsertum attenuatum, stigmate acuto. Utriculus basi paullo aucto perianthii inclusus, sessilis, globosus, leviter compressus, uno latere costatus, coriaceus. Seminis testa pericarpio adhærens; embryo hippocrepicus, cotyledonibus planis lineari-oblongis tenuibus albumen copiosum involventibus, radicula elongata descendente extraria.—Herbæ radicibus tuberosis, glabræ v. pubescentes, laxe ramosæ, ramis gracilibus. Folia alterna, petiolata, deltoideo- v. trapezoideo-ovata, obtusa, integerrima, in petiolum abrupte sed longe angustata. Flores parvi v. minuti, in capitula racemosve cymosos axillares et terminales foliaceo-bracteatos dispositi, sessiles v. pedicellati, dense pubescentes.

Species 2, Mexicanæ, quarum una etiam Cubensis. *Chois. in DC. Prod.* xiii. ii. 438. Icon Hort. Matrit. ab auctoribus post Lagascam citata nunquam edita fuit.

15. **Collignonia**, *Endl. Gen. Pl.* 311.—Flores umbellulati; umbellulæ paniculatæ, bracteis amplis membranaceis gracile petiolatis coloratis deciduis immixtæ. Perianthium infundibulari-campanulatum, 3–5-lobum, lobis patulis ovatis subacutis simpliciter valvatis. Stamina 5, hypogyna, filamentis filiformibus inæqualibus ima basi connatis; antheræ didymæ, exsertæ. Ovarium stipitatum, subglobosum; stylus brevis, filiformis, stigmate capitato glanduloso v. maximo et longe penicillato. Anthocarpium late ellipsoideum v. fusiforme, 5-costatum v. late 3-alatum, humectatum non mucosum. Utriculus oblique stipitatus, clavatus, obtusus, coriaceus. Seminis testa pericarpio et albumini parco-carnoso adhærens; embryo uncinatus, cotyledonibus oblongis planiusculis pro ordine angustis, radicula valde elongata descendente extraria.—Herbæ v. frutices scandentes, trichotome ramosi, radice tuberoso, glabri pubescentes v. tomentosi, ramulis gracilibus. Folia opposita, petiolata, integerrima. Umbellulæ in paniculas terminales amplas trichotome ramosas dispositæ, ramulis divaricatis. Flores parvi v. minuti, gracillime pedicellati, cum pedicello non articulati, rosei v. carnei. Fructus pendulus.

Species 6, regionum temperatarum Andium a Nova Granada usque ad Peruviam incolæ. *Chois. in DC. Prod.* xiii. ii. 439. *H. B. et K. Nov. Gen. et Sp.* ii. *t.* 128 (*Abronia*). *Baill. Hist. Pl.* iv. 21. *Griseb. Pl. Lorentz.* 39.

16. **Reichenbachia**, *Spreng. in Bull. Soc. Philom.* 1823, 54, t. 1.—Flores exinvolucrati, ebracteati. Perianthium tubulosum, v. brevissime oblique 4–5-dentatum, dentibus sub-

æqualibus v. 2–3 cæteris longioribus, erectis lanceolatis obtusiusculis induplicato-valvatis. Stamina 2, rarissime 3, hypogyna, filamentis elongatis filiformibus complanatis; antheræ oblongæ, inclusæ, loculis sejunctis obtusis. Ovarium oblique oblongum, compressum, basi attenuatum, apice oblique truncatum, stellato-tomentosum, stigmate sessili subterminali papilloso. Utriculus basi perianthii accrescentis tenuiter coriacei inclusus, coriaceus, tomentosus, inferne costatus. Semen sessile, subglobosum, leviter compressum, basi rostellatum, testa tenuiter crustacea picea nitida, albuminis strato tenui carnoso; embryo uncinatus, cotyledonibus conduplicatis, radicula apice intra seminis rostellum acuta. —Frutex v. arbuscula, pilis stellatis griseo-pubescens, ramulis teretibus. Folia alterna, breviter petiolata, ovata, subacuta, integerrima, apice glandula nuda instructa. Flores numerosi, axillares, fasciculati, pedicellati, tomentosi, pedicellis basi minute bracteolatis.

Species 1, Brasiliæ australis et Paraguay incola. *Hook. f. Ic. Pl. t.* 1290.

Tribus II. Pisonieæ.

17. **Pisonia,** *Linn. Gen. n.* 1162. (Calpidia, *Thou. Hist. Veg. Isles Afr. Aust.* (1804) 37, *t.* 10. Ceodes, *Forst. Char. Gen.* 141, *t.* 71. Torrubia, Bessera, Pallavia, et Columella, *Vell. Fl. Flum.* 139, 147, 151, 155, *Ic.* iii. *t.* 150, iv. *t.* 2, 12, 17.)—Flores dioici, rarius monoici v. hermaphroditi, exinvolucrati, 2-3-bracteolati. Perianthium ♂ tubuloso- v. infundibulari-campanulatum, ♀ magis oblongum, tubo basi sæpe ampliato; limbi lobi v. dentes 5, breves, induplicato-valvati, erecti v. patentes. Stamina 6–10, filamentis inæquilongis v. alternis longioribus filiformibus, basi in tubum v. annulum connatis; antheræ oblongæ v. didymæ, exsertæ. Ovarium elongato-ovoideum, sessile, in stylum gracilem inclusum v. exsertum attenuatum, stigmate capitellato peltato v. sæpius fimbriato-multifido laciniis capillaribus. Anthocarpium coriaceum v. induratum rarius carnosulum, oblongum lineare v. clavatum, cylindraceum compressum v. pentagonum, teres sulcatum v. costatum, læve tuberculatum v. glandulis stipitatis viscum exsudentibus præditum. Utriculus elongatus, membranaceus. Seminis testa hyalina, pericarpio adhærens; embryo rectus, cotyledonibus latis tenuibus contortuplicatis basi v. basi et apice cordatis albumen parcum plus minusve mucosum involventibus, radicula brevi infera.—Arbores et frutices, inermes v. rarius spinosi, glabri v. pubescentes, erecti v. rarius subscandentes. Folia opposita v. sparsa, sessilia v. petiolata, oblonga ovata v. lanceolata, integerrima. Flores parvi, rosei virescentes v. flavidi, in cymas paniculatas subsessiles v. pedunculatas dispositi. Fructus parvus v. majusculus.

Species ad 60, pleræque Americæ tropicæ incolæ, paucæ Asiaticæ et insulis Pacificis indigenæ, 6 in insulis Mascarensibus; *P. aculeata* sola, species gerontogea, hactenus in Africa continentali detecta. *Chois. in DC. Prod.* xiii. ii. 440. *Walp. Ann.* v. 722. *Miq. Fl. Ind. Bat.* i. i. 989. *Griseb. Fl. Brit. W. Ind.* 70. *Benth. Fl. Austral.* v. 279. *Baker, Fl. Maurit.* 262. *Casaretto, Nov. Stirp. Dec.* 68. *J. A. Schmidt in Mart. Fl. Bras.* xiv. ii. 353, *t.* 83, 84. *Gærtn. Fruct.* i. *t.* 76. *Lam. Ill. t.* 861. *Endl. Iconogr. t.* 30. *Presl. Symb. t.* 56. *Deless. Ic. Sel.* iii. *t.* 87. *Jacq. Hort. Schœnb.* iii. *t.* 314. *Link. Kl. et Otto, Ic. Pl. t.* 15. *Walp. in Pl. Meyen. t.* 11. *Seem. Bot. Her. t.* 34. *Wight Ic. t.* 1763 *ad* 1765. *Hook f. Fl. Nov. Zel.* i. *t.* 50. Albuminis copia et indoles de specie in speciem variat, mucilaginosa carnosa v. subfarinacea, quare genus *Calpidia*, Thou., a Brongn. et Gris. in Ann. Sc. Nat. ser. 4, i. 339, restitutum, delendum est.

18. **Neea,** *Ruiz et Pav. Prod. Fl. Per. et Chil.* 52, *t.* 9. (Mitscherlichia, *Kunth in Abhandl. Berl. Akad.* 1831, 209 *et* 1832, *t.* 3.)—Flores monoici v. dioici, exinvolucrati, bracteolati. Fl. ♂: Perianthium urceolatum globosum v. campanulatum, breviter 4–5-dentatum, ore aperto v. constricto v. fere clauso, dentibus breviter induplicato-valvatis. Stamina 5–10, inclusa, fundo perianthii inserta, filamentis inæquilongis; antheræ oblongæ. Ovarii rudimentum sæpius 0. Fl. ♀: Perianthium oblongum v. urceolatum, tubo infra medium sæpissime crasse carnoso ibidemque dilatato v. angustato intus supra ovarium constricto, ore 4–5-dentato sæpissime contracto. Staminum rudimenta medio tubo inserta, filamentis brevissimis; antheræ cassæ. Ovarium anguste ovoideum, basi carnosa perianthii inclusum; stylus terminalis, filiformis, rarissime exsertus, stigmate simplici v.

penicillato. Anthocarpium ellipsoideum v. rarius ovoideum v. turbinatum, limbo parvo clauso perianthii coronatum, teres v. sulcatum, cylindraceum v. compressum, eglandulosum. Utriculus membranaceus. Seminis testa hyalina, pericarpio adhærens; embryo rectus, cotyledonibus latis tenuibus contortuplicatis basi v. basi et apice cordatis albumen parcum carnosum involventibus, radicula brevi infera horizontali apice deflexa.—Arbores et frutices, erecti v. subscandentes, glabri v. pubescentes, ramulis teretibus. Folia sæpissime opposita, petiolata, coriacea, ovata v. lanceolata, integerrima, penninervia. Flores parvi, in cymas axillares pedunculatas dispositi, sessiles v. pedicellati, sæpius basi 3-bracteolati, albi rosei flavi brunnei v. virescentes, interdum odori, bracteolis minutis rarius filiformibus.

Species ad 30, Americæ tropicæ incolæ pleræque boreali-Brasilienses et Peruvianæ, paucæ insularum Indiæ occidentales incolæ, una Guatemalensis. *Chois. in DC. Prod.* xiii. ii. 447. *Griseb. Fl. Brit. W. Ind.* 71. *Poepp. et Endl. Nov. Gen. et Sp.* ii. *t.* 161, 162. *Oerst. in Overs. K. Dansk. Selsk. Forh.* 1863, 9, *t.* 1. *J. A. Schmidt in Mart. Fl. Bras.* xiv. ii. 365, *t.* 85. Genus a *Pisonia* cui adjungitur a Baillonio, Hist. Pl. iv. 10, forma perianthii, fl. ♂ et staminibus inclusis distinguendum.

19. **Timeroya,** *Montrousier in Mém. Acad. Imp. Sc. Lyon,* x. 247. (Viellardia, *Brongn. et Gris. in Ann. Sc. Nat. ser.* 5, i. 338.)—Flores hermaphroditi, exinvolucrati, minute bracteolati v. ebracteolati. Perianthium campanulatum v. infundibulari-campanulatum, tubo basi turgido; limbi 5-goni lobi 5, valvati, breves. Stamina ad 30, inclusa, filamentis capillaribus inæquilongis ima basi circa ovarium connatis, antheræ didymæ. Ovarium elongato-ovoideum, in stylum filiformem attenuatum, stigmate obliquo decurrente papilloso-fimbriato. Anthocarpium lineari-oblongum, induratum, 5-gonum, angulis viscum exsudentibus. Utriculus fusiformis, sessilis, membranaceus. Seminis testa pericarpio cohærens, membranacea; embryo rectus, cotyledonibus latis tenuibus convolutis, albumen parcum mucilaginosum involventibus basi cordatis, radicula intra sinum cotyledonum abscondita recta brevi infera.—Arbores glabri, ramulis crassiusculis. Folia alterna v. subopposita, petiolata, elliptica v. lanceolata, integerrima. Flores in cymas corymbosas axillares et terminales dispositi, pedicellati, glabri v. furfuraceo-pubescentes.

Species 2 v. 3, Novæ Caledoniæ incolæ.

20. **Cephalotomandra,** *Karst. et Trian. in Linnæa,* xxviii. 429.—Flores dioici (v. polygami?) exinvolucrati, minute 3-bracteolati. Fl. ♂: Perianthium urceolato-campanulatum, carnosulum; limbus breviter 5-lobus, lobis plicato-valvatis. Stamina 25–30, inclusa, circa basin ovarii conferta, filamentis crassiuscule filiformibus inæquilongis; antheræ oblongo-didymæ, apiculatæ, loculis sæpe inæqualibus altero altius inserto. Fl. ♀: Perianthium post anthesin coarctatum; limbus 5-lobus, persistens. Stamina subexserta, antheris effœtis. Ovarium ovoideum, sessile, in stylum filiformem acutum intus longitudinaliter stigmatosum marginibus papillosis attenuatum. Anthocarpium lignosum, rugosum, 10–12-costatum. Seminis testa membranacea, cum pericarpio connata; embryo rectus, cotyledonibus cordatis albuminis residua includentibus, radicula infera.—Arbor parva. Folia opposita, petiolata, ampla, elliptica, acuminata, costa crassa, integerrima, lucida, glaberrima. Flores in cymas longe pedunculatas axillares multifloras pubescentes trichotome ramosas dispositi, gracile pedicellati, ramulis pedicellisque divaricatis. Fructus juglandis magnitudine.

Species 1, Novæ Granadæ prope Bogota incola.—*Walp. Ann.* v. 721. Flores ♀ et fructus a nobis non visi; in fl. ♂ ovarium perfectum ovulo bene evoluto invenimus.

Tribus III. Leucastereæ.

21. **Leucaster,** *Chois. in Mém. Soc. Phys. Gen.* xii. 167, *et in DC. Prod.* xiii. ii. 457.—Flores hermaphroditi, exinvolucrati, 2-bracteolati. Perianthium campanulatum, coriaceum, stellato-canum, post anthesin accrescens, persistens; limbus plicato-5-dentatus, fere integer. Stamina 2, hypogyna, fundo perianthii immersa, filamentis brevibus subulatis, puberulis; antheræ magnæ, dorso affixæ, breves, latæ, coriaceæ, rimis latis

antice dehiscentes. Ovarium globosum, inter stamina compressum, tomentosum; stigma sessile, elongatum, ovarii verticem coronans, crassum, medio sulcatum; ovulum globosum, subsessile. Utriculus basi perianthii ampliati angulati ore involuto immersus, globosus, canus, pericarpio crasso costato. Semen liberum; embryo conduplicatus, cotyledonibus albumen parcissimum includentibus, radicula infera extraria.—Frutex subvolubilis, ramulis alternis gracilibus, partibus novellis pube stellata canis. Folia alterna, petiolata, elliptico-lanceolata, subobtusa, integerrima. Flores in cymas axillares et terminales foliaceo-bracteatas dispositi, pedicellati.

Species 1, Brasiliana, perperam ad *Reichenbachiam* relata a *J. A. Schmidt in Mart. Fl. Bras.* xiv. ii. 372 *t.* 88.

22? **Andradea,** *Allemão, Diss. Andrad.* 1845, *cum ic.*—Flores monoici, exinvolucrati, ebracteolati. Perianthium infundibulare, tubo brevi; limbi lobi 3 rarius 4, tubo longiores, oblongi, subacuti, reflexo-patentes, valvati, non induplicati. Stamina 12–20, lobis perianthii breviora, filamentis gracilibus æquilongis pubescentibus basi in annulum membranaceum connatis; antheræ lineares, rimis lateralibus dehiscentes. Ovarium sessile, turbinatum, costatum, tomentosum; stylus terminalis, sigmoideus, stigmate laterali cristæformi papilloso. Utriculus parvus, globoso-turbinatus, basi perianthii ad integrum persistente vestitus, stylo indurato terminatus; pericarpium membranaceum. Semen erectum, subreniforme, cavitatem non implens, testa lævi fusca membranacea embryoni subadhærente; embryo conduplicatus, cotyledonibus foliaceis corrugatis super albumen evanidum applicitus, radicula extraria infera.—Arbor excelsa, trunco crasso, ramulis foliis subtus et inflorescentia stellato-tomentellis. Folia alterna, petiolata, elliptico-ovata, acuminata, integerrima, membranacea. Flores in racemos paniculatos axillares et terminales dispositi, erecti, pedicellati, majusculi; alabastra cylindraceo-ovoidea, pendula.

Species 1, Brasiliæ montium provinciæ Espirito Santo incola. *Walp. Ann.* iii. 935. Genus adhuc dubium, a nobis non visum, ex schedis et icone auctoris (in Mart. Fl. Bras. xiv. ii. t. 87 repetita) descriptum.

23. **Cryptocarpus,** *H. B. et K. Nov. Gen. et Sp.* ii. 187, *t.* 123, 124.—Flores hermaphroditi. Perianthium campanulatum, 4–5-lobum; lobis brevibus obtusis inflexo-valvatis, fructiferum clausum, immutatum. Stamina 4–5, filamentis inæquilongis elongato-subulatis basi in cupulam connatis; antheræ didymæ. Ovarium oblique obovoideum; stylus subterminalis, filiformis v. subulatus, stigmate subterminali. Fructus obovoideo-globosus, perianthio clauso inclusus, pericarpio tenuiter coriaceo. Semen late pyriforme, erectum, testa coriacea rugulosa fusca; embryo gracilis, periphericus, imperfecte annularis, albumen copiosum farinaceum cingens, cotyledonibus linearibus radicula infera vix latioribus.—Frutices carnosuli, prostrati v. subscandentes, cano-puberuli, ramis subangulatis. Folia alterna, exstipulata, petiolata, ovata v. cordato- v. rhombeo-ovata, integerrima. Flores parvi, cymosi, cymis in paniculas repetite dichotomas axillares et ad apices ramulorum longe spicatas dispositi, ebracteati et ebracteolati.

Species 2, altera montium Mexici altera littorum tropicarum Americæ australis incola. *Moq. in DC. Prod.* xiii. ii. 88. *Moric. Pl. Nouv. Amer. t.* 50.

Ordo CXXIX. **ILLECEBRACEÆ.**

R. Br. Prod. 413. Paronychieæ, St. Hil. in Mem. Mus. ii. 276. Caryophyllearum Tribus Illecebreæ, Pterantheæ, Pollichieæ, et Subordo Sclerantheæ, Endl. Gen. Pl. 956 et seq. Illecebraceæ et Scleranthaceæ, Lindl. Veg. Kingd. 499 et 528.

Flores regulares, sæpissime hermaphroditi, inconspicui. *Perianthium* herbaceum v. coriaceum, post anthesin persistens et sæpius induratum, 4–5-lobatum v. -partitum, lobis segmentisve erectis, rarius patentibus, imbricatis. *Petala* 0, nisi staminodia minuta v. interdum subpetaloidea inter stamina posita. *Stamina* tot quot perianthii segmenta et iis opposita, rarius pauciora v. plura, perigyna v. rarius subhypogyna ; filamenta subulata, brevia, libera v. ima basi in annulum membranaceum connata, v. margini disci tenuis inserta. *Antheræ* breves, didymæ, rarius oblongæ, dorso affixæ, rimis anticis dehiscentes. *Ovarium* liberum, sessile, ovoideum v. subglobosum, rarius compressum, 1-loculare, interdum filo tenuissimo conductore percursum. *Stylus* 1, terminalis, apice 2–3-dentatus, v. styli 2, rarissime 3, apicibus introrsum stigmatosis. *Ovula* 1, rarius 2, e funiculis basilaribus erecta v. pendula et inversa, amphitropa anatropa v. semi-anatropa. *Utriculus* rarissime nux, crustaceus, membranaceus, indehiscens v. basi lacerus, 1-spermus, perianthio inclusus. *Semen* erectum v. inversum, ovoideum clavatum orbiculare v. lenticulare, testa tenuiter membranacea, exarillata ; albumen farinaceum v. carnosum, sat copiosum v. parcum. *Embryo* nunc annularis, albumen cingens, cotyledonibus angustis, radicula elongata incumbente supera v. infera, nunc clavatus dorsalis, albumini applicitus, rectus v. leviter incurvus, cotyledonibus oblongis, radicula infera.

Herbæ annuæ v. perennes, rarius fruticuli v. suffrutices, suberectæ diffusæ v. pulvinatim cæspitosæ. Folia in generibus normalibus opposita, parva, integerrima, basi sæpius connata, *Sclerantho* excepto integerrima. Stipulæ scariosæ, simplices bifidæ v. connatæ, rarius 0. Inflorescentia varia, in generibus plerisque dichotome cymosa. Flores parvi, herbacei, virides v. albi, sæpe scarioso-bracteati.

Species ad 90, per orbem terrarum regionibus frigidis exceptis dispersæ, in locis siccis calidisque frequentiores.

Ordo *Amarantaceis* certissime affinis sed stipulis, perianthio herbaceo staminibusque perigynis differt. *Caryophylleæ* distinguuntur floribus petaliferis, ovario pluriovulato, fructuque capsulari ; *Portulaceæ* sepalis 2, corolla, capsulæque dehiscentia. *Ficoideæ* connexæ sunt ope *Adenogrammatis* cui ovarium 1-loculare ovulo basilari. *Phytolaccacearum* genera monocarpica 1-ovulata recedunt stylo laterali, habitu, foliis amplis, inflorescentia racemosa et cotyledonibus latioribus. *Lastarriæa* genus *Polygonearum*, habitu multisque notis *Illecebraceis* accedit, sed differt ovulo orthotropo, aliisque notis. Tribus *Scleranthearum* transitum ad *Caryophylleas* demonstrat. *Ficoidearum* tribus *Mollugineæ* differt ovario polycarpico et staminibus sæpissime hypogynis.

FORMÆ ABNORMES.

Pedunculus foliaceus in *Pterantho*.
Folia omnia *Dysphaniæ* et superiora *Corrigiolæ* alterna.
Perianthii segmenta valvata in *Illecebro*, *Dysphanio* et *Pentacæna*.
Stamina hypogyna in *Dysphania*.
Ovarium tubo perianthii connatum in *Sclerocephalo* et *Comete*.
Ovula 2 v. 4 in *Pollichia*, *Achyronychia* et *Habrosia*.
Nux crustacea in *Corrigiola*.

CONSPECTUS GENERUM.

Tribus I. Pollichieæ. Flores omnes consimiles, bracteis scariosis basi involucrati. Ovarium 1–4-ovulatum. Embryo dorsalis, rectus v. leviter curvus, radicula infera.

Excepta : Folia exstipulata et flores exinvolucrati in *Dysphania*.

* *Ovarium* 1-*ovulatum*.

1. Illecebrum. Perianthii segmenta 5, æqualia, suberosa a latere compressa.—*Europ.*, *Afric. occ.*

2. Pentacæna. Perianthii segmenta 5, æqualia v. inæqualia, coriacea, dorso longe crasseque spinosa.—*Amer. occid. et aust. extratrop.*

3. Dysphania. Perianthii segmenta 2–3, unguiculata, suberosa, dorso crasse gibbosa. *Folia alterna.—Australia.*

** *Ovarium 2–4-ovulatum.*

4. Pollichia. Perianthii limbus herbaceus.—*Afric. trop. et austr.*

5. Achyronychia. Perianthii tubus coriaceus, limbus scariosus.—*Mexico ex Nov. Mexic.*

Tribus II. Paronychieæ. Flores omnes consimiles, bracteis scariosis sæpius involucrati. Ovarium 1-ovulatum. Embryo annularis. Folia opposita v. rarius alterna.

6. Paronychia. Perianthii involucrati 5-partiti segmenta sub apice cucullata, dorso cornuta mucronata v. apiculata. Stigmata 2. Radicula sæpissime supera v. ascendens.—*Europ. aust., Oriens, Africa, America.*

7. Herniaria. Perianthii fere nudi 5-partiti segmenta mutica. Stigmata 2. Radicula infera.—*Europ., Asia occid., Afr. bor. et austr.*

8. Siphonychia. Perianthii 5-fidi lobi mutici. Stamina alte perigyna. Stylus filiformis. Radicula supera.—*Amer. bor.*

9. Anychia. Perianthii 5-partiti segmenta mutica v. subcornuta. Stamina basi segmentorum inserta. Styli 2, breves. Radicula supera.—*Amer. bor.*

10. Corrigiola. Perianthii 5-partiti segmenta mutica. Stylus 3-partitus. *Nux crustacea.—Europ., Afric., Amer.*

11. Gymnocarpos. Perianthii 5-partiti segmenta aristata. Stylus 3-dentatus.—*Afric. bor., Oriens.*

12. Sclerocephalus. Flores cum foliis floralibus *in capitulum spinosum cohærentes.—Afric. bor., Asia occid.*

Tribus III. Pterantheæ. Flores 3-ni, dimorphi, centralis perfectus, laterales imperfecti v. deformati. Ovarium 1-ovulatum. Embryo dorsalis, fere rectus, radicula infera. Folia sæpius stipulata.

13. Pteranthus. Pedunculi obovati, foliacei. Folia floralia pinnatipartita. Perianthii segmenta 4.—*Afric. bor., As. occid.*

14. Cometes. Pedunculus simplex. Folia floralia pinnatipartita. Perianthii segmenta 5.—*Afric. bor. et aust., Asia occid.*

15. Dicheranthus. Pedunculus simplex. Folia floralia integra. Perianthii segmenta 5.—*Ins. Canariens.*

Tribus IV. Sclerantheæ. Flores omnes consimiles. Ovarium 1-2-ovulatum. Embryo annularis.—Folia opposita, basi connata, exstipulata.

16. Scleranthus. Perianthium 4–5-fidum. Stamina perigyna. Ovarium 1-ovulatum.—*Europ., Afric. bor., Oriens, Australas.*

17. Habrosia. Perianthium 5-partitum. Stamina fere hypogyna. Ovarium 2-ovulatum.—*Asia occid.*

GENERA AFFINIA AUT EXCLUSA.

Adenogramma, Reich., et Telephium, Linn. sub. **Ficoideis** inveniuntur supra i. 858, 857.

Adenarium Raf. (*Arenariæ sect. Honckenya*), Cerdia, Moç. et Sessé, Drymaria, Willd., Lœfflingia, Linn., Ortegia, Lœffl., Polycarpæa, Lam., Polycarpon, Lœffl., Queria, Linn., Spergula, Linn., Spergularia, Pers., Sphærocoma, T. Anders., et Stipulicida, Rich., omnes ad **Caryophylleas** reddimus, supra i. 152 ad 154.

Winterlia, Spreng. est *Ammanniæ* species, inter **Lythraceas**, supra i. 776.

Lastarriæa, Remy, inter **Polygonaceas** invenitur.

Guilleminea, H. B. et K. et Lithophila, Swartz, inter **Amarantaceas** quærendæ.

Tribus I. Pollichieæ.

1. **Illecebrum,** *Linn. Gen. n.* 290 *pro parte.*—Flores hermaphroditi v. unisexuales, basi bracteis scariosis involucrati. Perianthium suberosum, 5-partitum, album; segmenta oblonga, crassa, a latere compressa, dorso subacuta, facie excavata, valvata, apice conico in aristam producto, demum conniventia indurata et utriculum includentia. Stamina 5,

minima, basi segmentorum inserta, staminodiis totidem minutis setaceis alternantia, filamentis brevibus setaceis ; anthera didyma. Ovarium minimum, ovoideum ; stylus brevissimus, stigmate capitellato v. 2-lobo ; ovulum basilare, erectum, anatropum, funiculo brevi. Utriculus membranaceus, basin versus in lacinias 5–10 dehiscens. Semen erectum, oblongum, subcompressum, testa crustacea ; embryo dorsalis, albumini farinaceo applicitus, anguste clavatus, leviter incurvus, radicula infera.—Herba annua, pusilla, tenuis, glaberrima, diffusa, multicaulis. Folia opposita et pseudo-verticillata, sessilia, ovata oblonga v. rotundata, integerrima ; stipulæ minutæ, scariosæ. Flores minuti, nivei, ad axillas omnes conferti v. pseudo-verticillati, brevissime pedicellati, pedicellis basi scarioso-bracteatis.

Species 1, Europæ occidentalis et Africæ borealis incola. *DC. Prod.* iii. 369. *Nees Gen. Fl. Germ. Gærtn. f. Fruct.* iii. *t.* 184. *Fl. Dan. t.* 335.

2. **Pentacæna,** *Bartl. in Reliq. Hænk.* ii. 5, *t.* 49.—Flores scarioso-bracteati. Perianthii coriacei demum indurati tubus brevis ; segmenta 5, oblonga, concava, valvata, omnia margine fimbriata, dorso in spinam elongatam validam rigidam erectam v. patentem producta, v. 2 interiora minora brevius armata v. mutica, demum conniventia et utriculum includentia. Stamina 3–5, minuta, basi segmentorum inserta, filamentis brevissimis basi dilatatis ; antheræ didymæ ; staminodia minuta, ovata v. oblonga, integra v. 2-dentata. Ovarium basi contractum, late ovoideum ; stylus brevissimus, stigmatibus 2 punctiformibus. Utriculus oblongus v. globosus, membranaceus, demum longitudinaliter ruptus. Semen ellipsoideum obovoideum v. globosum, erectum, hilo prope basin laterali, testa subcrustacea v. coriacea pallida lævi, albumine farinaceo sat copioso ; embryo dorsalis, clavatus, incurvus, cotyledonibus brevibus obtusis, radicula infera.—Herbæ parvulæ, cæspitosæ, ramosissimæ, ramulis foliosis tomentosis. Folia alterna, conferta, sæpe squarrosa, subulato-setacea, mucronata ; stipulæ triangulares, magnæ, scarioso-argenteæ, integerrimæ v. fimbriatæ, longe acuminatæ. Flores juxta totam ramulorum longitudinem conferti, axillares, sessiles, inconspicui.

Species 2 v. 3, Americæ occidentalis ab Oregon usque ad Chili incolæ. *DC. Prod.* iii. 372 (*Paronychiæ* sect. *Acanthonychia*), *Mem. Paronych. t.* 4. *Walp. Rep.* 1, 261, *Ann.* i. 80. *St. Hil. Fl. Bras.* ii. *t.* 113 (*Paronychia*). Acanthonychia, *Rohrb. in Mart. Fl. Bras.* xiv. ii. 249. *t.* 56.

Cardionema, *DC. Prod.* iii. 372, *Mem. Paronych. t.* 1, est *Pentacænæ* species, staminodiis pro filamentis in icone *Mociniano* depictis.

3. **Dysphania,** *R. Br. Prod.* 411.—Flores minimi, axillares, dense fasciculati, ebracteati et ebracteolati, exteriores cujusve fasciculi sæpius hermaphroditi, cæteri ♀. Perianthii foliola 2–3, stipitata, concava, fructifera accrescentia dorso superne in gibbum rotundatum producta, alba, cellulosa, enervia, utriculum includentia. Stamina 1–3, basi perianthii inserta, filamentis compressis ; antheræ late oblongæ, exsertæ. Discus 0. Ovarium obovoideum ; styli 1–2, capillares, breviusculi, stigmatibus simplicibus. Utriculus late obovoideus v. ellipsoideus, rectus v. subobliquus, hyalinus, pericarpio semini arcte adhærente. Semen utriculo conforme, testa brunnea lævi coriacea albumini carnoso arcte adhærente ; embryo dorsalis, leviter curvus, cotyledonibus linearibus, radicula cylindracea infera.—Herbæ pusillæ, prostratæ v. suberectæ, glaberrimæ, ramosæ. Folia parva, alterna, obovata v. oblonga, petiolata v. sessilia, integerrima. Florum fasciculi in capitula axillaria v. in spicas terminales densissime aggregati, sessiles v. perianthiis in stipitem brevissimum angustatis, demum albi. Semen perianthio multo brevius, brunneum.

Species 3, Australiæ incolæ. *Benth. Fl. Austral.* v. 164.

Genus valde anomalum, perianthii foliolis crasse spongiosis valvatis albis, semine, et imprimis embryone, a *Chenopodiaceis* longe recedens et *Illecebrum* miro modo in mentem revocans, a cæteris *Illecebraceis* differt insigniter foliis alternis exstipulatis, et staminibus hypogynis.

Testa seminis coriacea magis quam crustacea et embryo certe omnino dorsalis et erectus etsi leviter curvus, et nullo modo periphericus. Stylos 2 vidimus in specie Brunoniana, sed rariter.

4. **Pollichia,** *Soland. in Ait. Hort. Kew.* i. 5. (Neckeria, *Gmel. Syst. Nat.* ii. 16,

Meerburgia, *Mœnch, Meth. Suppl.* 116.)—Flores bracteis scariosis involucrati. Perianthium herbaceum, urceolatum, 5–6-lobum, interdum post anthesin baccatum, tubi ore disco incrassato lobato clauso; lobi breves, obtusi, erecti, marginibus hyalinis. Stamina 1–2, disco inserta, filamentis brevissimis subulatis; antheræ oblongæ; staminodia 0. v. minima. Ovarium ovoideum, in stylum brevem filiformem attenuatum, stigmatibus 2 minutis; ovula 2, basilaria, semi-anatropa, funiculis brevibus. Utriculus globosus v. ovoideo-oblongus, perianthio interdum baccato æquilongus et eo inclusus, membranaceus, 1–2-spermus. Semina oblonga v. ovoidea, testa hyalina, pericarpio et albumini dense farinaceo adhærente. Embryo dorsalis, leviter incurvus, cotyledonibus oblongis planiusculis, radicula accumbente brevi infera.—Fruticulus diffusus, dichotome ramosus, pubescens, ramulis strictis teretibus. Folia opposita et pseudo-verticillata, sessilia, lanceolata, acuminata, integerrima, plana, enervia; stipulæ scariosæ, liberæ. Flores minuti, in cymas subsessiles axillares densifloras interdum post anthesin comosas congesti; bracteis bracteolisque scariosis albis.

Species 1, Africæ tropicæ et australis incola. *DC. Prodr.* iii. 377. *Gaertn. f. Fruct.* iii. *t.* 213. *Smith, Spicileg. t.* 1.

Duæ formæ ut nobis videtur occurrunt, altera perianthio bracteisque post anthesin immutatis, utriculo ovoideo; altera perianthio bracteisque demum fere baccatis, utriculo globoso.

5. **Achyronychia**, *Torr. et Gr. in Proc. Amer. Acad.* vii. 330.—Flores bracteis stipuliformibus involucrati. Perianthii tubus turbinatus, coriaceus, 10-nervis, demum cylindraceus v. obconicus; limbi lobi 5, rotundati, stellato-patentes, argenteo-scariosi, medio v. basi tantum coriacei. Stamina fauci perianthii inserta, nunc cum staminodiis setiformibus conjunctis ad 15, quorum unum solum antheriferum anthera didyma, cætera ananthera, nunc 5, filamentis brevissimis, antheris lineari-oblongis, cum staminodiis brevibus triangularibus alternantia. Ovarium turbinatum v. ellipsoideum; stylus brevis v. elongatus, apice 2-fidus; ovula 2-4, erecta, basilaria, anatropa, funiculis brevibus. Utriculus membranaceus, pyriformis v. ellipsoideus, 1-spermus. Semen ellipsoideo-pyriforme, erectum, testa tenui albumini farinaceo adhærente, chalaza infra medium laterali oblonga; embryo dorsalis, clavatus, leviter incurvus, cotyledonibus brevibus obtusis, radicula infera.—Herbæ parvulæ, depressæ, annuæ, a basi ramosæ, glabræ v. tomentosæ. Folia parva, opposita, integerrima, crassiuscula, enervia; stipulæ scariosæ. Flores axillares, cymoso-congesti, minuti.

Species 2, altera, *A. Cooperi,* Gray, l. c., Wats. Bot. Calif. i. 73, Novo-Mexici et Californiæ incola, foliorum paribus inæqualibus, perianthii lobis basi tantum coriaceis, disco 0, staminodiis filamentisve ad 15, uno solo antherifero, ovario turbinato 2-ovulato, stylo brevi; altera, *A. Palmeri,* Hook. f., Mexici centralis incola (Herb. Parry et Palmer, No. 53), foliorum paribus inæqualibus, perianthii lobis medio late coriaceis, fauce disco annulari 5-lobo instructa, staminibus 5 filamentis brevissimis, antheris lineari-oblongis, staminodiis 5 latis, ovario stipitato elongato, stylo elongato, ovulis 2–4.

Tribus II. Paronychieæ.

6. **Paronychia**, *Juss. in Mem. Mus. Par.* ii. 389.—Flores bracteis stipuliformibus scariosis involucrati. Perianthium herbaceum, post anthesin sæpius coriaceum, 5-partitum; segmenta oblonga v. lineari-oblonga, æqualia, apicibus cucullatis dorso mucronatis aristatis v. cornutis, marginibus sæpius membranaceis. Stamina 5, rarius 3–4 v. plura, perigyna, filamentis subulatis v. filiformibus; antheræ didymæ; staminodia 5, setiformia minima v. 0. Ovarium obovoideum v. subglobosum, in stylum brevem v. elongatum apice 2-fidum attenuatum, lobis intus stigmatosis: ovulum basilare, amphitropum, funiculo brevi v. longiusculo, erectum v. subpendulum. Utriculus membranaceus, perianthio inclusus, a basi sæpe longitudinaliter ruptus. Semen oblongum globosum v. ovoideum, resupinatum v. oblique ascendens, testa membranacea lævi; embryo annularis, albumen farinaceum cingens, radicula ascendente v. supera rarius laterali v. subbasilari.—Herbæ annuæ v. perennes, erectæ v. diffusæ, sæpius dichotome

ramosæ. Folia opposita, oblonga lanceolata v. subulata; plana v. rarissime marginibus recurvis, integerrima; stipulæ sæpius amplæ, scariosæ, nitidæ. Flores minuti, axillares v. rarius in cymas terminales dispositi, sæpius dense fasciculati et inter stipulas reconditi.

Species ad 40, regionis Mediterraneæ, Africæ borealis, Arabiæ Americæque temperatæ et calidæ incolæ; una Angolensis. *DC. Prod.* iii. 370. *Walp. Rep.* i. 261 *excl. sp. n.* 3 *et* 4, v. 74. *Ann.* i. 81, ii. 89. *Boiss. Fl. Or.* i. 742. *Nees Gen. Fl. Germ. Gærtn. Fruct. t.* 128. *Rohrb. in Mart. Fl. Bras.* xiv. ii. 251, *t.* 57. *Boiss. Voy. Esp. t.* 62. *Sibth. Fl. Græc. t.* 245. *Webb Phyt. Canar. t.* 20. *Cav. Ic. t.* 137 (*Herniaria*). *Del. Fl. Egypt. t.* 18. *Hook. Fl. Bor. Am. t.* 75.

PLOTTZIA, *Arn. in Lindl. Introd. Nat. Syst. ed.* 2, 441, *est Paronychia dichotoma*, Nutt. ex Torr. et Gr. Fl. N. Am. i. 171.

7. **Herniaria**, *Linn. Gen. n.* 308.—Flores hermaphroditi v. unisexuales, bracteis parvis v. minutis. Perianthium herbaceum, alte 4–5-fidum, tubo brevi turbinato; segmenta æqualia v. inæqualia, obtusa, mutica. Stamina 3–5, perigyna, æqualia v. inæqualia, filamentis setaceis; antheræ breves; staminodia 4–6, setacea minuta v. 0. Ovarium ovoideum; stylus brevissimus, 2-fidus v. 2-partitus, lobis intus stigmatosis; ovulum basilare, erectum, funiculo brevi. Utriculus perianthio inclusus, ovoideus, membranaceus. Semen erectum, lenticulare, funiculo basilari, testa crustacea nitida; embryo annularis, albumen farinaceum cingens, cotyledonibus linearibus, radicula elongata descendente.—Herbæ annuæ v. basi perennante, humifusæ, ramosissimæ, glabræ v. hirsutæ. Folia opposita, alterna v. fasciculata, parva, subsessilia, integerrima; stipulæ parvæ, scariosæ, integræ v. ciliatæ. Flores minuti, virides, in axillis conferti, subsessiles v. pedicellati, bracteis bracteolisque parvis.

Species 8–10, Europæ mediæ et australis, Asiæ occidentalis usque ad Indiam boreali-occidentalem et Africæ borealis incolæ, quarum una etiam Austro-africana. *DC. Prod.* iii. 367. *Mem. Paronych. t.* 3. *Walp. Rep.* i. 260, v. 74, *Ann.* i. 79. *Boiss. Fl. Or.* i. 739, *Voy. Esp. Bot. t.* 62. *Gærtn. f. Fruct.* iii. *t.* 213. *Nees Gen. Fl. Germ. Sibth. Fl. Gr. t.* 252.

Genus habitu potius quam characteribus a *Paronychia* distinguendum. *H. polygonoidem* Cav. (*Paronychiam suffruticosam*, Lam.) et *H. paniculatam* Webb, ad *Paronychiam* referimus ob habitum, et perianthii segmenta dorso sub apice cornuta.

8. **Siphonychia**, *Torr. et Gr. Fl. N. Am.* i. 173.—Flores bracteis stipuliformibus involucrati. Perianthium herbaceum, campanulatum, ad medium 5-lobum; lobi petaloidei, plani v. apicibus incurvis, mutici. Stamina 5, alte perigyna, cum staminodiis totidem subulatis alternantia, filamentis subulatis; antheræ didymæ. Ovarium oblongo-ovoideum, in stylum filiformem elongatum attenuatum, stigmatibus 2 parvis; ovulum a funiculo basilari suspensum, campylotropum. Utriculus ovoideus, tubo perianthii inclusus, membranaceus. Semen lenticulare, ab apice funiculi pendulum, resupinatum, testa lævi; embryo annularis, albumen farinaceum cingens, radicula supera.—Herba annua, humifusa, dichotome ramosa, puberula, ramulis diffusis patentibus. Folia opposita, breviter petiolata, oblanceolata, plana, integerrima; stipulæ parvæ, subulatæ, scariosæ. Flores minuti, in axillis ramulorum solitarii v. in cymulas paucifloras terminales dispositi, sessiles.

Species 1, Americæ boreali-orientalis incola. *A. Gray, Gen. Ill. t.* 103.

9. **Anychia**, *Rich. in Mich. Fl. Bor. Am.* i. 112, *pro parte*.—Flores bracteis parvis scariosis involucrati. Perianthium herbaceum, post anthesin vix induratum, 5-partitum; segmenta oblonga, planiuscula, apicibus subcucullatis dorso muticis v. subcorniculatis. Stamina 2–5, basi segmentorum inserta, filamentis filiformibus; antheræ didymæ; staminodia 0. Ovarium subglobosum, compressum; styli 2, breves, recurvi, intus stigmatosi; ovulum basilare, amphitropum, funiculo brevi. Utriculus membranaceus, subglobosus, compressus, perianthium excedens. Semen suberectum, reniformi-rotundatum, compressum, testa lævi brunnea; embryo annularis, albumen farinaceum cingens, cotyledonibus linearibus decurvis, radicula elongata hilum subbasilare spectante.—Herbæ annuæ,

erectæ v. diffusæ, glaberrimæ, dichotome ramosæ, ramis capillaribus. Folia opposita, brevissime petiolata, obovata oblonga v. lanceolata, subacuta, integerrima, plana; stipulæ minutæ, scariosæ. Flores minuti, axillares, solitarii fasciculati v. cymosi, brevissime pedicellati.

Species 2, Americæ boreali-orientalis incolæ. *DC. Prod.* iii. 369. *Torr. et Gr. Fl. N. Amer.* i. 172. *A. Gray, Gen. Ill. t.* 104. *Gærtn. Fruct. t.* 128 (*Queria*). *Orteg. dec. t.* 15 *f.* 2 (*Queria*).

10. **Corrigiola,** *Linn. Gen. n.* 378.—Flores pedicellati, minute bracteati et 2-bracteolati. Perianthium herbaceum, 5-partitum; segmenta oblonga, obtusa, mutica, marginibus membranaceis. Stamina 5, perigyna, filamentis filiformibus; antheræ oblongæ; staminodia 5, squamæformia, staminibus alterna. Ovarium ovoideum; stylus brevissimus, 3-partitus, segmentis teretiusculis recurvis; ovulum funiculo basilari suspensum, amphitropum. Fructus crustaceus, globoso- v. ovoideo-trigonus, perianthio inclusus. Semen ovoideo-globosum, ab apice funiculi suspensum, testa membranacea; embryo annularis, albumen copiosum cingens, cotyledonibus angustis, radicula elongata supera. —Herbæ annuæ v. perennes, rarius basi frutescentes, glabræ, diffuse ramosæ ramulis gracilibus, v. ramis simpliciusculis e caudice crasso apice dense squamato undique patentibus. Folia opposita et alterna, sessilia v. breviter petiolata, oblonga lanceolata spathulata v. linearia, integerrima, plana, interdum carnosula v. glauca; stipulæ variæ, scariosæ. Flores minuti, in cymas glomerulosve axillares et terminales dispositi, breviter pedicellati, pedicellis basi scarioso-bracteolatis.

Species 4–6, Europæ mediæ, regionis Mediterraneæ, Africæ borealis et australis, et Americæ australis temperatæ incolæ. *DC. Prod.* iii. 366. *Walp. Rep.* i. 260; *Ann.* ii. 89. *Gærtn. Fruct. t.* 75. *Lam. Illustr. t.* 213. *Sibth. Fl. Gr. t.* 292. *St. Hil. in Mém. Mus. Par.* ii. *t.* 4, *f.* 22. *Schkuhr Handb. t.* 85. *Reichb. Iconogr. Eur. t.* 161.

11. **Gymnocarpos,** *Forsk. Fl. Æg. Arab.* 65; *Ic. t.* 10.—Flores bracteis scariosis non involucrati. Perianthium herbaceum, demum induratum, 5-lobum, tubo brevi, fauce disco tenui annulari instructa; lobi patentes, lineari-oblongi, coriacei, dorso infra apicem mucronati. Stamina 5, alte perigyna, cum staminodiis totidem subulatis alternantia, filamentis subulatis; antheræ late oblongæ. Ovarium ovoideum, tubo calycis cohærens, in stylum elongatum attenuatum, stigmatibus 3 brevibus; ovulum campylotropum, funiculo basilari longiusculo suspensum. Utriculus membranaceus, demum basi ruptus, tubo calycis inclusus. Semen ab apice funiculi suspensum, inversum, reniformi-oblongum, compressum, testa lævi membranacea; embryo hippocrepicus, albumen farinaceum cingens, cotyledonibus angustis planiusculis, radicula brevi supera subacuta.—Fruticulus rigidus, salsoloideus, suberectus v. diffusus, caule crasso torto, ramulis intricatis nodosis albidis. Folia opposita v. in axillis fasciculata, sessilia, lineari-spathulata, mucronulata, integerrima, crassa; stipulæ breves, triangulares, hyalinæ. Flores parvi, in cymas breves dichotomas terminales congesti, subsessiles, pedicellis clavatis compressis bracteatis.

Species 1, Africæ borealis et Mediterraneæ et Orientis ab ins. Canariensibus usque ad Scind incola. *DC. Prod.* iii. 369. *Webb, Phytogr. Canar.* i. 165. *Viv. Fl. Lib.* 13, *t.* 10, *f.* 1.

12. **Sclerocephalus,** *Boiss. Diagn.* iii. 12; *Fl. Or.* i. 748.—Flores capitati, capitulis foliis floralibus demum spinescentibus bracteisque membranaceis involucrati. Perianthium herbaceum, 5-fidum, tubo cupulari foliis floralibus bracteisque concreto, fauce disco tenui instructa; lobi herbacei, lanceolati, sub apice spinosi. Stamina 5, ore perianthii inserta, filamentis brevissimis; antheræ didymæ; staminodia 0. Ovarium ovoideum, tubo perianthii longe adnatum, tenuiter membranaceum, apice liberum et in stylum capillarem attenuatum, stigmatibus 2 parvis recurvis; ovulum ab apice funiculi basilaris plani elongati pendulum, amphitropum. Utriculus tenuissime membranaceus, tubo perianthii indurati adnatus, apice libero irregulariter lacero. Semen reniformi-rotundatum, ab apice funiculi pendulum, subcompressum, testa membranacea; embryo annularis, albumen

farinaceum cingens, cotyledonibus compressis, radicula supera.—*Herba annua, humilis, rigida, diffuse dichotome ramosa, ramulis crassiusculis nodosis. Folia opposita, carnosula, linearia, integerrima; stipulæ scariosæ. Capitula sphærica, 4–7-flora, fructifera erinacea, cum pedunculo brevissimo articulato decidua.*

Species 1, Africæ borealis et Asiæ occidentalis ab ins. Capitis Viridis usque ad Persiam incola.

TRIBUS III. PTERANTHEÆ.

13. **Pteranthus,** *Forsk. Fl. Æg. Arab.* 36. (Louichea, *L'Hér. Stirp. Nov.* i. 135, *t.* 65.) —Flores ad apicem pedunculi foliacei cavi obcordati 3-ni, medius perfectus, laterales sæpius imperfecti, foliis floralibus pinnatipartitis involucrati. Perianthium herbaceum, compressum, 4-partitum; segmenta erecta, lineari-oblonga, rigida, 2 exterioribus dorso carinatis et superne ala spinulosa instruetis, interioribus minoribus carinatis spinoso-mucronatis. Stamina 4, subhypogyna, filamentis filiformibus basi in cupulam connatis; antheræ oblongæ; staminodia 0. Ovarium obovoideum, in stylum filiformem attenuatum, stigmatibus 2 brevibus; ovulum erectum, semi-anatropum, funiculo brevi. Utriculus perianthio inclusus, obovoideus, subcompressus, tenuissime membranaceus. Semen obovoideum v. clavatum, erectum, testa membranacea, chalaza magna laterali; embryo magnus, lateralis, albumini parco applicitus, cotyledonibus oblongis plano-convexis, radicula infera.—*Herba humilis, annua, carnosa, glabra, di-trichotome ramosa, ramis rigidis. Folia opposita et pseudo-verticillata, linearia, obtusiuscula, carnosula; stipulæ minutæ. Flores virides, bracteolis scariosis.*

Species 1, Africæ borealis, ins. Cypri, Arabiæ, Syriæ et Persiæ australis, incola. *Boiss. Fl. Or.* i. 752. *Gærtn. f. Fruct.* iii. *t.* 213. *Lam. Illustr. t.* 764. *Sibth. Fl. Græc. t.* 153 (*Camphorosma*).

14. **Cometes,** *Linn. Mant.* 4, *n.* 1243. (Saltia, *R. Br. in Salt. Abyss.* 376. Ceratonychia, *Edgw. in Journ. As. Soc. Beng.* xvi. 1215.)—Flores ad apicem pedunculi communis 3-ni, medius perfectus, laterales imperfecti, foliis floralibus plumoso-multipartitis demum longissimis et squarroso-divaricatis involucrati. Perianthium herbaceum, 5-partitum; segmenta erecta, lineari-oblonga, dorso sub apice aristata, marginibus membranaceis. Stamina 5, subhypogyna, staminodiis totidem petaloideis alternantia, filamentis subulatis basi in cupulam connatis; antheræ didymæ. Ovarium ovoideo-lanceolatum, in stylum filiformem curvum attenuatum, stigmatibus 3 minutis; ovulum erectum, semi-anatropum, funiculo brevi. Utriculus perianthio inclusus, obovoideus, tenuiter membranaceus. Semen obovoideum, erectum, testa membranacea, chalaza magna laterali; embryo magnus, dorsalis, albumini parco applicitus, cotyledonibus oblongis plano-convexis, radicula infera.—*Herbæ humiles, annuæ, pubescentes v. scabridæ, multicaules, dichotome ramosæ. Folia opposita v. pseudo-verticillata, sessilia v. in petiolum angustata, elliptica lanceolata v. linearia, aristato-acuminata, integerrima; stipulæ minutæ, setaceæ. Flores sessiles, cum pedunculo immutato terminali decidui, involucris setosis ferrugineis; pedunculi solitarii v. cymoso-paniculati, fructiferi cum bracteis in capitula coadunati. Semina 2 v. 3, in fasciculo germinantia.*

Species 2, Africæ boreali-orientalis, Orientis et Indiæ maxime occidentalis incolæ. *Boiss. Fl. Or.* i. 752. *Burm. Fl. Ind. t.* 15. *Wall. Pl. As. Rar.* i. *t.* 17, 18. *Wight Ic. t.* 1785.

15. **Dicheranthus,** *Webb in Ann. Sc. Nat. ser.* 3, v. 27, *t.* 2.—Flores ad apicem pedunculi communis 3-ni, medius perfectus, laterales ♂ v. deformati, bracteis rigidis mucronatis stipati. Perianthium herbaceum, 5-partitum; segmenta lineari-oblonga, late scariosa, erecta, apicibus aristato-acuminatis patentibus; florum lateralium segmenta varia, sæpius inæqualia, obtusa aristata v. in appendicem orbicularem producta. Stamina 2–3, hypogyna, filamentis filiformi-subulatis; antheræ lineari-oblongæ; staminodia 0. Ovarium ellipsoideum, 3-gonum, in stylum strictum filiformem attenuatum, stigmatibus 3 minutis; ovulum erectum, semi-anatropum, funiculo basilari. Utriculus

oblongo-cylindraceus, tenuissime membranaceus. Semen clavatum, testa hyalina pericarpio et albumini parce adhærente, chalaza supra basin parva laterali; embryo magnus, fere rectus, dorsalis, clavatus, cotyledonibus oblongis plano-concavis, radicula infera conica.—Fruticulus 3-4-pedalis, glaberrimus, ramulis gracilibus teretibus pendulis. Folia opposita, elongata, cylindracea, carnosula, obtusa v. acuta, ima basi scarioso-dilatata et per paria connata; stipulæ minutæ, scariosæ, v. 0. Flores parvuli, in cymas dichotomas terminales fastigiatim paniculatas dispositi, pedunculis pedicellisque gracilibus.

Species 1, Canariensis, *Walp. Ann.* i. 81.

TRIBUS IV. SCLERANTHEÆ.

16. **Scleranthus,** *Linn. Gen. n.* 562.—Flores ebracteati. Perianthium herbaceum, infundibulare urceolatum v. turbinatum, 4-5-dentatum v. -lobum, demum induratum; lobi erecti, acuti v. obtusi. Stamina 1, 2, 5, v. 10, fauci perianthii inserta, filamentis subulatis; antheræ didymæ; staminodia 0. Ovarium ovoideum; styli 2, distincti, filiformes, erecti, stigmatibus capitellatis v. acutis; ovulum ab apice funiculi basilaris filiformis pendulum, amphitropum. Utriculus membranaceus, perianthii tubo indurato inclusus. Semen lenticulare, ab apice funiculi suspensum, inversum, testa coriacea lævi; embryo annularis, albumen farinaceum cingens, cotyledonibus linearibus, radicula elongata supera.—Herbæ humiles, rigidæ, annuæ v. perennes, dichotome ramosissimæ, sæpius dense cæspitosæ, glabræ v. puberulæ. Folia opposita, basi connata, subulata, rigida, pungentia, marginibus lævibus v. serrulatis; stipulæ 0. Flores parvuli, virides, in cymas glomerulosve axillares et terminales sessiles v. pedunculatos dispositi, v. ad apicem pedunculi rigidi 1-3-ni involucrati.

Species ad 10, Europæ, Africæ totæ, Asiæ occidentalis et Australasiæ incolæ. *DC. Prod.* iii. 378. *Walp. Rep.* i. 266. *Boiss. Fl. Or.* i. 749. *Benth. Fl. Austral.* v. 258. *Gærtn. Fruct.* ii. *t.* 126. *Lam. Illustr. t.* 374. *Nees Gen. Fl. Germ.* (*male quoad ovarium*). *A. Gray, Gen. Ill. t.* 102.

MNIARUM, *Forst. Char. Gen.* i. *t.* 1 (DITOCA, *Banks et Sol. in Gærtn. Fruct.* ii. 196, *t.* 126) a *Scleranthis* typicis non differt nisi floribus 1-2-andris ad apicem pedunculi demum elongati apice 4-bracteati sessilibus. *DC. Prod.* iii. 378. *Labill. Pl. Nov. Holl. t.* 2. *Hook. Ic. Pl. t.* 283. *F. Muell. Pl. Vict. t.* 12.

17. **Habrosia,** *Fenzl in Bot. Zeit.* 1843, 322.—Perianthium herbaceum, fere 5-partitum, tubo obconico demum gibbis 5 sinubus oppositis instructum; segmenta erecto-patentia, late scariosa, oblonga, in aristam elongatam abrupte angustata. Stamina 5, minima, hypogyna, inæquilonga, filamentis brevibus v. brevissimis subulatis, antheræ didymæ; staminodia minuta, hyalina, squamæformia. Ovarium minutum, compressum, orbiculare; styli 2, breves, suberecti, intus stigmatosi; ovula 2, basilaria, semi-anatropa, funiculis subelongatis. Utriculus membranaceus, globosus, compressus, asperulus. Semen lenticulare, testa membranacea pericarpio adhærente, hilo laterali; embryo annularis, albumen farinaceum cingens, cotyledonibus linearibus, radicula dorsali.—Herba annua, tenuissima, glaberrima, dichotome ramosa. Folia opposita, setacea, obtusa, basibus dilatatis connata; stipulæ 0. Flores parvuli, in cymas multifloras fastigiatim dispositi, virides, bracteati, pedicellati.

Species 1, Mesopotamica et Syriaca. *Boiss. Fl. Or.* i. 751. Genus anomalum, habitu *Scleranthi* v. *Arenariæ*, sed 2-ovulatum.

Ordo CXXX. **AMARANTACEÆ.**

Endl. Gen. 300. Lindl. Veg. Kingd. 510. Mart. in Nov. Act. Acad. Nat. Cur. xiii. 209.

Flores hermaphroditi, rarius polygamo-monoici v. dioici, glomerati capitati v. spicati, sæpissime scarioso-bracteati et 2-bracteolati. *Perianthium* siccum, scariosum hyalinum v. chartaceum, rarissime herbaceum, 4–5-partitum; segmenta libera v. basi connata, sæpissime erecta, æqualia v. 2–3 interiora minora, glabra pubescentia v. (interdum longissime) sericea v. villosa, imbricata, duobus exterioribus. *Stamina* 1–5, hypogyna, v. basi segmentorum perianthii inserta, semper iisdem opposita, inclusa v. rarius exserta; filamenta basi v. altius in cupulam v. tubum brevem v. elongatum membranaceum interdum intus antheriferum connata, dein subulata et compressa v. rarius linearia; sinubus acutis v. obtusis nudis v. laciniis (staminodiis) triangularibus quadratis v. oblongis nudis v. fimbriato-laceris interpositis; rarissime filamenta basi libera. *Antheræ* medio dorso affixæ, breves et didymæ v. elongatæ, 1–2-loculares, rimis introrsum dehiscentibus; pollen minutissimum, globosum. *Ovarium* ovoideum ellipsoideum v. globosum, sæpe compressum, rarissime obliquum v. obcordatum, semper liberum, interdum substipitatum, membranaceum rarissime coriaceum v. carnosulum, 1-loculare, vertice non raro indurato. *Stylus* elongatus brevis v. 0, simplex stigmate capitellato v. simplici, v. 2–3-fidus stigmatibus acutis, v. stigmata 2–3 intus papillosa, recurva v. erecta. *Ovula* solitaria v. plura, amphitropa, erecta v. ab apice funiculi elongati suspensa, funiculis liberis distinctis ima basi ovarii insertis, brevibus v. elongatis. *Fructus*, utriculus membranaceus rarius bacca carnosa, evalvis et irregulariter ruptus v. circumscissus. *Semina* inversa v. erecta, lenticularia, oblonga v. reniformi-orbiculata, compressa v. rarius turgida, umbilico nudo v. rarius arillato; testa crustacea v. coriacea, non raro atra v. brunnea, sæpius nitida, lævis punctulata v. rarius granulata; albumen farinaceum, copiosum, endopleuræ membranaceæ sæpe adhærens. *Embryo* annularis, periphericus, gracilis, cotyledonibus incumbentibus angustis, radicula elongata supera v. infera, rarius embryo periphericus, cotyledonibus latis tenuibus concavis exteriore interiorem angustiorem subinvolvente, radicula erecta.

Herbæ v. suffrutices, rarissime arbusculæ, erecti v. rarius ramulis sarmentosis scandentes, rarissime volubiles? Folia opposita et alterna, membranacea, carnosula v. coriacea, simplicia, integra sæpissimeque integerrima. Inflorescentia varia, spicata capitata v. rarius racemosa, primaria nempe centripeta, ultima ad normam cymosa sed sæpius ad flores 3 v. unicum reducta. Bracteæ et bracteolæ sæpissime hyalinæ, nunquam foliaceæ. Flores parvi v. inter minores, interdum minuti, albi virides v. flavi, rarissime læte colorati, interdum intra bracteolas 2–5-ni, 1 v. 2 fertiles, ceteri steriles perianthii segmentis et bracteolis in aristas apice rectas uncinatas v. glochidiatas glabras v. longissime sericeo-barbatas mutatis. Utriculus fere semper inter perianthii segmenta erecta imbricata inclusus v. involutus.

Species ad 480, regionibus frigidis exceptis in utroque orbe late dispersæ.

Ordo *Chenopodiaceis* et *Illecebraceis* proximus: a priore habitu, floribus constanter bracteatis et 2-bracteolatis, perianthio sæpe scarioso, et filamentis basi in cupulam v. in tubum membranaceum coalitis distinctus. *Illecebraceæ* distinguuntur foliis sæpissime stipulatis, perianthio magis coriaceo, staminibus perigynis et embryone sæpius dorsali. Tribus *Polycnemearum*, quæ fere æquo jure *Chenopodiaceas* et *Amarantaceas* refert, a nobis inter priores collocetur ob habitum et perianthia coriacea.

FORMÆ ABNORMES.

Perianthium 0 in floribus ♀ *Acnidæ* et *Acanthochitonis*.
Stamina perigyna in *Guilleminea*, 10–20 in *Achatocarpo*.
Fructus nuceus in *Digera*.

CONSPECTUS GENERUM.

Tribus I. Celosieæ. Antheræ 2-loculares. Ovarium 2-∞-ovulatum. Folia alterna.

* *Fructus baccatus, perianthio stellatim patente stipatus.*

1. Deeringia. Flores racemosi.—*Asia et Afric. trop., Australia.*
2. Melanocarpum. Flores paniculati.—*Amer. trop.*

** *Utriculus membranaceus, perianthio erecto stipatus v. inclusus.*

3. Henonia. Filamenta basi connata. Utriculus demum longitudinaliter fissus.—*Madagascar.*
4. Celosia. Filamenta basi connata. Utriculus circumscissus.—*Orbis uterque intertrop.*
5. Hermbstædtia. Filamenta alte connata. Utriculus circumscissus.—*Afric. trop. et austr.*

Tribus II. Amaranteæ. Antheræ 2-loculares. Ovarium 1-ovulatum.

Subtribus 1. Euamaranteæ. *Ovulum erectum, funiculo brevi. Radicula infera. Folia alterna.*

* *Flores hermaphroditi v. dioici. Perianthii segmenta sub fructu stellatim patentia.*

6. Rodetia. Flores 2-4-bracteolati. Frutex.—*Himalaya.*
7. Bosia. Flores 2-bracteolati, *dioici.* Frutex.—*Ins. Canar.*

** *Flores hermaphroditi. Perianthii segmenta in fructu erecta.*

8. Achatocarpus. Flores racemosi. *Stamina* 10–20. Stigmata 2. Bacca globosa.—*Amer. trop.*
9. Charpentiera. Flores paniculatim spicati. Stigmata 2. Utriculus coriaceus, compressus, indehiscens. Arillus 0. Arbuscula.—*Ins. Sandvicens.*
10. Banalia. Flores paniculatim spicati. Stigmata 2. Utriculus membranaceus, indehiscens. Arillus 0. Herba scandens?—*Penins. Ind. or.*
11. Chamissoa. Flores paniculatim spicati. Stigmata 2. Utriculus circumscissus. Semen arillatum. Herbæ sæpius scandentes.—*Amer. trop.*
12. Allmania. Flores capitati. Stigma capitatum. Utriculus circumscissus. Semen arillatum. Herbæ.—*As. trop.*
13. Digera. Flores spicati. Stigma 2-fidum. Nux crustacea. Herbæ.—*Asia et Afric. trop.*

*** *Flores unisexuales. Perianthii segmenta in fructu erecta.*

14. Amarantus. Flores sæpissime monoici. Utriculus varius.—*Reg. trop. et calid.*
15. Acnida. Flores dioici, bracteis parvis. Utriculus indehiscens.—*Amer. bor., Ind. occ.*
16. Acanthochiton. Flores dioici, ♀ bracteis amplis cordatis complicatis inclusi. Utriculus circumscissus.—*Texas, Arizona.*

Subtribus 2. Achyrantheæ. *Ovulum ab apice funiculi elongati suspensum. Utriculus indehiscens. Semen inversum, radicula ascendente v. supera.*

* *Flores dioici, ♂ sub quaque bractea solitarii, ♀ basi utrinque flore sterili in appendicem ramosam sericeo-barbatam mutato stipati.*

17. Saltia. Ovarium glabrum. Folia alterna.—*Arabia.*

** *Flores hermaphroditi, 1–3 sub quaque bractea perfecti, aliis deformatis stipati.*

18. Sericocoma. Florum imperfectorum segmenta in spinas simplices v. ramosas longe sericeas mutata. Ovarium lanatum. Folia opposita et alterna.—*Afric. aust.*
19. Centema. Florum imperfectorum segmenta in spinas validas simplices basi incrassatas cum basi florum ☿ concretas mutata. Ovarium glabrum v. puberulum. Folia opposita.—*Afric. trop.*
20. Cyathula. Florum imperfectorum segmenta in aristas apice uncinatas mutata. Laciniæ filamentis interpositæ. Folia opposita.—*Reg. trop.*
21. Pupalia. Florum imperfectorum segmenta in aristulas stipitatas stellatim patentes apice uncinatas mutata. Laciniæ inter filamenta 0. Folia opposita.—*Asia et Afric. trop.*

*** *Flores hermaphroditi sub quaque bractea solitarii, 2-bracteolati.*

† *Laciniæ anantheræ inter filamenta 0,* Trichiniis *paucis exceptis.*

22. Psilotrichum. Perianthii segmenta exteriora grosse 3-costata. Herbæ v. fruticuli foliis oppositis spicis axillaribus densifloris.—*Asia et Afric. trop., Ins. Sandv.*

23. Psilostachys. Perianthii segmenta exteriora grosse 3-costata. Herbæ foliis oppositis. spicis in paniculas amplas terminales capillares laxifloras dispositi.—*Afric. orient.*, *Arabia*, *Ind. or.*

24. Ptilotus. Perianthii segmenta libera, hyalina. Folia alterna.—*Australia.*

25. Trichinium. Perianthii segmenta basi connata. Filamenta 1-3 sæpius ananthera. Folia alterna.—*Australia.*

26. Chionothrix. Perianthii segmenta dura, pilis sericeis ornata. Filamenta late linearia, in tubum elongatum connata. Frutex foliis oppositis, spicis elongatis cernuis.—*Afric. aust.*

27. Nothærua. Perianthii segmenta 4, hyalina. *Stamina* 1–2. Herbæ foliis oppositis.—*Asia et Afric. trop.*

†† *Laciniæ antheræ filamentis interpositæ.*

28. Ærua. Perianthii segmenta hyalina, lanata. Laciniæ filamentis interpositæ breves. Herbæ v. fruticuli lanati, foliis oppositis et alternis.—*Asia*, *Afric.*, *Austral.*

29. Calicorema. Perianthii segmenta dura, pilis sericeis onusta. Filamenta in tubum elongatum connata. Frutex foliis oppositis subcylindraceis.—*Afric. aust.*

30. Stilbanthus. Perianthii segmenta scariosa, nitida, apicibus lanatis. Arbor scandens, foliis oppositis.—*Himal. orient.*

31. Achyranthes. Perianthii post anthesin deflexi segmenta bracteolæque spinescentia. Herbæ v. fruticuli, foliis oppositis, floribus longe spicatis.—*Reg. trop. et subtrop.*

32. Pandiaka. Perianthii post anthesin erecti v. patentis segmenta bracteolæque spinescentia, spinis erectis. Herbæ foliis oppositis, floribus capitatis v. breviter spicatis.—*Afric. trop.*

33. Achyropsis. Perianthii chartacei segmenta obtusa, glabra, nitida. Herbæ v. fruticuli foliis oppositis v. fasciculatis, floribus spicatis.—*Afric. aust.*

34. Nyssanthes. Perianthii rigidi segmenta 4, 2 exteriora v. omnia bracteolæque aciculari-spinescentia, divaricatissima. Herbæ foliis oppositis, floribus paucis axillaribus.—*Australia.*

Tribus III. Gomphreneæ. Antheræ 1-loculares. Ovarium 1-ovulatum, ovulo ab apice funiculi elongati suspensum. Folia sæpius opposita, *Dicrauro* excepto.

Genera inter se difficillime limitibus certis separanda. Characteres fere omnium hinc inde in specie una alterave *Gomphrenæ* ipsius repetiti, et in plerisque, monotypicis exceptis, speciem unam alteramve invenires æquo fere jure ad genus alium referendam.

* *Stamina perigyna. Flores capitati.*

35. Guilleminea. Stamina fauci tubi perianthii inserta.—*Amer. calid.*, *Andes.*

** *Stamina hypogyna. Flores minuti, axillares, congesti, nec capitati.*

36. Cladothrix. Fruticulus stellato-tomentosus, niveus. Stigma capitatum.—*Amer. bor. reg. calid. occid. et interior.*

(Vide quoque 41, Gossypianthum.)

*** *Stamina hypogyna. Flores capitati v. spicati, axillares et terminales, rarius paniculati.*

† *Stigma sæpissime simplex, capitatum v. emarginatum v. rarissime stigmata 2, subulata.*

37. Pfaffia. Perianthium inter bracteolas sessile, pilis onustum. Tubus stamineus 5-fidus, laciniis antheriferis linearibus ciliatis, anantheris interpositis 0. Stigma sessile.—*Amer. trop. et subtrop.*

38. Mogiphanes. Perianthium inter bracteolas breviter stipitatum. Tubi staminei laciniæ antheriferæ 5 subulatæ, anantheris interpositis totidem apice laceris. Stylus manifestus. —*Amer. trop.*

39. Telanthera. Perianthium intra bracteolas sessile, a dorso sæpissime valde compressum. Tubus stamineus brevis v. elongatus, laciniis antheriferis 5 subulatis, anantheris interpositis totidem laceris. Stylus manifestus, stigmate capitato.—*Amer. trop. et subtrop.*, *Afric. trop. occid.*

40. Alternanthera. Flores capitati. Perianthium intra bracteolas sessile, a dorso valde compressum. Tubus stamineus ovario brevior, laciniis antheriferis 1–5 subulatis, anantheris

interpositis 0 v. brevissimis, v. filamenta 1–3 sublibera. Ovarium orbiculare v. obreniforme, valde compressum. Stigma sessile, sæpissime integrum.—*Utriusque orbis reg. calid.*

41. GOSSYPIANTHUS. Flores congesti nec capitati. Perianthium dense lanatum, teres, hyalinum. Tubi staminei laciniæ antheriferæ 5, subulatæ, anantheris interpositis 0. Ovarium ovoideum, stigmate subsessili emarginato.—*Amer. bor. prov. Texas et Nov. Mexico.*

(Vide etiam 45, FRŒLICHIAM, stigmate capitato.)

†† *Stigmata 2, subulata v. filiformia* (Frœlichia *excepta*). *Tubi staminei laciniæ anantheræ nullæ antheriferis interpositæ.*

42. WŒHLERIA. Perianthium nudum, teres, segmentis 4. Stamen 1, filamento dilatato. Stylus 0.—*Cuba.*

43. PHILOXERUS. Perianthium sæpius nudum, compressum, intra bracteolas stipitatum, v. basi elongatum valdeque incrassatum. Tubus stamineus brevis, laciniis antheriferis subulatis. Stylus manifestus.—*Amer. trop. or., Afr. trop. occid., Australia, ins. Loo Choo.*

44. GOMPHRENA. Perianthium sæpissime sericeum v. lanatum, segmentis liberis v. basi connatis. Tubus stamineus elongatus, laciniis antheriferis 5 sæpissime linearibus apice 2-cruribus. Stylus elongatus v. brevis, stigmatibus brevibus v. elongatis.—*Amer. trop. et subtrop, Australia, una sp. Afr. et Asiat.*

45. FRŒLICHIA. Perianthii lanati *tubus 5-fidus, fructifer cristatus v. alatus.* Tubus stamineus elongatus, laciniis antheriferis 5. Stylus elongatus v. 0; stigma capitatum.—*Amer. trop. et subtrop.*

**** *Stamina hypogyna. Flores sæpissime minuti in glomerulos v. spiculas secus ramos sæpissime oppositos v. verticillatos elongatos paniculæ amplæ sparsi, longe lanati v. sericei (rarissime nudiusculi).* (Capitula majuscula pedunculata paniculata in *Hebanthis* paucis.)

46. HEBANTHE. Stigma capitatum, simplex 2-lobum v. 2-crure. Semen subglobosum, cotyledonibus latis concavis. Frutices sæpe scandentes, foliis oppositis.—*Amer. trop.*

47. IRESINE. Stigmata 2, subulata. Semen lenticulare v. reniforme compressum, cotyledonibus angustis.—Herbæ v. frutices erectæ v. scandentes, foliis oppositis.—*Amer. trop. et subtrop.*

48. DICRAURUS. Stigmata 2, sessilia, subulata. Semen subglobosum, cotyledonibus latis concavis. Fruticulus foliis alternis.—*Texas.*

GENERA EXCLUSA V. DUBIA.

ACROGLOCHIN, Schrad., CORISPERMUM, Juss., HABLITZIA, Bieb., HEMICHROA, R. Br., NITROPHILA, S. Wats., et POLYCNEMUM, Linn., infra ad **Chenopodiaceas** referentur.

LACHNOSTACHYS, Hook., est **Verbenacea,** supra, ii. 1139.

BLEPHAROLEPIS, Nees, est *Polpoda*, Presl, inter **Ficoideas,** supra, i. 858.

POLYCHROA, Lour., infra ad *Pellionium* inter **Urticeas** refertur.

TRYPHERA, Blume, Bijdr. 549, est *Mollugo Glinus*, Linn., genus supra i. 857 sub **Ficoideis** recensitum.

PLEUROPETALUM, Hook. f. (ALLOCHLAMYS, Moq.), genus Galapagense ab Endlichero ad *Amarantaceas* relatum, supra i. 157 sub **Portulaceis** invenitur.

LENZIA, Philippi in Linnæa xxxiii. 222, ex Andibus Chilensibus prope Coquimbo, genus imperfecte descriptum, plantula foliis confertissimis erectis *Pini* cujusdam rami apici similis, nobis ignotum est, et locus in ordine omnino dubius, quamvis ab auctore prope *Æruam* collocatur.

PHYLLEPIDUM, Raf. in Med. Repos. ex char. gallice reddito in Desv. Journ. Bot. i. 218 est planta boreali-Americana e vicinibus Baltimore, ab auctore ad *Amarantaceas* relata et verisimiliter jam sub alio nomine edita, sed ex charactere pessimo nequaquam recognoscenda.

TRIBUS I. CELOSIEÆ.

1. **Deeringia,** *R. Br. Prod.* 413. (Coilosperma, *Raf. ex Moq.* Cladostachys, *Don, Prod. Fl. Nep.* 76, *excl. syn.*)—Flores hermaphroditi v. dioici, bracteati et 2-bracteolati. Perianthii membranacei v. herbacei segmenta 5, æqualia v. interiora minora, medio subherbacea, fructifera patentia. Stamina 4–5, filamentis basi in cupulam connatis; antheræ late oblongæ, 2-loculares. Ovarium ovoideum v. subglobosum, sessile v. substipitatum; stigmata 2–4, subulata, basi connata, undique papillosa v. minuta sessilia

capitellata; ovula pauca v. plurima, funiculis elongatis affixa. Fructus v. bacca irregulariter rupta v. utriculus circumscissus, globosus, basi perianthii explanata stipatus, integer v. obscure lobatus, polyspermus. Semina pauca v. numerosa, reniformia, compressa, rostellata, testa crustacea atra nitida punctulata, arillo 0; embryo annularis, albumen farinaceum cingens, cotyledonibus linearibus plano-convexis, radicula descendente.—Herbæ v. suffructices sarmentosæ v. alte scandentes, glabræ v. foliis subtus pubescentibus. Folia alterna, petiolata, ovata, acuminata, integerrima. Flores parvi, in spicas racemosve axillares et terminales simplices v. paniculatim ramosas dispositi, rarissime pauci fasciculati; bracteis bracteolisque scariosis.

Species 5–6, Indiæ borealis, Asiæ et Africæ tropicæ, Novæ Caledoniæ, et Australiæ orientalis incolæ. *Moq. in DC. Prod.* xiii. ii. 236. *Benth. Fl. Austral.* v. 209. *Bot. Mag. t.* 2717. *Endl. Iconogr. t.* 62. *Wight Ic. t.* 728, 729.

Deeringiæ affinis est planta Javanica ab Horsfieldio lecta, foliis ovato-lanceolatis, spicis brevibus simplicibus axillaribus, ovario in stylum brevem attenuato, stigmate capitato. In specie Madagascariensi (*Perville*, No. 674) utriculus depresso-sphericus circumscissus, stigmatibus sessilibus capitellatis.

2. **Melanocarpum,** *Hook f. gen. nov.*—Flores hermaphroditi, bracteati et 2-bracteolati. Perianthii coriaceo-scariosi segmenta æqualia, oblonga, obtusa, concava, striatonervosa, fructifera stellatim patentia. Stamina 5, filamentis subulato-filiformibus basi in cupulam crassiusculam connatis; antheræ didymæ, 2-loculares. Ovarium globosoovoideum, in stylum brevem attenuatum, stigmatibus 2–3 brevibus subulatis erectis patentibus; ovula plurima, funiculis capillaribus. Fructus globosus, baccatus, irregulariter ruptus, polyspermus. Semina reniformia, lenticularia, erecta, funiculo elongato, testa atra nitida lævi, arillo 0; embryo periphericus, albumen granulosum cingens, cotyledonibus linearibus, radicula descendente.—Arbuscula subramosa, glabra, exsiccata fuscescens, ramulis teretibus. Folia alterna, majuscula, membranacea, elliptico-lanceolata, longe acuminata, integerrima v. marginibus subundulatis, basi in petiolum longiusculum angustata, nervis arcuatis. Flores parvi, in paniculas ramosas terminales dispositi, sessiles v. pedicellati, virescentes, demum rubri, pedicellis basi bracteatis, bracteis bracteolisque membranaceis. Fructus pisiformis, niger.

Species 1, *C. Sprucei*, Hook f. (Ecuadoriæ ad pedem Chimborazo incola et? prope Vera Cruz Mexici, *Hahn*).

3. **Henonia,** *Moq. in DC. Prod.* xiii. ii. 237.—Flores hermaphroditi, bracteati et 2-bracteolati. Perianthii scariosi segmenta 5, æqualia, oblonga, obtusa v. retusa, concava, fructifera erecta. Stamina 5, filamentis filiformibus ima basi connatis; antheræ didymæ, 2-loculares. Ovarium ovoideum; stylus brevis, stigmatibus 3 subulato-filiformibus revolutis papillosis; ovula numerosa, funiculis elongatis. Utriculus elongato-oblongus, e perianthio longe exsertus, scarioso-coriaceus, demum longitudinaliter ruptus, 1–∞-spermus. Semina oblique lenticularia, compressa, testa atra nitida lævi, arillo 0; embryo annularis, albumen farinaceum cingens, radicula infera.—Frutex gracillimus, erectus, ramosus, glaber, ramulis virgatis tenuibus teretibus strictis. Folia parva, alterna, linearia v. lineari-oblonga, obtusa, in petiolum vix angustata, integerrima, enervia. Flores minuti, in spiculas breves strictas secus ramulos aphyllos alternas laxe dispositi, albo-viriduli, bracteis bracteolisque concavis.

Species 1, Madagascariæ incola. Embryo a nobis non visus.

4. **Celosia,** *Linn. Gen. n.* 289. (Lophoxera *et* Sukana, *Raf. ex Moq.*)—Flores hermaphoditi, bracteati et 2-bracteolati. Perianthium scariosum, 5-partitum; segmenta oblonga v. lanceolata, obtusa v. acuta, striato-nervosa, fructifera erecta. Stamina 5, filamentis subulatis v. filiformibus, basi in cupulam membranaceam connatis; antheræ breves v. elongatæ, 2-loculares. Ovarium ovoideum subglobosum v. lagenæforme; stylus 0 v. brevis v. elongatus, interdum post anthesin elongatus, v. stigmatibus 2–3 subulatis; ovula 2 v. plura, funiculis elongatis. Utriculus perianthio inclusus v. exsertus,

ovoideus v. globosus, apice attenuato acuto v. obtuso interdum suberoso v. incrassato, circumscissus, rarissime indehiscens v. irregulariter ruptus, 2–∞-spermus. Semina sæpius erecta, lenticularia, testa crustacea atra lævi nitida; embryo annularis, albumen farinaceum cingens, cotyledonibus linearibus, radicula infera v. ascendente.—Herbæ annuæ, rarius fruticuli v. frutices, glabræ v. pilosæ, interdum scandentes, ramulis teretibus v. angulatis. Folia alterna, in petiolum sæpius attenuata, linearia oblonga ovata v. obovata, integerrima v. in perpaucis lobata. Flores in spicas densifloras terminales et axillares dispositi, v. secus ramulos floriferos simplices v. ramosos fasciculati, sessiles v. breviter pedicellati, parvi v. majusculi, albi argentei v. rosei, nitidi.

Species ad 30, regionum calidarum Asiæ, Africæ et Americæ incolæ. *Moq. in DC. Prod.* xiii. ii. 237. *Walp. Ann.* iii. 299. *Griseb. Pl. Lorentz.* 31. *S. Wats. Bot. Calif.* ii. *ined.* *Gærtn. Fruct. t.* 128. *Lam. Illustr. t.* 168. *Jacq. Hort. Vind. t.* 98; iii. *t.* 15; *Ic. Rar. t.* 51, 339. *Wight, Ic. t.* 730, 1767, 1768. *Mart. Nov. Gen. et Sp. t.* 157, 158. *Bot. Reg. t.* 1834. *Andr. Bot. Rep. t.* 635. In *C. cymosa*, Seub. in Mart. Fl. Bras. v. i. 244, t. 75, flores inter bracteolas sæpe 3-ni, 2 laterales minuti imperfecti, intermedius perfectus.

Genus in sectiones sequentes cum iis Moquinii minime congruentes dividitur.

1. *Celosia.* Stylus brevis v. longiusculus, post anthesin non elongatus. Utriculus apice acutus v. attenuatus. Includit *C. paniculatam*, Linn., *C. trigynam*, Linn., *C. virgatam*, Jacq., *C. floribundam*, Moq., *C. laxam*, Schum. et Thonn., *C. leptostachyam*, Benth., *C. brasiliensem*, Moq., *C. grandifoliam*, Benth., et *C. spicatam*, Spr. Lestibudesia, *Thou. Hist. Veg. Iles Afr.* 53, *t.* 16; *Gen. Nov. Madag.* 5.

2. *Celosiastrum*, Moq. l.c. Stylus elongatus, filiformis, post anthesin elongatus, stigmate capitellato 3-lobo. Utriculus lagæniformis, apice attenuatus. Huc *C. argentea*, Linn., *C. cristata*, Linn., *C. cernua*, Roxb., aliæque.

3. *Acroporoides.* Stylus brevissimus v. 0, stigmatibus 2–3 subulatis recurvis. Utriculus apice obtusus incrassatus. Huc *C. pulchella*, Moq., *C. polygonoides*, Retz, *C. acroporoides*, Hochst., et *C. intermedia*, Hochst.

4. *Lagrezia.* Stylus brevis, stigmatibus recurvis. Utriculus rotundatus, compressus, 1–2-spermus, circumscissus v. irregulariter ruptus. Lagrezia, *Moq. in DC. Prod.* xiii. ii. 252 (excl. *L.? altissima*, quæ *Deeringiæ* species.) Species 3 Madagascarienses: 1. *C. phytolaccæfolia*, Juss. mss. (*Lagrezia madagascariensis*, Moq.), foliis ovato-lanceolatis, utriculo circumscisso; 2. *C. Boivinii*, Hook. f., foliis ovato- v. elliptico-oblongis, spicis gracillimis, utriculo irregulariter rupto; 3. *C. spathulata*, Boj. mss., foliis obovato-spathulatis in petiolum elongatum angustatis.

5. **Hermbstædtia,** *Reichb. Consp.* 164. (Berzelia, *Mart. in Nov. Act. Nat. Cur.* xiii. 292, *non Brongn.* Langia, *Endl. Gen. Pl.* 304. Hyparete, *Raf. ex Moq.*)—Flores hermaphroditi, bracteati et 2-bracteolati. Perianthii scariosi segmenta 5, subæqualia, oblongo-lanceolata, acuta, striata, fructifera erecta. Stamina 5, filamentis in tubum membranaceum cylindraceum apice 10-fidum connatis; antheræ lineari-oblongæ, in sinubus alternis tubi sessiles v. breviter stipitatæ, 2-loculares. Ovarium ovoideum, in stylum brevem v. subelongatum attenuatum, stigmatibus 3 dentiformibus v. subulatis undique papillosis; ovula numerosa. Utriculus perianthio inclusus, membranaceus, ovoideus, circumscissus. Semina pauca v. numerosa, erecta, lenticularia, testa atra nitida crustacea, arillo 0; embryo annularis, albumen farinaceum cingens, radicula infera.—Herbæ v. suffrutices glabri v. puberuli, parce ramosi, ramis gracilibus teretibus v. angulatis sæpe glaucis. Folia sparsa, anguste linearia, acuta v. obtusa, integerrima. Flores in spicas simplices elongatas terminales dispositi, rarissime capitati, albi v. rosei, bracteis concoloribus.

Species 5, Africæ tropicæ et australis incolæ. *Moq. in DC. Prod.* xiii. ii. 246. *Wendl. Hort. Herrenh. t.* 2 (*Celosia*).

Tribus II. Amaranteæ.

6. **Rodetia,** *Moq. in DC. Prod.* xiii. ii. 323.—Flores hermaphroditi, bracteati et 2–4-bracteolati. Perianthium subherbaceum, 5-partitum, basi non induratum; segmenta 5, subæqualia, breviter oblonga, obtusa, 3-nervia, glabra, sub fructu stellatim patentia. Stamina 5, filamentis lineari-subulatis demum elongatis basi in cupulam brevem connatis, laciniis interjectis minutis obtusis; antheræ exsertæ, oblongæ, basi longe 2-fidæ, 2-loculares.

Ovarium anguste ovoideum, in stylum brevem crassum attenuatum, stigmatibus 2–3 crassiusculis; ovulum 1, erectum, funiculo brevi. Bacca globosa, perianthio stellatim patente stipata, carnosa. Semen majusculum, erectum, subglobosum, testa tenuiter crustacea atra nitida, arillo 0; embryo annularis, albumen farinaceum cingens, cotyledonibus lineari-oblongis concavis exteriore majore radicula descendente latioribus.—Frutex glaberrimus, ramosus, habitu *Deeringiæ*, ramulis teretibus. Folia alterna, petiolata, ovata v. ovato-lanceolata, acuminata, integerrima. Flores axillares, spicati spicis paniculatis, parvi, virescentes. Bacca pisiformis.

Species 1, Himalaica.

7. **Bosia,** *Linn. Hort. Cliff.* 84; *Gen. n.* 315 (Bosea).—Flores dioici, bracteati et 2-bracteolati. Perianthium herbaceum, subglobosum, 5-partitum, basi non induratum; segmenta 5, subæqualia, concava, ovato-rotundata, obtusa, enervia, imbricata uno exteriore. Fl. ♂: Stamina 5, disco hypogyno obscure 5-crenato inserta, filamentis filiformi-subulatis; antheræ late ovatæ, 2-loculares, exsertæ, versatiles. Ovarii rudimentum pyramidatum. Fl. ♀: Staminodia 5, minuta. Discus 10-lobus, lobis per paria staminodiis alternis. Ovarium ovoideum, apice exsertum; stigmata 3, minuta, crasse subulata, recurva, intus papillosa; ovulum 1, funiculo brevi erectum, campylotropum, micropyle infera. Utriculus globosus, carnosus, basi perianthio bracteolisque stipatus. Semen erectum, subglobosum, ad hilum leviter emarginatum, testa brunnea coriaceo-crustacea lævi; embryo annularis, albumen copiosum carnosum cingens, cotyledonibus oblongis subfoliaceis concavis radicula gracili infera multo latioribus.—Frutex erectus, robustus, odore nauseo, glaberrimus, ramis virgatis. Folia alterna, petiolata, ovato-lanceolata, persistentia, exsiccatione nigrescentia. Flores racemosi, parvi, virides; racemis axillaribus et terminalibus; pedicellis basi bracteatis apice infra florem 2-bracteolatis. Fructus pisiformis.

Species 1, Canariensis, in regionibus Mediterraneis allata. *Moq. in DC. Prod.* xiii. ii. 87 (excl. sp. n. 2). *Lam. Illustr. t.* 182. *Gærtn. Fruct.* i. *t.* 77. *Jacq. fil. Eclog. t.* 25. Genus certe *Rodetiæ* proximum.

8. **Achatocarpus,** *Triana in Ann. Sc. Nat. ser.* 4, ix. 45.—Flores dioici. Perianthium herbaceum, 5-partitum; segmenta ovato- v. oblongo-rotundata, obtusa, nervosa, fructifera erecta. Fl. ♂: Stamina 10–20, basi perianthii inserta, filamentis filiformibus ima basi connatis; antheræ exsertæ, oblongæ, basi longe 2-fidæ, 2-loculares, primum extrorsum dehiscentes. Ovarii rudimentum 0. Fl. ♀: Staminodia 0. Ovarium oblongo-orbiculare, compressum; stigmata 2, subulato-filiformia, recurva, basi introrsum papillosa v. fimbriata; ovulum 1, funiculo brevi erectum. Bacca globosa, leviter compressa, stigmatum basibus discretis apiculata. Semen erectum, lenticulare, testa crustacea aspera nigra nitida, arillo 0; embryo annularis, albumen farinaceum cingens, cotyledonibus linearibus, radicula elongata infera.—Arbores parvæ v. frutices glaberrimi v. pubescentes, ramis sparsis teretibus interdum spinescentibus. Folia alterna, petiolata, lanceolata v. elliptico-lanceolata, acuta. Flores parvi, in racemos simplices v. compositos graciles axillares dispositi, pedicellis v. pluri-bracteatis v. apice juxta florem minute 2-bracteolatis. Bacca parva, alba.

Species certæ 3, una Mexici, Novæ Granadæ et Venezuelæ incola, duæ Americæ australis extratropicæ *Griseb. Symb. Fl. Argent.* 31; et in herbario Hookeriano exemplar masculum plantæ quartæ verisimiliter hujus generis exstat, foliis subtus pubescentibus, a Jamesonio prope Guayaquil lectæ.

9. **Charpentiera,** *Gaud. in Freyc. Voy. Bot.* 444, *t.* 47, 48.—Flores hermaphroditi, bracteati et 2-bracteolati. Perianthium 5-partitum, basi non induratum, coriaceum; segmenta 5, subæqualia, ovato-rotundata, obtusa, fructifera erecta, enervia. Stamina 5, filamentis basi breviter connatis, laciniis minutis obtusis interjectis; antheræ oblongæ, inclusæ, basi longe 2-fidæ, 2-loculares. Ovarium anguste ovoideum, compressum, in stylum crassum attenuatum, stigmatibus 2 crassiusculis recurvis; ovulum 1, erectum, funiculo brevi. Utriculus perianthio inclusus, late ovoideus, compressus, coriaceus, inde-

hiscens. Semen lenticulare v. subreniforme, erectum, testa tenuiter crustacea nitida atra, arillo 0; embryo annularis, albumen farinaceum cingens, cotyledonibus linearibus, radicula infera.—Arbuscula glabra v. partibus novellis tomentosis, ramosa, ramis teretibus. Folia alterna, longe petiolata, ovata oblonga v. obovata, obtusa, integerrima. Flores minuti, secus ramos capillares paniculæ axillaris effusæ sparsi, sessiles, bracteis bracteolisque persistentibus.

Species 1, montium insularum Sandvicensium incola. *Moq. in DC. Prod.* xiii. ii. 322.
Genus multis notis *Rodetiæ* affine.

10. **Banalia,** *Moq. in DC. Prod.* xiii. ii. 278, *excl. sect.* 2 *et* 3.—Flores hermaphroditi, bracteati et 2-bracteolati. Perianthii segmenta 5, subæqualia, membranacea, oblonga, subacuta, tenuiter 3-nervia, fructifera erecta. Stamina 5, filamentis subulatis inæquilongis basi in cyathum membranaceum connatis, laciniis interjectis 0; antheræ oblongæ, 2-loculares. Ovarium late ovoideum, compressum; stylus erectus, stigmatibus 2 linearibus revolutis undique papillosis; ovulum 1, funiculo brevi erectum. Utriculus subglobosus, leviter compressus, perianthio inclusus, membranaceus, indehiscens. Semen erectum, orbiculare v. sublenticulare, testa crustacea punctulata nigra nitida, arillo 0; embryo annularis, albumen farinaceum cingens, cotyledonibus linearibus, radicula infera.—Herba erecta, ramosa, glabra, caulibus elongatis. Folia alterna, petiolata, ovato-lanceolata, caudato-acuminata, integerrima, membranacea, basi angustata. Flores spicati, solitarii v. glomerati; spicæ in paniculas axillares et terminales dispositæ; bracteæ bracteolæque hyalinæ.

Species 1, montium Peninsulæ Indiæ orientalis incola. *Wight Ic. t.* 1774. *Banalia brasiliana*, Moq., a nobis non visa, ex descr. et ic. Seub. in Mart. Fl. Bras. v. i. 252, t. 71, a genere Asiatico habitu longe recedit et est forte *Chamissoæ* species utriculo tardius v. vix dehiscente; sect. iii. *Idiopsis*, Moq., est *Chenopodiacea* (*Nitrophila*, S. Wats.).

11. **Chamissoa,** *H. B. et K. Nov. Gen. et Sp.* ii. 158, *t.* 125.—Flores hermaphroditi, bracteati et 2-bracteolati. Perianthii scariosi segmenta 5, æqualia, oblongo-lanceolata, acuminata, striata, fructifera erecta. Stamina 5, filamentis basi in cupulam membranaceam dilatatis, laciniis interjectis 0; antheræ parvæ, lineari-oblongæ, 2-loculares. Ovarium ovoideum; stylus brevis v. subelongatus, stigmatibus 2 recurvis; ovulum 1, erectum, subsessile. Utriculus oblongo-ovoideus, compressus, apice umbilicatus v. nudus v. cono terminatus, circumscissus, perianthium sæpius excedens, 1-spermus. Semen erectum, globoso- v. reniformi-lenticulare, testa atra crustacea lævi, arillo minuto v. amplo semen undique involvente; embryo annularis, albumen copiosum v. parcum cingens, cotyledonibus linearibus planis, radicula infera.—Herbæ elatæ, ramosæ, volubiles scandentes v. sarmentosæ, caule sæpius robusto. Folia alterna, petiolata, ovata v. ovato-lanceolata, integerrima. Flores in spicas elongatas v. in ramos panicularum terminalium et axillarium dense v. laxe congesti, sessiles, albi v. virescentes.

Species 6–8, Americæ tropicæ et australis subtropicæ incolæ. *Moq. in DC. Prod.* xiii. ii. 248 (excl. sect. 1, quæ *Allmania*, Br.). *Seub. in Mart. Fl. Bras.* v. i. *t.* 74. *Griseb. Pl. Lorentz.* 31.
Genus in sectiones 2 dividitur—
1. *Euchamissoa*, Moq. l. c. Utriculus apice disco crassiusculo umbonatus. Arillus semen involvens.
2. *Achlamys*, Moq. l. c. Utriculus apice simplex v. cono terminatus. Arillus minutus.

12. **Allmania,** *R. Br. in Wall. Cat. Herb. Ind. n.* 6890.—Flores hermaphroditi, bracteati et 2-bracteolati. Perianthii scariosi segmenta 5, æqualia, oblongo-lanceolata, acuminata, striata, fructifera erecta. Stamina 5, filamentis basi in cupulam membranaceam dilatatis, laciniis interjectis 0; antheræ parvæ, lineari-oblongæ, 2-loculares. Ovarium ovoideum, in stylum elongatum strictum angustatum, stigmate capitellato 2-lobo; ovulum 1, subsessile, erectum. Utriculus perianthio inclusus, subglobosus v. ovoideus, compressus, circumscissus. Semen erectum, subgloboso-lenticulare, testa atra crustacea lævi v. punctulata, arillo carnoso cupulari brevi; embryo annularis, albumen copiosum farinaceum cingens, cotyledonibus linearibus planis apicibus interdum abrupte

incurvis, radicula infera.—Herbæ erectæ v. diffusæ, glabræ v. pubescenti-scaberulæ. Folia alterna, linearia obovata v. spathulata, integerrima. Flores in capitula terminalia et axillaria sessilia v. pedunculata dispositi, albi v. virescentes.

Species 3 v. 4, Asiæ tropicæ incolæ. *Moq. in DC. Prod.* xiii. ii. 248 (*Chamissoæ sect.* 1). *Wight in Hook. Journ. Bot.* i. 226 *t.* 128; *Ic. t.* 1769 *ad* 1772 (*Chamissoa*). *Burm. Fl. Ind. t.* 25, *f.* 1 (*Celosia*).

13. **Digera**, *Forsk. Fl. Æg. Arab.* 65.—Flores 3-ni, bracteati et 2-bracteolati, lateralibus rudimentariis ad squamam cristatam reductis, intermedio perfecto. Perianthium submembranaceum, 4–5-partitum, basi non induratum; segmenta oblonga, fructifera erecta, 2 exteriora majora 5-9-nervia, interiora angustiora 2–3-nervia. Stamina 5, filamentis liberis filiformibus, laciniis interjectis 0; antheræ didymæ, 2-loculares. Ovarium breviter oblongum, compressum, truncatum; stylus filiformis, stigmatibus 2 brevibus recurvis; ovulum 1, erectum, funiculo brevi. Nux subglobosa, perianthio inclusa, leviter compressa, crustacea, rugulosa, lateribus subcarinatis. Semen erectum, subglobosum, testa tenui brunnea albumini farinaceo adhærente, arillo 0; embryo annularis, cotyledonibus linearibus incurvis, radicula descendente.—Herba annua e basi ramosa, fere glaberrima, ramis angulatis. Folia alterna, gracile petiolata, ovata oblonga v. lanceolata, acuta, integerrima. Flores sordide albi v. rosei, in spicas axillares elongatas longe pedunculatas dispositi.

Species 1 v. 2, Asiæ et Africæ tropicæ incolæ. *Moq. in DC. Prod.* xiii. ii. 323. *Wight, Ic. t.* 732 (*Desmochæta*). Genus forsan melius prope *Pupaliam* locatum, sed ovulum fere sessile erectum, et radicula infera.

14. **Amarantus**, *Linn. Gen. n.* 1060 (Amaranthus).—Flores monoici v. polygami, bracteati et 2-bracteolati. Perianthii segmenta 5, rarius 1–3, membranacea, æqualia v. subæqualia, in fl. ♂ ovato-lanceolata, in fl. ♀ sæpius oblonga v. spathulato-oblonga, interdum post anthesin indurata v. basi incrassata, fructifera erecta. Stamina 5, rarius 1–3, filamentis subulatis v. filiformibus basi liberis, laciniis interjectis 0; antheræ oblongæ v. lineari-oblongæ, 2-loculares. Ovarium ovoideum, compressum; stylus brevis v. 0, stigmatibus 2–3 subulatis v. filiformibus undique papillosis v. hirtis; ovulum 1, subsessile, erectum. Utriculus perianthio sæpius inclusus, orbicularis v. ovoideus, compressus, indehiscens v. circumscissus, membranaceus v. coriaceus, apice simplici v. 2–3-dentato. Semen erectum, rotundatum, compressum, testa crustacea lævi nitida, margine acuto v. obtuso, arillo 0; embryo annularis, albumen farinaceum cingens, cotyledonibus linearibus, radicula infera. —Herbæ annuæ, erectæ v. decumbentes, glabræ v. pubescentes, rarius pilosæ. Folia alterna, basi in petiolum angustata, ovata lanceolata v. linearia, integerrima v. rarius sinuato-dentata, apice sæpe mucronulato. Flores parvi v. minuti, in glomerulos axillares v. paniculas densifloras terminales dispositi, albi virides rosei v. purpurascentes; bracteæ et sæpius perianthia persistentia.

Species enumeratæ ad 45, sed aliæ non nisi hortis notæ, aliæ characteribus minimi valoris distinctæ. *Moq. in DC. Prod.* xiii. ii. 255. *Benth. Fl. Austral.* v. 212. *A. Braun et Bouché in App. Ind. Sem. Hort. Berol.* 1872. *S. Wats. Bot. Calif.* ii. 40 *ined. Gærtn. Fruct.* ii. *t.* 128. *Nees Gen. Fl. Germ. Willd. Hist. Amarant. Turici*, 1790, *cum tabb.* 12. *Reichb. Iconogr. Bot. t.* 471 *ad* 475. *Lam. Illustr. t.* 767. *Benth. Bot. Sulph. t.* 51. *Anderss. Eugenies Resa Bot. t.* 2. *Fl. Dan. t.* 2246 *Wight Ic. t.* 512 *ad* 514, 713 *ad* 720. *Torr. Fl. N. York, t.* 93. *Seub. in Mart. Fl. Bras.* v. i. *t.* 73. *Bot. Mag. t.* 2227.

Glomeraria, *Cav. Descr. Pl. Leccion.* 319 (Pyxidium, *Mœnch. Meth.* 358) genus propositum fuit pro *A. viridi* Lam. et *A. deflexo* Linn. floribus 3-meris nec 5-meris.

Euxolus, *Raf. Fl. Tellur.* 42, *ex Moq. in DC. Prod.* xiii. ii. 272 (Albersia, *Kunth Fl. Berol. ed.* 2, 144 *ex Endl. Gen.* 1377; Pentrias, *Raf. ex Moq.*) constat e speciebus *Amaranti* floribus ♂ et ♀ consimilibus v. subsimilibus et utriculo indehiscente v. irregulariter rupto. Species includit ad 12, tropicas et subtropicas. *Wight Ic. t.* 1773. *Jacq. Ic. Rar. t.* 344 (*Chenopodium*). *Seub. in Mart. Fl. Bras.* v. i. *t.* 72. *Amarantus Blitum*, *L.*, ab *Euxolo oleraceo*, *Moq.*, difficillime distinguendus est.

Mengea, *Schauer in Pl. Meyen.* 405, *Moq. l. c.* 270, ab *Euxolo* non differt nisi perianthii ebracteolati segmentis staminibusque 1–2.

SCLEROPUS, *Schrad. Ind. Sem. Hort. Gœtt.* 1835; *Moq. l. c.* 271, est, monente A. Grayo in Proc. Amer. Journ. Sc. v. 169, *Euxoli* species, pedunculis abnormaliter incrassatis.

AMBLOGYNE, *Raf. Fl. Tellur.* 42 *ex Moq. l. c.* 269. *A. Gray in Proc. Amer. Acad.* v. 168. *Anderss. Eugenies Resa, Bot. t.* 2. (RŒMERIA, *Mœnch. Meth.* 341. SARRATIA, *Moq. l. c.*) ab *Amarantis* typicis differt perianthio ♀ magis campanulato, segmentis spathulato-oblongis demum induratis v. incrassatis, sæpius basi cum rachi articulato et demum deciduo. Species pleræque Americanæ et Australasicæ. *A. Palmeri*, Wats. Bot. Calif. ii. 42 ined., species est floribus dioicis.

15. **Acnida,** *Linn. Gen. n.* 1114.—Flores dioici, bracteati et 2-bracteolati, ♂ et ♀ dissimiles. Fl. ♂: Perianthii segmenta 5, subæqualia, membranacea v. subscariosa, erecta, aristato-apiculata, 1-nervia, fructifera erecta. Stamina 5, filamentis subulatis basi liberis, laciniis interjectis 0; antheræ lineari-oblongæ, 2-loculares. Ovarii rudimentum 0. Fl. ♀: Perianthium 0. Staminodia 0. Ovarium ovoideum v. subrotundatum, compressum v. obtuse 3-gonum; stylus vix ullus, stigmatibus 2–5 brevibus v. elongatis undique papillosis v. subplumosis; ovulum 1, subsessile, erectum. Utriculus membranaceus v. carnosulus, perianthio inclusus v. exsertus, lævis v. rugulosus, indehiscens v. rarius irregulariter ruptus. Semen erectum, obovoideum v. rotundatum, compressum, testa crustacea lævi nitida, arillo 0: embryo annularis, albumen farinaceum cingens, cotyledonibus linearibus, radicula infera.—Herbæ glabræ, erectæ v. suberectæ, ramosæ. Folia alterna, petiolata, integerrima, penninervia. Flores in spicas glomerulosve paniculatos terminales et axillares dense v. laxe fasciculati; ♂ majusculi, pallidi; ♀ minores v. minuti, virescentes, sæpe densissime conferti.

Species 4 v. 5, Americæ boreali-orientalis et ins. Trinidad incolæ, ab auctoribus valde confusæ, in sectiones sequentes (ex schedis A. Grayi benevole communicatis) distribuendæ:—

1. *Euacnida*, A. Gray. Utriculus 3–5-gonus, sæpius carnosulus, stigmatibus subulatis v. basin versus crassioribus papilloso-pilosis. Semen obovoideum.—Includit *A. rusocarpam* (melius *rhyssocarpam*) Michx. (non Moq.); *A. cannabinam* Linn.; Gærtn. Fruct. ii. t. 126; et *A. australem* A. Gr. (*A. cannabina*, Chapm. Fl. S. U. States 381, non Linn.).

2. *Montelia*, Moq. partim (MONTELIA, *A. Gray Man. Bot. N. U. States*, ed. 2, 369, *utriculo excepto*). Utriculus submembranaceus, vix angulatus, rugosulus, demum irregulariter ruptus v. indehiscens, stigmatibus prælongis filiformibus divergentibus fere plumosis. Semen reniformi-orbiculatum.—Species unica, *A. tuberculata*, Moq. in DC. Prod. xiii. ii. 277, (*A. rusocarpa*, Moq. l. c. non Mich. *A. cannabina* var. *concatenata*, Moq. l. c. 278. *Montelia tamariscina*, A. Gr. l. c. partim).

16. **Acanthochiton,** *Torr. in Sitgr. Rep.* 170, *t.* 13.—Flores dioici, axillares, glomerati, dissimiles, ♂ ebracteati, bracteolæ minutæ v. 0; ♀ bracteis magnis late cordatis rigidis apice spinulosis complicatis recurvis reconditi; bracteolæ v. minutæ, v. elongatæ rigidæ setaceæ v. lanceolatæ. Fl. ♂: Perianthii segmenta 5, subæqualia, lanceolata, acuminata, 1-nervia, fructifera erecta. Stamina 5, filamentis filiformibus liberis; antheræ oblongæ, 2-loculares. Ovarii rudimentum 0. Fl. ♀: Perianthium 0. Staminodia 0. Ovarium ovoideum, compressiusculum; styli 2–4, capillares, intus pilosuli; ovulum 1, erectum, funiculo brevi. Utriculus late ellipsoideus, compressus, membranaceus, circumscissus. Semen erectum, obovoideum, compressum, testa tenuiter coriacea lævissima nitida, arillo 0; embryo annularis, albumen farinaceum cingens, cotyledonibus angustis, radicula infera.—Herba annua, gracilis, glabra, erecta, parce ramosa, caule costato, costis pallidis. Folia alterna, elongato-lineari-lanceolata, aristato-acuminata, in petiolum gracilem angustata, integerrima, costa valida, nervis obscuris. Florum glomeruli subspicati; fœmineorum bracteæ apices versus ramulorum imbricatæ, complicatæ, nitidæ, reticulatim nervosæ, marginibus membranaceis crenulatis.

Species 1, Americæ borealis calidæ, Texas occidentalis et Arizonæ incola.

17. **Saltia,** *R. Br. in Wall. Pl. As. Rar.* i. 17, *nomen tantum* (*non ejusd. in Append. Salt, Abyss.*).—Flores dioici, spicati, bracteati; ♂ singulatim 2-bracteolati, floribus sterilibus non stipati; ♀ basi bracteolis 3–4 irregulariter insertis et utrinque flore imperfecto demum in appendicem ramosam longissime sericeo-barbatam mutato stipati. Peri-

anthium breviter et crasse stipitatum, chartaceum, 5-partitum ; segmenta subæqualia, ovato-oblonga, subacuta, obscure 3–5-nervia, dorso sericea, fructifera immutata. Stamina 5, in fl. ♀ minuta, antheris cassis, in fl. ♂ disco cupulari carnosulo inserta, filamentis subulatis, laciniis interpositis 0 ; antheræ lineari-oblongæ, 2-loculares. Ovarium obovoideum, vertice dilatato convexo, stylus filiformis, stigmate capitellato ; ovulum 1, ab apice funiculi elongati suspensum. Utriculus perianthio fere æquilongus, oblongus, membranaceus, vertice parvo coriaceo, indehiscens. Semen inversum, oblongum, turgidum, testa membranacea brunnea albumini farinaceo adhærente, arillo 0 ; embryo periphericus, cotyledonibus lineari-lanceolatis concavis apicibus incurvis exteriore latiore, radicula gracili erecta æquilonga.—Fruticulus glaber, rigidus, ramulis cylindraceis lignosis. Folia sparsa, sessilia, anguste obovata, integerrima, carnosula, glauca. Flores in spicas laxas puberulas simplices v. paniculatim ramosas dispositi.

Species 1, Arabica. *Moq. in DC. Prod.* xiii. ii. 325 (*excl. syn. Sedderæ et hab. Sinai*). *T. Anders. in Journ. Linn. Soc. Bot.* v. *Suppl.* 32, *t.* 3.

18. **Sericocoma,** *Fenzl in Endl. Gen. Pl. Suppl.* iii. 33, *et in Linnæa* xvii. 323.—Flores spicati v. capitellati, 1–2 hermaphroditi cum sterilibus 1–∞ in fasciculum lanatum v. sericeum bracteatum et bracteolatum aggregati ; bracteolæ interiores (v. segmenta perianthii florum sterilium) in spinas v. appendices ramosas cum basibus induratis florum perfectorum concretas desinentes. Perianthii crasse coriacei v. chartacei segmenta 5, basi connata, ovato-lanceolata, acuminata v. pungentia, interiora angustiora. Stamina 5, filamentis filiformibus basi membrana connexis, laciniis interpositis brevibus rotundatis v. 0 ; antheræ oblongæ, 2-loculares. Ovarium ovoideum v. oblongum, æquale v. uno latere gibbum v. in cornu erectum productum, tomentosum v. lanatum ; stylus brevis v. elongatus v. 0, stigmate capitellato v. plumoso ; ovulum 1, ab apice funiculi elongati suspensum. Utriculus perianthio inclusus, membranaceus, indehiscens, vertice non indurato. Semen inversum, oblongum v. obovoideum, leviter compressum, testa membranacea v. tenuiter coriacea, arillo 0 ; embryo periphericus, albumen farinaceum includens, cotyledonibus lanceolatis apicibus incurvis, radicula erecta æquilonga.—Herbæ v. fruticuli habitu varii, 2–3-chotome ramosi v. ramis alternis. Folia linearia v. oblonga, rarius obovata, sessilia, integerrima, sæpissime sericeo-lanata.

Species ad 11, Africæ tropicæ et subtropicæ australis incolæ. *Moq. in DC. Prod.* xiii. ii. 306.

Genus quoad flores polymorphum, in sectiones sequentes divisum :—

1. *Kyphocarpa,* Fenzl in Linnæa l. c. (sphalmate *Hypocarpha* in Endl. l. c.). Folia opposita. Flores spicati ; ☿ 2–3 steriles in spinas mutati. Laciniæ inter filamenta breves obtusæ. Utriculus gibbus v. uno latere sursum in cornu productus. Includit *S. trichinoideam,* Fenzl, species nobis incognita ; *S. Chrysurum,* Meissn. et *S. angustifoliam,* Hook. f. (*S. Chrysurus* var. *angustifolia,* Moq. in Herb. Hook. *Cyathula angustifolia,* Moq. in DC. l. c. Welw. It. Angol. No. 6489).

2. *Euchroa,* Fenzl in Linnæa l. c. (sphalmate *Euchlora* in Endl. l. c.). Folia opposita et alterna. Flores spicati v. capitati, ☿ solitarii v. 2-ni, steriles immutati v. in spinas mutati. Laciniæ inter filamenta 0 v. brevia obtusa. Utriculus rectus, stylo elongato centrali.—Includit species 2 valde dissimiles. 1. *S. pungens,* Fenzl (*Eurotia glabra,* E. Mey.) foliis alternis, floribus capitatis ☿ binis et laciniis inter filamenta brevibus. 2. *S. avolans,* Fenzl (*inclusa S. capensi,* Moq.) foliis oppositis, floribus fasciculatis, ☿ solitario, et laciniis inter filamenta (non obstante descriptione Fenzlii) plane 0.

3. *Sericorema.* Folia sparsa, opposita et fasciculata. Flores longe et laxe spicati, ☿ 1–3 steriles, 2 laterales e setis plumosis demum excrescentibus et in spinas furcatas ascendentes incurvas longissime sericeas desinentibus. Laciniæ inter filamenta 0. Utriculus rectus. Includit :—1. *S. remotifloram* (*Trichinium,* Hook. Ic. Pl. t. 596 ; *Pupalia,* Moq.) foliis fasciculatis, flore ☿ solitario, ovario elongato, stigmate sessili plumoso. 2. *S. denudatam,* Hook. f. (Welw. It. Angol. n. 6503) ramulis oppositis, floribus ☿ 2-nis, et stylo elongato. 3. *S. Welwitschii,* Hook. f. (Welw. It. Angol. n. 6508) bracteolis amplis hyalinis flores velantibus, floribus ☿ 2-nis inter se connatis et florem 10-merum 2-gynum mentientibus, stylo elongato et floribus sterilibus demum in cornua furcata ossea inflexa torta desinentibus ; embryo annularis. An genus novum ?

S. capitata Moq. est *Calicorema capitata* nob; *S. pallida*, Sp. Moore in Trim. Journ. Bot. 1877, 70, fructu ignoto omnino dubia est. *S. somalensis*, Sp. Moore, l. c., est *Chionothrix somalensis* nob. Planta valde anomala est *S. Bainesii*, Hook. f.: fruticosa, sericeo-tomentosa, foliis oppositis obovatis, floribus capitatis, capitulis foliaceo-bracteatis, perianthii segmentis albidis, laciniis inter filamenta 0, ovario recto villosissimo, stylo rigido, fructu ignoto.

19. **Centema,** *Hook. f. gen. nov.*—Flores spicati, 1–2 hermaphroditi cum sterilibus 1–∞ in fasciculum bracteatum et bracteolatum aggregati, bracteolæ interiores (v. segmenta perianthii florum sterilium) in spinas validas simplices basi incrassatas cum basibus florum hermaphroditorum induratorum connatas desinentes. Perianthii crasse coriacei v. chartacei segmenta 5, basi connata, ovato-lanceolata, acuminata, 3–5-nervia, interiora angustiora. Stamina 5, filamentis filiformibus basi membrana connexis basibus contiguis v. discretis, laciniis interpositis quadratis crenatis; antheræ 2-loculares, lineari-oblongæ. Ovarium ovoideum, in stylum gracilem attenuatum, glabrum v. puberulum, stigmate capitellato oblique truncato v. breviter 2-cruri; ovulum 1, ab apice funiculi elongati suspensum. Utriculus perianthio inclusus, membranaceus, indehiscens, vertice non indurato. Semen inversum, obovoideo-globosum, leviter compressum, testa tenuiter coriacea, arillo 0; embryo periphericus, albumen farinaceum cingens, cotyledonibus lineari-lanceolatis concavis, apicibus incurvis, exteriore latiore, radicula gracili erecta æquilonga.—Herbæ annuæ?, erectæ, glabræ v. puberulæ, caule tereti v. sulcato superne 3-chotome ramoso. Folia opposita, sessilia, linearia v. lineari-oblonga, 1-nervia, integerrima. Flores in spicas erectas terminales congesti; bracteæ persistentes, bracteolæ 2 interiores floribus imperfectis immixtæ.

Species 2 v. 3, Africæ tropicæ incolæ. 1. *C. Kirkii*, Hook. f., caule sulcato, foliis anguste linearibus, laciniis inter filamenta quadratis, ovario puberulo, ad oras lacuum Nyassæ et Tanganykæ incola. 2. *C. angolensis*, Hook. f. (Welw. It. Angol. No. 6538) caule tereti, foliis oblongo-linearibus, laciniis inter filamenta 0, ovario glaberrimo et stigmate 2-cruri. His verisimiliter addenda est *Pupalia subfusca*, Moq. in DC. Prod. xiii. ii. 332, flore perfecto solitario, imperfecto nondum evoluto, laciniis inter filamenta 0, ovario glaberrimo, stigmate nunc oblique truncato nunc breviter 2-fido.

20. **Cyathula,** *Lour. Fl. Coch.* i. 101 (Polyscalis, *Wall. Cat. Herb. Ind. n.* 6939).—Flores 1–2 perfecti cum aliis imperfectis in fasciculos bracteatos et bracteolatos spicatos v. capitatos dispositi; imperfectorum segmenta demum in aristas elongatas apice uncinatas producta. Fl. perfecti: Perianthium scariosum, 5-partitum, basi non induratum; segmenta subæqualia v. interiora angustiora, ovata v. ovato-lanceolata, acuminata v. aristata, 1-nervia. Stamina 5, filamentis basi membrana connexis, laciniis interpositis linearibus v. quadratis fimbriato-laceris; antheræ oblongæ, 2-loculares. Ovarium obovoideum; stylus filiformis, stigmate capitellato; ovulum 1, ab apice funiculi elongati suspensum. Utriculus ovoideus, perianthio arcte inclusus, apice areolatus, membranaceus, indehiscens. Semen inversum, oblongum, testa brunnea tenuiter coriacea, arillo 0; embryo periphericus, albumen farinaceum cingens, cotyledonibus planis linearibus apice incurvis radicula erecta latioribus.—Herbæ, interdum basi frutescentes, glabriusculæ v. tomentosæ, ramulis teretibus. Folia opposita, petiolata, ovata, acuminata, integerrima. Florum fasciculi parvi v. majusculi, virides v. albi, post anthesin reflexi; bracteæ ovatæ, concavæ, scariosæ, sæpius aristatæ.

Species ad 10, regionum calidiorum Asiæ, Africæ et Americæ meridionalis incolæ. *Moq. in DC. Prod.* xiii. ii. 325 (*excl. C. angustifolia* quæ *Sericocoma Chrysurus*). *Walp. Ann.* iii. 300. *Wight Ic. t.* 733 (*Desmochæta*) 1781, 1782. *Mart. Nov. Gen. et Sp. t.* 156, 158, *f.* 1 (*Pupalia*).

21. **Pupalia,** *Juss. in Ann. Mus. Par.* ii. 132. (Syama, *Jones in Asiat. Res.* iv. 261.)—Flores perfecti solitarii cum aliis imperfectis in fasciculos bracteatos et bracteolatos interrupte spicatos dispositi; imperfectorum segmenta in aristas stipitatas apice uncinatas stellatim patentes desinentes. Fl. perfecti: Perianthium herbaceum, 5-partitum, basi non induratum; segmenta subæqualia, lanceolata, acuminata, 3–5-nervia. Stamina 5, filamentis subulatis basi brevissime connatis, laciniis interpositis 0; antheræ didymæ, 2-loculares. Ovarium ovoideum, in stylum gracilem attenuatum, stigmate capitellato;

ovulum 1, ab apice funiculi elongati suspensum. Utriculus perianthio arcte inclusus, ovoideus, compressus, membranaceus, apice areolatus, indehiscens. Semen inversum, lenticulare, rostellatum, testa tenuiter crustacea castanea nitida, arillo 0; embryo periphericus, albumen farinaceum cingens, cotyledonibus linearibus planis tenuibus apicibus incurvis radicula ascendente paulo latioribus.—Herbæ v. suffrutices, glabriusculæ v. tomentosæ, 3-chotome ramosæ, ramis teretibus. Folia opposita, petiolata, ovata v. orbicularia, obtusa v. acuminata, integerrima. Spicæ simplices v. paniculatæ. Flores virides; bracteæ scariosæ.

Species 3, Asiæ et Africæ tropicæ incolæ. *Moq. in DC. Prod.* xiii. ii. 331, *excl. sect.* ii. *Walp. Ann.* iii. 301. *Gærtn. Fruct.* ii. *t.* 128 (*Achyranthes lappacea.*) *Wight Ic. t.* 731 (*Desmochæta*) *pessime depicta,* 1783.

DESMOCHÆTA, *DC. Cat. Hort. Monsp.* 101, includit *Pupaliam* et *Cyathulam.*

22. **Psilotrichum,** *Blume Bijd.* 544. (Leiospermum, *Wall. Cat. Herb. Ind. n.* 6923.)—Flores hermaphroditi, bracteati et 2-bracteolati. Perianthium chartaceum, 5-partitum, post anthesin immutatum v. induratum; segmenta linearia v. ovato-oblonga, exteriora majora rigida cymbiformia v. basi gibba, costata, sæpe villosa, intus glabra. Stamina 5, filamentis inæquilongis linearibus v. subulatis, basi in annulum cupulam v. tubum connatis, laciniis interpositis 0; antheræ breves v. elongatæ, 2-loculares. Ovarium subglobosum v. oblongum; stylus gracilis, stigmate capitellato v. 2-fido.; ovulum 1, ab apice funiculi elongati suspensum. Utriculus perianthii basi sæpe indurato arcte inclusus, globosus v. compressus, membranaceus, indehiscens. Semen inversum, lenticulare, testa coriacea v. crustacea nitida, arillo 0; embryo periphericus, albumen farinaceum cingens, cotyledonibus lineanibus planiusculis, radicula supera. —Herbæ v. frutices trichotome ramosæ, glabræ pubescentes v. lanuginosæ, ramis teretibus. Folia opposita, ovata v. elliptico-lanceolata, integerrima. Flores in spicas v. capitula axillaria solitaria v. paniculata dispositi, albi v. virescentes; bracteæ et bracteolæ parvæ, hyalinæ.

Species 10, Asiæ et Africæ tropicæ incolæ et 2 Sandvicenses. *Moq. in DC. Prod.* xiii. ii. 279, *excl. sp. n.* 4. *Thwaites Enum. Pl. Zeyl.* 248. *Wight Ic. t.* 721 (*Leiospermum*) et 1775. *Ptilotus* (*sect. Nototrichium,* A. Gray) *sandvicensis,* Mann Enum. Hawaii Pl. 200, est *Psilotrichi* species.

23. **Psilostachys,** *Hochst. in Flora* 1844, *Beil.* 6 *t.* 4. (Poeckia, *Endl. Gen. Pl. Suppl.* iv. 43.)—Flores hermaphroditi, bracteati et 2-bracteolati. Perianthum ovoideum, 5-partitum, coriaceum; segmenta mutica, 2–3 exteriora ovato-lanceolata v. cymbiformia, ventricosa, nervis 3 valde prominentibus, interiora angustiora, tenuiora, fructifera immutata. Stamina 5, disco parvo v. conspicuo inserta, filamentis basi non aut vix connexis late subulatis, laciniis interpositis 0; antheræ breves, 2-loculares. Ovarium rotundatum v. ovoideum, compressum, glabrum, in stylum rectum attenuatum, stigmate capitellato; ovulum 1, ab apice funiculi elongati suspensum. Utriculus perianthio arcte inclusus, membranaceus, orbicularis v. fere rotundatus, indehiscens. Semen inversum, orbiculare v. subglobosum, testa coriacea brunnea punctulata, arillo 0; embryo uncinatus, cotyledonibus linearibus tenuibus obtusis radicula gracili ascendente latioribus.—Herbæ erectæ, graciles, dichotome ramosæ, glabræ v. patentim sericeo-pilosæ, superne paniculatim ramosæ. Folia opposita, petiolata, ovato-cordata, integerrima, glabra v. sericea. Flores parvuli, spicati, spicis remotifloris laxe paniculatis, rhachi capillari sæpe flexuosa, paniculis axillaribus et terminalibus elongatis filiformibus divaricatis; bracteæ et bracteolæ perianthio multo breviores.

Species 3: 1. *P. gnaphalobrya,* Hochst. l. c., Arabica et Nubica. 2. *P. sericea,* Hook. f. (*Achyranthes,* Wight Ic. t. 726), provinciæ Goozerat, Indiæ orientalis, incola. Et 3. Species nondescripta prope Melindi Africæ orientalis a Kirkio detecta.

24. **Ptilotus,** *R. Br. Prod.* 415.—Flores hermaphroditi, bracteati et 2-bracteolati. Perianthium scariosum membranaceum v. hyalinum, 5-partitum, basi non induratum; segmenta lineari-oblonga, extus glabra v. basi pilis onusta, intus glabra v. interiora basin versus lanata. Stamina 5, omnia fertilia v. nonnulla ananthera, filamentis inæquilongis

linearibus v. superne dilatatis, basi in cupulam connatis, laciniis interpositis 0; antheræ 2-loculares. Ovarium subglobosum, glabrum; stylus gracilis, stigmate capitellato; ovulum 1, ab apice funiculi elongati suspensum. Utriculus perianthio inclusus, membranaceus, indehiscens. Semen inversum, globosum v. lenticulare, testa crustacea atra nitida, arillo 0; embryo annularis, albumen farinaceum cingens, cotyledonibus linearibus planiusculis, radicula supera.—Herbæ annuæ, ramosæ, glabræ pubescentes v. lanuginosæ. Folia alterna, sæpius angusta, integerrima. Flores in spicas terminales oblongas ovoideas v. conicas solitarias v. paniculatas dispositi, albi, rhachi lanuginosa; bracteæ et bracteolæ scariosæ.

Species 11, Australiæ tropicæ et subtropicæ incolæ, quarum una (fide Blumei) moluccana. *Benth. Fl. Austral.* v. 241.—Species perianthio extus lanato non nisi habitu et defectu laciniarum inter filamenta ab *Ærua* distinguendæ. *Psiloti sect. Phænostachys*, Moq. in DC. Prod. xiii. ii. 281, est *Psilotrichi* species.

25. **Trichinium,** *R. Br. Prod.* 414.—Flores hermaphroditi, bracteati et 2-bracteolati. Perianthium angustum v. elongatum, 5-partitum, basi induratum; segmenta æqualia v. 3 interiora minora, elongato-linearia, rigida, basin versus 3-nervia, apicibus scariosis nudis exceptis pilis articulatis barbata v. plumosa. Stamina 5, filamentis inæqualibus 1–3 sæpius anantheris v. antheris effœtis basi in tubum membranaceum connatis, laciniis interpositis 0 v. rarius parvis hyalinis; antheræ lineares oblongæ v. didymæ, 2-loculares. Ovarium sessile v. stipitatum, glabrum v. lanuginosum; stylus excentricus, rigidus, gracilis, stigmate capitellato; ovulum 1, ab apice funiculi elongati suspensum. Utriculus basi perianthii indurati inclusus, membranaceus, stipitatus v. basi angustatus, obovoideus, obliquus, indehiscens. Semen inversum, oblongum, testa tenuiter coriacea nitida, arillo 0 v. membranaceo; embryo hamatus, albumen farinaceum v. subcarnosum cingens, cotyledonibus linearibus elongatis, radicula brevi supera.—Herbæ suffrutices v. rarius fruticuli, glabri v. pilis articulatis aut stellatis pubescentes. Folia alterna, angusta, rarius obovata v. spathulata, integerrima. Flores in spicas densas v. capitula globosa v. oblonga dispositi, pro ordine majusculi v. magni, albi straminei v. rosei; bracteæ et bracteolæ hyalinæ, nitidæ. Stamina et ovarium lana densa, e basi perianthii v. cupula filamentorum oriunda, induta.

Species ad 50, Australiæ incolæ. *Benth. Fl. Austral.* v. 217. *Gaud. in Freyc. Voy. Bot. t.* 49. *Field et Gard. Sert. t.* 52, 53. *Hook. f. Fl. Tasm. t.* 94 (antheræ sphalmate 1-loculares depictæ). *F. Muell. Lith. Pl. Vict. t.* 78, ined. *Bot. Reg.* 1839, *t.* 28

Arthrotrichium, *F. Muell. in Trans. Bot. Soc. Edinb.* vii. 500 ad *T. calostachyum*, speciem laciniis filamenta interjectis, conditum fuit.

Hemisteirus, *F. Muell. in Linnea*, xxv. 434, est *T. corymbosum*, Gaud., species marginibus segmentorum perianthii nudis, et semine arillato.

Goniotriche, *Turcz. in Bull. Soc. Imp. Nat. Mosc.* 1849, ii. 37 (sphalmate *Gomotriche*, ex eod. l. c. 1852, ii. 181), est *T. obovatum*, Gaud. nullo charactere a *Trichiniis* typicis generice distinguendum.

26. **Chionothrix,** *Hook. f. gen. nov.*—Flores spicati, hermaphroditi, bracteati et 2-bracteolati. Perianthium dure coriaceum, 5-partitum, basi non induratum; segmenta dorso et marginibus pilis sericeis albis suberectis segmenta non excedentibus onusta, exteriora oblongo-lanceolata, mutica, 3-nervia, interiora angustiora. Stamina 5, filamentis late linearibus basi in tubum elongatum membranaceum connatis, sinubus acutis, laciniis interpositis 0; antheræ 2-loculares, apice lato filamenti dorso insertæ, lineari-oblongæ. Ovarium obovoideum, glabrum, in stylum rectum attenuatum, stigmate capitellato; ovulum 1, ab apice funiculi elongati pendulum. Utriculus perianthio inclusus, membranaceus. Semen . . . .—Frutex pubescens, trichotome ramosus, ramulis teretibus lignosis. Folia opposita, petiolata, obovata, obtusa, integerrima, coriacea, utrinque setulis basi tumidis hirtella. Flores in spicas graciles elongatas pendulas paniculatas dispositi, straminei; bracteæ bracteolæque cymbiformes, hyalinæ, perianthio multo breviores; rhachi spicarum tomentosa, perianthio pilis immerso.

Species 1, *S. somalensis*, montium Somali terræ Africæ tropicæ orientalis incola. *Sericocoma somalensis*, Sp. Moore in Trim. Journ. Bot. 1877, 70.

27. **Nothosærua,** *Wight, Ic.* vi. 1. (Pseudanthus, *Wight, Ic.* v. 3, *t.* 1776 *bis*, B.)—Flores minuti, hermaphroditi, bracteati et 2-bracteolati. Perianthium hyalinum, lana involutum, basi haud induratum, 4-partitum ; segmenta oblonga, subæqualia, obtusa, concava, 1-nervia. Stamina 1–2, hypogyna, filamentis basi liberis filiformi-subulatis, laciniis interpositis 0 ; antheræ didymæ. Ovarium oblongum, compressum ; stylus brevissimus, stigmate capitellato ; ovulum 1, funiculo elongato suspensum. Utriculus perianthio inclusus, oblongus, compressus, tenuiter membranaceus, indehiscens. Semen inversum, lenticulare, marginibus obtusis, testa tenuiter crustacea nitida, arillo 0 ; embryo hamatus, albumen carnoso-farinosum includens, cotyledonibus linearibus planiusculis, radicula supera.—Herba annua, ramis oppositis brachiatis, inflorescentia excepta glabra. Folia opposita, gracile petiolata, oblonga v. ovata, obtusa, integerrima, membranacea. Flores interdum 3- v. 5-meri, minimi, albi, in spiculas axillares solitarias v. fasciculatas sessiles dispositi. Utriculus perianthio subæquilongus.

Species 1, Asiæ et Africæ tropicæ incola. *Moq. in DC. Prod.* xiii. ii. 304 (*Ærua brachiata*, Mart.). Staminodia a Moquino descripta, a nobis non visa.

28. **Ærua,** *Forsk. Fl. Æg. Arab.* 170 (Ærva).—Flores hermaphroditi polygami v. dioici, bracteati et 2-bracteolati. Perianthium breve, membranaceum v. subchartaceum, 5- rarius 4-partitum, basi non induratum; segmenta subæqualia v. 3 interiora angustiora, oblonga v. lanceolata, obtusa acuta v. acuminata, omnia v. 3 interiora tantum lanata. Stamina 5, rarius 4, filamentis sæpius inæquilongis subulatis, basi in cupulam brevem rarius elongatam connatis, laciniis interpositis brevibus v. elongatis ; antheræ didymæ, 2-loculares. Ovarium obovoideum v. subglobosum ; stylus brevis v. elongatus, stigmatibus 2 v. stigmate capitellato, ovulum 1 ab apice funiculi elongati suspensum. Utriculus perianthio inclusus, membranaceus, indehiscens v. vertice coriaceo circumscisso. Semen inversum, ovoideum v. reniforme, compressum, testa tenuiter coriacea, arillo 0 ; embryo periphericus, albumen farinaceum cingens, cotyledonibus linearibus planiusculis, radicula supera.—Herbæ v. fruticuli, erecti prostrati v. scandentes, lanati. Folia alterna opposita et pseudo-verticillata, linearia oblonga v. obovata, integerrima. Flores parvi v. minuti, in spicas terminales et axillares solitarias v. paniculatas dispositi, albi v. ferruginei.

Species ad 10, Asiæ et Africæ calidioris incolæ. *Moq. in DC. Prod.* xiii. ii. 299, *excl. sp.* *Gærtn. f. Fruct.* iii. *t.* 213.

Genus polymorphum etsi sat naturale. In *Æ. Monsonia*, Moq. ; Wight, Ic. t. 725 (*Achyranthes*, male quoad filamenta) rami oppositi, divaricati, staminum cupula elongata ovarium compressum includens, ovarium vertice deciduo stigmate subsessili capitato, semen oblongum turgidum. In *Æ. javanica*, Juss., Wight, Ic. t. 876, flores fasciculati, dioici, lateralibus in fasciculo imperfectis, ♂ inter catervam speciminum scrutatorum a nobis haud detecti, et a Wallichio frustra quæsiti (cf. Fl. Ind. ed. Wall. et Car. ii. 495, *Achyranthes incana*), stylus elongatus, stigmatibus elongatis plumosis, semen reniforme; vix eadem species est var. δ *Boivini*, Moq., desertorum Arabiæ et Affghaniæ incola, floribus pariter dioicis sed minoribus, ♂ haud raris. In *Æ. lanata*, Juss. (an Wight Ic. t. 723? quæ potius *Æ. scandentis* forma), stylus breviter 2-fidus. In. *Æ scandente*, Wall. ; Wight Ic. t. 724 (male quoad utriculum circumscissum et semen horizontale) folia alterna et stricte opposita, stigma capitellatum v. breviter 2-fidum. In *Æ. floribunda*, Wight, Ic. t. 1776 et 1776 A, folia omnia alterna et laciniæ inter stamina filamentis æquilongæ. In *Æ. congesta*, Balf. f. in Baker, Fl. Maurit. 267, insulæ Rodriguez incola, folia minima, perianthii minuti segmenta exteriora glaberrima, et staminum cupula brevissima.

29. **Calicorema,** *Hook. f. gen. nov.*—Flores subcapitati v. spicati, hermaphroditi, bracteati et 2-bracteolati. Perianthium dure coriaceum, 5-partitum, basi non aut modice induratum ; segmenta dorso et marginibus pilis rectis sericeis albis scaberulis segmenta non excedentibus onusta, exteriora oblongo-lanceolata mutica 3-nervia, interiora angustiora. Stamina 5, filamentis filiformibus basi membrana tubulosa connexis, laciniis interpositis brevibus latis erosis ; antheræ parvæ, breves, 2-loculares. Ovarium oblique obovoideum, glabrum, in stylum gracilem attenuatum, stigmate capitellato ; ovulum ab apice funiculi elongati suspensum. Utriculus . . .—Frutex rigidus, ramosus, ramulis robustis

alternis teretibus lignosis, ultimis furfuraceo-tomentellis. Folia sparsa, parva, angusta, cylindracea, obtusa, glabra, carnosa, superne sulcata, ramulis angustiora. Flores ad apices ramulorum subspicatim dispositi, solitarii v. fasciculati, rhachi spicæ robusta; bracteæ et bracteolæ breves, cymbiformes, hyalinæ, perianthio pilis albis immerso multo breviores.

Species 1, *C. capitata*, Hook. f. (*Sericocoma capitata*, Moq. in DC. Prod. xiii. ii. 308, ubi ad genus novum dubitanter relata est). A *Sericocoma* differt floribus solitariis imperfectis 0, staminum tubo elongato et ovario glaberrimo. Flores illos *Chionothricis* in mentem revocant.

30. **Stilbanthus,** *Hook. f. in Hook. Ic. t.* 1286.—Flores hermaphroditi, bracteati et 2-bracteolati. Perianthium elongatum, coriaceo-scariosum, 5-partitum, basi non induratum; segmenta ovato-lanceolata, acuta, nervosa, dorso sub apice sericeo-barbata, exteriora latiora. Stamina 5, filamentis elongatis ciliolatis basi breviter connatis, laciniis interpositis iis æquilongis ligulatis penicillatis; antheræ didymæ, 2-loculares. Ovarium oblongum, compressum, apice penicillatum; stylus filiformis, stigmate capitellato; ovulum 1, oblongum, ab apice funiculi elongati pendulum. Utriculus perianthio inclusus, oblongus, apice villosus, membranaceus, indehiscens. Semen inversum, late oblongum, testa tenuiter coriacea brunnea, arillo 0; embryo (immaturus) periphericus, albumen cingens, cotyledonibus . . . radicula ascendente.—Arbor alte scandens, trunco robusto, ramulis herbaceis dependentibus obtuse 4-gonis foliisque pubescentibus. Folia opposita, petiolata, ampla, elliptico-ovata, caudato-acuminata, integerrima. Flores pro ordine magni, spicati, albi, splendentes, spicis pedunculatis in paniculas trichotome ramosas terminales ferrugineo-pubescentes dispositis; bracteæ bracteolæque late ovatæ, aristato-acuminatæ, scariosæ, nitidæ.

Species 1, Himalayæ orientalis incola.

31. **Achyranthes,** *Linn. Gen. n.* 288.—Flores hermaphroditi, bracteati et 2-bracteolati, demum deflexi. Perianthium rigide coriaceum, 4–5-partitum, demum induratum; segmenta subæqualia, subulato-lanceolata, aristato-acuminata, glabra v. pilosa, nitida, nervosa. Stamina 5, rarius 2 v. 4, filamentis filiformi-subulatis basi membrana connexis, laciniis interpositis quadratis erosis laceris v. dorso lamella laciniata instructis; antheræ oblongæ v. didymæ, 2-loculares. Ovarium oblongum v. lageniforme, subcompressum, glabrum; stylus filiformis, stigmate capitellato; ovulum 1, ab apice funiculi elongati suspensum. Utriculus perianthio inclusus, ovoideus v. oblongus, vertice rotundato v. areolato, membranaceus, indehiscens. Semen inversum, oblongum, testa tenuiter coriacea rufo-brunnea, arillo 0; embryo periphericus, albumen farinaceum cingens, cotyledonibus linearibus v. lanceolatis planis apice acutis incurvis radicula erecta latioribus.—Herbæ basi interdum frutescentes, erectæ v. basi decumbentes, glabræ tomentosæ v. sericeæ, ramis teretibus. Folia opposita, petiolata, ovata obovata v. lanceolata, integerrima. Flores in spicas elongatas graciles terminales simplices v. paniculatas dispositi, albi v. virescentes; bracteæ persistentes, membranaceæ; bracteolæ erectæ, in spinas leviter divergentes productæ.

Species ad 12, regionibus tropicis et calidis obviæ. *Moq. in DC. Prod.* xiii. ii. 311, *excl. sect.* i. *et* ii. *Gærtn. Fruct.* ii. *t.* 128 (*A. aspera*). *Lam. Illustr. t.* 168, *excl. f.* 2. *Benth. Fl. Austral.* v. 246. *A. Gray in Proc. Amer. Acad.* vii. 200. *Wight, Ic. t.* 722 (*male quoad bracteolas*), 1777 ad 1779. *A. sericea*, Kœn., est *Psilotrichi* species; *A. paludosa*, Bunb., est *Telanthera philoxeroides*. *A. arborescens*, Br., habitu et bracteolis breviter spinescentibus a congeneribus differt, necnon spicis brevibus rhachi flexuosa et floribus distichis patentibus vix reflexis. CENTROSTACHYS, *Wall. in. Roxb. Fl. Ind. ed. Carey*, ii. 497; *Moq. l. c.* 321; *Endl. Iconog. t.* 20; *Wight, Ic. t.* 1780, includit species 2 africanas et indicas laciniis inter filamenta dorso lamina fimbriata instructis, quod enim occurrit in *A. aspera* ex icone Wightii t. 1777.

32. **Pandiaka,** *Moq. in DC. Prod.* xiii. ii. 310 (Achyranthis *sect.*).—Flores hermaphroditi, bracteati et 2-bracteolati, bracteis et bracteolis chartaceis perianthium æquantibus. Perianthium angustum, breviter stipitatum, dure chartaceum, 5-partitum, basi demum induratum et 3-lobum; segmenta subulato-lanceolata, acuminata, pungentia,

pilosa, nervis obscuris. Stamina 5, filamentis filiformibus compressis basi membrana connexis, laciniis interpositis quadratis ciliatis v. nudis; antheræ lineari-oblongæ, 2-loculares. Ovarium oblongo-cylindraceum, vertice rotundatum v. truncatum incrassatum; stylus capillaris, stigmate minimo capitellato; ovulum 1, ab apice funiculi elongati suspensum. Utriculus subcylindraceus, perianthio indurato inclusus, membranaceus, vertice obliquo incrassato planiusculo v. cupulari, indehiscens. Semen inversum, subcubico-oblongum, extremitate radiculari in rostrum erectum laterale hilum in sinu fovens producto, testa tenuiter coriacea, arillo 0; embryo magnus, periphericus, albumen farinaceum cingens, cotyledonibus lanceolatis apicibus involutis concavis interiore angustiore, radicula erecta. —Herbæ erectæ, trichotome ramosæ, pubescentes v. villosæ. Folia opposita, sessilia, ovato-oblonga v. linearia, acuta, integerrima. Flores majusculi, in capitula v. spicas oblongas terminales densifloras foliaceo-involucratas dispositi, albi, erecti v. patentes, nunquam deflexi.

Species 3, Africæ tropicæ incolæ. Includit *Achyranthem Heudelotii* et *involucratam*, Moq., et *Cyathulam cylindricam*, Schweinf. Pl. Cent. Afr. No. 1542 (non Moq.).

33. **Achyropsis,** *Moq. in DC. Prod.* xiii. ii. 310 (Achyranthis *sect. partim*).—Flores hermaphroditi, bracteati et 2-bracteolati. Perianthium rigide coriaceum, glabrum, 4–5-partitum, basi non induratum; segmenta oblonga, subacuta, enervia, nitida. Stamina 4–5, filamentis subulatis basi membrana connexis, laciniis interpositis quadratis erosis v. breviter fimbriatis; antheræ didymæ, 2-loculares. Ovarium late ovoideum v. oblongum, compressum, glabrum, in stylum brevem v. subelongatum attenuatum, stigmate capitellato; ovulum 1, ab apice funiculi elongati suspensum. Utriculus perianthio inclusus, late ovoideus, compressus, membranaceus, indehiscens. Semen inversum, oblongo-rotundatum, testa tenuiter coriacea brunnea albumini carnoso adhærente, arillo 0; embryo periphericus, cotyledonibus planis radicula ascendente paulo latioribus.—Fruticuli erecti, tenuiter sericeo-puberuli, trichotome ramosi, ramis strictis sulcatis. Folia opposita et fasciculata, lineari-obovata, obtusa, basi angustata, integerrima, nervis inconspicuis. Flores parvi, albi, spicati, spicis axillaribus et in paniculas terminales trichotome ramosas dispositis; bracteæ membranaceæ, acuminatæ, bracteolæ obtusæ.

Species 3, Africæ australis incolæ. Genus habitu, bracteis non spinescentibus, floribusque non deflexis ab *Achyranthe* omnino distinctum. Includit *A. albam*, Eckl. et Zeyh., *A. leptostachyam*, E. Mey., et *A. acicularem*, E. Mey.

34. **Nyssanthes,** *R. Br. Prod.* 418.—Flores hermaphroditi, bracteati et 2-bracteolati, bracteis bracteolisque patentibus longe gracile spinescentibus. Perianthium rigidum, 4-partitum, demum induratum; segmenta subulato-lanceolata, glabra v. puberula, exteriora v. omnia longe aciculari-spinescentia, interiora minora. Stamina 2 v. 4, filamentis basi in cupulam connatis, laciniis interpositis late oblongis truncatis glabris v. ciliatis; antheræ breves, 2-loculares. Ovarium oblongum; stylus breviusculus, stigmate capitellato; ovulum 1, ab apice funiculi elongati suspensum. Utriculus perianthio indurato inclusus, globosus v. ovoideus, vertice indurato dilatato depresso, tenuiter membranaceus, indehiscens. Semen inversum, testa tenuiter crustacea fusca nitida, arillo 0, embryo . . . —Herbæ annuæ v. biennes, pubescentes, ramosi, ramis oppositis patentibus, ramulis teretiusculis ad axillas foliosis. Folia opposita, sessilia v. petiolata, ovata, acuta v. obtusa, integerrima. Flores virides, in capitula pauciflora sessilia axillaria dispositi, stellatim patentes v. reflexi; bracteæ et bracteolæ divaricatæ.

Species 2, Australiæ orientalis incolæ. *Benth. Fl. Austral.* v. 246. Semina a nobis non visa.

Tribus III. Gomphreneæ.

35. **Guilleminea,** *H. B. et K. Nov. Gen. et Sp.* vi. 40, *t.* 518.—Flores hermaphroditi, bracteati et 2-bracteolati, bracteis bracteolisque subæqualibus. Perianthium campanulatum, lanuginosum, tubo obconico, limbo 5-lobo; lobi æquales, ovati v. subulati, membranacei v. subrigidi. Stamina 5, perigyna, basi loborum perianthio inserta, filamentis

brevibus triangulari-subulatis basi brevissime connatis, laciniis interpositis 0; antheræ minutæ, ovoideæ, 1-loculares. Ovarium ovoideo-oblongum, compressum; stylus brevis, stigmate emarginato; ovulum 1, ab apice funiculi elongati suspensum. Utriculus membranaceus, indehiscens. Semen inversum, lenticulare v. compresso-globosum, testa lævi coriacea; embryo annularis, albumen farinaceum cingens, radicula supera.—Herbæ radice perennante, prostratæ, ramosæ, lanatæ, foliosæ. Folia opposita, ovata, integerrima, petiolis basi connatis. Flores minuti, in axillis foliorum congesti, lana immersi, sessiles v. breviter pedicellati; bracteæ bracteolæque hyalinæ.

Species 3 (an unius varietates?): 1. *G. illecebroides*, H. B. et K. (*G. densa*, Moq. in DC. Prod. xiii. ii. 338), Andium a Peruvia ad Novam Mexico incola. 2. *G. lanuginosa*, Moq. l. c. (*Gossypianthus*), præcedenti valde affinis sed lobis perianthii angustioribus, Americæ a Texas ad provincias Argentinas incola. 3. *G. australis*, Hook. f. (*Gossypianthus australis*, Griseb. Pl. Lorentz. 35, t. 1, f. 2); staminodia a Grisebachio in *G. australi* descripta et depicta a nobis non visa.

36. **Cladothrix**, *Nutt. in Herb. Hook.*—Flores minuti, hermaphroditi, bracteati et 2-bracteolati, bracteis bracteolisque hyalinis. Perianthium teres, sparse stellatim pilosum, 5-partitum; segmenta æqualia, oblonga, obtusiuscula, 1-nervia, scarioso-membranacea. Stamina 5, hypogyna, filamentis in cupulam brevem connatis, laciniis interpositis 0 v. minutis; antheræ magnæ, lineari-oblongæ, 1-loculares. Ovarium globosum, in stylum brevem attenuatum, stigmate capitato simplici v. 2-lobo, ovulum 1, ab apice funiculi capillaris suspensum. Utriculus . . .—Fruticuli v. herbæ ramosæ, stellatim tomentosæ, ramulis erectis v. prostratis. Folia opposita, breviter petiolata, integerrima, ovata v. obovata, orbicularia, utrinque tomentosa. Flores minuti, in axillis foliorum pauci, congesti, tomento immersi; bracteæ parvæ, apices versus pilis ramosis barbatæ.

Species 2, regionis Mexicano-Texanæ et Californiæ incolæ. *Moq. in DC. Prod.* xiii. ii. 359 (*Alternantheræ sect.*). *S. Wats. Bot. Calif.* ii. 43 *ined. Torr. in Emory Rep.* 199 (*Alternantheræ sect. Endotheca*). Utriculus a nobis non visus, ex Moq. l. c. calycem duplo superans, ovatus, compressiusculus, glaber, semine subtriangulari-ovato margine obtusissimo flavescente. Staminodia ex Wats. l. c. interdum minuta.

37. **Pfaffia**, *Mart. Nov. Gen. et Sp.* ii. 20, *t.* 122 *ad* 124.—Flores hermaphroditi, rarius polygami, bracteati et 2-bracteolati, capitati v. rarissime spicati, capitulis solitariis longe pedunculatis. Perianthium intra bracteolas sessile, teretiusculum v. leviter compressum, 5-partitum; segmenta subæqualia, pilis rectis v. tortuosis sericea v. lanata. Tubus stamineus elongatus, ad medium versus 5-fidus, laciniis antheriferis margine ciliatis apice erosis fimbriatis v. 2-fidis, anantheris interpositis 0; antheræ ad apices laciniarum sessiles v. breviter stipitatæ, lineari-oblongæ, 2-loculares. Ovarium ovoideum, stigmate sessili discoideo v. capitellato integro v. 2-lobo; ovulum 1, ab apice funiculi elongati suspensum. Utriculus ovoideus, membranaceus, indehiscens. Semen inversum, turgide lenticulare, hilo emarginato, testa coriacea brunnea lævi; embryo annularis, albumen farinaceum cingens, cotyledonibus linearibus v. dilatatis, radicula supera.—Herbæ graciles, erectæ, tomentosæ v. villosæ, rarius glabratæ. Folia opposita, sessilia v. subsessilia, integerrima. Capitula v. spicæ densifloræ; bracteæ bracteolæque hyalinæ.

Species ad 15, Brasilianæ. *Moq. in DC. Prod.* xiii. ii. 387 (*Gomphrenæ sect.*). *Seub. in Mart. Fl. Bras.* v. i. 194, *t.* 58 *ad* 60 (*Gomphrena*). Cotyledones in *P. jubata* latissimæ.

Serturnera, *Mart. Nov. Gen. et Sp.* ii. 36, *t.* 136 *ad* 138; *Moq. in DC. Prod.* xiii. ii. 383 (*Gomphrenæ sect.*), a *Pfaffia* nullo charactere differt nisi floribus polygamo-monoicis.

38. **Mogiphanes**, *Mart. Nov. Gen. et Sp.* ii. 29, *t.* 129 *ad* 135.—Flores hermaphroditi, bracteati et 2-bracteolati, capitati, capitulis pedunculatis basi nudis v. foliis 2 involucratis. Perianthium intra bracteolas distincte stipitatum, teretiusculum, 5-partitum; segmenta rigida, acuminata, nervosa, lana non involuta. Tubus stamineus 10-fidus, laciniis 5 alternis subulatis antheriferis, 5 alternis anantheris ligulatis apice erosis v. fimbriatis margine nudis v. rarissime fimbriatis; antheræ oblongæ, 1-loculares. Ovarium ovoideum v. obovoideum; stylus manifestus, stigmate capitellato; ovulum 1, ab apice funiculi

elongati suspensum. Utriculus ovoideus v. oblongus, membranaceus, vertice interdum cupulari v. annulato, indehiscens. Semen inversum, oblongum v. lenticulare, testa coriacea nitida; embryo annularis, albumen farinaceum cingens, radicula supera.—Herbæ, sæpius erectæ, ramosæ, pilosæ villosæ v. pubescentes. Folia opposita, breviter petiolata, integerrima, membranacea, sæpius lanceolata et acuminata. Capitula globosa, rarius subcylindracea, pedunculis sæpe elongatis. Perianthii stipes teretiusculus v. 5-gonus, cum basi ejus continuus v. articulatus; bracteolæ nunc cymbiformes perianthio breviores, nunc complicatæ dorso cristatæ v. alatæ, perianthium æquantes v. superantes.

Species ad 10, Americanæ tropicæ. *Moq. in DC. Prod.* xiii. ii. 378 (*Telantheræ sect.*). *Griseb. Fl. Brit. W. Ind.* 64. *Seub. in Mart. Fl. Bras.* v. i. 178 (*Telantheræ sect.*). *Chapm. Fl. S. U. St.* 383 (*Telantheræ sp. n.* 3 *et* 4). *Jacq. Ic. Rar. t.* 346 (*Gomphrena*).

39. **Telanthera,** *R. Br. in Tuckey, Congo,* 477, *in nota.* (Teleianthera, *Endl. Gen.* 301.)—Flores hermaphroditi, bracteati et 2-bracteolati, capitati, capitulis axillaribus sessilibus rarius pedunculatis v. terminalibus globosis v. oblongis. Perianthium intra bracteam sessile, nunc a dorso compressum, ambitu subtrigonum, basi incrassatum, lana non involutum, 5-partitum, segmentis valde inæqualibus coriaceis, antico et 2 posticis subplanis, 2 lateralibus interioribus minoribus genitalia includentibus, nunc subteres, segmentis æqualibus. Tubus stamineus 10-fidus, laciniis 5 alternis subulatis antheriferis, 5 alternis anantheris longioribus ligulatis margine fimbriatis v. nudis apice erosis v. laceris; antheræ oblongæ v. cylindraceæ, 1-loculares. Ovarium globosum v. ovoideum; stylus manifestus, stigmate capitato; ovulum 1, ab apice funiculi elongati suspensum. Utriculus obovoideus, membranaceus, indehiscens. Semen inversum, lenticulare, testa coriacea lævi; embryo annularis, albumen farinaceum cingens, cotyledonibus compressis, radicula supera.—Herbæ, rarius suffrutices, erecti prostrati v. repentes, glabri pubescentes v. tomentosi, pilis interdum stellatis. Folia opposita, sessilia v. petiolata, ovata oblonga v. linearia, sæpius crassiuscula. Capitula densiflora, rarissime terminalia, solitaria v. fasciculata. Flores sæpissime parvi, albi rarius colorati; bracteæ et bracteolæ perianthio breviores, coriaceæ.

Species ad 45, Americæ calidioris incolæ, quarum una etiam in Africa occidentali incola. *Moq. in DC. Prod.* xiii. ii. 362. *Seub. in Mart. Fl. Bras.* v. i. 168 (*excl. ex utraque sectione Mogiphani*).

Genus in sectiones 2 sequentes dividitur;—

1. *Bucholtzia,* cui pertinet species typica *T. maritima, Br.* Capitula sæpius in axillis sessilia. Perianthium ambitu subtrigonum, segmentis 2 interioribus minoribus. *Griseb. Fl. Brit. W. Ind.* 67 (*Alternanthera sect. excl. A. achyranthi*). *L'Hérit. Stirp. Nov. t.* 37 (*Illecebrum*). *Lam. Illustr. t.* 168, *f.* 2 (*Achyranthes*). *Seub. in Mart. Fl. Bras.* v. i. *t.* 53, 54. *Anders. in Eugen. Resa, Bot. t.* 4, 5. Bucholtzia, *Mart. Nov. Gen. et Sp.* ii. 49 *t.* 147 *ad* 151. Steiremа, *Raf. ex Moq. T. albida,* Moq. (*Alternanthera tomentella,* Seub.) et *T. peruviana,* Moq., laciniis anantheris tubi staminei brevibus, ad *Alternantheram* accedunt. *T. minutiflora,* Seub., a sectione differt habitu et perianthio teretiusculo segmentis omnibus subæqualibus concavis. *T. philoxeroides* et *T. prælonga,* Moq., inflorescentia et perianthiis ad sectionem sequentem transferendæ sunt.

2. *Brandesia.* Capitula plus minus longe pedunculata; flores longiores, perianthii segmentis subæqualibus. *Seub. in Mart. Fl. Bras.* v. i. *t.* 51, 52. *Bot. Mag. t.* 830 (*Achyranthes*). *Andr. Bot. Rep. t.* 380 (*Achyranthes*). Brandesia, *Mart. Nov. Gen. et Sp.* ii. 25, *t.* 125 *ad* 128.

40. **Alternanthera,** *Forsk. Fl. Æg. Arab.* 28.—Flores hermaphroditi, bracteati et 2-bracteolati, capitati, capitulis axillaribus sessilibus. Perianthium intra bracteas sessile, a dorso compressum, 5-partitum; segmenta inæqualia, antico et 2 posticis planis, 2 lateralibus interioribus concavis genitalia includentibus. Tubus stamineus varius, brevis, cupularis, laciniis 2–5 subulatis antheriferis, anantheris interpositis totidem v. 0; antheræ breves v. elongatæ, 1-loculares. Ovarium orbiculare v. obovoideum; stylus brevis v. 0, stigmate capitellato rarius brevissime 2-cruri; ovulum 1, ab apice funiculi elongati pendulum. Utriculus compressus, ovoideus v. orbiculari-obcordatus, sæpe marginibus incrassatis late alatus. Semen inversum, lenticulare, testa coriacea lævi; embryo annularis, albumen farinaceum cingens, cotyledonibus angustis, radicula supera.—Herbæ prostratæ

v. decumbentes rarius erectæ, ramosæ, glabræ pubescentes v. tomentosæ. Folia opposita, sessilia v. petiolata, obovata oblonga v. linearia, integerrima v. obscure denticulata. Capitula parva, interdum in massam globosam dense congesta. Flores parvi, sæpissime albi, oblongi v. lanceolati; bracteæ bracteolæ et perianthii segmenta obtusa acuta v. longe aciculari-acuminata.

Species ad 16, tropicæ et subtropicæ, maxima copia in Australia et America tropica vigentes. *Moq. in DC. Prod.* xiii. ii. 354 (*excl. sect.* 1 *et* 2). *Seub. in Mart. Fl. Bras.* v. i. 182, *t.* 55 *ad* 57 (*excl. sect.* 2). *Benth. Fl. Austral.* v. 248. *Beauv. Fl. Owar. et Ben. t.* 99, 104. *Wight, Ic. t.* 727. *Webb, Phytog. Canar. t.* 199. *Mart. Nov. Gen. et Sp.* ii. *t.* 152.

Genus a *Telanthera* distinguendum cupula staminea semper brevi, laciniis inter filamenta interpositis dum adsint semper brevibus, et stylo brevissimo. Species Australienses, *A. nodiflora*, *A. denticulata*, *A. nana* et *A. angustifolia* bene cum typo generico conveniunt; *A. polycephala*, Benth. (*A. angustifolia*, Moq. non. Br.) est *Ptiloti* species (*P. macrotrichus*, F. Muell.). *A. decipiens*, Benth., *A. leptophylla*, Benth., et *A.*? *longipes*, Benth., sunt stirpes quoad genus valde dubiæ.

Allaganthera, *Mart. Hort. Erlang.* 69, *ex Moq.* ad *A. sessilem*, Br., conditum fuit.

Lithophila, *Swartz, Fl. Ind. Occ.* i. 47, *t.* 1; *Griseb. Fl. Brit. W. Ind.* 66, differt tantum staminibus 2 oppositis (rarissime 3) stylisque 2 brevibus. Includit species 4, habitu diversas, quarum una Antillana, *L. muscoides*, Sw., capitulis terminalibus et axillaribus cylindraceis pedunculatis, et tres Galapagenses, filamentis in cupulam simplicem v. dentatam ovario breviorem basi connatis: *A. radicata*, Hook. f., et *A. subscaposa*, radicibus crassis foliis rosulatis omnibus radicalibus; et *A. scirpoides*, Hook. f., caulibus scapiformibus semipedalibus nudis crassis culmum *Scirpi* in mentem revocantibus, capitulis terminalibus congestis.

41. **Gossypianthus,** *Hook. Ic. Pl. t.* 251.—Flores hermaphroditi, axillares, congesti, bracteati et 2-bracteolati; bracteæ bracteolæque subæquales, hyalinæ. Perianthium teres, lanuginosum, 5-partitum; segmenta æqualia, lanceolata et acuminata, v. elongato-spathulata et obtusa, subrigida. Stamina 5, filamentis subulatis in cupulam brevem connatis, laciniis interpositis 0; antheræ parvæ, oblongæ, 1-loculares. Ovarium ovoideum v. oblongum, compressum; stylus brevis, stigmate emarginato; ovulum 1, ab apice funiculi elongati suspensum. Utriculus ovoideo-oblongus, membranaceus, indehiscens. Semen inversum, lenticulare, hilo emarginato, testa pallida tenuiter crustacea brunnea nitida lævi; embryo annularis, albumen farinaceum cingens, radicula supera.—Herbæ radice perennante, lanatæ, ramosæ, rarius prostratæ. Folia radicalia rosulata, lineari-oblonga, caulina ovata v. lanceolata, integerrima. Flores minuti, in axillis foliorum congesti, lana immersi, non stricte capitati.

Species 2, regionis Mexicano-Texanæ incolæ. *Moq. in DC. Prod.* xiii. ii. 337, quoad species 2 priores. *G. lanuginosus*, Moq., et *G. australis*, Griseb., ad *Guillemineam* pertinent. *G. tomentosus*, Griseb. Pl. Lorentz., est *Gomphrena demissa*, Mart., species *G. Martianæ*, Moq. (*Philoxero heliotropifolio*, Griseb.) valde affinis. Genus *Gossypianthus* ab *Alternanthera* separatur habitu et floribus teretibus in axillis foliorum congestis nec vere capitatis.

42. **Woehleria,** *Griseb. Pfl. Trop. Amer.* 11.—Flores hermaphroditi, capitellati, bracteati et 2-bracteolati, intra bracteas sessiles. Perianthium teres, glabrum, basi non induratum, 4-partitum; segmenta oblonga, obtusa, subæqualia, 3-costata, chartacea, alba. Stamen 1, unilaterale, filamento cuneiformi 3-lobo, lobis triangularibus, intermedio longiore antherifero; anthera parva, oblonga, 1-locularis. Ovarium late ovoideum, compressum, stigmatibus 2 subulatis recurvis; ovulum 1, ab apice funiculi elongati pendulum. Utriculus late oblongus, membranaceus, hyalinus, indehiscens. Semen inversum, lenticulari-reniforme, testa tenuiter crustacea lævi nitida; embryo annularis, albumen farinaceum cingens, cotyledonibus linearibus radicula supera vix latioribus.—Herba pusilla, tenuissima, glaberrima, repens, facie *Alsinis*, ramis filiformibus intertextis. Folia opposita, petiolata, orbicularia, membranacea. Flores minuti, in capitula pedunculata oblonga terminalia dispositi; bracteæ bracteolæque minutæ, consimiles, ovatæ, obtusæ, perianthio multo minores, rhachi adhærentes.

Species 1, Cubensis. Bracteæ et bracteolæ rhachi adhærentes in generibus affinibus non observantur.

43. **Philoxerus,** *R. Br. Prod.* 416 (*excl. sp. n.* 1).—Flores hermaphroditi, capitati, dense imbricati, bracteati et 2-bracteolati. Perianthium a dorso compressum, basi incrassatum et in stipitem spongiosum crassum v. angustum productum, 5-partitum; segmenta oblonga, obtusa, chartacea, nervosa. Stamina 5, filamentis in cupulam brevem connexis subulatis, laciniis interjectis 0; antheræ oblongæ, 1-loculares. Ovarium late ovoideum, compressum; stylus brevissimus, stigmatibus 2 subulatis; ovulum 1, ab apice funiculi elongati suspensum. Utriculus late ovoideus, compressus, tenuiter coriaceus, indehiscens. Semen inversum, lenticulare, testa coriacea lævi; embryo annularis, albumen farinaceum cingens, cotyledonibus angustis, radicula supera.—Herbæ prostratæ, glabræ v. rarius tomentosæ, sæpius crassiusculæ v. carnosulæ, ramis teretibus v. angulatis. Folia opposita, obovato-spathulata oblonga v. linearia, integerrima, axillis interdum barbatis. Capitula axillaria et terminalia, globosa, oblonga v. cylindracea, alba, sessilia v. pedunculata; bracteæ chartaceæ, bracteolæ carinatæ.

Species ad 10, littorales, Americæ tropicæ orientalis, Africæ occidentalis, Australiæ et ins. Loochoo incolæ. IRESINIS sect., *Endl. Gen. Pl.* 301. *Moq. in DC. Prod.* xiii. ii. 339 (*excl. specibus pluribus jam a Benthamio ad Gomphrenam relatis*). Species includendæ sunt *P. vermicularis*, Br. (Beauv. Fl. Ow. et Ben. t. 98, f. 1). *P. aggregatus*, H. B. et K. *P. carnosus* (*Telanthera philoxeroides, var. carnosa*, Moq.). *P. maracaybensis*, Klotzsch in Herb. Hook. *P. parviflorus* (*Gomphrena*, Benth. Fl. Austral.). *P. diffusa*, Spr. (*Gomphrena*, Benth. l. c.; *Iresine Brownii*, Moq.), species pubescens, stipite perianthii minuto styloque elongato, et *P. Wrightii*, Hook. f., species parvula ex ins. Loochoo (Herb. Wright, no. 240). His verisimiliter addendæ sunt species sequentes nobis incognitæ, *P. surinamensis*, Miq.; *P. crassifolius*, H. B. et K.; et *P. portulacoides*, St. Hil. *P. heliotropifolius*, Griseb., est *Gomphrena Martiana*, Moq.

44. **Gomphrena,** *Linn. Gen. n.* 314.—Flores hermaphroditi, bracteati et 2-bracteolati, capitati, rarissime spicati. Perianthium intra bracteolas sessile, compressum v. teretiusculum, 5-partitum v. 5-fidum, basi sæpissime lanatum; segmenta inæqualia v. subæqualia, lanceolata, acuminata, concava, rarius plana et obtusa. Tubus stamineus elongatus, inclusus v. exsertus, 5-fidus, lobis laciniisve apice emarginatis v. 2-fidis, alternis interpositis sæpissime 0; antheræ in sinu apicali laciniarum v. loborum sessiles v. stipitatæ, oblongæ v. lineares, 1-loculares. Ovarium turbinatum v. subglobosum; stylus brevis v. elongatus, stigmatibus 2 rarissime 3 subulatis v. filiformibus, v. stigmate 2-lobo; ovulum 1, ab apice funiculi elongati suspensum. Utriculus ovoideus v. oblongus, compressus, interdum basi induratus. Semen inversum, lenticulare, testa coriacea lævi; embryo albumen farinaceum cingens, annularis cotyledonibus angustis, v. periphericus cotyledonibus obovatis, radicula gracili supera.—Herbæ erectæ v. prostatæ, ramosæ, articulis sæpe tumidis, hirsutæ v. villosæ. Folia opposita, sessilia v. breviter petiolata, integerrima. Capitula parva v. magna, nuda v. basi foliis involucrata, in speciebus perplurimis ad apices ramorum solitaria, sessilia. Flores breves v. elongati, albi v. colorati; bracteolæ breves v. elongatæ, concavæ, carinatæ v. dorso alatæ v. cristatæ.

Species ad 70, perplurimæ Americæ calidioris et Australiæ incolæ; una late per Asiam et Africam tropicam dispersa. *Moq. in DC. Prod.* xiii. ii. 391 (*sect. Wadapus partim, et Xerosiphon*). *Mart. Nov. Gen. et Sp.* ii. *t.* 101 *ad* 119. *Seub. in Mart. Fl. Bras.* v. i. 199, *t.* 62 *ad* 67 (*sect. Gomphrenula partim, Cristularia, Stachyanthus, et Xerophyton*). *Benth. Fl. Austral.* v. 252 (*excl. sp. n.* 13 *et* 14). *Griseb. Pl. Lorentz.* 32; *Symb. Fl. Argent.* 33. *St. Hil. Pl. Us. Bras. t.* 31, 32. *Torr. Bot. Emory Exped.* 181. *Wight Ic. t.* 1784. *Jacq. Hort. Schœnb.* iv. *t.* 482. *Bot. Mag. t.* 2614, 2815, 4064. BRAGANTIA, *Vand. Fasc. Pl. Nov.* (1771) 6, *ed.* 2 *in Roem. Script.* 50, *non Lour.* SCHULTESIA, *Schrad. in Gœtt. Gelehrt. Anz.* 1821, 708 *ex Mart.* Tubus stamineus in speciebus Americanis et paucis Australiensibus elongatus, 5-fidus, laciniis interpositis 0; in aliis Australiensibus in 'Flora Australiensi' bene descriptis tubus polymorphus est, nunc cupularis, v. ut in *Telanthera* dentibus laciniisve anantheris interpositis, v. filamenta brevia subulata basi remota in cupulam membranaceam connexa. *G. parviflora*, Benth., et *G. diffusa*, Spreng., sunt *Philoxeri* species.

XEROSIPHON, *Turcz. in Bull. Soc. Imp. Nat. Mosc.* 1843, 55; *Mart. Nov. Gen. et Sp.* ii. *t.* 121 (*Gomphrena*), sectionem efficit perianthii angustissimi segmentis ad medium connatis, stylo brevissimo, stigmatibus 2, in una specie brevibus, in altera in unum conicum coadunatis.

CHNOANTHUS, *Philippi in Ann. Univ. Chili* 1862, ii. 405, *ex Linnæa* xxxiii. 223, Mendozæ incola, est verisimiliter *Gomphrenæ* species, *G. demissæ*, Moq. affinis.

45. **Frœlichia,** *Mœnch. Meth.* 50.—Flores hermaphroditi, spicati, bracteati et 2-bracteolati, lana involuti. Perianthium intra bracteas sessile, teretiusculum, ad medium v. altius fissum, tubo demum indurato et longitrorsum cristato; lobi lanceolati, acuti, glabri. Tubus stamineus elongatus, apice 5-fidus, lobis brevibus v. elongatis obtusis; antheræ in sinubus inter lobos sessiles, 1-loculares. Ovarium ovoideum; stylus subelongatus stigmate capitellato, v. stigma sessile penicillatum; ovulum 1, ab apice funiculi elongati suspensum. Utriculus tubo indurato v. incrassato 2-alato v. -cristato perianthii inclusus, ovoideus, membranaceus, indehiscens. Semen inversum, lenticulare v. sub-obpyramidatum, testa coriacea brunnea lævi; embryo annularis, albumen farinaceum cingens, radicula supera.—Herbæ annuæ v. perennes? erectæ, sæpius sericeo-tomentosæ, caulibus simplicibus v. ramosis articulatis. Folia opposita, sessilia v. radicalia petiolata, ovata lineari-oblonga v. spathulata, integerrima. Spicæ sessiles v. pedicellatæ, interdum interruptæ. Flores parvi, bracteolis membranaceis involuti.

Species ad 10, Americæ calidioris a Texas ad Brasiliam australem incolæ. *Moq. in DC. Prod.* xiii. ii. 419. *Seub. in Mart. Fl. Bras.* v. i. 163, *t.* 50. *Anderss. in Eugen. Resa, Bot. t.* 3, 4. *Jacq. Ic. Rar.* 1, *t.* 5 (*Celosia*). *L'Hér. Stirp. t.* 3 (*Gomphrena*).

Genus in sectiones 2 dividitur:—

1. *Hoplotheca.* Stylus manifestus, stigma capitellatum. OPLOTHECA, Nutt. Gen. Am. ii. 78. *Mart. Nov. Gen. et Sp.* ii. 47, *t.* 146. *Hook. Ic. Pl. t.* 256. *Bot. Mag. t.* 2603. HOPLOTHECA, *Spreng. Syst. Cur. Post.* 52.

2. *Dilopha.* Stigma sessile, penicillatum.

F. nudicaule, Hook. f., species Galapagensis, a congeneribus differt ramis dichotomis nudis, et spicis terminalibus. An genus novum?

46. **Hebanthe,** *Mart. Nov. Gen. et Sp.* ii. 42, *t.* 140 *ad* 145.—Flores hermaphroditi v. polygamo-dioici, bracteati et 2-bracteolati, capitati v. spicati, capitulis spicisve pedunculatis in ramos oppositos paniculæ brachiatæ verticillatis. Perianthium intra bracteolas sessile, teretiusculum, lanatum v. longe sericeum, 5-partitum; segmenta æquilonga, lineari-oblonga, obtusa v. subacuta, 3–5-nervia. Tubus stamineus 5-fidus, laciniis antheriferis nunc linearibus apice 2-cruribus anantheris interpositis 0, nunc subulatis anantheris interpositis brevibus v. subquadratis v. 0; antheræ oblongæ v. ellipsoideæ, 1-loculares. Ovarium ovoideum v. globosum; stigmate capitato 2-lobo v. 2-cruri; ovulum 1, ab apice funiculi elongati suspensum. Utriculus ovoideus, membranaceus, indehiscens. Semen inversum, lenticulare, testa coriacea lævi; embryo albumen farinaceum cingens, v. annularis cotyledonibus angustis, v. periphericus cotyledonibus latis tenuibus concavis, radicula gracili supera.—Herbæ v. suffrutices erecti v. scandentes, ramis elongatis gracilibus patentibus, glabri v. inflorescentia præsertim tomentosa, rarius sericei v. villosi. Folia opposita, petiolata, ovata v. lanceolata, integerrima, subtus interdum sericea. Capitula v. spicæ parvæ, basi nudæ. Flores parvi, patentes, lanati.

Species ad 20, Americæ tropicæ incolæ. Genus in sectiones sequentes dividitur:—

1. *Euhebanthe.* Flores spicati. Perianthii segmenta 2 exteriora glabra pubescentia v. villosa, 3 interiora copiosissime et longe lanata, pilis flexuosis. *Moq. in DC. Prod.* xiii. ii. 385 (*Gomphrenæ sect.*). *Seub. in Mart. Fl. Bras.* v. i. 191 (*Gomphrenæ sect.*). *Hook. Ic. Pl. t.* 102 (*Iresine*).

Hæc sectio formas 3 præbet:—

a. Laciniæ antheriferæ subulatæ, anantheris interpositis geminis, v. laciniæ profunde 2-crures, antheris in sinubus insertis. *H. paniculata,* Mart. Nov. Gen. et Sp. ii. t. 140 et 142. *H. pulverulenta,* Mart. l. c. t. 144, 145. *H. spicata,* Mart. l. c. t. 141, 142. *H. virgata,* Mart. l. c. t. 143, 145.

b. Laciniæ antheriferæ subulatæ, anantheris interpositis solitariis elongatis. *Fendl. Pl. Venez. n.* 1069, 1076, et species 2 mexicanæ.

c. Laciniæ antheriferæ subulatæ, basi triangulares, anantheris interpositis 0. *H. paniculata,* Moq. (*Gomphrena*) non Mart. (Guiana, Rob. Schomb. n. 550, Spruce n. 4933). *H. decipiens,* H. f. (*Iresine grandiflora,* Hook.; *Alternanthera grandiflora,* Moq.). *H. pulverulenta,* Moq. non Mart. (Mexico, Galeotti, no. 7160). *H. guianensis,* Klotzsch (Rich. Schomb. n. 1527), aliæque.

2. *Gomphrenoides.* Flores majusculi, capitati, capitulis sæpius pedunculatis. Perianthii segmenta pilis erectis sericeis. Tubi staminei laciniæ antheriferæ latæ, 2-crures, anantheris interpositis 0. Stigma breviter 2-lobum. Folia subtus pilis laxis sericea. *H. vaga*, Mart. Nov. Gen. et Sp. ii. t. 120 (*Gomphrena*). *H. holosericea*, Mart. (Seub. in Mart. Fl. Bras. v. i. t. 61, *Gomphrena*). *H. argenteo-sericea*, Hook. f. (Gardn. Herb. Bras. n. 2716).

3. *Tromsdorffia.* Flores capitati. Perianthii segmenta basi pilis strictis sericeis segmenta æquantibus. Filamenta basi tubo brevissimo membranaceo connexa, laciiniis interjectis 0, v. quadratis v. triangularibus. *Moq. in DC. Prod.* xiii. ii. 350 *et Seub. in Mart. Fl. Bras.* v. i. 186 (*Alternantheræ sect.*). TROMSDORFFIA, *Mart. Nov. Gen. et Sp.* ii. 40, *t.* 139. Præter speciem Martiusanam *H. auratam*, huc pertinent *H. parviflora*, Benth. et specimina Trianæ, n. 356, e Columbia; Fendleri, n. 1071, e Venezuela; et planta a Spruceo prope Tarapoto lecta.

47. **Iresine,** *Linn. Gen. n.* 1113 (Xerandra, *Raf. ex Moq.*).—Flores hermaphroditi v. dioici, minuti, bracteati et 2-bracteolati, paniculati v. in glomerulos secus ramos paniculæ sparsos dispositi. Perianthium teres, intra bracteolas sessile, basi non induratum, sæpissime nitidulum, longe lanatum v. subnudum, 5-partitum; segmenta ovato-oblonga, acuta v. subacuta, sæpissime hyalina. Stamina 5, filamentis subulatis basi membrana brevi connexis, laciniis anantheris interpositis 0 v. brevibus latis triangularibus v. quadratis; antheræ oblongæ, 1-loculares; in fl. ♀ staminodia 5 v. 0. Ovarium in fl. ♂ 0, in ♀ compressum; stylus brevissimus v. 0, stigmatibus 2 rarissime 3 subulatis divaricatis; ovulum 1, ab apice funiculi elongati suspensum. Utriculus orbicularis, compressus, membranaceus, indehiscens. Semen inversum, lenticulare v. subreniforme, testa tenuiter crustacea nitida; embryo annularis, albumen farinaceum cingens, cotyledonibus angustis, radicula supera.—Herbæ erectæ v. suffrutices sarmentosi, glabri tomentosi v. pubescentes. Folia opposita, petiolata, integerrima v. serrulata. Paniculæ amplæ, ramis sæpissime verticillatis gracillimis. Flores interdum valde minuti, bracteæ et bracteolæ hyalinæ. Semen in speciebus variis minutissimum.

Species ad 18, Americæ tropicæ et subtropicæ incolæ. *Moq. in DC. Prod.* xiii. ii. 344 *et* 350 (*Iresinis sect. Iresiniastrum, cum speciebus variis Alternantheræ sect. Tromsdorffiæ*). Genus *Hebanthi* valde affine, distinguitur stylis 2 subulatis, semine minuto lenticulari, cotyledonibus semper angustis, in sectiones sequentes dividitur:—

1. *Euiresine.* Herbæ erectæ v. subscandentes, flaccidæ. Flores dioici, in spiculas multiplicato-paniculatas dispositi. Laciniæ inter filamenta minimæ v. 0. *I. celosioides*, Linn. (*I. polymorpha*, Mart. Nov. Gen. et Sp. ii. 56, t. 153, 154). *I. Herbstii*, Hook. Bot. Mag. t. 5499, aliæque.

2. *Rosea.* Suffrutices sarmentosi v. scandentes, rarius erecti. Flores hermaphroditi polygamo-dioici v. dioici. Laciniæ inter filamenta 0 v. solitaria, nunc elongata et fimbriata, sæpius brevia v. brevissima. Habitus *Hebanthis*. ROSEA, *Mart. Nov. Gen. et Sp.* ii. 58. Huc pertinent *Iresine elatior*, Rich.; Mart. l. c. t. 155; *I. Edmonstoni*, Hook. f.; *I. interrupta*, Benth. (*Alternanthera Richardii*, Moq. in DC. Prod. xiii. ii. 353, et IRENEIS, Moq. l. c. 349); *I. Hookeri*, Moq.; *I. latifolia* (*Alternanthera*, Moq.), aliæque.

CRUZETA, *Læfl. Iter*, 203 (CRUCITA, *Linn. Gen. n.* 167. CRUZITA, *Schreb. Gen.* 89) e Cumana est verisimiliter *Iresinis* species *I. celosioidi*, Linn. valde affinis nisi eadem, floribus (casu, v. falso descriptis) 4-meris, nec 5-meris. Cætera omnia conveniunt. Specimen nullum adest in herbario Linneano.

48. **Dicraurus,** *Hook. f. gen. nov.*—Flores dioici, minuti, bracteati et 2-bracteolati, lana longissima immersi. Perianthium teretiusculum, basi non induratum, 5-partitum; segmenta lineari-oblonga, obtusa, subscariosa, 1-nervia. Fl. ♂: Staminum filamenta 5, subulata, basi membrana connexa, 2 antherifera, cetera ananthera, laciniæ interpositæ 0; antheræ oblongæ, 1-loculares. Ovarii rudimentum ellipsoideum, compressum, apice 2-fidum. Fl. ♀: Staminodia 0. Ovarium ovoideum; stylus 0, stigmatibus 2 subulatis recurvis; ovulum 1, ab apice funiculi elongati suspensum. Utriculus late ovoideus, membranaceus, indehiscens. Semen inversum, subglobosum, testa tenuiter coriacea lævi; embryo periphericus, albumen farinaceum cingens, cotyledonibus late obovatis tenuibus concavis radicula supera multo latioribus.—Frutex ramosus, tenuiter cano-pubescens, ramis valde elongatis gracilibus teretibus. Folia parva, sparsa, alterna, breviter petiolata, ovata v. ovato-lanceolata, acuminata, integerrima, subtus sericea. Flores minuti, secus

ramos paniculæ terminalis ramulis alternis glomerati, ♀ longius lanati; bracteæ et bracteolæ late oblongæ v. rotundatæ, scariosæ, nitidæ.

Species 1, *D. leptocladus*, Hook. f., regionis Mexicano-Texanæ incola. *Wright*, *n.* 589, *Thurber*. *Iresine diffusa*, ex Torr. Bot. Emory Exped. 180, non H. B. et K. Genus ab omni tribu *Gomphrenearum* distinctum habitu, foliis alternis, et stigmatibus.

Ordo CXXXI. **CHENOPODIACEÆ.**

Endl. Gen. 292. Lindl. Veg. Kingd. 513. Salsolaceæ, Moq. in DC. Prod. xiii. ii. 41.

Flores hermaphroditi polygami v. unisexuales, regulares, rarius irregulares, nudi v. bracteati v. bracteati et 2-bracteolati. *Perianthium* simplex, sæpissime 3–5-lobum v. -partitum, v. in floribus fœmineis 0, post anthesin accrescens v. immutatum, rarissime baccatum v. nuceum; segmenta v. lobi membranacei herbacei v. chartacei, dorso nudi v. in tuberculos spinas v. alas excrescentes, æstivatione imbricati segmentis 2 v. 3 exterioribus, rarissime sub-valvati. *Stamina* numero partium perianthii isomera v. pauciora iisque opposita, nunquam plura, hypogyna v. disco v. perianthii segmentis affixa, raro staminodiis alternantia; filamenta subulata filiformia v. sæpius linearia et compressa, basi libera, rarissime membrana connata, perianthio longiora v. breviora. *Antheræ* dorsifixæ, didymæ oblongæ v. sagittatæ, 2-loculares, rarissime basifixæ, in subordine *Basellearum* versatiles et in alabastro reversæ, in ceteris incurvæ; loculi paralleli v. divergentes, a basi ad medium v. altius liberi, rimis anticis v. lateralibus dehiscentes; connectivum simplex v. in appendicem erectam planam cucullatam v. vesiculosam coloratam productum; pollen globosum. *Discus* 0 v. rarius annularis v. basin perianthii vestiens, raro crenatus v. in staminodia brevia productus. *Ovarium* liberum v. basi perianthii immersum, semper superum, et perianthio si adsit inclusum, ovoideum globosum depressum rarius oblongum v. lagenæforme, vertice sæpissime in stylum brevem v. elongatum angustatum, rarius truncatum, 1-loculare. *Stylus* terminalis, brevis v. elongatus, stigmate capitato 2–3-lobo, v. styli 2–3 elongati apice v. apice et introrsum papillosi, v. stigmata 2–5 sessilia undique v. introrsum tantum papillosa, basi connata v. discreta, interdum filiformia v. capillaria. *Ovulum* solitarium, amphitropum, erectum, funiculo basilari brevi, v. ab apice funiculi elongati suspensum. *Fructus*; utriculus membranaceus coriaceus v. carnosus, perianthio sæpissime inclusus, et non raro cum eo deciduus, indehiscens, rarissime circumscissus, pericarpio libero v. testæ seminis adhærens. *Semen* erectum inversum v. horizontale, lenticulare subglobosum reniforme v. ovoideo-compressum; testa crustacea coriacea carnosula v. membranacea, interdum albumini adhærens, lævis v. granulata, endopleura 0 v. membranacea; albumen farinaceum carnosum v. 0. *Embryo* periphericus, annularis v. hippocrepicus, albumen cingens; in *Salicornieis* dorsalis, virgulæformis v. conduplicatus et exalbuminosus; in *Salsoleis* aliisque exalbuminosus, plano- v. subcochleato-spiralis, radicula extraria; cotyledones sæpissime angustæ, planoconvexæ, in paucis planæ, radicula elongata paullo latiores; plumula inconspicua.

Herbæ annuæ v. perennes, v. frutices, raro arbusculæ humiles, glabræ glaucæ farinosæ v. lepidotæ, pilosæ v. villosæ, non raro carnosulæ. Caules continui v. articulati, teretes v. angulati, erecti v. decumbentes, in *Baselleis* dextrorsum volubiles. Folia alterna v. rarius opposita, plana et dilatata v. carnosa et cylindracea v. semiteretia, sæpissime integerrima, in paucis irregulariter sinuato-dentata, nunquam regulariter serrata; in *Salicornieis* et paucis aliis cauli adnata limbo brevissimo v. evanido; stipulæ 0. Inflorescentia varia, sæpe glomerata glomerulis in spicas paniculasve foliosas dispositis, v. axillares et solitarii, in *Chenopodiis* paucis dichotome cymosi; in *Salicornieis* strobilacei v. cavis rhacheos articulatæ immersi; rarissime pedicellati et spicati v. racemosi, inconspicui,

sæpe parvi v. minuti, fere semper virides. Perianthia post lapsum fructus persistentia, rarius cum eo decidua, in paucis in globum capitatum concreta.

Species ad 520, per orbem terrarum late dispersæ, aliæ littora maris et lacuum salsorum habitantes, aliæ præsertim in desertis ruderatis, et hominum domiciliorum vicinibus inveniuntur; pleræque temperatæ, paucæ regionum frigidarum et tropicarum incolæ.

Chenopodiaceæ, limitibus supra datis circumscriptæ, ordinem formant sat naturalem et pro maxima parte bene definitum, etsi pluribus e *Curvembryis* apetalis arcte affinem. A *Phytolaccaceis* facile distinguuntur floribus rarissime racemosis nisi in *Baselleis*, v. spicatis ut in *Lophiocarpo*, genus haud male *Phytolaccaceum* nuncupandum carpello unico et semine horizontali anomalum. Ab *Illecebraceis* differunt stipularum defectu et staminodiis rarissimis. Affinitas summa cum *Amarantacearum* generibus quorum antheræ 2-loculares et ovarium 1-ovulatum, nec characteribus validioribus separantur quam perianthii bractearumque natura et utriculo indehiscente; arcte etiam cum illis connectuntur mediantibus *Acroglochine* et *Hablitzia* quorum habitus *Chenopodiacearum* et utriculus circumscissus; et tribus *Polycnemearum* fere æquo jure ad *Chenopodiaceas* vel ad *Amarantaceas* referenda, sed hic prioribus associata ob affinitatem cum *Camphorosmate*.

FORMÆ ABNORMES.

Caulis volubilis in *Baselleis*, scandens in *Hablitzia*, articulatus in generibus variis e tribu *Salicornearum* et in paucis aliis.

Inflorescentia dichotome cymosa in *Acroglochine* et in sectione *Botrydio Chenopodii*, racemosa in *Baselleis*, spicata in *Lophiocarpo* et paucis aliis.

Antheræ basifixæ in *Ulluco*; connectivum appendice magna auctum in *Halocharide*, *Halanthio* et affinibus.

Utriculus circumscissus in *Acroglochine* et *Hablitzia*; fructus baccatus in *Rhagodia* et in sectione *Blito Chenopodii*, subdrupaceus in *Lophiocarpo*, fenestratim dehiscens in *Agriophyllo*.

Semina in speciebus nonnullis *Suædæ* et *Borszczoviæ* dimorpha, præcocia minora testa crustacea, serotina majora testa membranacea.

Embryo conduplicatus, radicula incumbente in *Salicornia*.

CONSPECTUS GENERUM.

SUBORDO I. CHENOPODIEÆ. Bracteolæ perianthio non adnatæ. Antheræ alabastro erectæ v. incurvæ. Caulis nunquam volubilis.

Series I. Cyclolobeæ. Embryo annularis v. hippocrepicus, albumen copiosum cingens, rarius virguliformis hemicyclicus v. conduplicatus.

Exceptum: Semen in *Salicornia* exalbuminosum.

Tribus I. Euchenopodieæ. Flores glomerati, hermaphroditi v. unisexuales, perianthiis homomorphis. Semen erectum inversum v. horizontale. Embryo annularis v. hippocrepicus, albumen copiosum cingens. Caulis inarticulatus. Folia plana, sæpissime glabra v. farinosa.

Exceptum: Flores in *Lophiocarpo* spicati.

* *Utriculus membranaceus, circumscissus, perianthio patente stipatus. Semen horizontale.*

1. ACROGLOCHIN. Flores ebracteolati. Stamina 1–3. Stigmata 2. Herba erecta, annua.—*Himalaya, China.*

2. HABLITZIA. Flores 2-bracteolati. Stamina 5. Stigmata 3. Herba alte scandens, radice perenni.—*Caucasus.*

** *Fructus drupaceus v. baccatus, perianthio patente v. erecto stipatus. Semen erectum v. horizontale.*

3. RHAGODIA. Flores glomerati. Semen horizontale. Herbæ v. frutices.—*Australia.*

4. LOPHIOCARPUS. Flores spicati. Semen erectum. Herbæ.—*Afric. austr.*

*** *Utriculus membranaceus, indehiscens, perianthio sæpissime inclusus.*

5. APHANISMA. Perianthium minutissimum, 3-partitum. Stamen 1. Semen horizontale, testa crustacea.—*California.*

6. CYCLOLOMA. Perianthii tubus ala circumdatus. Stamina 5. Semen horizontale, testa crustacea.—*Amer. bor.*

7. Monolepis. Perianthii segmenta v. bracteolæ 1–3, minutissimæ. Stamen 1. Semen erectum, testa crustacea.—*Siberia, Amer. bor. occ.*

8. Chenopodium. Perianthium 5-partitum, fructiferum sæpissime immutatum. Stamina 1–5. Semen erectum v. horizontale, testa crustacea v. coriacea.—*Orb. tot.*

9. Roubieva. Perianthium breviter 5-lobum, fructiferum clausum, capsulæforme, reticulatum. Semen erectum, testa crustacea.—*Amer. temp. et trop, in orb. vet. subspontanea.*

10. Beta. Perianthium 5-lobum, fructiferum basi induratum, lobis erectis v. inflexis. Semen horizontale, testa coriacea.—*Europ., Oriens, Afric. bor.*

11. Obeoblitum. Perianthium 5-partitum, fructiferum basi induratum, segmentis patentibus. Semen horizontale, testa coriacea.—*Algeria.*

Tribus II. Atripliceæ. Flores unisexuales, heteromorphi; ♂ ebracteolati, 3–5-lobi v. -partiti; ♀ sæpissime bracteolis 2 accrescentibus fructiferis liberis v. in thecam connatis instructi, perianthio 0. Semen erectum v. horizontale, testa coriacea v. crustacea; embryo annularis, albumen copiosum cingens. Caulis inarticulatus. Folia sæpius plana, non raro lepidota.

* *Flores ♀ ebracteolati v. bracteolis planis, fructiferis basi v. ad medium connatis, in thecam apertam planam v. turgidam connatis.*

12. Spinacia. Fl. ♀ ebracteolati, perianthio 3–4-dentato, tubo fructifero indurato clauso.—*Oriens, ubique cult.*

13. Exomis. Fl. ♀ : bracteolæ parvæ, fructiferæ immutatæ, perianthio 0.—*Afric. aust.*

14. Atriplex. Fl. ♀ : bracteolæ amplæ, fructiferæ auctæ, perianthio 0.—*Reg. temp. et subtrop.*

(Vide quoque 20, Microgynœcium.)

** *Flores ♀ 2-bracteolati, bracteolis conduplicatis, in thecam clausam obcompressam connatis.*

15. Grayia. Fl. ♀ : theca orbicularis, alata, glabra. Semen erectum, radicula infera.—*Amer. bor. occ.*

16. Suckleya. Fl. ♀ : theca complanata, marginibus cristatis. Semen inversum, radicula supera.—*Mont. Scopul.*

17. Eurotia. Fl. ♀: theca immarginata, sericeo-fulva. Semen erectum, radicula infera.—*As. occ. et med., Amer. bor. occ.*

18. Ceratocarpus. Fl. ♀: theca compressissima v. spinosa. Semen erectum, radicula infera.—*As. occid.*

Tribus III. Camphorosmeæ. Flores spicati v. glomerati, v. ♀ solitarii, hermaphroditi v. unisexuales, perianthiis homomorphis v. in flore fœmineo 0. Utriculus perianthio immutato inclusus v. nudus. Semen erectum, testa membranacea albumini arcte adhærente; embryo (sæpe elongatus) hippocrepicus, albumen copiosum cingens. Caulis inarticulatus. Folia ovato-linearia v. lanceolata, sæpius sericea.

19. Axyris. Flores monoici. Perianthium 3–5-partitum. Utriculus semini adhærens, superne cristatus.—*As. bor., Amer. bor. occ.*

20. Microgynœcium. Flores monoici. Perianthium masc. 3–5-lobum, fœm. 0. Utriculus superne cristatus.—*Tibetia.*

21. Camphorosma. Perianthium compressum, 4–5-dentatum, fructiferum fere clausum dentibus inappendiculatis 2 lateralibus majoribus.—*Reg. Mediterr., As. bor. et med.*

22. Panderia. Perianthium æqualiter 5-lobum, lobis dorso tuberculatis v. appendiculatis.—*As. occid. et med.*

23. Kirilovia. Perianthium æqualiter 4–5-dentatum, dentibus dorso nudis.—*As. med.*

Tribus IV. Corispermeæ. Flores spicati, hermaphroditi. Fructus e perianthio longe exsertus. Semen erectum, valde compressum, testa membranacea albumini arcte adhærente embryo annularis albumen copiosum cingens. Caulis inarticulatus. Folia alterna, angusta.

24. Corispermum. Bracteæ magnæ, imbricatæ, fructum inermem indehiscentem velantes.—*Europ. aust., Asia temp., Amer. bor. occ.*

25. Anthochlamys. Bracteæ fructu inermi indehiscente breviores.—*As. occid.*

26. Agriophyllum. Bracteæ spinescentes. Fructus 2-spinosus, fenestratim dehiscens.—*As. occid. et med.*

Tribus V. Polycnemeæ. Flores solitarii, axillares, hermaphroditi, 2-bracteolati. Utriculus perianthio immutato inclusus. Semen inversum, testa crustacea; embryo annularis, albumen copiosum cingens. Caulis inarticulatus. Folia linearia v. subulata.

27. Polycnemum. Herbæ rigidulæ, foliis alternis subulatis.—*Reg. Mediterr., As. occid.*

28. Hemichroa. Herbæ v. suffrutices, foliis alternis linearibus carnosulis.—*Australia.*

29. Nitrophila. Herbæ foliis oppositis linearibus carnosulis.—*Amer. bor. occ.*

Tribus VI. Chenoleeæ. Flores solitarii v. glomerati, sæpius hermaphroditi et fœminei, perianthiis homomorphis. Utriculus perianthio sæpissime accrescente v. appendiculato inclusus. Semen horizontale, rarissime erectum v. inversum, testa membranacea v. coriacea albumini parco v. copioso sæpe adhærente; embryo annularis, albumen cingens. Caulis inarticulatus. Folia angusta.

* *Perianthium fructiferum nudum spinosum v. alatum, basi non induratum.*

30. Chenolea. Perianthium globosum v. turbinatum, fructiferi lobis inappendiculatis v. dorso spinosis.—*Reg. temp. et subtrop. orb. vet.*

31. Kochia. Perianthium turbinatum, fructiferi lobis dorso horizontaliter late alatis.—*Reg. temp. et subtrop.*

32. Didymanthus. *Flores 2-ni basibus connati.* Perianthii fructiferi lobi dorso horizontaliter alati. *Folia opposita.—Australia.*

33. Enchylæna. Perianthium orbiculare, depressum, fructiferum carnosum.—*Australia.*

** *Perianthium fructiferum inordinate auctum, lignosum, crustaceum v. suberosum.*

34. Babbagia. Flores minimi. Perianthium fructiferum alis 3 verticalibus. Folia alterna.—*Australia.*

35. Sclerolæna. Perianthia fructifera divaricato-2-spinosa v. in capitulum globosum concreta.—*Australia.*

36. Anisacantha. Perianthium fructiferum crustaceum, spinis 2–5-patentibus. *Semen inversum.—Australia.*

37. Threlkeldia. *Perianthium fructiferum inappendiculatum inerme v. spinis 5 erectis. Semen horizontale v. obliquum.—Australia.*

38. Cypselocarpus. Perianthium fructiferum cylindraceum, nuceum, inerme, 2-locellatum. Stigma depressum. Semen erectum.—*Austral. occid.*

Tribus VII. Salicornieæ. Flores axillis squamarum strobili v. cavis rhacheos immersi, hermaphroditi. Utriculus perianthio sæpe modice aucto inappendiculato inclusus. Semen erectum inversum v. horizontale, testa crustacea v. carnosula; embryo dorsalis, virgulæformis, albumine parco v. copioso farinoso v. carnoso, vel embryo conduplicatus albumine 0. Herbæ v. frutices carnosi, ramis continuis v. articulatis. Folia opposita caulì adnata planta quasi aphylla, v. opposita et alterna plus minusve elongata.

* *Flores in cavis rhacheos inarticulati immersi, connati. Semina albuminosa.*

39. Kalidium. Perianthium naviculare, 4-dentatum. Radicula infera.—*Ross. austr., As. occid. et med.*

** *Flores in axillis squamarum strobili reconditi. Semina albuminosa.*

40. Halostachys. Perianthium pyramidatum, ore minute 3-lobo. Radicula supera. Strobili oppositi, squamis deciduis.—*Reg. Casp.*

41. Spirostachys. Perianthium pyramidatum, ore minute 4–5-lobo. Radicula infera. Strobili alterni, squamis persistentibus.—*Amer. bor. et austr.*

42. Heterostachys. Perianthium orbiculare, compressum, late alatum. Radicula infera. Strobili subopposititi, squamis caducis.—*Reg. Argent.*

43. Halopeplis. Perianthium 4-gonum, squamæ adnatum. Radicula infera. Strobili alterni, squamis persistentibus.—*Eur. aust., Afric. bor., As. occid.*

44. Halocnemon. Perianthium obpyramidatum, 3-partitum. Radicula supera. Strobili oppositi et alterni, squamis deciduis.—*Eur. austr., As. occid. et med.*

45. Tecticornia. Perianthium tubulosum, ore lacero. Radicula infera. Strobili terminales, 1–3-ni, squamis persistentibus.—*Australia.*

*** *Flores in cavis articulorum superpositorum immersi.*

46. Pachycornia. Perianthium compressum, ore 4-dentato. Semen albuminosum, rhachi lignosæ crassæ pauci-articulatæ immersum.—*Australia.*

47. Arthrocnemum. Perianthium ovoideum v. pyramidatum, ore angustato 3–4-fido. Semen albuminosum.—*Littora salsa.*

48. Salicornia. Perianthium obpyramidatum, vertice truncato, ore 3–4-denticulato. *Semen exalbuminosum, embryone conduplicato.—Littora salsa.*

49. Microcnemum. Perianthium 0. Semen albuminosum.—*Hispania.*

Series II. Spirolobeæ. Embryo plano- v. cochleato-spiralis; albumine parco v. 0.

Tribus VIII. Suædeæ. Flores hermaphroditi v. unisexuales, bracteati et 2-bracteolati. Utriculus perianthio immutato v. appendiculato inclusus. Semen erectum inversum v. horizontale, testa crustacea v. in fructibus serotinis membranacea; embryo spiralis. Caulis inarticulatus. Folia varia.

* *Utriculus liber v. basi perianthio adnatus.*

50. Suæda. Perianthium 5-lobum. Folia linearia, carnosa.—*Littora salsa.*

51. Alexandra. Perianthium 5-partitum. Folia ovata, semiamplexicaulia.—*Soongaria.*

** *Utriculus perianthio adhærens.*

52. Borsczovia. Perianthium a latere compressum. Semen erectum.—*Desert. Aral.*

53. Bienertia. Perianthium disciforme. Semen horizontale.—*Persia.*

Tribus IX. Salsoleæ. Flores hermaphroditi v. unisexuales, bracteati et 2-bracteolati. Utriculus perianthio appendiculato sæpissime horizontaliter alato inclusus. Semen erectum inversum v. horizontale, testa membranacea v. carnosula; embryo spiralis. Caulis continuus v. articulatus. Folia angusta v. 0.

* *Semen sæpissime horizontale, radicula centrifuga.*

54. Traganum. Perianthii segmenta in tubum demum induratum connata. Staminodia 0. Folia alterna.—*Afric. bor., ins. Canar. orient.*

55. Cornulaca. Perianthii segmenta in urceolum demum induratum connata. Staminodia 5. Folia alterna.—*Afric. bor., Arabia, Assyria.*

56. Seidlitzia. Perianthium fl. ♂ 5-partitum, fl. ♀ 5-lobum, lobis dorso alatis. Staminodia 0. Folia opposita.—*Orient.*

57. Arthrophyllum. Perianthii segmenta orbicularia. Discus crassus. Staminodia 0. Folia opposita, subulata.—*As. med.*

58. Horaninovia. Perianthii segmenta dorso gibba, suberosa. Discus cupularis. Staminodia 5. Folia opposita et alterna, subulata.—*Soongaria, Desert.*

59. Haloxylon. Perianthii segmenta dorso horizontaliter late alata. Discus conspicuus. Staminodia 5. *Rami articulati,* foliis 0 v. oppositis. *Hispania, Afric. bor., As. occid., India.*

60. Salsola. Perianthii segmenta dorso horizontaliter alata. Discus obscurus v. 0. Staminodia 0. Rami continui. Folia raro opposita.—*Reg. temp. et subtrop.*

61. Helicilla. Perianthium 5-fidum, demum baccatum, substellate 5-gonum.—*China.*

** *Semen erectum v. inversum rarius horizontale.*

† *Perianthii segmenta 3 exteriora. Semen,* Ofaiston *exceptum, a dorso compressum.*

62. Ofaiston. Perianthii segmenta 3 exteriora alata. Stamina 1–2; staminodia 0. Folia superiora alterna. Flores sulcis ramulorum insidentes.—*Reg. Ural.*

63. Noæa. Perianthii segmenta omnia alata. Stamina 5, disco carnoso inserta; antheræ appendiculatæ; staminodia 0.—*Orient.*

64. Girgensohnia. Perianthii segmenta 2 v. plura, alata. Stamina 5, disco inserta; antheræ inappendiculatæ; staminodia 5. Caulis vix articulatus.—*As. occid.*

65. Anabasis. Perianthii segmenta 2 v. plura, alata. Stamina 5; antheræ vix aut non appendiculatæ; staminodia 5. Caulis articulatus.—*Afric. occ., orient.*

†† *Perianthii segmenta 2 exteriora (anticum et posticum). Semen a dorso compressum. Antheræ apice vesicula v. membrana appendiculatæ. Staminodia 0 v. minuta.*

66. NANOPHYTUM. Perianthii segmenta 5, convoluta, scariosa, demum longe excrescentia, inappendiculata. Stamina 5; antheræ appendice conica. Folia sparsa, acerosa.—*Reg. Casp.*

67. PETROSIMONIA. Perianthii segmenta 2 v. plura. Stamina 5 v. pauciora; antheræ sæpe apice cohærentes; staminodia 0.—*Orient., As. med.*

††† *Perianthii segmenta 2 exteriora (anticum et posticum). Semen a latere compressum.*

a. Antheræ appendiculatæ.

68. HALOCHARIS. Perianthii segmenta 5, fructifera immutata. Stamina 5. Radicula ascendente. Folia sparsa.—*As. med.*

69. HALIMOCNEMIS. Perianthium fructiferum accrescens, basi nuceum; segmenta 3–5, basi connata, inappendiculata. Folia sparsa.—*Reg. Casp.*

70. HALANTHIUM. Perianthii segmenta 5, fructifera basi libera, immutata v. 2 exteriora dorso alata.—*As. occid.*

71. HALARCHON. Perianthii segmenta 5, hyalina, basi libera. *Stigma 2-lobum, indusiatum.*—*Afghanistan.*

72. PIPTOPTERA. Perianthii segmenta 5, demum indurata, 2 exteriora alis deciduis instructa.—*Turkestan.*

b. Antheræ inappendiculatæ.

73. HALOGETON. Perianthii segmenta dorso demum gibba v. alata. Herbæ annuæ.—*Hispania, Afric. bor., As. occid. et med.*

74. SYMPEGMA. Perianthii segmenta demum alata. *Flores in capitula terminalia glomerati.*—*As. med.*

Tribus X. Sarcobatideæ. Flores unisexuales, ebracteolati; ♂ amentacei achlamydei; ♀ axillares, perianthio demum horizontaliter alato ovario conferruminato. Utriculus membranaceus. Semen erectum, radicula infera.

75. SARCOBATUS. Frutex foliis linearibus.—*Amer. bor. occ.*

SUBORDO II. BASELLEÆ. Caulis volubilis (dextrorsum). Flores 4-bracteolati; bracteolæ 2 infraflorales parvæ v. minutæ ad apicem pedicelli; florales 2 infrafloralibus alternæ, amplæ, perianthio basi v. altius adnatæ. Antheræ sæpissime versatiles, alabastro posticæ. Ovulum erectum, funiculo brevi. Semen erectum.

Tribus XI. Eubasellеæ. Filamenta in alabastro recta. Embryo (in genere unico notus) spiralis, albumine 0 v. parco.

76. BASELLA. Flores sessiles, carnosi. Perianthii segmenta erecta, obtusa. Stigmata 3.—*Reg. trop.*

77. TOURNONIA. Flores pedicellati, carnosuli. Perianthii segmenta patentia, obtusa. Stigmata 3.—*Nov. Granada.*

78. ULLUCUS. Flores pedicellati, membranacei. Perianthii segmenta patentia, caudato-acuminata. Stylus brevis, stigmate obtuso.—*Andes.*

Tribus XII. Boussingaultieæ. Filamenta in alabastro subapice v. demissius recurva. Embryo semi-annularis, albumine farinaceo.

79. BOUSSINGAULTIA. Bracteolæ florales oblongæ, obtusæ, perianthio breviores.—*Amer. trop.*

80. ANREDERA. Bracteolæ florales naviculares, dorso longitrorsum late longeque alatæ. Styli 3.—*Amer. Calid.*

GENERA EXCLUSA.

ACNIDA, Mitch. et BOSEA, Linn. ad **Amarantaceas** pertinent, supra, 26, 29.

CRYPTOCARPUS, H. B. et K. ad **Nyctagineas** refertur, supra, 11.

DYSPHANIA, R. Br. inter **Illecebraceas** recenseter, supra, 14.

PUGIONIUM, Gærtn., est **Caryophyllea**, supra, i. 96.

THELYGONUM, Linn., infra sub **Urticaceis** quærendum.

TRIBUS I. CHENOPODIEÆ.

1. **Acroglochin**, *Schrad. Cat. Hort. Gœtt.* 1824, *ex Nees.* (Blitanthus, *Reichb. Cat. Hort. Dresd.* 1824, *ex Nees.* Lecanocarpus, *Nees. Pl. Hort. Bonn.* 4, *t.* 2.)—Flores minuti, hermaphroditi, ebracteati, ebracteolati. Perianthium herbaceum, 5-partitum, basi non induratum; segmenta subæqualia v. inæqualia, ovato-oblonga, subacuta, fructu

patentia. Stamina 1–3, filamentis basi dilatatis; antheræ majusculæ, didymæ, 2-loculares. Ovarium rhombeo-globosum, in stylum brevem attenuatum, stigmatibus 2 brevibus subulatis suberectis; ovulum erectum, funiculo brevi. Utriculus perianthio patente inclusus, pateriformis, vertice depressus, ambitu marginatus, circumscissus, margine valvæ superioris indurato. Semen horizontale, lenticulare v. subreniforme, testa atra crustacea nitida; embryo fere annularis, albumen farinaceum cingens, cotyledonibus linearibus planis acutis, radicula infera.—Herba annua, erecta, glabriuscula, caule simplici. Folia alterna, longe petiolata, ovata, irregulariter dentata. Flores in ramos cymarum axillarium glomerati, sessiles, minimi, ramulis sterilibus acerosis suffulti, virides.

Species 1, montium Indiæ borealis et Chinæ occidentalis incola. *Moq. in DC. Prod.* xiii. ii. 253.

Genus anomalum, habitu, foliis dentatis, defectu bractearum, inflorescentia dichotoma, ramulis sterilibus acerosis cymarum, staminibus et semine horizontali *Chenopodieis* e sectione *Botryde* affine. Utriculus circumscissus *Amarantacearum*, a quibus differt foliis dentatis, habitu, inflorescentia et floribus ebracteolatis.

2. **Hablitzia,** *Bieb. in Mem. Soc. Nat. Mosc.* v. 24; *Cent. Pl. Ross. t.* 54; *Fl. Taur. Cauc.* iii. 170.—Flores hermaphroditi, minute bracteati et 2-bracteolati. Perianthium herbaceum; segmenta 5, oblonga, obtusa, 5-nervia, fructifera stellatim patentia. Stamina 5, filamentis basi in annulum connatis; antheræ oblongæ, 2-loculares. Ovarium late ovoideum, in stylum brevem crassum attenuatum, stigmatibus 3 brevibus demum elongatis recurvis; ovulum sessile, erectum. Utriculus perianthio stellatim patente stipatus, depresso-pateriformis, circumscissus, margine valvæ superioris incrassato. Semen horizontale, reniformi-rotundatum, compressum, testa crustacea nigra nitida; embryo annularis, albumen farinaceum cingens, radicula centrifuga.—Herba alte scandens, glabra v. parce pilosa, caulibus sulcatis. Folia alterna, longe petiolata, triangulari-cordata, sinu profundo, acuminata, integerrima, membranacea, nervosa. Flores parvi, virides, in ramos cymarum sessiles v. terminali pedicellato; cymæ in paniculas thyrsoideas pendulas dispositæ. Stamina interdum imperfecta v. deficientia.

Species 1, Caucasica. *Moq. in DC. Prod.* xiii. ii. 254. *Reichb. Iconogr. Bot. t.* 754. *Eichw. Pl. Casp. Cauc.* t. 23.

Genus valde anomalum, an inter *Amarantaceas* (a quibus habitu differt, sed utriculo convenit) melius collocandum? Semina matura a nobis non visa.

3. **Rhagodia,** *R. Br. Prod.* i. 408.—Flores hermaphroditi v. monoici, rarius dioici, ebracteati et ebracteolati. Perianthium 5-lobum v. 5-partitum; segmenta oblonga v. rotundata, herbacea v. coriacea, obtusa, incurva, fructifera immutata v. parum aucta, stellatim patentia v. basin rarius verticem fructus includentia. Stamina 5 v. pauciora, basi perianthii inserta, filamentis subulatis compressis; antheræ ovoideæ, basi 2-fidæ, inclusæ v. exsertæ. Discus 0. Ovarium subglobosum; stigmata 2 rarissime 3, subulata v. linearia, intus papillosa. Bacca globosa v. depresso-globosa, pericarpio semini non adhærente. Semen horizontale, depresso-lenticulare, testa crustacea; embryo annularis, albumen copiosum farinaceum cingens, cotyledonibus angustis, radicula centrifuga.—Frutices, rarius herbæ, graciles v. robusti, farinosi v. tomentelli. Folia alterna et subopposita, sessilia v. petiolata, linearia ovata oblonga v. cordata, integerrima v. sinuato-lobata. Flores virides, parvi v. minuti, in glomerulos axillares et secus ramulos spicæ v. paniculæ terminalis dispositi, sessiles v. breviter pedicellati. Bacca perianthio patente v. incurvo basi stipata, rarissime inclusa.

Species 13, omnes Australienses. *Benth. Fl. Austral.* v. 151. *Labill. Pl. Nov. Holl.* i. *t.* 96 (*Chenopodium*).

4. **Lophiocarpus,** *Turcz. in Bull. Soc. Imp. Nat. Mosc.* 1843, 55. (Wallinia, *Moq. in DC. Prod.* xiii. ii. 143.)—Flores spicati, hermaphroditi, bracteati et 2-bracteolati. Perianthium 5-partitum; segmenta herbacea, oblonga, obtusa, concava, incurva, inappendiculata, fructifera persistentia et immutata. Stamina 5, perigyna, filamentis linearibus compressis; antheræ subexsertæ, oblongæ. Discus inconspicuus. Ovarium

ovoideum, substipitatum, stigmata 3–4, crassiuscule filiformia, recurva, undique papillosa; ovulum subsessile. Fructus perianthio basi stipatus, ellipsoideus v. obovoideo-globosus, in stipitem brevissimum contractus, 8-costatus, epicarpio carnoso, endocarpio crustaceo semini arcte adhærente. Semen erectum, globosum, paulo compressum, testa atra crustacea a tegumento interiore tenuiter coriaceo secedente; embryo gracilis, albidus, annularis, albumen copiosum cingens, radicula elongata infera.—Fruticuli basi ramosi, glaberrimi, erecti, ramis gracilibus ascendentibus. Folia parva, alterna, sessilia, linearia, integerrima, carnosula. Flores virides, in spicas graciles elongatas aphyllas terminales dispositi, solitarii v. 2–3-ni; bracteæ et bracteolæ rhachi persistentes, parvæ, membranaceæ. Fructus parvus, perianthium superans, viridis.

Species 2, Capenses, altera *L. polystachyus*, Turcz. l. c., fructu ellipsoideo, altera *L. Burchellii*, Hook. f., gracilior et ramosior, foliis multo angustioribus, spicis brevioribus et gracilioribus, floribus minoribus et fructu fere globoso.

5. **Aphanisma**, *Nutt.*; *Moq. in DC. Prod.* xiii. ii. 54.—Flores hermaphroditi, minimi, axillares, ebracteolati. Perianthii segmenta 3, subæqualia, obovato-oblonga, obtusa, inappendiculata, fructifera immutata. Stamen 1, hypogynum, filamento filiformi; anthera globoso-ellipsoidea. Discus 0. Ovarium depresso-globosum, in stylum brevem attenuatum, stigmatibus 3 subulatis recurvis; ovulum subsessile. Utriculus perianthio non inclusus, globosus, tenuiter 5-costatus, pericarpio tenuiter crustaceo semini non adhærente. Semen horizontale, lenticulare, testa crustacea tenuissima rugulosa nitida; embryo crassiusculus, annularis, albumen copiosum cingens, radicula centrifuga.—Herba annua, prostrata, gracilis, glaberrima, carnosula, ramis ascendentibus. Folia alterna, breviter petiolata, inferiora obovato-lanceolata v. linearia, obtusa, superiora sensim minora sessilia ovata acuta. Flores solitarii, virides. Utriculus perianthio minutissimo basi stipatus.

Species 1, Californica. *S. Wats. Bot. Calif.* ii. 45, *ined.* Nec fructum maturum nec stamen vidimus.

6. **Cycloloma**, *Moq. Chenop. Enum.* 17, *et in DC. Prod.* xiii. ii. 60. (Cyclolepis, *Moq. in Ann. Sc. Nat. ser.* 2, i. 203, *t.* 9. Amoreuxia, *Moq. in Mém. Soc. Hist. Nat. Monsp.* 1826, *ex eod. l. c.* Amorea, *Moq. in Delile, Cat. Hort. Monsp.* 1844.)—Flores polygamo-monoici v. dioici, bracteati, ebracteolati. Perianthii tubus late obconicus, in alam pateriformem horizontalem expansus; lobi 5, triangulari-ovati, obtusi, inflexi, dorso carinati. Stamina 5, hypogyna, filamentis subulatis; antheræ late oblongæ. Ovarium depresso-globosum, lanatum; stigmata 3, brevia, libera v. basi connata; ovulum subsessile. Utriculus parvus, perianthio disciformi ala excrescente circumdato inclusus, pericarpio membranaceo semini non adhærente. Semen horizontale, plano-orbiculare, marginibus rotundatis, testa fusca lævi nitida; embryo annularis, albumen farinaceum cingens, radicula centrifuga.—Herba erecta, ramosa, glabra v. laxe pubescens, ramulis fructiferis elongatis gracilibus. Folia alterna, petiolata, oblonga, sinuato-dentata, dentibus apice acicularibus. Flores minuti, sessiles, virides, in glomerulos secus ramulos floriferos elongatos sparsos dispositi, interdum abortu unisexuales.

Species 1, regionum interiorum Americæ borealis incola. *Desf. in Ann. Mus. Par.* ii. *t.* 34 (*Salsola*). *Willd. Hort. Berol. t.* 28 (*Kochia*).

7. **Monolepis**, *Schrad. Ind. Sem. Hort. Gœtt.* 1830; *Linnæa* vi. *Litt. Ber.* 73.—Flores minuti, polygami, ebracteati et ebracteolati. Perianthii segmenta 1–3, inæqualia, (rarius 0), ovata v. rotundata, persistentia, fructifera immutata. Stamen 1, filamento complanato; anthera didyma. Discus 0. Ovarium ovoideum, compressum; stigmata 2, subulata, basi connata, intus papillosa; ovulum subsessile. Utriculus perianthio non inclusus, ovoideus, compressus, pericarpio membranaceo v. celluloso semini laxe adhærente. Semen erectum, globosum, compressum, marginibus acutis v. obtusis, testa crustacea granulata; embryo annularis, albumen testæ adhærens densum cingens,

radicula infera.—Herbæ annuæ, glabræ v. subfarinosæ, ramosæ, ramis herbaceis et crassiusculis v. rigidis et filiformibus. Folia alterna, petiolata v. sessilia, ovata oblonga hastata v. spathulata, integra lobata v. subpinnatifida. Flores in glomerulos axillares dispositi, v. in ramulos dichotomos divaricatos capillares subsolitarii. An perianthia pro bracteis sumenda?

Species 2, Asiæ boreali-orientalis et Americæ boreali-occidentalis incola. *C. A. Mey. in Bull. Phys. Math. Acad. Sc. Petersb.* ii. (1843) 131. *Moq. in DC. Prod.* xiii. ii. 85. *S. Wats. Bot. Calif.* ii. 49, *ined. M. pusilla*, Torr., habitu rigido dichotome ramosissimo, ramis ramulisque filiformibus, ultimis fere capillaribus, floribus subsolitariis remotis et perianthio 2–3-partito, a specie typica conspicue differt. *M. asiatica*, Fisch. et Mey. in C. A. Mey. l. c., Moq. l. c. 86, a specie Americana, *M. chenopodioide*, non distinguenda.

8. **Chenopodium,** *Linn. Gen. n.* 309.—Flores hermaphroditi, rarissime unisexuales, ebracteati et ebracteolati. Perianthum 5- rarissime 1–3–4-partitum v. -lobum; lobi v. segmenta concava, incurva, dorso medio subincrassata v. carinata, inappendiculata, fructifera immutata v. rarius excrescentia succosa v. insigniter aucta. Stamina 5 v. pauciora, hypogyna v. subperigyna, filamentis interdum basi connatis; antheræ didymæ v. oblongæ. Discus 0 v. annularis. Ovarium depresso-globosum, rarius ovoideum; stylus 0, rarius elongatus; stigmata 2–5, libera v. basi rarissime in stylum elongatum connata, subulata v. filiformia; ovulum subsessile. Utriculus ovoideus et erectus v. globosus et depressus, perianthio sæpius immutato marcescente v. herbaceo inclusus v. exsertus, pericarpio membranaceo v. carnosulo. Semen horizontale, rarius erectum, testa crustacea v. coriacea; embryo annularis v. fere annularis, albumen farinaceum copiosum cingens, radicula infera v. centrifuga.—Herbæ, rarius basi lignosæ, annuæ v. perennes, farinosæ v. glanduloso-pubescentes, rarius glabræ, interdum graveolentes v. aromaticæ. Folia alterna, sessilia v. petiolata, linearia oblonga ovata deltoidea v. hastata, integerrima sinuato-dentata v. -lobata v. fere pinnatifida. Flores minuti, glomerati, glomerulis axillaribus et in spicas simplices v. ramosas terminales dispositi.

Species ad 50, in regionibus temperatis totius orbis obviæ, inter tropicos rariores. *Moq. in DC. Prod.* xiii. ii. 61 (*Chenopodium*) et 81 (*Blitum*). *Walp. Ann.* i. 566, iii. 302. *Fenzl in Ledeb. Fl. Ross.* iii. 693 *et in Mart. Fl. Bras.* v. i. 141. *Benth. Fl. Austral.* v. 157.

Species sub sectionibus sequentibus bene ordinantur:—

1. *Chenopodiastrum*, Moq. Perianthium fructiferum herbaceum v. marcescens, utriculum totum v. fere totum includens. Stigmata 2, brevia. Semen erectum, embryone perfecte annulari. *Nees, Gen. Fl. Germ. Monochl. n.* 56, *f.* 1 *ad* 13. *Fl. Dan. t.* 1148, 1150, 1152, 1153, 2048, 2049. *Jacq. Hort. Vind.* iii. t. 80. *Ledeb. Ic. Fl. Ross. t.* 168. *Griff. Ic. Pl. Asiat. t.* 521. *Fenzl in Mart. Fl. Bras.* v. i. *t.* 45.

OLIGANDRA, *Less. in Linnæa* ix. 199 (LIPANDRA, *Moq. Chenop. Enum.* 19; GANDRILOA, *Steud. Nomencl. ed.* 2; OLIGANTHERA, *Endl. Gen. Suppl.* i. 1377) genus conditum fuit ad specimen mancum *Chenopodii polyspermi*, fide C. A. Mey. in Bull. Phys. Math. Acad. Sc. Petersb. ii. 132.

2. *Ambrina.* Flores glomerati. Perianthium fructiferum 5-gonum, utriculum includens. Stamina 5. Stigmata 3–4, brevia v. elongata. Semen horizontale, rarius erectum, embryone imperfecte annulari. Herbæ glandulosæ, aromaticæ. Huc pertinent *C. ambrosioides*, Linn., Wight, Ic. t. 1786; *C. multifidum*, Linn., aliæque. AMBRINA, *Spach, Suites Buff.* v. 295. *Fenzl in Mart. Fl. Bras.* v. i. *t.* 46, 47.

3. *Botrydium.* Flores dichotome cymosi, sessiles. Perianthium fructiferum utriculum includens v. semi-includens, post utriculum delapsum persistens. Stamina 1–5. Stigmata brevia. Semen horizontale, embryone imperfecte annulari. Herbæ glandulosæ v. rarius glaberrimæ. *Sibth. Fl. Græc. t.* 253. *Nees, Gen. Fl. Germ. Monochl. n.* 56, *f.* 14, 15. BOTRYDIUM, *Spach, Suites Buff.* v. 298.

TELOXYS, *Moq. in Ann. Sc. Nat. ser.* 2, i. 289, *t.* 10, *et in DC. Prod.* xiii. ii. 59, est *Chenopodii* species e sectione *Botrydio*, etsi tota glaberrima, eglandulosa, foliis integerrimis.

4. *Orthosporum* (R. Br. non aliorum). Flores glomerati. Perianthium fructiferum erectum, utriculum includens. Stamina sæpissime solitaria. Stigmata 2, capillaria. Semen erectum, embryone imperfecte annulari. Herbæ glandulosæ. Species 4 Australianæ, *Benth. Fl. Austral.* v. 162, et una Chilensis, *Colla, Pl. Rar. Chil. t.* 50. Perianthii fructiferi segmenta in *C. cristato* inordinate ampliata cristataque, in *C. carinato* modice aucta.

5. *Blitum.* Flores glomerati. Perianthii segmenta 1–5, fructiferum baccatum, succulentum, utriculum includens. Stamina 1–5. Stigmata brevia. Semina omnia erecta v. in parte superiore glomeruli alia erecta alia horizontalia, embryone imperfecte annulari. Herbæ glabræ, glandulosæ v. leviter farinosæ. BLITUM, *Linn. Gen.* n. 14, *Gærtn. Fruct.* ii. *t.* 126. *Nees, Gen. Fl. Germ. Monochl. n.* 58. *Lam. Illustr. t.* 5. *Bot. Mag. t.* 276. MOROCARPUS, *Mœnch, Meth.* 342.

6. *Pseudoblitum.* Perianthium fructiferum vix v. non baccatum, sæpe breve. Cætera *Bliti.* Sect. *Orthosporum,* C. A. Mey. in Ledeb. Fl. Alt. i. 13, non R. Br. Hic includuntur *C. rubrum,* Linn., Gærtn. Fruct. i. t. 75, Nees, Gen. Fl. Germ. Monochl. n. 57, Fl. Dan. t. 1149; *C. glaucum,* Linn., Fl. Dan. t. 1151; et *C.* (*Blitum*) *antarcticum,* Hook. f. OXYBASIS, *Kar. et Kir. in Bull. Soc. Imp. Nat. Mosc.* 1841, 738, est fide Bungei in litt. *C. rubri,* Linn., forma depauperata.

7. *Rhagodioides,* Benth. Fl. Austral. v. 158. Perianthium fructiferum utriculum includens. Stamina 5. Stigmata 2, crassa, villosa. Ovarium tomentosum. Semen erectum. Frutex spinescens, habitu *Rhagodiæ.*

8. *Agathophyton.* Perianthium fructiferum utriculum semi-includens. Stamina 5. Stigmata 2–5, elongata. Semen erectum, embryone perfecte annulari. Herba glaberrima, eglandulosa. *Fl. Dan. t.* 579. AGATHOPHYTON, *Moq. in Ann. Sc. Nat. ser.* 2, i. 291, *t.* 10*c.* ORTHOSPORUM, *Nees, Gen. Fl. Germ. Monochl. n.* 58.

9. **Roubieva,** *Moq. in Ann. Sc. Nat. ser.* 2, i. 292, *t.* 10, *et in DC. Prod.* xiii. ii. 80.—Flores minuti, hermaphroditi v. abortu fœminei, ebracteati et ebracteolati. Perianthium urceolatum, breviter 5-lobum, lobis rotundatis, post anthesin accrescens, coriaceum, elongato-ellipsoideum v. obovoideum, ore mox clauso utriculum basi includens. Stamina 5, filamentis crassiusculis; antheræ ovoideæ. Discus 0. Ovarium globosum, compressum; stigmata 2–5, filiformia v. subulata, basi connata; ovulum subsessile. Utriculus perianthio aucto thecæformi inclusus, globosus, compressus, pericarpio tenuiter membranaceo friabili semini laxe adhærente. Semen erectum, orbiculare, leviter compressum, testa crustacea lævi; embryo annularis, albumen copiosum testæ adhærens cingens, radicula infera.—Herbæ ramosæ, glanduloso-puberulæ, odorem ambrosiacum spirantes. Folia parva, alterna, subsessilia, sinuato-dentata v. subpinnatifida. Perianthia fructifera pedicellata, dense conferta, sæpe subverticillata, apice rotundata v. retusa, basi attenuata, reticulatione nervosa, utriculum laxe includentia.

Species 2, Americæ tropicæ et temperatæ incolæ, quarum una in orbe vetere subspontanea. *Fenzl in Mart. Fl. Bras.* v. i, 151, *t.* 48.

Species adhuc confusæ sed bene distinctæ: 1. *R. multifida,* Moq. l.c., perianthio fructifero globoso. 2. *R. bonariensis,* Hook. f., perianthio fructifero elongato ellipsoideo.

10. **Beta,** *Linn. Gen. n.* 310.—Flores hermaphroditi, bracteati et 2-bracteolati. Perianthium urceolatum, basi ovario adhærens, fructiferum clausum induratum v. nuceum, 5-fidum; lobi erecti v. inflexi, dorso medio costati. Stamina 5, perigyna, filamentis subulatis; antheræ oblongæ. Ovarium semi-inferum et disco crassiusculo cinctum, depresso-globosum; stigmata 2–3, rarius plura, brevia, subulata, basi connata, intus papillosa; ovulum subsessile. Fructus infra medium perianthio indurato adnatus, vertice lobis ejus inclusus, pericarpio superne carnoso v. indurato semini non adhærente. Semen horizontale, orbiculare v. reniforme, rostellatum, testa coriacea lævi; embryo annularis v. fere annularis, albumen copiosum cingens, radicula centrifuga.—Herbæ glabræ, radice carnosa, caulibus subsucculentis erectis v. procumbentibus sulcatis. Flores parvuli, 3-ni v. glomerati, rarius solitarii, glomerulis axillaribus et in spicas terminales simplices v. paniculatas dispositis.

Species enumeratæ ad 13, sed ab auctoribus inordinate multiplicatæ, in Europa, Africa boreali, et Asia temperata indigenæ et cultæ. *Moq. in DC. Prod.* xiii. ii. 54. *Walp. Ann.* i. 565, iii. 302, 926, v. 727. *Boiss. Fl. Or.* iv. 898. *Gærtn. Fruct.* i. *t.* 75. *Nees, Gen. Fl. Germ. Monochl. n.* 67. *Waldst. et Kit. Pl. Rar. Hung. t.* 35. *Webb, Phytog. Canar.* iii. *t.* 201, 202. *Sibth. Fl. Græc. t.* 254. *Fl. Dan. t.* 1571.

11. **Oreobliton,** *Durieu et Moq. in Duchart. Rev. Bot.* ii. 428, *et Explor. Alger. t.* 79.—Flores hermaphrodati, ebracteati et ebracteolati. Perianthium basi demum induratum, 5-partitum; segmenta lineari-oblonga, obtusa, ecostata, fructifera stellatim patentia,

Stamina 5, disco perigyno inserta, filamentis brevibus subulatis basi dilatatis; antheræ magnæ, late oblongæ. Ovarium basi disco adnatum, ovoideum; stigmata 2, brevia, subulata, divaricata, basi connata; ovulum subsessile. Utriculus basi perianthio patente stipatus, globoso-ovoideus, pericarpio crustaceo rugoso semini non adhærente. Semen horizontale, testa tenuiter coriacea; embryo annularis, albumen parcum cingens, cotyledonibus planiusculis, radicula crassiuscula centrifuga.—Herba humilis, rupicola, glaberrima, caudice lignoso tortuoso, ramis numerosissimis erectis v. ascendentibus gracilibus flexuosis. Folia alterna, petiolata, elliptico- v. subrhombeo-ovata oblonga v. lanceolata, integerrima. Flores parvi, axillares, sessiles v. pedicellati, solitarii v. in ramulos breves dispositi.

Species 1, Algeriensis. *Moq. in DC. Prod.* xiii. ii. 58. *Coss. et Dur. in Bull. Soc. Bot. Fr.* ii. 367.

TRIBUS II. ATRIPLICEÆ.

12. **Spinacia,** *Linn. Gen. n.* 1112.—Flores dioici, rarissime hermaphroditi, ebracteati et ebracteolati. Fl. ♂: Perianthium 4–5-partitum; segmenta oblonga, obtusa, inappendiculata. Stamina 4–5, basi perianthii inserta, filamentis capillaribus; antheræ longe exsertæ, late didymæ. Discus et ovarii rudimenta 0. Fl. ♀: Perianthium subglobosum, 2–4-dentatum, tubo accrescente fructifero clauso utriculum includente inappendiculato v. basin versus spinis 2 oppositis elongatis aucto. Ovarium subglobosum; stigmata 4–5, capillaria, ima basi connata, longe exserta; ovulum subsessile. Utriculus perianthii tubo cartaligineo v. indurato inermi v. 2-spinoso inclusus, pericarpio membranaceo semini arctissime adhærente. Semen erectum, turgidum, leviter compressum, basi rostellatum, testa tenuiter coriacea; embryo annularis, albumen farinaceum cingens, radicula infera.—Herbæ annuæ, erectæ, glabræ. Folia alterna, petiolata, triangulari-ovata v. hastata, integerrima v. sinuato-dentata. Flores glomerati; glomeruli subglobosi, ♀ sæpius axillares, ♂ in spicas terminales interruptas dispositi, perianthiis fructiferis interdum connatis.

Species 4, Orientales, quarum 2 ubique cultæ. *Moq. in DC. Prod.* xiii. ii. 117. *Gærtn. Fruct.* ii. 126. *Nees, Gen. Fl. Germ. Monochl. n.* 66. *Lam. Ill. t.* 814. *Fenzl in Ledeb. Fl. Ross.* iii. 711. *Boiss. Fl. Or.* iv. 905. *Schkuhr, Handb. t.* 324. *Wight, Ic. t.* 818.

13. **Exomis,** *Fenzl; Moq. Chenop. Enum.* 49, *et in DC. Prod.* xiii. ii. 89, *excl. sp. n.* 2.—Flores monoici, cum paucis hermaphroditis. Fl. ♂ ebracteati et ebracteolati. Perianthium 5-partitum; segmenta obovata, concava, inappendiculata, ecostata. Stamina 5, basi perianthii inserta, filamentis complanatis basi connatis; antheræ exsertæ, didymæ. Discus et ovarii rudimenta 0. Fl. ♀ 1-3, inter bracteas 2 laterales oppositas folio stipatas æquales v. inæquales post anthesin non accrescentes sessiles. Perianthium 0. Ovarium ovoideum, compressum, furfuraceum; stigmata 2, v. in ovariis lateralibus 2 in intermedio 3, subulata, basi connata v. subdiscreta, undique papillosa; ovulum subsessile. Utriculus bracteis non inclusus, ovoideus, compressus, pericarpio tenui laxo friabili furfuraceo semini non adhærente. Semen erectum, globosum, compressum, v. ellipsoideum, testa dense coriacea fusca nitida; embryo annularis, albumen densum testæ adhærens cingens, radicula infera.—Frutex albo-furfuraceus, dichotome ramosissimus, ramis flexuosis tenuiter costatis. Folia parva, alterna, sessilia v. breviter petiolata, ovata lanceolata v. hastata, 1-nervia. Flores parvi; ♂ glomerati, glomerulis apices versus ramulorum axillaribus et in spicas terminales densifloras dispositis, ♀ cum masculis immixti v. sine ordine dispositi; bracteæ foliis longiores v. breviores, basi planæ v. concavæ.

Species 1, Africæ australis et ins. Sanctæ Helenæ incola. *E. albicans*, Moq., est *Atriplicis* species.

14. **Atriplex,** *Linn. Gen. n.* 1153.—Flores monoici v. dioici. Fl. ♂ ebracteati et ebracteolati. Perianthium 3–5-partitum; segmenta obovata v. oblonga, obtusa. Stamina 3–5, basi perianthii inserta, filamentis liberis v. basi connatis; antheræ didymæ. Ovarii rudimentum 0 v. conicum. Fl. ♀ singuli 2-bracteolati; bracteolæ excrescentes, fructiferæ dilatatæ basi v. altius connatæ, thecam sæpe 2-labiatam fructiferam formantes, rarius

omnino liberæ. Perianthium 0, rarissime masculo consimile. Discus et staminum rudimenta 0. Ovarium ovoideum v. depresso-globosum ; stigmata 2, subulata v. filiformia, basi connata ; ovulum obliquum v. erectum funiculo brevi, v. inversum ab apice funiculi elongati suspensum. Utriculus bracteolis inordinate auctis inclusus, v. earum basibus immersus, pericarpio membranaceo semini rarius adhærente. Semen erectum v. inversum, rarius horizontale, testa membranacea coriacea v. fere crustacea ; embryo annularis, albumen farinaceum cingens, radicula infera ascendente descendente v. rarius centrifuga.—Herbæ v. frutices plus minusve squamulis lepidotis operti v. furfuracei, v. cinerei. Folia alterna, rarius opposita, sessilia v. petiolata, linearia oblonga ovata deltoidea v. hastata, angulata sinuato-dentata v. integerrima. Flores glomerati, glomerulis axillaribus sessilibus v. in spicas simplices paniculatasve dispositis, masc. et fœm. sæpe immixti.

Species ad 100, regionum temperatarum et subtropicarum totius orbis incolæ, pleræque salsuginosæ. *Moq. in DC. Prod.* xiii. ii. 90. *Ledeb. Fl. Ross.* iii. 715 ; *Ic. t.* 41 *ad* 43, 46. *Boiss. Fl. Or.* iv. 906. *Wats. in Proc. Amer. Acad.* ix. 103, *et in Bot. Calif.* ii. 60, *ined. Bunge in Act. Hort. Petrop.* v. 642. *Benth. Fl. Austral.* v. 165. *Gærtn. Fruct. t.* 75. *Nees, Gen. Fl. Germ. Monochl. n.* 63. *Spach, Suites Buff. t.* 68. *Reichb. Iconogr. Eur. t.* 16. *Waldst. et Kit. Pl. Rar. Hung. t.* 103, 221, 250. *Schkuhr, Handb. t.* 347 *ad* 350. *Fl. Dan. t.* 1284–7, 1638, 2226, 2466. *Sibth. Fl. Græc. t.* 963. *Ten. Fl. Nap. t.* 249. *Delile, Fl. Egypt. t.* 52. *Wight, Ic. t.* 1787. *Colla, Pl. Rar. Chili, t.* 49.

OBIONE, *Gærtn. Fruct.* ii. 198 *t.* 126. *Moq. in DC. l. c.* 106. (HALIMUS, *Wallr. Sched. Crit.* 117. *Nees, Gen. Fl. Germ. Monochl. n.* 64). Genus quoad species europæas sat distinctum, bracteolis fructiferis altius connatis, utriculo sæpe basi ejus adnato, semine inverso et testa tenuiore, arcte tamen cum *Atriplice* connectitur mediantibus speciebus pluribus exoticis, et a botanicis recentioribus rejicitur. Species genuinæ sunt : *A. pedunculata*, Linn., Fl. Dan. t. 304 ; *A. portulacoides*, Linn. ; Fl. Dan. t. 1889, *A. vernicifera*, Bieb., Ledeb. Ic. Fl. Ross. t. 144 ; aliæ, plus minus ambiguæ, delineatæ in *Sibth. Fl. Græc. t.* 962, *Wight, Ic. t.* 1788 *ad* 1790.

THELEOPHYTON, *Moq. in DC. l. c.* 115 (Atriplex *sect.* Theleophyton, *Hook. f. in Hook. Lond. Journ.* vi. 279 ; *Fl. Tasman.* i. 315, *t.* 95. *Benth. Fl. Austral.* v. 179) a congeneribus differt epidermide cellulis crystallinis consperso, et utriculo bracteolis contrarie compresso.

PTEROCHITON, *Torr. in Frem. Rep.* 318, est *A. canescens*, James, species bracteolis late 2–4-alatis thecam clausam efficientibus, ut in *Grayia*, sed radicula supera et bracteolæ non conduplicatæ.

ENDOLEPIS, *Torr. in A. Gray, Bot. Stevens Exped.* 47, *t.* 3, est *Atriplex Endolepis*, S. Wats. in Proc. Amer. Acad. ix. 110 (*Kochia dioica*, Nutt.).

15. **Grayia,** *Hook. et Arn. Bot. Beech. Voy.* 387.—Flores dioici, rarius monoici. Fl. ♂ ebracteati et ebracteolati. Perianthium 4–5-partitum ; segmenta obovata, incurva, inappendiculata, ecostata. Stamina 4–5, disco depresso inserta, filamentis subulatis ; antheræ inclusæ, magnæ, didymæ. Ovarii rudimenta 0? Fl. ♀ 2-bracteolati, bracteolæ conduplicatæ, obcompressæ, carinatæ, fructiferæ dorso latissime alatæ, marginibus connatis. Perianthium 0. Ovarium ovoideum, compressum ; stigmata 2, filiformia ; ovulum erectum, subsessile. Utriculus theca (e bracteis 2 constante) orbiculari obcompressa latissime 2- rarius 3-alata utrinque 2-loba reticulatim venosa inclusus, orbicularis, compressus, pericarpio membranaceo semini non adhærente. Semen erectum, orbiculare, testa tenuiter coriacea, brunnea ; embryo annularis, gracilis, albumen farinaceum cingens, cotyledonibus compressis, radicula elongata infera.—Frutices erecti, ramosi, rigidi, ramulis interdum spinescentibus, partibus novellis furfuraceis. Folia alterna, sessilia, linearia obovata v. spathulata, obtusa, integerrima, carnosula. Flores ♂ minuti, glomerati, axillares, pedicellati, ♀ racemosi. Fructus pro planta magnus, pendulus.

Species 2, Americæ boreali-occidentalis incolæ. *Moq. in DC. Prod.* xiii. ii. 119. *Wats. Bot. Calif.* ii. 56 *ined. Hook. Ic. Pl. t.* 271. *A. Gray in Proc. Amer. Acad.* xi. 101.

16. **Suckleya,** *A. Gray in Proc. Amer. Acad.* xi. 103.—Flores monoici. Fl. ♂ ebracteati et ebracteolati. Perianthium subglobosum, membranaceum, 3–4-partitum ; segmenta 2 opposita cæteris majora, spathulata, obtusa, inappendiculata. Stamina 3–4, basi perianthii inserta, filamentis brevibus latiusculis planis ; antheræ didymæ. Ovarii rudimentum conicum. Fl. ♀ 2-bracteolati ; bracteolæ conduplicatæ, obcompressæ,

carinatæ, infra medium connatæ, fructiferæ dorso anguste alatæ, alis crenulatis. Ovarium late ovoideum, compressum; stigmata 2, brevia, filiformia; ovulum ab apice funiculi elongati suspensum. Utriculus theca (e bracteis 2 constante) triangulari-ovata basi hastata apice 2-fida inclusus, late ovoideus, subacutus, compressus, pericarpio tenuiter membranaceo semini non adhærente. Semen inversum, orbiculare, compressum, testa tenuiter coriacea brunnea; embryo hippocrepicus v. fere annularis, albumen copiosum cingens, radicula supera.—Herba carnosula, tenuiter furfuracea, ramis ascendentibus foliosis. Folia alterna, petiolata, ovata orbicularia v. subrhombea, repando-dentata. Flores minuti, glomerati, glomerulis axillaribus, ♂ in ramulis superiores.

Species 1, Montium Scopulosorum Americæ borealis incola. *A. Gray, Bot. Stevens Exped.* 47, *t.* 4 (*Obione*). *S. Wats. in Proc. Amer. Acad.* ix. 111 (*Atriplex*). Bracteolæ ut in *Grayia* conduplicatæ, axi contrario compressæ, nec ut in *Atriplice* planæ v. concavæ.

17. **Eurotia,** *Adans. Fam.* ii. 260. (Krascheninnikovia, *Güldenst. in Nov. Comm. Petr.* xvi. 548 t. 17. Diotis, *Schreb. Gen.* 633. Güldenstædtia, *Neck. Elem.* ii. 204. Ceratospermum, *Pers. Syn.* ii. 551.)—Flores dioici v. monoici. Fl. ♂ apices versus ramulorum dense spicatim congesti, ebracteati et ebracteolati. Perianthium 4-partitum; segmenta 4, obovata, concava, obtusa, inappendiculata, ecostata. Stamina 4, filamentis filiformibus; antheræ exsertæ, majusculæ, didymæ. Discus et ovarii rudimenta 0. Fl. ♀ axillares, 2-bracteati; bracteæ conduplicatæ, obcompressæ, connatæ, apicibus liberis, longissime sericeo-pilosæ, demum clausæ, utriculum includentes. Perianthium 0. Ovarium ellipsoideum, compressum, sericeum; stigmata 2, filiformia, papillosa, basi connata; ovulum sessile. Utriculus in theca (e bracteis 2 constante) obcompressa clausa coriacea venosa apice 2-cornuta longe sericeo-villosa demum sæpe longitrorsum 4-valvi inclusus, ellipsoideus, compressus, pericarpio membranaceo semini non adhærente. Semen obovato-cuneiforme, compressum, basi rostellatum, testa membranacea albumini adhærente; embryo hippocrepicus, cotyledonibus lineari-oblongis radicula elongata infera latioribus.—Fruticuli v. herbæ, erectæ stellato-tomentosæ v. lanuginosæ, ramosæ, ramulis teretibus. Folia parva, alterna v. fasciculata, sessilia v. breviter petiolata, lineari-oblonga ovata v. subcordata, obtusa, integerrima, marginibus recurvis. Flores minuti, villis bractearum fl. ♀ sæpe argenteis v. castaneis nitidis.

Species 3, v. unius varietates, Rossiæ australis, Asiæ occidentalis et centralis, Indiæ boreali-occidentalis, et Americæ boreali-occidentalis incolæ. *Moq. in DC. Prodr.* xiii. ii. 120. *S. Wats. Bot. Calif.* ii. 55, *ined. Gært. Fruct.* ii. 210, *t.* 128 (*Axyris*). *Lam. Ill. t.* 753, *f.* 1 (*Axyris*). *Jacq. Ic. Rar. t.* 189 (*Axyris*). *Nees, Gen. Fl. Germ. Monochl. n.* 65 (*Diotis*).

Cotyledones in specie Californica (ut bene notavit S. Watson) lati viridesque, in Asiatica angustiores et albi.

18. **Ceratocarpus,** *Linn. Gen. n.* 1035.—Flores monoici. Fl. ♂ minimi, ebracteati et ebracteolati. Perianthii tubus brevis, infundibularis; segmenta 2, hyalina, obtusa, glabra. Stamen 1, filamento brevi; anthera magna, didyma, inclusa. Discus et ovarii rudimenta 0. Fl. ♀ bracteis 2 conduplicatis obcompressis arcte connatis dorso longe 2-aristatis inclusi. Perianthium 0. Ovarium minutum, orbiculare, pilosum; stigmata 2, capillaria, undique papillosa, basi connata; ovulum sessile. Utriculus theca (e bracteis 2 constante) clausa obcuneata coriacea 2-spinosa complanata inclusus, elongato-obovoideus, compressus, apice setosus, pericarpio tenuissimo semini arctissime adhærente. Semen erectum, utriculo conforme, testa membranacea; embryo elongato-hippocrepicus, albumen parcum testæ adhærens cingens, cotyledonibus elongatis acutis viridibus, radicula gracili infera.—Herba humilis, annua, stellatim puberula, dichotome ramosissima, ramulis intertextis divaricatis ultimis acicularibus. Folia alterna, in plantis junioribus elongato-lanceolata, apice spinescentia, 1-nervia; in maturis acicularia v. pungentia, rigida. Flores axillares, ♂ in axillis supremis, valde inconspicui, solitarii v. fasciculati; ♀ numerosi, solitarii.

Species 1, Asiæ occidentalis a Persia ad Affghanistaniam indigena. *Moq. in DC. Prod.* xiii. ii. 121. *Gærtn. Fruct.* ii. *t.* 127. *Lam. Ill. t.* 741.

TRIBUS III. CAMPHOROSMEÆ.

19. **Axyris,** *Linn. Gen. n.* 1047.—Flores monoici, ebracteati et ebracteolati, pilosi v. villosi. Fl. ♂ superiores, minuti. Perianthium hyalinum, 3–5-partitum; segmenta parva, obovata v. elliptica. Stamina 2–5, filamentis linearibus; antheræ didymæ, exsertæ. Discus et ovarii rudimenta 0. Fl. ♀ solitarii, axillares. Perianthium 3-4-partitum, segmenta inæqualia, antico et postico sæpius majoribus, demum scariosa, fructifera immutata v. parum aucta. Discus 0. Ovarium minutum, orbiculare, compressum; stigmata 2, filiformia, sæpius longissima, basi connata; ovulum sessile. Utriculus perianthio inclusus, obovoideo-cuneatus, compressus v. sphæricus, apice breviter alatus v. cristatus, crista 2-loba v. cristis 2 auriculæformibus rarius evanidis, pericarpio membranaceo semini arcte adhærente sæpe excentrice striato. Semen erectum, cuneato-obovoideum, compressum, testa membranacea; embryo albus, gracilis, hippocrepicus, albumen copiosum grosse granulosum cingens, cotyledonibus elongatis compressis, radicula infera. —Herbæ annuæ, stellato-pilosæ v. tomentosæ v. glabriusculæ. Folia alterna, breviter petiolata, ovata v. lanceolata, integerrima. Flores ♂ sæpissime in glomerulos terminales dispositi, staminibus cum perianthii segmentis irregulariter immixtis, rarius solitarii, ♀ in axillis fere omnibus solitarii v. masculis immixti.

Species 5–6, Asiæ borealis et centralis incolæ, quarum una etiam in America maxime boreali-occidentali indigena. *Moq. in DC. Prod.* xiii. ii. 116, *excl. sp. n.* 4 *et* 6. *Fenzl in Ledeb. Fl. Ross.* iii. 712. *Gmel. Fl. Sib.* iii. *t.* 3, 4, *male. Schkuhr, Handb. t.* 285 *b. A. sphærosperma,* Fisch., fructu sphærico acute marginato apice exappendiculato a nobis non visa.

*20. **Microgynœcium,** *Hook. f. gen. nov.*—Flores monoici, minuti. Fl. ♂ superiores, ebracteati et ebracteolati. Perianthium hyalinum, 5-lobum, lobis obtusis. Stamina 1–4, basi perianthii inserta, filamentis filiformibus; antheræ late didymæ, longe exsertæ. Fl. ♀ intra bracteolas 2 axillares laterales sessiles, solitarii v. conferti; bracteolæ herbaceæ, ovatæ, acutæ, inter se liberæ, fructiferæ immutatæ. Perianthium 0. Ovarium oblique orbiculare; stigmata 2, capillaria, basi connata; ovulum sessile. Utriculus oblique ovoideus, turgidus, compressus, processubus conicis conspersus, et apicem versus cristis minutis 1–2 auriculæformibus auctus, pericarpio tenuissimo semini laxe adhærente. Semen erectum, utriculo conforme, testa tenuiter coriacea lævi; embryo gracilis, albidus, hippocrepicus, albumen grosse granulosum cingens, cotyledonibus elongatis semiteretibus, radicula infera.—Herba pusilla, annua, humifusa, ramosa, glaberrima v. sparsissime farinosa. Folia alterna, petiolata, ovata, acuta, integerrima. Flores minimi, inter folia absconditi, glomerati.

Species 1, Himalayæ Tibeticæ incola. Genus anomalum, *Atriplicem* quoad indumentum folia et flores ♀ nudos, et *Exomidem* quoad bracteas, in mentem revocans; sed flores ♂ utriculus et semina omnino *Axyridis.*

21. **Camphorosma,** *Linn. Gen. n.* 164. (Camforosma, *C. A. Mey. in Led. Fl. Alt.* i. 150.)—Flores hermaphroditi v. polygami, in spicas breves dispositi, bracteati, ebracteolati. Perianthium oblongum, compressum, hirsutum v. ciliatum, 4–5-dentatum, dentibus 2 lateralibus nervis crassioribus, fructiferum immutatum ore fere clauso. Stamina 4-5, hypogyna, filamentis elongatis compressis; antheræ magnæ, oblongæ, exsertæ. Discus 0. Ovarium late ovoideum, in stylum elongatum gracilem attenuatum, stigmatibus 2–3 capillaribus undique papillosis; ovulum subsessile. Utriculus perianthio membranaceo inclusus, obovoideus v. oblongus, rectus v. leviter obliquus, compressus, pericarpio membranaceo semini non adhærente. Semen erectum, obovoideo-cuneatum, compressum, testa tenuiter coriacea; embryo hippocrepicus, viridis, albumen testæ adhærens cingens, radicula infera.—Fruticuli v. herbæ basi lignosæ, plus minusve tomentosæ, ramis floriferis sæpius elongatis erectis v. ascendentibus. Folia alterna, sessilia, subulata v. acicularia, in ramulos breves dense squarrosa. Flores in spiculas apices versus ramulorum terminales et laterales dispositi, intra bracteas reconditi.

Species 4 v. 5, Europæ australis et Asiæ centralis et occidentalis incolæ. *Moq. in DC. Prod.* xiii. ii. 125. *Walp. Ann.* v. 729. *Gærtn. f. Fruct.* iii. *t.* 213. *Lam. Ill. t.* 86. *Nees, Gen. Fl. Germ. Monochl. n.* 60. *Waldst. et Kit. Pl. Rar. Hung. t.* 63. *Pall. Ill. Pl. t.* 57, 58.

22. **Panderia,** *Fisch. et Mey. Ind.* ii. *Sem. Hort. Petrop.* 46.—Flores hermaphroditi et fœminei, ebracteati et ebracteolati. Perianthium urceolatum v. turbinatum, hirsutum, æqualiter 5-lobum; lobi dorso infra apicem tuberculati v. appendice parva transversa aucti, fructiferi immutati conniventes. Stamina 5, hypogyna, filamentis compressis; antheræ late oblongæ, exsertæ. Discus 0. Ovarium ovoideum, compressum, subacutum; stylus brevis, stigmatibus 2 capillaribus; ovulum subsessile. Utriculus perianthio inclusus, orbicularis, compressus, pericarpio membranaceo semini adhærente. Semen erectum, late obovoideum, leviter compressum, testa coriacea; embryo hippocrepicus, albumen testæ adhærens cingens, radicula infera.—Herbæ annuæ, erectæ, ramosæ, sericeo-pilosæ, caulibus ramulisque gracilibus. Folia alterna, sessilia, parva, linearia v. oblongo-lanceolata, obtusa, integerrima. Flores minuti, solitarii v. 2–4-ni, sessiles, secus ramulos axillares et in spicas terminales foliatas dispositi, pilis sericeis immersi.

Species 1 (an plures?) Asiæ occidentalis et centralis incola. *Moq. in DC. Prod.* xiii. ii. 124. *Boiss. Fl. Or.* iv. 919. Planta cum *Salsola arenaria, Kochia Sieversiana* et *Echinopsilo hyssopifolio* in herbariis confusa.

23. **Kirilowia,** *Bunge, Del. Sem. Hort. Dorpat.* 1843-7.—Flores hermaphroditi et fœminei, ebracteati et ebracteolati. Perianthium oblongo-ellipsoideum, compressum, hirsutum, membranaceum, ore parvo 4–5-dentato, fructiferum immutatum. Stamina 4–5, hypogyna, filamentis elongatis compressis; antheræ late oblongæ, exsertæ. Discus 0. Ovarium ovoideum, in stylum attenuatum, stigmatibus 2 filiformibus undique papillosis; ovulum subsessile. Utriculus perianthio sicco inclusus, obovoideus, compressus, pericarpio membranaceo semini non adhærente. Semen erectum, obovoideum v. sub-cuneiforme, compressum, marginibus rotundatis, testa coriacea; embryo elongato-hippocrepicus, albumen testæ arcte adhærens cingens, cotyledonibus elongatis, radicula infera.—Herbæ annuæ, graciles, sericeo-pilosæ, ramosæ. Folia alterna, opposita v. sub-verticillata, sessilia, ovata linearia v. lanceolata, acuta, integerrima. Flores minuti, inter folia occlusi, dense sericei v. villosi.

Species 3 v. 4, Asiæ centralis et Affghanistaniæ incolæ. *Moq. in DC. Prod.* xiii. ii. 125 et 117 (*Axyris villosa*). Genus habitu, forma perianthii elongati 5-dentati et dentibus non tuberculatis a *Panderia* diversum.

TRIBUS IV. CORISPERMEÆ.

24. **Corispermum,** *Linn. Gen. n.* 12.—Flores hermaphroditi, foliaceo-bracteati, ebracteolati. Perianthium minutum, compressum; segmenta 1–3, inæqualia, postico majore, erecta, late oblonga v. lanceolata, tenuiter 1-nervia, scariosa, fructifera immutata. Stamina 1–5, hypogyna; filamentis inæqualibus compressis; antheræ late oblongæ, longe exsertæ. Ovarium e perianthio exsertum, ovatum, compressum, marginatum; stigmata 2, subulata, recurva, basi connata; ovulum subsessile. Utriculus ellipsoideus v. orbicularis, compressus, plano-convexus, induratus, ambitu marginatus v. alatus, pericarpio membranaceo semini arcte adhærente. Semen erectum, plano-compressum, testa pallida coriacea; embryo gracilis, annularis, albumen copiosum testæ arcte adhærens cingens, radicula infera.—Herbæ annuæ, graciles, diffuse ramosæ, demum rigidæ, glabræ v. pubescentes, ramis sæpe divaricatis. Folia alterna, sessilia, angusta, rigidula, integerrima, floralia latiora sæpius nervosa et albo-marginata. Flores in spicas breves et densifloras v. elongatas et laxifloras ramulos terminantes dispositi, bracteis velati. Perianthii foliola et utriculi ala rarius evanida.

Species ad 8, Europæ australis et Asiæ centralis et occidentalis incolæ, una in China, altera in America boreali-occidentali indigena. *Moq. in DC. Prod.* xiii. ii. 140. *Walp. Ann.* v. 732. *S.*

Wats. Bot. Calif. ii. 56, *ined.* *Gærtn. Fruct.* i. *t.* 75. *Nees, Gen. Fl. Germ. Monochl. n.* 75. *Lam. Ill. t.* 5. *Sibth. Fl. Græc. t.* 1. *Pall. Fl. Ross. t.* 98.

25. **Anthochlamys,** *Fenzl in Endl. Gen. Pl.* 300.—Flores hermaphroditi, spicati, foliaceo-bracteati, ebracteolati. Perianthium compressum, tenuissime membranaceum, 5-partitum; segmenta erecta, oblonga, plana, apice 2-loba, tenuiter 1-nervia, fructifera immutata. Stamina 5, basi perianthii inserta, subperigyna, filamentis compressis perianthio æquilongis; antheræ lineari-oblongæ. Discus inconspicuus. Ovarium orbiculare, complanatum; stigmata 2, brevia, crassa, obtusa, suberecta, basi connata; ovulum subsessile. Fructus orbicularis, complanatus, ala scariosa circumdatus, basi perianthii involutus, pericarpio tenui semini arcte adhærente. Semen erectum, orbiculare, compressum, testa membranacea; embryo annularis, albumen copiosum testæ adhærens cingens, radicula gracili infera.—Herba annua, ramosa, glaberrima, *Polygalam* referens, ramis divaricatis fere nudis viridibus. Folia pauca, sparsa, sessilia, inferiora elliptica, obtusa v. mucronata; superiora linearia, acuta; floralia parva, ovato-lanceolata. Flores parvi, in spicas ramulos terminantes dispositi, in axillis bractearum solitarii, sessiles.

Species 1, Persiæ et regionis Caucasicæ incola. *Moq. in DC. Prod.* xiii. ii. 142. *Jaub. et Spach, Ill. Pl. Or.* iii. *t.* 299.

26. **Agriophyllum,** *Bieb. Fl. Taur. Cauc.* iii. 6, *in adnot.*—Flores hermaphroditi, bracteati, ebracteolati, in spiculas breves longe spinescentes dispositi. Perianthium complanatum, 5-partitum, scariosum; segmenta a basi libera, erecta, obonga v. lanceolata, obtusa, apice erosa, antico majore, 2 posticis angustioribus, lateralibus anguste linearibus, fructifera immutata. Stamina 5 v. pauciora, hypogyna, filamentis compressis; antheræ breves, oblongæ, subexsertæ. Ovarium complanatum, ala rigida superne in laminam erosam v. late 2-cornutam producta; stylus basi dilatatus, complanatus, stigmatibus 2 erecto-recurvis intus papillosis; ovulum subsessile. Fructus glaber v. pubescens, complanatus, chartaceus, oblongus v. fere orbicularis, late alatus v. crasse coriaceus et superne in spinas 2 rigidas stylo rigido terminatas productus, loculo in parte inferiore fructus orbiculari v. ellipsoideo, pericarpio semini non adhærente demum facie dorsali fenestratim v. irregulariter rupto. Semen erectum, orbiculare v. ellipsoideum, testa tenuiter coriacea; embryo gracilis, annularis, albumen copiosum testæ arcte adhærens cingens, radicula infera.—Herbæ annuæ, rigidæ, a basi divaricatim ramosæ, glabræ v. pilis stellatis tomentellæ. Folia alterna, sessilia v. petiolata, ovata orbicularia v. lineari-lanceolata, integerrima, pungentia, 3-∞-nervia nervis parallelis v. penninervia. Flores in axillis bractearum solitarii; bracteæ imbricatæ, a basi vaginante recurvæ et longe spinosæ, axillis interdum barbellatis.

Species 4, Asiæ centralis et occidentalis incolæ. *Moq. in DC. Prod.* xiii. ii. 139. *Walp. Ann.* v. 731. *Pall. Fl. Ross. t.* 99 (*Corispermum*).

Tribus V. Polycnemeæ.

27. **Polycnemum,** *Linn. Gen. n.* 53.—Flores hermaphroditi, axillares, solitarii, 2-bracteolati. Perianthium membranaceum, 5-partitum; segmenta subæqualia, subulato-lanceolata, acuminata, erecta, fructifera immutata. Stamina 1–5, sæpius 3, disco tenui inserta, filamentis basi connatis subulatis; antheræ didymæ. Ovarium oblongo-ovoideum, compressum v. late ovoideum; stigmata 2, parva, subulata, basi connata; ovulum ab apice funiculi suspensum. Utriculus perianthio inclusus, compressus, ovoideo-oblongus umbonatus v. subglobosus, pericarpio membranaceo semini non adhærente. Semen inversum, lenticulare, testa crustacea granulata; embryo annularis, albumen farinaceum cingens, cotyledonibus semiteretibus, radicula ascendente v. supera.—Herbæ annuæ, prostratæ, ramosæ, glabræ v. pubescentes, ramulis verrucosis foliosis. Folia alterna, conferta, sessilia, subulata, basi dilatata, rigida. Flores minuti, in axillis foliorum solitarii, sessiles; bracteolæ subulatæ, pungentes, perianthio æquilongæ v. longiores.

Species 3 v. 4, Europæ mediæ et australis, Africæ borealis, et Asiæ occidentalis incolæ, in Bonaria introductæ. *Moq. in DC. Prod.* xiii. ii. 334. *Gærtn. Fruct. t.* 128. *Nees, Gen. Fl. Germ. Monochl. n.* 76. *Jacq. Fl. Austr. t.* 365.

Genus inter *Amarantaceas* et *Chenopodiaceas* quasi medium.

28. **Hemichroa,** *Br. Prod.* 409.—Flores hermaphroditi, axillares, solitarii, 2-bracteolati. Perianthium subherbaceum, 5-partitum; segmenta erecta, ovata, acuminata, æqualia, concava, 3-nervia, fructifera immutata. Stamina 5, v. 2 unilateralia, hypogyna, filamentis subulatis ima basi connatis; antheræ breviter oblongæ v. didymæ. Ovarium orbiculare v. late ovoideum, rectum v. valde obliquum, compressum, in stylum brevem v. elongatum attenuatum, stigmatibus 2 brevibus; ovulum ab apice funiculi basilaris pendulum. Utriculus perianthio inclusus, ovoideus v. orbicularis, compressus, acutus, pericarpio membranaceo semini non adhærente. Semen inversum, reniforme v. lenticulare, rostellatum, testa crustacea castanea nitida; embryo imperfecte annularis, albumen farinaceum cingens, cotyledonibus linearibus, radicula ascendente v. supera.—Herbæ v. fruticuli humiles, glabri, succulenti, ramulis teretibus. Folia alterna, sessilia, linearia, semiteretia, mucronulata, floralia basi dilatata. Flores sessiles, parvi, albi; bracteolæ rigidæ, late ovatæ, scariosæ, perianthio breviores.

Species 2 v. 3, littorales, Australienses. *Benth. Fl. Austral.* v. 211. *F. Muell. Lithogr. Pl. Vict. t.* 77, *ined.*

29. **Nitrophila,** *S. Wats. in Bot. King's Exped.* 297; *Bot. Calif.* ii. 43 *ined.*—Flores hermaphroditi, 2-bracteolati, bracteolis foliaceis florem excedentibus. Perianthium chartaceo-membranaceum, 5-partitum; segmenta erecta, ovato-oblonga, acuta, concava, 1-nervia, interiora minora, fructifera immutata. Stamina 5, perigyna; filamentis filiformibus basi inter se liberis; antheræ subglobosæ. Ovarium rhombeo-ovoideum; stylus filiformis, stigmatibus 2 subulatis; ovulum ab apice funiculi suspensum. Utriculus perianthio inclusus, ovoideus, pericarpio membranaceo semini non adhærente. Semen inversum, lenticulare, margine acuto, testa nitidula nigra; embryo . . .—Herba pusilla, glabra, subsucculenta, dichotome ramosa, ramis subarticulatis. Folia opposita, sessilia, lineari-subulata, acuta, semi-teretia, integerrima, carnosula. Flores parvi, axillares, solitarii, sessiles, albi.

Species 1, Americæ boreali-occidentalis incola. *Moq. in DC. Prod.* xiii. ii. 279 (*Banaliæ sect. Idiopsis*). Seminum a nobis non visorum characterem ex descriptione S. Watsoni excerpsimus.

TRIBUS VI. CHENOLEÆ.

30. **Chenolea,** *Thunb. Nov. Gen.* 10.—Flores hermaphroditi et fœminei, axillares, ebracteati et bracteolati. Perianthium turbinatum globosum v. orbiculare et depressum, villosum v. tomentosum, rarissime glabrum, 5-lobum, lobis incurvis, fructiferum auctum lobis dorso in spinas v. cornua patentia productis rarius inermibus v. inappendiculatis. Stamina 5, hypogyna, filamentis compressis brevibus v. elongatis; antheræ oblongæ, exsertæ. Discus 0. Ovarium late ovoideum, in stylum brevem v. elongatum attenuatum, stigmatibus 2 v. 3 capillaribus undique papillosis; ovulum subsessile. Utriculus perianthio crustaceo v. coriaceo sæpe valde depresso lobis inflexis dorso productis inclusus, pericarpio membranaceo v. vertice indurato semini non adhærente. Semen horizontale, orbiculare, ad hilum emarginatum v. rostellatum, testa membranacea v. tenuiter coriacea; embryo annularis, gracilis v. robustus, albumen parcum testæ adhærens cingens, radicula centrifuga.—Herbæ basi lignosæ, rarius annuæ, v. fruticuli erecti et decumbentes, sæpissime tomentosi sericei v. pilosi, ramulis teretibus v. angulatis. Folia alterna, sessilia, linearia v. lanceolata, interdum teretia et carnosula, integerrima. Flores minuti, solitarii v. glomerati, sessiles, glomerulis interdum lana immersis.

Species ad 20, Europæ mediæ, Africæ borealis, Asiæ temperatæ, et Australiæ incolæ, una boreali-americana, altera Capensis. Genus in sectiones sequentes dividitur:—

1. *Euchenolea.* Perianthium fructiferum immutatum, lobis dorso infra apicem minute tuberculatis.

Præter typum generis, *C. diffusam*, Thunb., speciem capensem (*Echinopsilon diffusum*, *Moq.* in DC. Prod. xiii. ii. 137), hic includimus *C. lanatam*, Moq. l. c. 129; *C. canariensem*, Webb. Phytog. Canar. t. 200; *C. carnosam* et *C. Dallachyanam*, Benth. Fl. Austral. v. 190, 191.

2. *Echinopsilon.* Perianthii lobi omnes v. nonnulli dorso sub apice in spinas producti. *Waldst. et Kit. Pl. Rar. Hung. t.* 106 (*Salsola*). *Pall. Ill. Pl. t.* 32 *ad* 38, 45, 46 (*Suæda*). Echinopsilon, *Moq. in Ann. Sc. Nat. ser.* 2, ii. 127, *et in DC. l. c.* 134, *sp.* 1–8. *Walp. Ann.* v. 929. Willemetia, *Mærckl. in Schrad. Journ. Bot.* i. 329. Villemetia, *Moq. in Ann. Sc. Nat. ser.* 2, i. 206, *t.* 9. Bassia, *All. Misc. Taur.* iii. 177, *t.* 4, *ex Moq.* Kochiæ sect. Bassia, *Boiss. Fl. Or.* iv. 925.

Londesia, *Fisch. et Mey. Ind.* ii. *Sem. Hort. Petrop.* 40 (*Kochia latifolia*, Fres. *var. inermis*, Boiss. Fl. Or. iv. 927) est *Chenoleæ* species, perianthio abbreviato tenuissimo longissime villoso parte inferiore utriculi arctissime adhærente: planta *Kochiam* supra dictam (quæ *Echinopsilon eriphorum*, Moq.) miro modo simulans, et cum *Kirilovia eriantha* in herbariis confusa.

De formis singularibus australiensibus confer Benth. Fl. Austral. v. 189, quarum *C. Muelleri*, Benth. et *C. sclerolænoides*, F. Muell. (Eriochiton, *F. Muell. 2nd Gen. Report.* 15) transitum ad *Sclerolænam* monstrant.

31. **Kochia**, *Roth in Schrad. Journ. Bot.* i. 307 *t.* 2.—Flores hermaphroditi et fœminei, axillares, ebracteati et ebracteolati. Perianthium subglobosum urceolatum v. orbiculare et depressum, 5-lobum, lobis incurvis, fructiferum coriaceum, lobis dorso v. tubo infra lobos in alas horizontales membranaceas v. scariosas distinctas v. confluentes excrescentibus. Stamina 5, hypogyna, filamentis brevibus v. elongatis compressis; antheræ magnæ, late oblongæ v. didymæ, exsertæ. Discus 0. Ovarium late ovoideum, in stylum sæpe gracilem attenuatum, stigmatibus 2–3 capillaribus undique papillosis; ovulum subsessile. Utriculus perianthio coriaceo lobis inflexis inclusus, depresso-globosus, pericarpio membranaceo v. vertice coriaceo semini non adhærente. Semen horizontale, orbiculare, depressum, ad hilum emarginatum v. breviter rostellatum, testa membranacea; embryo gracilis v. robustus, annularis, albumen parcum testæ adhærens cingens, viridis, cotyledonibus plano-convexis, radicula centrifuga.—Herbæ basi sæpe lignosæ v. fruticuli, villosi sericeo-tomentosi v. rarius glabri, ramis gracilibus sæpe brachiatis. Folia alterna, rarissime subopposita, sessilia, linearia v. oblonga, rarius lanceolata, plana teretia v. carnosula, interdum minuta, integerrima. Flores parvi v. minuti, sessiles, solitarii v. glomerati.

Species ad 30, Europæ mediæ, Asiæ temperatæ, et Africæ borealis et australis incolæ, una in America boreali-occidentali, altera in India tropica indigena.—*Moq. in DC. Prod.* xiii. ii. 130, *excl. sp. n.* 11. *Walp. Ann.* i. 567; iii. 303. *Boiss. Fl. Or.* iv. 923 (*sect. Eukochia*). *S. Wats. Bot. Calif.* ii. 45, *ined.* *Nees, Gen. Fl. Germ. Monochl. n.* 59, *f.* 1 *ad* 17. *Jacq. Fl. Austr. t.* 294 (*Salsola*). *Waldst. et Kit. Pl. Rar. Hung. t.* 78 (*Salsola*). *Pall. Ill. Pl. t.* 10, 11 (*Salsola*). *Guss. Enum. Pl. Inar. t.* 13. *Wight, Ic. t.* 1791. *F. Muell. Lithogr. Pl. Vict. t.* 84, *ined.*

Genus polymorphum charactere nimis artificiale a *Chenolea* distinguendum. Inter species australienses *K. triptera*, Benth., insignis est tubo perianthii infra alas horizontales longitrorsum 3-alato; *K.? pyramidata*, Benth., perianthio fructifero ultra alas in tubum pyramidatum producto; *K. brachyptera*, F. Muell. (Sclerochlamys, *F. Muell. in Trans. Phil. Inst. Vict.* ii. 76) perianthio fructifero vertice lato plano 5-gono, et tubo turbinato costato ut in *Enchylæna marginata*. *K. stelligera*, F. Muell., ala perianthii fructiferi brevi horizontali stellatim 10–12-spinosa transitum præbet ad *Chenoleæ* sectionem *Echinopsilon.*

Maireana, *Moq. in Ann. Sc. Nat. ser.* 2, xv. 97, *t.* 13, et in *DC. Prod.* xiii. ii. 129 (*K. villosa*, Lindl.) a *Kochiis* typicis differt ala perianthii fructiferi continua e tubo (non e lobis) evoluta, ut in aliis speciebus australiensibus.

32. **Didymanthus**, *Endl. Nov. Stirp. Dec.* 7. *Iconogr. t.* 100.—Flores hermaphroditi v. fœminei, gemini, basibus confluentibus, axillares, ebracteolati. Perianthii tubus cylindraceus; lobi 4, breves, crassi, incurvi, coriacei, venosi, dorso infra apicem incrassati, fructiferi dorso basi in alas horizontales obovato-rotundatas excrescentes. Stamina 3–5, hypogyna, filamentis linearibus compressis; antheræ breviter oblongæ, inclusæ. Discus 0. Ovarium ovoideum, subtruncatum, vertice in stylum attenuatum, stigmatibus 2 filiformibus undique papillosis; ovulum ab apice funiculi elongati suspensum. Utriculus basi tubi perianthii cylindracei sub apice late stellatim alati inclusus, pyriformis v. oblongo-cylin-

draceus, pericarpio membranaceo vertice coriaceo semini non adhærente. Semen inversum, oblique pyriforme, rostellatum, testa tenuiter membranacea ; embryo crassiusculus, hippocrepice incurvus, albus, albumen parcum cingens, cotyledonibus plano-convexis radicula valida acuta oblique ascendente brevioribus.—Fruticulus humilis, rigidus, ramosus, sericeo-pilosus. Folia parva, opposita, crassiuscula. Flores axillares, sessiles, paribus horizontaliter divaricatis, perianthio fructifero pro ordine magno, basi inferne gibbo, ore contracto.

Species 1, Australiæ occidentalis incola. *Moq. in DC. Prod.* xiii. ii. 124. *Benth. Fl. Austral.* v. 193.

33. **Enchylæna,** *R. Br. Prod.* 407.—Flores hermaphroditi, axillares, bracteolis minutis v. 0. Perianthium orbiculare, depressum, carnosulum v. crasse coriaceum, inappendiculatum, 5-lobum, lobis brevibus obtusis inflexis, fructiferis immutatis v. auctis v. dorso paullo incrassatis. Stamina 5, hypogyna, filamentis brevibus compressis ; antheræ late oblongæ, vix exsertæ. Discus 0. Ovarium late ovoideum v. depressum ; stigmata 2–3, breviuscula, undique papillosa, basi vix connata; ovulum subsessile. Utriculus perianthio carnosulo inclusus, orbicularis, valde depressus, pericarpio membranaceo semini non adhærente. Semen horizontale, orbiculare, vix rostellatum, testa membranacea ; embryo annularis, viridis, albumen parcum testæ adhærens cingens, cotyledonibus obtusis, radicula gracili centrifuga.—Frutices v. suffrutices, erecti v. prostrati, glabri v. sericeo-pilosi, ramulis gracilibus. Folia alterna, sessilia, linearia v. lineari-lanceolata, integerrima. Flores parvi, sessiles, solitarii.

Species 4, Australienses. *Benth. Fl. Austral.* v. 180. Perianthium fructiferum superne et inferne convexum nisi in *E. marginata,* ubi superne planum marginatum basi brevissime turbinatum alte 8-costatum ut in *Kochia brachyptera.* *E. ?-micrantha,* Benth., perianthio globoso tomentoso, est potius *Chenoleæ* species.

34. **Babbagia,** *F. Muell. Rep. Babb. Exped.* 21.—Flores hermaphroditi, minimi, axillares, ebracteolati, stipitati, stipite cavo cum perianthio articulato. Perianthium compressum ; tubus subcampanulatus, venosus, demum nuceus costatus et inæqualiter longitrorsum 3-alatus, alis lateralibus obliquis, antica multo minore; limbus inconspicuus, tubulosus, hyalinus, obtuse 4-lobus, lobis ciliatis demum evanidis. Stamina 4, hypogyna, filamentis compressis linearibus; antheræ late oblongæ, exsertæ. Discus 0. Ovarium late ovoideum, in stylum brevem tomentosum attenuatum ; stigmata 2, subulata, undique papillosa; ovulum ab apice funiculi suspensum. Utriculus perianthio indurato fere clauso inæqualiter 3-alato inclusus, depresso-pyriformis, longe rostellatus, rostello intra basin cavam alæ majoris ascendente, pericarpio membranaceo inferne basi perianthii adhærente vertice plano crassiusculo a semine libero. Semen horizontale, oblique pyriforme, rostellatum, testa tenuiter coriacea ; embryo albus, uncinatim hippocrepicus, albumen parcum cingens, cotyledonibus plano-convexis radicula gracili centrifuga porrecta acuta brevioribus.—Herba humilis, diffuse ramosa, glauca, glabra, axillis foliorum pubescentibus. Folia parva, alterna, sessilia, lineari-oblonga, obovata v. clavata, obtusa, integerrima, carnosa. Flores valde inconspicui, virides ; perianthium fructiferum pro planta magnum.

Species 1 v. 2, Australiæ interioris incolæ. *Benth. Fl. Austral.* v. 192 *et in Hook. Ic. Pl. t.* 1078.

35. **Sclerolæna,** *R. Br. Prod.* 410.—Flores hermaphroditi, axillares, liberi v. connati, ebracteolati, lanati v. pilosi. Perianthii tubus subglobosus, coriaceus, apicem versus incrassatus, v. 1–2-spinosus, fructifer inordinate incrassatus, nuceus v. lignosus ; limbus minutus, breviter tubulosus, membranaceus, 4-fidus. Stamina 5, hypogyna, filamentis compressis ; antheræ late oblongæ, exsertæ. Discus 0. Ovarium oblique ovoideum, hirsutum; in stylum tomentosum attenuatum, stigmatibus 2 crassiusculis subulatis basi v. altius connatis undique papillosis ; ovulum ab apice funiculi elongati suspensum. Utriculus perianthio armato rarius inermi indurato inclusus, depresso-pyriformis, obliquus, rostellatus, pericarpio membranaceo semini non adhærente inferne perianthio adnato superne incrassato libero. Semen horizontale, depresso-

pyriforme, longe rostellatum, testa tenuiter coriacea; embryo viridis v. albus, subspiraliter hippocrepicus v. annularis, albumen copiosum uno latere cingens, cotyledonibus linearibus plano-convexis v. exteriore inferiorem fovente, radicula centrifuga elongata acuta apice ascendente.—Fruticuli humiles, rigidi, erecti v. decumbentes, tomentosi lanati v. sericeo-pilosi. Folia alterna, sessilia, linearia v. lanceolata, integerrima. Flores parvi, perianthio fructifero magno.

Species 6, Australienses. *Benth. Fl. Austral.* v. 193, *et in Hook. Ic. Pl. t.* 1076.

Kentropsis, *Moq. Chenop. Enum.* 83 *et in DC. Prod.* xiii. ii. 137 includit *S. diacantham*, Benth., et *S. bicornem*, Lindl., characteribus nullis genericis distinguendas.

Dissocarpus, *F. Muell. in Trans. Phil. Inst. Vict.* ii. 75, est *S. biflora*, Br.

36. **Anisacantha,** *R. Br. Prod.* 410.—Flores minuti, hermaphroditi, axillares, ebracteolati. Perianthii tubus globosus v. prismaticus, fructifer accrescens, nuceus, costatus v. angulatus, spinis 2–7 elongatis divaricatis armatus; limbus brevis, tubulosus, membranaceus, 4-dentatus, post anthesin immutatus, induratus. Stamina 4, hypogyna, filamentis elongatis compressis; antheræ late oblongæ, exsertæ. Discus 0. Ovarium ovoideum, glabrum v. tomentosum, in stylum elongatum attenuatum; stigmata 2, subulata, undique papillosa; ovulum ab apice funiculi suspensum. Utriculus perianthio nuceo apice inter spinas perforato inclusus, oblique ovoideus, pericarpio membranaceo semini non adhærente, inferne perianthio adnato superne libero. Semen inversum, suborbiculare, compressum, non rostellatum, testa tenuiter coriacea; embryo albus, fere annularis, albumen parcum cingens, cotyledonibus linearibus plano-convexis, radicula ascendente.—Fruticuli humiles, rigidi, glabri pubescentes v. villosi, perianthiis spinosis horridi. Folia alterna, sessilia, linearia, integerrima. Flores solitarii, sessiles; perianthium fructiferum sæpius cauli et interdum folii basi oblique arcte adnatum v. secus caulem decurrens.

Species 6, Australienses. *Benth. Fl. Austral.* v. 198.

37. **Threlkeldia,** *R. Br. Prod.* i. 409.—Flores hermaphroditi et fœminei, axillares, ebracteolati. Perianthii tubus ovoideus globosus v. subcylindraceus, æqualis v. gibbus, fructifer accrescens, nuceus, drupaceus v. crasse coriaceus, inermis v. apicem versus breviter spinosus, spinis erectis; limbus breviter tubulosus, membranaceus, breviter 4–5-lobus, fructifer immutatus. Stamina 5 v. pauciora, hypogyna, filamentis compressis; antheræ late oblongæ, exsertæ. Discus 0. Ovarium late ovoideum, in stylum validum attenuatum, stigmatibus 2–3 subulatis; ovulum funiculo brevi v. ab apice funiculi elongati suspensum. Utriculus perianthio clauso apice perforato inclusus, pericarpio membranaceo semini non adhærente. Semen inversum horizontale v. obliquum, interdum rostellatum, testa tenuiter coriacea; embryo hippocrepicus v. annularis, albumen cingens, cotyledonibus linearibus, radicula elongata ascendente v. laterali.—Fruticuli humifusi v. decumbentes, glabri v. rarius scaberuli. Folia alterna, sessilia, linearia oblonga v. obovata, acuta v. obtusa, integerrima, carnosula. Flores minuti; perianthium fructiferum parvum v. magnum, basi contractum, interdum cauli adnatum.

Species 3, Australiæ incolæ. *Benth. Fl. Austral.* v. 196, *excl. sp. n.* 4.

Osteocarpum, *F. Muell.* 2 *Gen. Rep.* 15, *et in Trans. Phil. Inst. Vict.* iii. 77; *Lithogr. Pl. Vict. t.* 79, *ined.* a congeneribus differt perianthio fructifero turbinato gibbo, rostello seminis intra gibbum ascendente uti in *Babbagia* intra alam producitur.

38. **Cypselocarpus,** *F. Muell. Fragm.* viii. 36.—Flores unisexuales, axillares, ebracteolati; ♂ ignoti. Fl. ♀: Perianthium minutum, membranaceum, fere unilaterale, inæqualiter profunde 3-lobum, lobis semiovatis, fructiferum inordinate accrescens, crasse nuceum, cylindraceum, breviter stipitatum, medio constrictum, basi et apice oblique truncatum, intus 2-locellatum, locellis superpositis, superiore apice aperto marginibus inflexis vacuo, inferiore fructifero, septo indurato medio pervio. Ovarium ovoideo-cylindraceum; stigma prope apicem fere laterale, sessile, depressum, papillosum. Utriculus locello inferiore perianthii accrescentis inclusus, subpyriformi-obovoideus, pericarpio

spongioso semini non adhærente. Semen erectum, oblique pyriforme, compressum, basi rostellatum, testa coriacea pallida fusca rugulosa; embryo crassus, hippocrepicus, albumen farinaceum parcum cingens, cotyledonibus plano-convexis radicula infera brevioribus.—Suffrutex procumbens, scaberulus, ramis elongatis gracilibus ut videtur prostratis apicibus ascendentibus. Folia parva, secus ramulos sparsa, lineari-lanceolata, plana, integerrima. Flores solitarii rarissime 2-ni, breviter pedicellati; perianthia fructifera pro ordine magna, horizontaliter patentia, lobis bracteolæformibus.

Species 1, Australiæ occidentalis incola, *Threlkeldia haloragoides*, F. Muell.; Benth. Fl. Austral. v. 198. Genus certe valde anomalum, *Phytolacceis* ab auctore relatum, sed nostro sensu certissime *Chenopodiacea* et *Threlkeldiæ* multis notis affine. Specimina nostra omnia fructifera tantum, florum characteres e descriptione Muelleri excerpsimus.

TRIBUS VII. SALICORNIEÆ.

39. **Kalidium,** *Moq. in DC. Prod.* xiii. ii. 146.—Flores hermaphroditi v. unisexuales, in cavis rhacheos clavatæ inarticulatæ immersi, connati et parietibus cavorum adnati. Perianthium naviculare, a latere subcompressum, vertice planiusculo margine alæformi cincto, ore 5-dentato, fructiferum spongiosum. Stamina 2, anticum et posticum, filamentis brevissimis; antheræ oblongæ. Ovarium ovoideum, apice attenuatum; stigmata 2, subulata; ovulum subsessile. Utriculus perianthio breviter alato inclusus et basi adhærens, ovoideus, compressus, pericarpio membranaceo semini non adhærente. Semen erectum, reniforme v. orbiculare, compressum, testa coriacea ad situm embryonis papillosa, albumine copioso carnoso; embryo virgulæformis, cotyledonibus superis antrorsum spectantibus, radicula subhorizontali infera.—Frutices et fruticuli erecti, ramosi, carnosi, ramis erecto-patentibus v. divaricatis, ramulis alternis articulatis. Folia sparsa, inter se libera, decurrentia, elongata subcylindracea v. rudimentaria. Spicæ alternæ, breves v. elongatæ, sessiles v. pedicellatæ, rhacheos cavis spiraliter dispositis septatis.

Species 4, Rossiæ australis et Asiæ centralis incolæ. *Ung. Sternb. in Atti Bot. Cong. Firenz.* 1874, 316, *et* 273, *f.* 12. *Gærtn. Fruct. t.* 127, *f.* 8 (*Salicornia strobilacea*). *Delile, Fl. Eg. t.* 3. *Pall. Ill. Pl. t.* 5, 6 (*Salicornia*).

40. **Halostachys,** *C. A. Mey. in Bull. Soc. Imp. Nat. Mosc.* 1838, 361, *nomen tantum.*—Flores hermaphroditi, in axillis squamarum strobili 3-ni, liberi. Perianthium obpyramidatum, 4-gonum, vertice dilatato convexo 3-lobo, lobis inflexis, fructiferum spongiosum, immutatum. Stamen 1, anticum; anthera late oblonga. Ovarium ovoideum, compressum, apice attenuatum; stigmata 2, rarius 3, brevia, papillosa; ovulum ab apice funiculi elongati suspensum. Utriculus ovoideus, membranaceus. Semen inversum, pyriforme, testa tenuiter coriacea lævi, hilo laterali, albumine copioso carnoso; embryo virgulæformis, dorsalis, cotyledonibus brevibus, radicula supera.—Frutex quasi aphyllus, erectus, robustus, ramosissimus, articulatus, ramis erectis patentibus, articulis elongatis apice dilatatis. Strobili oppositi, pedicellati, cylindracei; bracteæ inter se liberæ, peltatæ, subcordatæ, deciduæ.

Species 1, Rossiæ austro-occidentalis et Asiæ mediæ incola. *Ung. Sternb. in Atti Cong. Bot. Firenz.* 1874, 333 et 273, *f.* 15. *Walp. Ann.* v. 733. *Fenzl in Ledeb. Fl. Ross.* iii. 772 (*Halocnemum*). *Moq. in DC. Prod.* xiii. ii. 150 *et* 148 (*Arthrocnemum caspicum* et *Halostachys caspia*). *Pall. Ill. t.* 4 (*Salicornia*).

41. **Spirostachys,** *S. Wats. in Proc. Amer. Acad.* ix. 125 (*non Ung. Sternb.*).—Flores hermaphroditi, in axillis squamarum strobili 3–5-ni, inter se liberi. Perianthium obpyramidatum, sursum angulatum, truncatum, ore 4–5-lobo v. crenato, fructiferum immutatum. Stamina 1–2, filamentis exsertis; antheræ late oblongæ v. orbiculares. Ovarium lagenæforme, compressum, apice attenuatum; stigmata 2, breviuscula, undique papillosa; ovulum subsessile. Utriculus ovoideus, compressus, pericarpio membranaceo reticulato semini non adhærente. Semen erectum, obovoideum, compressum, testa subcoriacea, hilo basilari, albumine copioso carnoso; embryo dorsalis, virgulæformis, cotyledonibus

brevibus superis, radicula infera.—Frutices quasi aphylli, glabri, erecti, carnosi, ramosi, caule lignoso, ramis alternis articulatis, articulis apice dilatatis sub-2-labiatis. Strobili alterni, sessiles, cylindracei; bracteæ spiraliter dispositæ, peltatæ, persistentes v. tarde deciduæ.

Species 3, quarum una (*S. occidentalis*, S. Wats. l. c. et Bot. Calif. ii. 57, ined.) Americæ boreali-occidentalis incola; duæ Americæ australis temperatæ indigenæ: *S. patagonica* (*Halopeplis? patagonica*, Ung. Sternb.; *Halostachys patagonica*, Moq. in DC. Prod. xiii. ii. 148) et *S. vaginata*, Griseb. Pl. Lorentz. 37.

Genus habitu et perianthio *Halocnemonis*, sed strobili alterni, semen erectum et radicula infera.

42. **Heterostachys,** *Ung. Sternb. in Atti Congr. Bot. Firenz.* 1874, 331 *et* 273, *f.* 3. (Spirostachys, *ejusd. Vers. Syst. Salic.* 100.)—Flores hermaphroditi, in axillis squamarum strobili solitarii, liberi. Perianthium late orbiculatum, membranaceum, complanatum, utrinque late alatum, apice obscure 4-fidum, lobis 2 lateralibus longioribus fornicatis, antico et postico interioribus brevibus planiusculis rotundatis. Stamina 2, lateralia, filamentis compressis?; antheræ ovoideæ?. Ovarium elongato-ovoideum, a dorso compressum, apice attenuatum; stigmata 2, papillosa; ovulum ab apice funiculi elongati suspensum. Utriculus oblongo-ovoideus, compressus, membranaceus, longitrorsum fissilis. Semen inversum, ellipsoideum, compressum, testa ad embryonis situm papillosa, albumine copioso carnoso; embryo dorsalis, hemicyclicus, cotyledonibus . . . ., radicula ascendente. — Frutex carnosulus, erectus, ramosissimus, ramis suboppositis strictis articulatis. Folia opposita et subopposita, inter se libera, sæpissime in ramulos abbreviatos densissime imbricata, suborbicularia, obtusa. Strobili plerumque oppositi, inferiores pedicellati, superiores sessiles, oblongo-cylindracei, turgidi; bracteæ multiseriatæ, liberæ, latiores quam longæ, membranaceæ, apicibus coriaceis, ab axi brevi gracili solutæ.

Species 1, reipublicæ Argentinæ ad Mendozam incola, et suadente Moq. in DC. Prod. xiii. ii. 148 (*Halostachys Ritteriana*) Hispaniolam habitans. Nomen genericum *Spirostachys* ab auctore ipso in *Heterostachys* mutatum ob bracteas strobilorum 'certe oppositas,' sed si nos non fallimus bracteæ spiraliter dispositæ.

43. **Halopeplis,** *Bunge in Linnæa,* xxviii. 573, *nomen tantum*; *Ung. Sternb. Vers. Syst. Salicorn.* 102, *et in Atti Congr. Bot. Firenz.* 1874, 322 *et* 273 *f.* 14 *et* 327 *f.* 22.—Flores hermaphroditi, in axillis squamarum strobili 3-ni, connati et parietibus areæ florigeræ adnati. Perianthium 4-gonum, compressum, vertice latiusculo 3-dentato. Stamina 1–2, filamentis brevissimis; antheræ oblongæ. Ovarium pyriforme, subcompressum; stigmata 2; ovulum ab apice funiculi suspensum. Utriculus obovoideus, compressus, apice attenuatus, membranaceus. Semen minutum, inversum, subreniforme, compressum, testa coriacea lævi v. papillosa, albumine copioso; embryo dorsalis, virgulæformis, cotyledonibus superis radicula ascendente brevioribus.—Herbæ annuæ v. perennes, pusillæ, ramosæ, ramis nodosis. Folia opposita v. superiora sparsa, brevissima, carnosa, subglobosa v. ovoidea. Strobili alterni, ovoidei v. breviter oblongi, obtusi, erecto-patentes; bracteæ spiraliter dispositæ, suborbiculatæ, persistentes.

Species 3, regionum Mediterraneæ, Caspicæ, et Asiæ centralis incolæ. *Moq. in DC. Prod.* xiii. ii. 148 (*Halostachys perfoliata*, *H. songarica*, *et H. patagonica*). *Guss. Fl. Sic. t.* i. (*Salicornia*).—*Halopeplis? patagonica*, Ung. Stern., est *Spirostachyos* species.

44. **Halocnemon,** *Bieb. Fl. Taur. Cauc.* iii. 3.—Flores hermaphroditi, in axillis squamarum strobili 2–3-ni, liberi. Perianthium obpyramidatum, 3-gonum, 3-partitum, subcompressum, vertice convexiusculo, segmentis apice inflexis inappendiculatis. Stamen 1, anticum, filamento compresso; anthera oblonga. Ovarium ovoideum, compressum, apice attenuato; stigmata 2–3, subulata, undique papillosa; ovulum ab apice funiculi suspensum. Utriculus compressus, membranaceus. Semen inversum, pyriforme v. subtrigono-rotundatum, leviter compressum, testa membranacea ad embryonis situm granulata fusca, hilo fere apicali, albumine copioso farinoso; embryo dorsalis, virgulæformis,

cotyledonibus brevibus, radicula supera.—Frutex humilis, carnosus, quasi aphyllus, ramis ascendentibus, ramulis articulatis axillaribus abbreviatis gemmescentibus, articulis brevissimis apice dilatatis sub 2-labiatis. Strobili sessiles, laterales et terminales, breves v. elongati; bracteæ oppositæ, liberæ, semi-orbiculatæ, deciduæ.

Species 1, regionis Mediterraneæ mediæ et orientalis, Rossiæ australis, et Asiæ centralis incola. *Moq. in DC. Prod.* xiii. ii. 149, *sp. n.* 1. *Ung. Sternb. in Atti Congr. Bot. Firenz.* 1874, 336 *et* 273, *f.* 15. *H. australasicum, Moq. l. c.*, est *Salicornia quinqueflora*, Bunge.

45. **Tecticornia,** *Hook. f. gen. nov.*—Flores hermaphroditi, in axillis squamarum strobili 2-∞-ni, liberi v. cohærentes. Perianthium tubulosum, flaccidissimum, ore lacero. Stamen 1, filamento complanato; anthera lineari-oblonga, profunde 2-loba, exserta. Ovarium ovoideo-lanceolatum, compressum, in stylum elongatum subulatum flaccidum apice 2-fidum attenuatum, stigmatibus terminalibus; ovulum subsessile. Utriculus ovoideus, pericarpio tenuissime hyalino. Semen erectum, ovoideo-oblongum, valde compressum, testa tenuiter coriacea pallide brunnea papillosa albumini duro et cotyledonibus arcte adhærente; embryo dorsalis, gracilis, semi-annularis, cotyledonibus superioribus, radicula infera.—Herba quasi aphylla, molliter succulenta, erecta v. procumbens, glauca, exsiccata pruinosa, caule ramisque articulatis, ramis erectis oppositis et alternis, articulis apice modice dilatatis sub-2-lobis. Strobili terminales, solitarii v. 2-3-ni, oblongo-cylindracei, obtusi; squamæ multiseriatæ, horizontales, dense imbricatæ, latiores quam longæ, succulentæ. Flores minuti, rhachi secus faciem inferiorem squamarum immersi.

Species 1, Australiæ tropicæ orientalis incola. *Benth. Fl. Austral.* v. 203 (*Salicornia cinerea*, F. Muell.). Analysis florum ob mollitiem organorum difficillima.

46. **Pachycornia,** *Hook. f. gen. nov.*—Flores in cavis articulorum superpositorum rhacheos 3-ni, collaterales, laterales ♂, intermedii hermaphroditi, basibus connatis et axi rhacheos adnatis. Perianthium a dorso complanatum, membranaceum, truncatum, lateribus anguste alatis, ore contracto obtuse 4-dentato, dentibus lateralibus majoribus. Stamen 1, filamento crassiusculo complanato rigido apice attenuato; anthera lineari-oblonga. Ovarium ovoideum, axi rhacheos immersum et adnatum; stylus lanceolato-subulatus, compressissimus, stigmatibus 2 elongatis undique papillosis; ovulum ab apice funiculi suspensum. Utriculus axi rhacheos inordinate aucti lignosi immersus, pericarpio axi arcte adhærente. Semina inversa, quasi in loculis axeos recondita, globoso-reniformia, testa tenuiter coriacea lævi pallide brunnea, albumine copioso farinoso; embryo annularis, gracilis, cotyledonibus et radicula sursum incurvis.—Fruticulus erectus, quasi aphyllus, crassus, carnosus, caule ramisque articulatis, articulis apice in lobos 2 triangulares patentes subacutos dilatatis. Spicæ breves, crassæ, articulis paucis latissime triangularibus subacutis patulis. Flores in basibus articulorum reconditi.

Species 1, Australiæ temperatæ incola. *Benth. Fl. Austral.* v. 202 (*Salicornia robusta*, F. Muell. *Lith. Pl. Vict. ined.*). Planta singularis, ab *Arthrocnemo* perianthio complanato membranaceo, seminibus axi lignoso strobili sepultis, et embryone annulari distinctum. Flores certe ut a Benthamio descripti 3-ni, monandri, nec ut in icone Muelleriana delineati solitarii et triandri.

47. **Arthrocnemum,** *Moq. Enum. Chenop.* 111 *et in DC. Prod.* xiii. ii. 150, *excl. sp. plurim.*—Flores hermaphroditi, in cavis articulorum superpositorum immersi, non aut vix connati. Perianthium ovoideum v. angulatum, vertice obtuso attenuato v. subacuto 3-4-fido, lobis 2 lateralibus elongatis subacutis sæpius fornicatis, postico breviore rotundato, antico dum adsit minore, fructiferum spongiosum v. inflatum. Stamina 2, anticum et posticum, filamentis brevibus; antheræ oblongæ. Ovarium ovoideum, subcompressum, apice attenuato; stigmata 2, subulata; ovulum subsessile. Utriculus perianthio inflato inclusus, ovoideus, pericarpio membranaceo v. indurato. Semen erectum, ovoideum, testa crustacea lævi v. papillosa, albumine carnoso; embryo dorsalis, semi-annularis, cotyledonibus ascendentibus, radicula infera.—Frutices ramosi, quasi aphylli, erecti v. basi decumbentes, glabri, ramis articulatis, articulis apice in

vaginam dilatatis. Spicæ terminales et laterales, sessiles, subcylindraceæ v. obtusæ, 4-gonæ ; areæ florigeræ decussatim oppositæ.

Species ad 7, littorum salsorum Asiæ, Africæ et Australasiæ incolæ, quarum una etiam in America boreali-occidentale indigena. *Ung. Sternb. in Atti Bot. Congr. Firenz.* 1874, 281, 272 *f.* 9, *et* 286 *f.* A, B, C. *Bunge in Boiss. Fl. Or.* iv. 932. SALICORNIÆ species, *Guss Fl. Sic. t.* 4. *Pall. Ill. Pl. t.* 7. *Wight, Ic. t.* 737.

A. bidens, Nees, *A. halocnemoides*, Nees, *A. arbuscula*, Moq. (*Salicorniæ* species, Benth. Fl. Austral. v. 203), aliæque Australienses ulterius examinandæ. Genera Salicornoidea ex speciminibus exsiccatis difficillime determinanda.

48. **Salicornia,** *Linn. Gen. n.* 10.—Flores hermaphroditi v. polygami, in cavis articulorum superpositorum immersi, 3-7-ni, liberi v. connati et basi areæ florigeræ adnati. Perianthium obpyramidatum, carnosum, vertice planiusculo rarius contracto, ore 3-4-denticulato, fructiferum spongiosum. Stamina 2, rarius 1, filamento teretiusculo; antheræ exsertæ, didymæ. Ovarium ovoideum, apice attenuatum ; stylus apice lacerus v. stigmatibus 2 subulatis undique papillosis terminatus ; ovulum subsessile. Utriculus perianthio spongioso inclusus, ovoideus v. oblongus, rhachi plus minusve immersus, pericarpio membranaceo. Semen erectum, oblongum v. subellipsoideum, compressum, testa tenuiter coriacea pilis uncinatis hispidula castanea, albumine 0 ; embryo conduplicatus, cotyledonibus crassiusculis obtusis superis radiculæ horizontali inferæ parallelis.—Herbæ quasi aphyllæ annuæ v. fruticuli carnosi, erecti v. decumbentes, glabri, ramis oppositis articulatis, articulis apice in vaginam dilatatis. Spicæ terminales, breves v. elongatæ, cylindraceæ, floribus collateralibus v. intermedio altius inserto ; areæ florigeræ decussatim oppositæ, in loculos tot quot flores divisæ.

Species ad 8, littoribus salsis utriusque orbis indigenæ. *Ung. Sternb. in Atti Bot. Congr. Firenz.* 1874, 291, 272 *f.* 10, 11, *et* 278 *f.* 17 *ad* 20. *Nees, Gen. Fl. Germ. Monochl. n.* 68, *f.* 1 *ad* 20. *Fl. Dan. t.* 303, 1621. *Guss. Fl. Sic. t.* 3. *Pall. Ill. Pl. t.* 1 *ad* 3. *Wight, Ic. t.* 738. *Fenzl in Mart. Fl. Bras.* v. i. *t.* 49.

49 **Microcnemum,** *Ung. Sternb. in Atti Bot. Congr. Firenz.* 1874, 280 *et* 272 *f.* 8.—Flores hermaphroditi, in axillis articulorum superpositorum dispositi, liberi. Perianthium 0. Stamen 1. Ovarii stylus elongatus ; ovuli funiculus brevis. Utriculus membranaceus. Semen oblique reniforme, testa crustacea nigra granulata, hilo antico, albumine sat copioso ; embryo virgulæformis, flexus, cotyledonibus postice ascendentibus, radicula infera.—Herba habitu *Salicorniæ*, annua, pusilla, ramosissima, glauca, ramis teretibus omnibus articulatis in spicas consimiles graciles elongatas abeuntibus ; articuli ramorum longiusculi, spicarum breves, in vaginas obscure 2-lobas floriferas membranaceo-marginatas dilatati. Semina minuta, aterrima.

Species 1, Arragoniæ incola. Characteres e descriptione Unger-Sternbergii, et frustulo fructifero a cl. Boissier benevole communicato confecti. Flores fide auctoris in axillis articulorum 3-ni, sed semina numerosa in singulis axillis invenimus.

TRIBUS VIII. SUÆDEÆ.

50. **Suæda,** *Forsk. Fl. Æg. Arab.* 69, *t.* 18 B. (Cochliospermum, *Lag. Mem. Pl. Barill.* 58, *ex Moq.*)—Flores hermaphroditi v. abortu unisexuales, minuti, bracteati et 2-bracteolati. Perianthium globosum turbinatum v. urceolatum, 5-lobum v. 5-partitum, crassiusculum v. demum carnosulum, lobis segmentisve æqualibus et inappendiculatis v. 1-2 ceteris majoribus inflatis v. corniculatis, rarius omnibus dorso breviter transverse alatis. Stamina 5, subhypogyna v. perigyna, filamentis brevibus ; antheræ majusculæ. Discus elevatus v. 0. Ovarium basi sæpius lata sessile v. tubo perianthii adnatum, ovoideum orbiculare v. sublageniforme, apice rotundato v. truncato ; stigmata 2-5, brevia, subulata, recurva, undique papillosa ; ovulum subsessile. Utriculus perianthio inclusus, orbicularis ovoideus v. lageniformis, teres compressus v. depressus, membranaceus v.

subspongiosus, pericarpio semini rarissime adhærente. Semen horizontale, obliquum v. erectum, orbiculare oblique pyriforme v. subreniforme, turgidum v. compressum, hilo emarginato, testa crustacea lævi, integumento interiore membranaceo, albumine 0 v. parco in massulas 2 diviso ; embryo gracilis, plano-spiralis, sæpissime viridis, radicula ascendente descendente v. laterali.—Herbæ v. frutices salsi, erecti v. prostrati, simplices v. diffuse ramosi, virides v. glauci, rarius subfarinosi, rarissime puberuli. Folia terna, carnosa, teretia vermicularia v. semiteretia, rarius spathulata v. planiuscula, integerrima. Flores parvi v. minuti, axillares, sessiles v. subsessiles, solitarii v. glomerati, glomerulis interdum folii basi adnatis. Semina fide Bungei in speciebus compluribus dimorpha, alia præcocia testa crustacea, alia rariora serotina testa membranacea.

Species ad 40, in littoribus et in desertis salsis obviæ. *Boiss. Fl. Or.* iv. 937. *S. Wats. in Proc. Amer. Acad.* ix. 87. *Bot. Calif.* ii. 58, *ined.*

Genera sequentia a variis auctoribus distincta, characteribus inter se minime validis definita, pleraque jam a Bungeo in Boiss. l. c. in unum juncta sunt, cætera nostro sensu æquo jure rejicienda.

Suæda, *Moq. in DC. Prod.* xiii. ii. 155, *et in Ann. Sc. Nat. sér.* 1, xxiii. *t.* 19, 20, 21 A, 22 A. Perianthium 5-partitum v. 5-fidum, segmentis lobisve æqualibus inappendiculatis fructiferis immutatis. Ovarium basi lata sessile v. perianthii tubo adnatum. Semen sæpius erectum. *Pall. Ill. Pl. t.* 42. *Wight, Ic. t.* 1792, 1796. Perianthium in *S. monoica*, *S. vermiculata*, aliisque certe tantummodo 5-lobum ovario basi tubo adnato ut in *Schanginia*.

Belovia, *Moq. in DC. Prod.* xiii. ii. 168, est fide Bungei in Boiss. Fl. Or. iv. 942, forma heterocarpa *S. setigeræ*, Moq.

Sevada, *Moq. in DC. Prod.* xiii. ii. 154, cujus fructus ignotus est, charactere nullo dato a *Suæda* distinguere possumus.

Schoberia, *C. A. Mey. in Ledeb. Fl. Alt.* i. 395, *Ic. Fl. Ross. t.* 44, 45, *excl. S. corniculata* (Chenopodina, *Moq. in DC. Prod.* xiii. ii. 159). Perianthium 5-partitum v. 5-lobum, segmentis lobisve subæqualibus post anthesin immutatis. Ovarium sæpissime basi contractum, Semen sæpissime horizontale. *Nees, Gen. Fl. Germ. Monochl. n.* 62. *Fl. Dan. t.* 489 (*Chenopodium*). *Pall. Ill. Pl. t.* 39, 43, 44, 47 (*Suæda*). *Wight, Ic. t.* 1793 (*Chenopodium*). Schoberia, *Moq. in Ann. Sc. Nat. ser.* 1, xxiii. 321, *t.* 22, *et in DC. Prod.* xiii. ii. 165, perianthii segmentis dorso corniculatis v. appendiculatis includit *S. corniculatam*, C. A. Mey.; Ledeb. Ic. Fl. Ross, t. 195, et *S. calceoliformem*, Moq. l. c. 166.

Brezia, *Moq. in DC. Prod.* xiii. ii. 167. Perianthium depressum, profunde 5-lobum, demum auctum, lobis dorso transversim alatis. Ovarium basi contractum. Semen horizontale. Herba annua Asiæ centralis.

Calvelia, *Moq. in DC. Prod.* xiii. ii. 167. Perianthium urceolatum, 5-lobum, demum auctum, lobis longitudinaliter alatis. Semen horizontale. Herba annua, Altaica, a nobis non visa.

Schanginia, *C. A. Mey. in Ledeb. Fl. Alt.* i. 394. Perianthium urceolatum v. turbinatum, 5-lobum, demum sæpe inflatum, lobis fructiferis immutatis v. dorso tuberculo auctis. Ovarium basi tubo perianthii adnatum v. eo immersum. Semen erectum. *Moq. in DC. Prod.* xiii. ii. 153 *et in Ann. Sc. Nat. ser.* 1, xxiii. *t.* 21 B. *Boiss. Fl. Or.* iv. 944. *Pall. Ill. Pl. t.* 40, 41 (*Suæda*). Species 3 v. 4, quarum typica, *S. linifolia*, C. A. Mey., forma perianthii, ovarii insertione, et semine a *S. vermiculata* aliisque non differt. Semen, ex Boiss., pericarpio arcte adhæret. Species Ægyptiacæ et Arabicæ ab Asiaticis differunt habitu floribusque multo majoribus.

51. **Alexandra,** *Bunge in Linnæa,* xvii. 120. (Pterocalyx, *Schrenk in Bull. Phys. Math. Acad. Sc. Petersb.* 1843, i. 361.)—Flores polygami, spicati, solitarii v. conferti, bracteati et 2-bracteolati, bracteis magnis imbricatis flores velantibus, bracteolis minimis subulatis. Perianthium complanatum, orbiculare v. obcordatum, membranaceum, 5-partitum, demum immutatum ; segmenta 2 lateralia cymbiformia, dorso et superne late alata, antico et 2 posticis multo minoribus planis obtusis. Stamina 5, filamentis subulatis; antheræ oblongæ, obtusæ. Discus 0. Ovarium ovoideum, in fl. ♂ rudimentarium; stigmata 2–3, filiformia, undique papillosa, ovulum subsessile. Utriculus perianthio inclusus, orbicularis, compressus, pericarpio membranaceo semini non adhærente. Semen erectum, orbiculare, basi rostellatum, testa lævi crustacea brunnea, albumine 0; embryo plano-spiralis, gracilis, viridis, radicula elongata infera.—Herba annua, erecta,

glaberrima, caule simpliciusculo robusto folioso. Folia infima opposita, teretia, carnosa; superiora alterna, sessilia, erecta, ovata v. lanceolata, semiamplexicaulia, obtusa, concava, crasse coriacea, enervia. Flores parvi, bracteis occlusi, laterales in bracteæ axilla sæpe imperfecti.

Species 1, in locis salsuginosis Soongariæ vigens. *Moq. in DC. Prod.* xiii. ii. 168.

52. **Borsczovia,** *Bunge in Act. Hort. Petrop.* v. 643.—Flores abortu monoici, axillares, fasciculati, bracteati et 2-bracteolati. Fl. ♂ parcissimi: Perianthium 5-partitum, segmentis obtusis vix cucullatis. Stamina 5, perigyna; antheræ subglobosæ, didymæ. Ovarii rudimentum liberum, elongato-lageniforme, apice dilatatum; stigmata 2 rudimentaria. Fl. ♀ numerosissimi: Perianthium tenuissimum, ovario adhærens, hyalinum, enerve, integrum ore minuto, v. in segmenta 5 solubile. Ovarium subovoideum, compressum, carnosum, nervosum, vertice introverso; stigmata 2, minuta, subulata, fundo verticis ovarii introversi recondita; ovulum funiculo gracili erectum, micropyle infera. Utriculus perianthio hyalino indutus, orbicularis, compressus, pericarpio carnosulo nervoso, endocarpio membranaceo semini adhærente. Semina dimorpha, orbicularia, compressa, erecta, basi rostellata, funiculo crassiusculo, alia majora valde compressa testa tenuiter coriacea, alia minora turgida testa crustacea lævi, integumento interiore carnosulo, albumine parco gelatinoso; embryo plano-spiralis, cotyledonibus elongatis, radicula infera.—Herba annua, glaberrima, a basi ramosa, ramis albescentibus fragilibus, inferioribus oppositis. Folia alterna, sessilia, inferiora crassa semi-teretia, superiora elliptico-oblonga marginibus hyalinis. Flores 3–5-ni, sessiles, minuti; fructibus pro tribu magnis.

Species 1, deserti Aralensis incola. Flores ♂ a nobis non visi; ♀ heteromorphi; semina minorum ex Bungeo obovoidea, tumida, margine acuto, integumento crustaceo embryoneque flavescenti-albo, majorum valde compressa, integumento membranaceo duplici opaco embryoneque viridulo. Nos formas duas vidimus, semina majora plana testa magis coriacea, minora turgida testa potius crustacea, in utroque integumentum duplex et minora margine non acuta. Embryo in utroque idem v. minorum laxius spiralis. *Florum* ♀ analysis difficillima est, et forte discrimen partium supra datum non semper accuratum, quamplurima tamen perianthia examinavimus exitu semper eadem.

53. **Bienertia,** *Bunge in Boiss. Fl. Or.* iv. 945.—Flores abortu polygami, hermaphroditi cum paucis fœmineis in glomerulos axillares dispositi; fœminei racemosi, glomerulum superantes. Perianthium ovario adnatum, depresso-globosum, 5-lobum, lobis 5 planis conniventibus, fructiferum spongiosum, disciforme, ala horizontali circumdatum, lobis minutis in centro disci verrucæformibus. Stamina 5, perigyna, filamentis subulatis; antheræ . . . Fructus orbicularis, valde depressus, perianthii ala spongiosa circumdatus, et intra tubum arcte arrectus, lobis planis inflexis medio coronatus, pericarpio subcoriaceo semini adhærente. Semen horizontale, orbiculare, testa crustacea granulata, albumine in utroque latere seminis parco carnoso; embryo spiralis, gracilis, radicula centrifuga.—Herba annua, inferne lignescens, e collo ramosa, ramis crassiusculis. Folia sparsa, sessilia, lineari-subteretia, obtusa, sæpe recurva, caduca. Flores minuti, racemosi; racemi in paniculam angustam terminalem ramulis divaricatis 6–10-floris carnosulis dispositi; flores serotini sæpe fatui.

Species 1, Persica. Exemplar mancum a Boissiero benevole missum vidimus. Descriptio pro maxima parte ex Bungeo l. c.

TRIBUS IX. SALSOLEÆ.

54. **Traganum,** *Delile, Fl. Eg.* 60, *t.* 22, *f.* 1.—Flores hermaphroditi, axillares, 2-bracteolati, lana immersi. Perianthium basi tubulosum, 5-lobum, lobis obtusis membranaceis inappendiculatis, fructiferum incrassatum v. induratum, lobis conniventibus immutatis. Stamina 5, disco inconspicuo inserta, filamentis linearibus compressis; antheræ lineari-sagittatæ, acutæ, exsertæ; staminodia 0. Ovarium depresso-globosum, in stylum crassum attenuatum, stigmatibus 2 crasse subulatis; ovulum subsessile. Utriculus peri-

anthio indurato v. nuceo cylindraceo truncato inclusus, depresso-globosus, pericarpio crasse carnoso vertice subindurato semini non adhærente. Semen horizontale, depresso-globosum, testa carnosula, albumine 0; embryo subcochleatim spiralis, gracilis, radicula centrifuga ascendente porrecta.—Fruticulus ramosissimus, cortice albo, caudice crasso lignoso, ramulis herbaceis teretibus v. rigidis ad nodos villosis. Folia alterna, sessilia, teretia, carnosula, obtusa v. mucronata. Flores minuti; bracteolæ foliis consimiles.

Species 2, altera Africæ borealis et Arabiæ incola, altera Canariensis. *Moq. in DC. Prod.* xiii. ii. 171.

55. **Cornulaca,** *Delile, Fl. Eg.* 62, *t.* 22, *f.* 3.—Flores polygami, axillares, solitarii v. fasciculati, lana immersi, 2-bracteolati. Fl. ⚥: Perianthium crasse coriaceum, infra medium turgidum, 5-partitum, demum induratum; segmenta 5, inæqualia, basi coriacea, superne in laminam spathulatam membranaceam dilatata, v. 1–2 exteriora spinescentia. Stamina 5, dorso sub apice disci tubulosi 5-lobi membranacei inserta, filamentis lineari-subulatis; antheræ oblongæ, obtusæ, infra medium 2-fidæ, inappendiculatæ; lobi disci (staminodia) breves, quadrati, apicibus incrassatis. Ovarium ovoideum, compressum, liberum v. disco immersum; stylus crassiusculus, stigmatibus 2 crasse subulatis patenti-recurvis v. revolutis intus papillosis; ovulum subsessile. Utriculus perianthio indurato inclusus, ovoideus, a latere compressus, pericarpio crassiusculo semini non adhærente. Semen horizontale, testa crassiuscule membranacea, albumine 0; embryo cochleato-spiralis, viridis, radicula centrifuga porrecta.—Fruticuli rigidi, lignosi, caule crasso ramisque validis tortuosis inarticulatis. Folia alterna, sessilia, triangularia v. semi-teretia, apice spinulosa. Flores parvi, polymorphi, plerique imperfecti, perianthio (in *C. monacantha*) in lacinias membranaceas fere ad basin fisso.

Species 4–5, Africæ boreali-occidentalis, Arabiæ et Assyriæ incolæ. *Bunge, Anabas. Revis.* 87, *et in Boiss. Fl. Or.* iv. 983. Characterem ad *C. monacantham*, Del., et *C. amblyacantham*, Bunge, confecimus. Semen in priore tantum nobis visum, ubi horizontale embryone cochleari et radicula laterali; in floribus imperfectis discus polymorphus est, elongatus, ovarium et styli basin includens, v. brevis, v. 0, staminibus imperfectis hypogynis. *C. Aucheri*, Moq., est species annua, cujus exemplaria typica non vidimus, et formâ ejusdem anomala a Bungeo missa nec flores nec fructus exhibet; genus ideo incertum est. Fructus *C. setiferæ*, Moq., ignotus est. In *C. Ehrenbergii*, Aschers., flores ♂, quos solos vidimus, solitarii, perianthio indurato villoso interdum basi cum bracteolis connato. Folia in speciebus plurimis sparsa, in *C. Ehrenbergii* dense imbricata. Genus *Tragano* valde affine, et verisimiliter cum illo melius jungendum.

Traganum nudatum, Schimp. Pl. Un. Itin. 284 et 737, non Del. (*T. nudatum, var. longisetum*, Pl. Schweinf.), a Bungeo Anabas. Revis. 92, et in Boiss. Fl. Or. iv. 985 ad *Halogeton alopecuroidem*, Fenzl, relatum, a *Cornulaca* differt perianthii segmentis latis hyalinis disco adnatis post anthesin immutatis, est vel *Tragani nudati*, Delile, forma anomala, vel genus novum inter *Traganum* et *Cornulacam* quasi medium. *Salsola alopecuroides*, Delile, Fl. Eg. 56, *t.* 21, *f.* 1. Agathophora, Bunge, Anabas. Revis. 92 (*Halogeton*, sect. *Agathophora*, Fenzl in Ledeb. Fl. Ross. iii. 83 in not.) planta est prorsus ignota, a *Tragano nudato*, Schimp. ut nobis videtur diversa.

56. **Seidlitzia,** *Bunge in Boiss. Fl. Or.* iv. 950.—Flores monoici v. polygami, axillares, sessiles, 2-bracteolati, superiores masculi. Fl. ♂: Perianthium basi truncatum, 5-partitum; segmenta obovata, membranacea, ima basi connata. Stamina 5, disco cupulari inserta, filamentis brevibus; antheræ oblongæ. Ovarii rudimentum disco insertum, oblongum, compressum, stigmatibus 2 suberectis brevibus obtusis. Fl. ♀: Perianthium carnosum, profunde 5-lobum; lobi obtusi, cucullati, dorso tuberculati, tuberculis demum in alas obovatas horizontales membranaceas expansis. Discus annularis. Ovarium depressum, basi perianthii semi-immersum; stylus brevissimus, stigmatibus 2 minutis subulatis; ovulum subsessile. Utriculus perianthio stellatim alato inclusus, depresso-globosus, pericarpio carnosulo semini non adhærente sub-operculatim dehiscente. Semen horizontale, turgidum, testa carnosula lævi, albumine 0; embryo plano-spiralis, gracilis, radicula centrifuga porrecta.—Herba annua, ramosa, glauca, glaberrima, ramis oppositis albidis teretibus. Folia opposita, sessilia, linearia, semiteretia, obtusa, carnosa. Flores

minuti; ♂ solitarii, bracteolis subglobosis carnosis; ♀ sæpius fasciculati, pube brevi immersi, non raro deformes v. steriles ovario incrassato ovoideo carnoso et stigmatibus crassis recurvis; fl. ♀ perianthii segmenta sæpe inæqualia.

Species 1, Armeniæ, Syriæ, et Persiæ incola. *Bieb. Cent. Pl. Ross. t.* 17 (*Anabasis*).

57. **Arthrophytum,** *Schrenk in Bull. Phys. Math. Acad. Sc. Petersb.* iii. 211.—Flores hermaphroditi, axillares, 2-bracteolati. Perianthium globosum, herbaceum, 5-partitum; segmenta orbicularia, conniventia, dorso transverse gibba, marginibus membranaceis, fructiferum immutatum. Stamina 5, margine disci crassi urceolaris villosi inserta, filamentis subulatis compressis; antheræ late ovato-cordatæ, obtusæ; staminodia 0. Ovarium globosum, disco immersum, in stylum brevissimum contractum, stigmate 2-lobo; ovulum subsessile. Utriculus perianthio inclusus, depresso-globosus, pericarpio carnosulo semini non adhærente. Semen horizontale. . . .—Fruticulus humilis, glaber, radice crasso, collo lignoso multicipiti, ramis brevibus erectis strictis teretibus exsiccatis fragilibus. Folia opposita, sessilia, basi per paria connata, patentia, subulata, 3-quetra, pungentia. Flores in axillis oppositis solitarii, minuti; bracteolæ foliis consimiles. . .

Species 1, Turkestaniæ et Soongariæ incola. *Trautv. in Bull. Soc. Imp. Nat. Mosc.* 1867, 20. *Bunge in Boiss. Fl. Or.* iv. 947. Embryo ignotus ideoque locus in ordine incertus.

58. **Horaninovia,** *Fisch. et Mey. Enum. Pl. Schrenk,* 10.—Flores hermaphroditi v. unisexuales, axillares, 2-bracteolati. Perianthium urceolatum, 4–5-partitum; segmenta late ovata v. oblonga, acuta obtusa v. aristata, hyalina v. basi coriacea, fructifera dorso gibboso-incrassata, et basi suberoso-incrassata. Stamina 5, inter lobos (staminodia) disci 5-lobi cupularis inserta, filamentis subulatis; antheræ late oblongæ, muticæ v. aristatæ. Ovarium basi disci immersum, ampullaceum; stylus brevis, stigmate capitellato; ovulum subsessile. Utriculus basibus incrassatis incurvis segmentorum perianthii inclusus, depresso-ampullaceus, pericarpio membranaceo semini non adhærente. Semen horizontale, depresso-orbiculare, testa membranacea, albumine 0; embryo plano-spiralis, gracilis, radicula oblique centrifuga.—Herbæ parvæ, annuæ, dichotome v. opposite ramosæ, rigidæ, glabræ v. puberulæ. Folia opposita v. alterna, patentia, teretia, rigida, spinescentia v. obtusiuscula, floralibus basi membranaceo-dilatatis. Flores minuti, solitarii v. fasciculati, vaginis foliorum absconditi, sessiles, subpilosi; bracteolæ perianthium æquantes.

Species 2 v. 3, sabulosis Soongariæ et deserti Caspici incolæ. *Moq. in DC. Prod.* xiii. ii. 170. *Eichw. Pl. Casp. Cauc. t.* 12 (*Salsola*).

59. **Haloxylon,** *Bunge, Rel. Lehm.* 468 (292), *et in Boiss. Fl. Or.* iv. 948.—Flores hermaphroditi, axillares, 2-bracteolati. Perianthium chartaceum v. scariosum, 5-partitum; segmenta a basi libera, concava; fructifera accrescentia, dorso ala transversa ampla horizontali nervosa instructa. Stamina 5, v. pauciora, margine disci lobati cupularis inserta, filamentis lineari-subulatis; antheræ ellipsoideæ, obtusæ; staminodia (lobi disci) rotundata v. quadrata. Ovarium subglobosum v. depressum, basi disco immersum, in stylum brevem contractum, stigmate truncato simplici v. 2-lobo, v. stigmatibus 2–4 subulatis recurvis; ovulum subsessile. Utriculus unguibus segmentorum perianthii inclusus, globosus v. depressus, pericarpio carnosulo semini non adhærente. Semen horizontale, depresso-globosum, testa membranacea, albumine 0; embryo viridis, plano-spiralis, radicula centrifuga.—Fruticuli v. arbusculæ glabræ v. axillis villosis, rarius puberulæ, virides v. glaucæ, caudice crasso lignoso multicipiti, ramis cylindraceis ad nodos articulatis. Folia opposita, basi connata, triangularia v. elongata et teretia, obtusa v. mucronata, interdum brevissima. Flores parvuli, secus ramulos spicati, solitarii v. fasciculati.

Species 8 v. 10, pleræque Hispaniæ, Africæ borealis, et Asiæ occidentalis et centralis incolæ, 2 indicæ. *Moq. in DC. Prod.* xiii. ii. 172 (*Caroxyli* species caulibus ramisque articulatis). *Ledeb. Ic. Fl. Ross.* t. 47 (*Anabasis*). *Cav. Ic. t.* 284 (*Salsola*). Species indicæ *H. recurvum,* Hook. f. (*Salsola recurva,* Wall. Cat. Herb. Ind. n. 6934), e Burmah; et *H. Stocksii,* Hook. f. (cum priore a Bungeo in Boiss. l. c. confusa) a cæteris recedunt stylo 0 et stigmate obtuso. *Anabasis ramosissima,* Boiss. (Herb. Syriæ, Gaillardot, n. 2199) est *Haloxyli* species in 'Flora Orientali' prætermissa.

60. **Salsola,** *Linn. Gen. n.* 311.—Flores hermaphroditi, axillares, 2-bracteolati. Perianthium 5- rarius 4-partitum; segmenta oblonga v. lanceolata, concava, medio dorso incrassata, fructifera supra medium ala late horizontali scariosa instructa, inferne libera at immutata v. in thecam nuceam connata, apicibus liberis sæpius inflexis. Stamina 5 v. pauciora, hypogyna v. rarius disco minuto inserta, filamentis subulatis v. linearibus planis; antheræ breves v. elongatæ, obtusæ v. connectivo in acumen producto; staminodia 0. Ovarium globosum depressum v. late ovoideum, in stylum brevem v. elongatum abrupte attenuatum, stigmatibus 2 rarissime 3 subulatis erectis v. recurvis intus papillosis; ovulum subsessile v. funiculo elongato suspensum. Utriculus unguibus segmentorum perianthii inclusus, late ovoideus v. orbicularis, vertice concavo v. convexo, pericarpio carnosulo v. membranaceo semini non adhærente. Semen horizontale, rarissime inversum, erectum v. obliquum, orbiculare, testa membranacea, albumine 0; embryo plano- v. subcochleato-spiralis, sæpius viridis, radicula elongata centrifuga v. in seminibus inversis supera.—Herbæ, frutices et suffrutices, habitu varii, glabri pubescentes v. tomentosi, ramis inarticulatis. Folia alterna v. rarius opposita, sessilia v. basi lata amplexicaulia, brevia v. elongata, interdum squamiformia, apice sæpe pungentia. Flores parvi, solitarii v. fasciculati, perianthio fructifero non raro amplo.

Species ad 40, pleræque Europæ, Africæ borealis et Asiæ temperatæ et tropicæ incolæ, 10 austro-africanæ; una in America temperata tam boreali quam australi, et in Australia indigena. *Moq. in DC. Prod.* xiii. ii. 179 *et* 172 (*Caroxyli* species caulibus inarticulatis). *Bunge in Boiss. Fl. Or.* iv. 951. *Fenzl in Ledeb. Fl. Ross.* iii. 796. *Gærtn. Fruct. t.* 75. *Nees, Gen. Fl. Germ. Monochl. n.* 61. *Fl. Dan. t.* 818. *Cav. Ic. t.* 283, 285 *ad* 288. *Jacq. Hort. Vind. t.* 68; *Fl. Austr. t.* 294. *Sibth. Fl. Græc. t.* 255. *Asso, Syn. Stirp. Aragon. t.* 2. *Webb, Otia Hisp. t.* 5. *Eichw. Pl. Casp. Cauc. t.* 24 *ad* 31. *Jaub. et Spach, Ill. Pl. Or. t.* 137, 138. *Delile, Fl. Eg. t.* 21, *f.* 4. *Pall. Ill. Pl. t.* 12 *ad* 17, 19, 21 *ad* 23, 25, 26, 28 *ad* 30. *Belang. Voy. Ind. Or. t.* 10. *Wight, Ic. t.* 1795.

Caroxylon, *Thunb. Nov. Pl. Gen.* ii. 37, ab auctore ipso in Fl. Cap. ii. 176, ad *Salsolam* reductum est. Caroxylon, *Moq. in DC. l. c.*, constat ex speciebus *Salsolæ* compluribus nullo charactere generice distinguendis, cum paucis ramis articulatis ad *Haloxylon* referendis.

Halothamnus, *Jaub. et Spach, Ill. Pl. Or. t.* 136, est *Salsolæ* species disco parvo cupulari instructa.

61. **Helicilla,** *Moq. in DC. Prod.* xiii. ii. 169.—Flores hermaphroditi, axillares, 2-bracteolati. Perianthium urceolato-campanulatum, 5-fidum; segmenta carnosa demum baccata, dorso subcorniculato-carinata. Stamina 5, basi perianthii inserta, filamentis lineari-subulatis basi dilatatis in cupulam connatis; antheræ ovato-oblongæ; staminodia 0. Ovarium lageniforme, basi calycis adhærens; stigmata 2, minuta, subulata, divaricata. Utriculus perianthio clauso bacciformi substellatim 5-gono inclusus, depressus, pericarpio membranaceo subcarnoso inferne calyci adnato. Semen horizontale, orbiculare, testa simplici membranacea, albumine 0; embryo cochleatus, viridis, radicula dorsali.—Herba erecta, gracilis, virgata, glabra, ramosa, ramis patulis gracillimis. Folia alterna, in tuberculo minuto sessilia, semiteretia, carnosa, subflexuosa, parum farinosa, superiora angustissima. Flores paniculati, sæpius basi foliorum enati, breviter pedicellati, solitarii v. 2-3-ni, paniculæ ramis alternis filiformibus flexuosis paucifloris; bracteolæ minutæ, scariosæ. (*Char. ex Moq.*).

Species 1, Chinensis, a nobis non visa. 'Facie et characteribus ad *Schoberiam* paululum accedit, sed inflorescentia plane diversa, et semen *Salsolearum*,' *Moq.*

62. **Ofaiston,** *Raf. Fl. Tellur.* 47, *ex Moq. in DC. Prod.* xiii. ii. 203.—Flores hermaphroditi, in sulcis ramulorum axillares, 2-bracteolati. Perianthium 3–5-partitum; segmenta 3 exteriora obovato-spathulata, membranacea, demum rigidula, concava, medio dorso obtuse cornuta v. ala minuta transverse acuta; 2 interiora minora, simplicia v. exterioribus consimilia. Stamina 1 v. 2, disco obscuro inserta, filamentis planis linearibus demum elongatis; antheræ oblongæ, basi longe 2-fidæ, connectivo in appendicem brevem latam obtusam producto; staminodia 0. Ovarium ovoideum, a latere compressum; stigmata 2, a basi distincta, subulata, sub apice cohærentia; ovulum ab apice funiculi suspensum. Utriculus perianthio inclusus, late ovoideus, compressus,

pericarpio tenuiter membranaceo semini non adhærente. Semen erectum, turgide lenticulare, testa membranacea, albumine 0; embryo plano-spiralis, cotyledonibus planis radicula elongata infera latioribus.—Herba glabra, ramosissima, ramis ascendentibus alternis. Folia alterna, semiamplexicaulia, teretia, obtusa, carnosula; floralia subtriquetra, ovata, acuta, concava. Flores sessiles, alterni, parvi; bracteolæ ovatæ, acutæ, demum subcristatæ, cristula crassa deflexa.

Species 1, a regione Uralensi usque ad Soongaricam extensa. *Bunge, Anabas. Revis.* 20. *Pall. Ill. Pl. t.* 31 (*Salsola*).

63. **Noæa,** *Moq. in DC. Prod.* xiii. ii. 207, *excl. sp.*—Flores hermaphroditi, axillares, 2-bracteolati. Perianthium chartaceum, 5-partitum; segmenta (quorum 3 exteriora) oblonga v. ovato-lanceolata, acuta v. obtusa, fructifera paullo accrescentia, dorso supra medium alata. Stamina 5, disco minuto inserta, filamentis planis; antheræ lineari-sagittatæ, connectivo in appendicem e basi lata lanceolatam albidam producto; staminodia 0. Ovarium ovoideum, compressum, in stylum brevem attenuatum, stigmatibus 2 brevibus recurvis; ovulum ab apice funiculi suspensum. Utriculus perianthio inclusus, late ovoideus, a dorso compressus, pericarpio membranaceo semini non adhærente. Semen inversum, orbiculare, compressum, testa membranacea, albumine 0; embryo plano-spiralis, viridis, cotyledonibus angustis, radicula elongata supera.—Frutices inermes v. spinosi, rigidi, ramosi, glabri v. sericeo-villosi, rarius herbæ annuæ, caule sæpe tortuoso lignoso, ramis divaricatis. Folia alterna, sessilia, brevia et lata, v. elongata v. triquetra, mutica v. spinescentia. Flores parvi v. minuti, solitarii, rigidi.

Species ad 6, Africæ borealis et Asiæ occidentalis incolæ. *Bunge, Anabas. Revis.* 21, *et in Boiss. Fl. Or.* iv. 964. *Labill. Pl. Syr. Dec.* ii. *t.* 5 (*Salsola*). *Del. Fl. Eg. t.* 21, *f.* 2 (*Salsola*). *Jaub. et Spach, Ill. Pl. Or. t.* 132 (*Anabasis*). *Pall. Ill. Pl. t.* 24 (*Salsola*).

64. **Girgensohnia,** *Bunge, Rel. Lehm.* 478 (302); *et Anabas. Revis.* 29, *t.* 1, *f.* 24.—Flores hermaphroditi, axillares, 2-bracteolati, bracteolis coriaceis. Perianthium 5-partitum, segmenta (quorum 3 exteriora) oblonga, chartacea, 1-nervia, 2–3 v. omnia dorso supra medium tuberculata, tuberculo demum in alam deorsum flexam excrescente. Stamina 5, disco minuto inserta, staminodiis totidem carnosulis intus et margine cellulis clavatis vestitis alterna, filamentis subulatis medio dilatatis; antheræ ovoideo-cordatæ, obtusæ v. connectivo in apiculum producto. Ovarium a dorso compressum, ovoideum v. subglobosum, sæpius superne glandulosum, in stylum angustatum, stigmate capitato 2-lobo v. stigmatibus 2 oblongis obtusis; ovulum subsessile. Utriculus perianthio alato inclusus, a dorso compressus, pericarpio membranaceo semini non adhærente. Semen erectum, orbiculare, compressum, testa membranacea, albumine 0; embryo spiralis, radicula infera.—Herbæ annuæ v. fruticuli glabri v. puberuli, ramosi, ramulis obscure articulatis teretibus v. angulatis et costatis. Folia parva, opposita, sessilia, triangulari-ovata, acuta v. pungentia, coriacea, integerrima v. serrulata. Flores bracteolis inclusi, parvi v. minuti, solitarii.

Species 4, Asiæ mediæ et occidentalis incolæ. *Boiss. Fl. Or.* iv. 967. *Jaub. et Spach, Ill. Pl. Or. t.* 133 (*Anabasis*). *Pall. Ill. Pl. t.* 27 (*Salsola*).

65. **Anabasis,** *Linn. Gen. n.* 312.—Flores hermaphroditi et fœminei, axillares, 2-bracteolati. Perianthium scariosum, basi truncatum, 5-partitum; segmenta (quorum 3 exteriora) oblonga, obtusa, fructifera immutata v. exteriora v. omnia demum alata, alis brevibus v. amplis. Stamina 5, disco brevi inserta, staminodiis totidem obtusis sæpe glandulosis alterna; filamentis subulatis medio paullo incrassatis; antheræ oblongo-cordatæ, connectivo obtuso v. apiculato. Ovarium compressum, ovoideo-globosum, læve pubescens v. papillosum, in stylum brevem angustatum, stigmatibus 2 brevibus erectis v. recurvis; ovulum subsessile. Utriculus perianthio inclusus v. exsertus, subglobosus, a dorso compressus, pericarpio sicco carnoso v. baccato semini non adhærente. Semen erectum, orbiculare, compressum, testa membranacea v. subcoriacea lævi v. granulosa, albumine 0; embryo spiralis, radicula infera v. ascendente.—Herbæ perennantes v. fruticuli glabri

v. ad nodos et axillas tomentosi, ramis articulatis, internodiis interdum turgidis. Folia opposita, carnosa, sæpe obsoleta v. per paria in cupulam connata, obtusa v. apice setigera. Flores parvi v. minuti, solitarii v. glomerati, perianthio fructifero sæpe valde revoluto, bracteolæ minutæ v. setaceæ.

Species 15, regionis Mediterraneæ et Asiæ occidentalis centralisque incolæ. *Bunge, Anab. Revis.* 34, *et in Boiss. Fl. Or.* iv. 968.

Genus in sectiones sequentes dividitur :—

1. *Euanabasis.* Perianthium fructiferum 3–5-alatum. Antheræ obtusæ v. apiculatæ; staminodia ciliata. Anabasis, *Moq. in DC. Prod.* xiii. ii. 210, *excl. sp. pluribus, Bunge, Anabas. Revis* 34 *et in Boiss. Fl. Or.* iv. 968. *Pall. Ill. Pl. t.* 8.

2. *Brachylepis.* Perianthium fructiferum non alatum. Antheræ obtusæ; staminodia minuta. Brachylepis, *C. A. Mey. Fl. Alt.* i. 370. *Moq. in DC. Prod.* xiii. ii. 216, *excl. sp. n.* 1. *Bunge, Anabas. Revis.* 47 ; *et in Boiss. Fl. Or.* iv. 971. *Ledeb. Ic. Fl. Ross. t.* 48.

3. *Fredolia.* Perianthium fructiferum 5-alatum. Connectivum in appendiculam acuminatam productum ; staminodia glaberrima. Herba cæspitosa, pulvinata, habitu *Aretiæ*, foliis imbricatis.—*Algeria.* Fredolia, *Coss. et Dur. mss. ex Moq. et Coss. in Bull. Soc. Bot. Fr.* ix. 299, *t.* 2.

66. **Nanophytum,** *Less. in Linnæa*, ix. 197.—Flores hermaphroditi, solitarii, axillares, 2-bracteolati. Perianthium 5-partitum, segmenta (quorum 2 exteriora) convoluta, chartacea, lanceolata, acuminata, concava, enervia, demum valde aucta, inappendiculata, nitida. Stamina 5, disco parvulo inserta, filamentis elongatis compressis ; antheræ elongato-sagittatæ, loculis longe discretis, connectivo in apicem subulatum elongatum rigidulum desinente ; staminodia minuta. Ovarium ovoideum, paullo compressum, in stylum attenuatum, stigmatibus 2 recurvis fructu erectis ; ovulum subsessile. Utriculus perianthio insigniter aucto inclusus, turgidus, globoso-ovoideus, pericarpio tenuiter membranaceo semini non adhærente. Semen erectum, utriculo conforme, vix a dorso compressum, testa membranacea hyalina, albumine 0 ; embryo spiralis, viridis, subcochleatus, cotyledonibus angustis, radicula gracili infera.—Fruticulus pulvinatus, rigidus, glaber v. axillis foliorum lanatis, caudice crasso lignoso, ramulis tortuosis intertextis. Folia parva, alterna, sessilia, triangulari-ovata, acuta, rigida, coriacea, concava. Flores parvi, primum inter bracteolas foliaque absconditi, demum longe evoluti et exserti ; perianthia fructifera folia longe superantia.

Species 1, a regione trans-Uralensi usque ad Soongaricam extensa. *Moq. in DC. Prod.* xiii. ii. 200. *Bunge, Anabas. Revis.* 50, *et in Boiss. Fl. Or.* iv. 972. *Pall. Ill. Pl. t.* 48 (*Polycnemum*).

67. **Petrosimonia.**—*Bunge, Anabas. Revis.* 52.—Flores hermaphroditi, solitarii, axillares, 2-bracteolati, bracteolis navicularibus sæpe demum induratis. Perianthium 2–5-partitum, segmenta (quorum 2 exteriora) ovato-lanceolata, basi lata v. angustata, concava, membranacea v. chartacea, enervia, apice integra v. lacera, fructifera immutata. Stamina 1–5, disco inconspicuo inserta, filamentis compressis ; antheræ exsertæ, lineari-oblongæ, sagittatæ, apiculatæ v. connectivis apice sæpe 3-dentatis cohærentibus ; staminodia 0. Ovarium late ovoideum, compressum ; stylus gracilis, stigmatibus 2 filiformi-subulatis ; ovulum subsessile. Utriculus perianthio bracteolisque arcte imbricatis inclusus, late oblongus v. ovoideus, a dorso compressus, vertice paullo incrassato, pericarpio membranaceo v. subchartaceo semini non adhærente. Semen erectum, orbiculare, compressum, testa membranacea, albumine 0 ; embryo plano-spiralis, cotyledonibus gracilibus, radicula elongata infera.—Herbæ annuæ, pubescentes sericeæ v. subvillosæ, pilis bicuspidatis, ramosæ, ramis gracilibus teretibus. Folia opposita et alterna, patentia v. recurva, sessilia, linearia acicularia v. semiteretia, acuta v. obtusa. Flores parvi, inconspicui, cum bracteolis caduci.

Species ad 7, Asiæ centralis et occidentalis incolæ. *Bunge in Boiss. Fl. Or.* iv. 972. *Pall. Ill. Pl. t.* 49 *ad* 54 (*Polycnemum*).

68. **Halocharis,** *Moq. in DC. Prod.* xiii. ii. 201, *ex parte.*—Flores hermaphroditi, axillares, solitarii, 2-bracteolati. Perianthii segmenta 5 (quorum 2 exteriora), lanceolata,

membranacea, hyalina, enervia, fructifera immutata. Stamina 5, disco carnosulo inserta, filamentis linearibus; antheræ lineares, loculis ab apice discretis angustis parallelis, connectivo in vesiculam sessilem v. stipitatam complanatam v. inflatam interdum basi tubulosam producto; staminodia 0. Ovarium late ovoideum, compressum, in stylum gracilem abrupte angustatum, stigmatibus 2 elongatis subulatis; ovulum ab apice funiculi suspensum. Utriculus perianthio inclusus, late ovoideus v. orbicularis, a latere compressus, pericarpio membranaceo ruguloso semini non adhærente. Semen inversum, lenticulare v. orbiculare, compressum, testa membranacea, albumine 0; embryo plano-spiralis, cotyledonibus gracilibus, radicula laterali ascendente.—Herbæ annuæ, sæpe parvulæ, prostratæ v. suberectæ, ramosæ, hispido-pilosæ et villosulæ, ramulis sæpe verticillatis. Folia alterna, sessilia, carnosula, oblonga v. anguste ovata, pilis rigidis apice barbata. Flores inconspicui, inter folia reconditi, et lana laxa immersi, cum bracteolis decidui; appendices antherarum violaceæ sulphureæ v. stramineæ.

Species 5, Persiæ, Affghanistaniæ, et Asiæ centralis incolæ. *Bunge, Anabas. Revis.* 61, *t.* 1, *f.* 1 *ad* 4, *et in Boiss. Fl. Or.* iv. 974.

69. **Halimocnemis,** *C. A. Mey. Fl. Alt.* i. 381.—Flores hermaphroditi, axillares, solitarii, 2-bracteolati. Perianthium 3–5 partitum, segmentis basi demum induratis coalitis fructiferis inappendiculatis, 2 exterioribus majoribus. Stamina 3–5, disco perianthii basin vestiente inserta, filamentis planis; antheræ elongatæ, loculis basi liberis, connectivo in vesiculam pyriformem sessilem v. stipitatam inflatam albam v. coloratam producto; staminodia 0. Ovarium compressum, ovoideum, vertice coriaceo in stylum angustato, stigmatibus brevibus v. elongatis sæpius dilatatis et laceris; ovulum funiculo elongato suspensum. Utriculus perianthio basi indurato subgloboso inclusus, a latere compressus, pericarpio membranaceo vertice calloso semini non adhærente. Semen inversum, orbiculare, compressum, testa carnosula alba, albumine 0; embryo spiralis, cotyledonibus elongatis complanatis, radicula supera.—Herbæ annuæ, crasse carnosæ, dichotome ramosissimæ, glabræ v. pilosæ, ramis interdum trigonis robustis. Folia alterna, crassa, sessilia, obtusa v. cuspide deciduo terminata. Flores parvi; perianthia fructifera majuscula, cum bracteolis foliaceis decidua.

Species 9, Persicæ et Aralo-Caspicæ. *Bunge, Anab. Revis.* 65, *t.* 1, *f.* 5 *ad* 10, *et in Boiss. Fl. Or.* iv. 976. *Pall. Ill. Pl. t.* 56 (*Polycnemum*).

HALOTIS, *Bunge, Anab. Revis.* 73, *t.* 1, *f.* 11, *et in Boiss. Fl. Or.* iv. 978, *et in Act. Hort. Petrop.* v. 644, genus ab auctore dubitatim proposita, ab *Halimocnemide* differt perianthii segmentis exterioribus fructiferis basi auriculatis.

70. **Halanthium,** *C. Koch in Linnæa*, xvii. 313.—Flores hermaphroditi, axillares, 2-bracteolati, bracteolis post anthesin induratis. Perianthium membranaceum, 5-partitum; segmenta (quorum 2 exteriora) oblongo-lanceolata, acuta v. 2-loba, enervia v. 2 exteriora 3-nervia, fructifera basi libera immutata v. exteriora dorso alata. Stamina 5, hypogyna, filamentis planis; antheræ anguste lineari-elongatæ, connectivo in vesiculam magnam hyalinam pyriformem v. globosam producto; staminodia 0. Ovarium elongatum, compressum, vertice coriaceo in stylum crassiusculum angustato, stigmatibus 2 crassiusculis; ovulum subsessile. Utriculus perianthio inclusus, lineari-oblongus, a latere compressus, pericarpio membranaceo semini non adhærente. Semen erectum, subovoideum v. oblongum, compressum, testa membranacea, albumine 0; embryo spiralis, viridis, radicula supera.—Herbæ annuæ, glabræ v. pubescentes. Folia alterna v. superiora subopposita, sessilia, brevia v. elongata, semiteretia, obtusa v. seta apiculata. Flores oppositi et solitarii, v. ad apices ramulorum congesti, sæpe cum foliis floralibus basi induratis v. nuceis conjunctim decidui, pro ordine majusculi.

Species 8, Asiæ occidentalis et centralis incolæ. Sectiones sequentes a variis auctoribus pro generibus propriis habentur:—

1. *Physogeton*, forma typica Kochii, perianthii fructiferi segmentis 2 exterioribus alatis. *Bunge, Anabas. Revis.* 80, *t.* 1, *f.* 16 *ad* 23, *et in Boiss. Fl. Or.* iv. 981. *Stschegl. in Bull. Soc. Imp. Nat. Mosc.* 1853, i. *t.* 5 (*Halimocnemis*). PHYSOGETON, *Jaub. et Spach, Ill. Pl. Or. t.* 135.

2. *Gamanthus.* Perianthii segmenta omnia fructifera immutata. GAMANTHUS, *Bunge, Anabas. Revis.* 76, *t.* 1, *f.* 13 *ad* 15, *et in Boiss. Fl. Or.* iv. 979. *Pall. Ill. Pl. t.* 20 (*Salsola*).

71. **Halarchon,** *Bunge, Anabas. Revis.* 75, *t.* 1, *f.* 12, 25, 26.—Flores hermaphroditi, axillares, solitarii, 2-bracteolati. Perianthium hyalinum, 5-partitum; segmenta (quorum 2 exteriora) oblongo-lanceolata, acutissima, enervia, fructifera immutata. Stamina 5, disco minutissimo inserta, filamentis linearibus apice emarginato-truncatis; antheræ anguste lineares, loculis discretis, connectivo in vesiculam globoso-pyriformem roseam producto; staminodia 0. Ovarium columnare; stylus basi bulboso-incrassatus, medio denticulis verticillatis auctus, stigmate capitato 2-lobo indusio membranaceo infundibulari lacero demum fecundatione peracta reverso cincto; ovulum ab apice funiculi pendulum. Utriculus in specimine immaturus. Semen erectum, radicula supera *ex Bungeo.*—Herba annua, glauca, canescens, caule erecto, ramis alternis patentibus v. decumbentibus. Folia infima opposita, cætera alterna, semi-teretia, pungentia, semi-amplexicaulia. Flores parvi, superiora congesta; bracteolæ cuspidatæ.

Species 1, in salsuginosis Affghanistaniæ obvia. *Bunge in Boiss. Fl. Or.* iv. 979. Planta valde singularis, *Halanthio* ut nobis videtur, ovarii indole excepto, proxime affinis, an ejus forma sexualis?

72. **Piptoptera,** *Bunge in Act. Hort. Petrop.* v. 644.—Flores hermaphroditi, axillares, 2-bracteolati. Perianthium 5-partitum; segmenta basi indurata et connata, 2 exteriora navicularia, 3-nervia, 3 interiora angustiora, enervia; fructifera 2 exteriora latissime membranaceo-alata, alis demum articulatim solutis thecam a latere subcompressam 6-costatam supra medium 2-auriculatam relinquentibus. Stamina 5, disco obscuro inserta, filamentis linearibus; antheræ minutæ, cordatæ, connectivo in vesiculam conicam subacutam producto; staminodia 0. Ovarium ovoideo-globosum, in stylum basi usque 2-partitum productum, cruribus (stigmatibus) subulatis strictis erectis; ovulum ab apice funiculi suspensum. Utriculus perianthii basi nuceo inclusus, orbicularis, compressus, pericarpio membranaceo semini non adhærente. Semen inversum, orbiculare, compressum, testa tenuissima, albumine 0; embryo plano-spiralis, radicula supera.—Herba annua?, ramosissima, habitu *Salsolæ*, crassa, hispidula, ramis patentibus. Folia alterna, sessilia, superiora recurva, carnosa, trigona, acuta; floralia breviora, basi late ovata, pungentia, late membranaceo-marginata. Flores solitarii, sessiles; bracteolæ foliis subsimiles sed longiores, persistentes.

Species 1, Turkestaniæ incola. Exemplar mancum vidimus, a Maximoviczio benevole missum.

73. **Halogeton,** *C. A. Mey. Fl. Alt.* i. 378, *ex parte.*—Flores polygami, glomerati, axillares, bracteolati v. ebracteolati. Perianthium 5-partitum; segmenta (quorum 2 exteriora) dorso apicem versus alata v. gibba, fructifera immutata v. rarissime indurata. Stamina 5 v. pauciora, disco parvo inserta v. hypogyna, filamentis linearibus; antheræ oblongæ v. didymæ, inappendiculatæ; staminodia 0 v. 5, filamentis alterna, lingulata, apice integra v. fimbriata. Ovarium ovoideum, compressum, in stylum brevem subulatum angustatum, stigmatibus 2 filiformibus suberectis; ovulum funiculo brevi v. elongato. Utriculus perianthio inclusus, late ovoideus, a latere compressus, pericarpio membranaceo semini plus minusve adhærente. Semen inversum, rarissime horizontale, orbiculare v. gibbum, extremitate radiculari porrecto, testa membranacea v. subcoriacea, albumine 0; embryo spiralis, radicula porrecta laterali v. supera.—Herbæ annuæ, ramosissimæ, crassiusculæ, glabræ arachnoideæ v. subvillosæ. Folia alterna, sessilia, carnosula, teretia v. oblonga, obtusa v. apice setifera, axillis sæpe pilosis. Flores minuti, lana laxa immersi v. stipati, centralis ebracteolatus, lateralium 2 exteriores bracteolati; in glomerulis infimis flos medius hermaphroditus, laterales fœminei; in glomerulis trifloris sæpe omnes hermaphroditi, in multifloris exteriores interdum perianthio orbati.

Species 5, Hispaniæ australis, Algeriæ, Asiæque centralis incolæ. *Moq. in DC. Prod.* xiii. ii. 204, *excl. sp. n.* 1, 2, 3. *Bunge, Anabas. Revis.* 93, *et in Boiss. Fl. Or.* iv. 985. *Ledeb. Ill. Fl. Ross. t.* 40.

MICROPEPLIS, *Bunge, Rel. Lehm.* 474 (298), 479 (303), seminibus sæpissime horizontalibus, ab

auctore ipso (Anabas. Revis. 97) pro sectione *Halogetonis* habendum est, transitum præbet ad *Salsolaceas* veras.

74. **Sympegma,** *Bunge in Bull. Acad. Sc. Petersb.* xxv.; *Mel. Biol.* x. 306.—Flores hermaphroditi, ebracteolati, axillares, fasciculati. Perianthium compressum, 5-partitum; segmenta demum cartilaginea, oblonga, concava, dorso infra apicem late alata; alæ horizontales, oblongæ, venosæ, 2 exteriores majores basi gibbæ. Stamina 5, filamentis basi breviter connatis, staminodiis totidem interpositis; antheræ oblongo-cordatæ, inappendiculatæ. Ovarium lageniforme, compressum, in stylum latum attenuatum, stigmatibus 2 subulatis recurvis; ovulum ab apice funiculi suspensum. Utriculus perianthio inclusus, orbicularis, compressus, pericarpio crassiusculo membranaceo semini non adhærente. Semen inversum, utriculo conforme, testa membranacea, albumine 0; embryo spiralis, radicula supera.—Fruticulus ramosissimus, glaber, cortice fere suberoso. Folia sparsa, lineari-filiformia, carnosula. Flores in apices ramulorum terminales, in globulum demum induratum conferti.

Species 1, Asiæ centralis incola. Descriptio ex schedis Bungei et exemplare manco a Maximoviczio benevole communicato. Staminodia a Bungeo descripta non vidimus.

Tribus X. Sarcobatideæ.

75. **Sarcobatus,** *Nees in Trav. Pr. Neuwied. ed. angl.* 518. (Fremontia, *Torr. in Emory Rep.* 95, 317, *t.* 3.)—Flores monoici v. dioici, ebracteolati, dimorphi. Fl. ♂ achlamydei. Stamina inter squamas stipitatas peltatas amenti terminalis irregulariter sparsa, filamentis brevibus; antheræ didymæ. Ovarii rudimenta 0. Fl. ♀ axillares, solitarii, subsessiles. Perianthium a dorso compressum, turbinatum, cum ovario omnino confluens, supra medium transverse incrassatum, vertice conico in stigmata 2 crassa subulata recurva papillosa angustato; ovulum pyriforme, sessile. Fructus coriaceus, rhombeo-obovoideus, supra medium ala scariosa horizontali radiatim venosa crenulata cinctus, parte infra-alari turbinato compresso, supra-alari conico puberulo stigmatibus persistentibus coronato. Semen erectum, orbiculare, compressum, testa membranacea hyalina; embryo plano-spiralis, viridis, radicula infera.—Frutex erectus, ramosus, foliosus, glaberrimus v. ramulis novellis puberulis, ramis spinescentibus. Folia alterna, in ramos articulata, linearia, sessilia, carnosula, integerrima. Amenta cylindracea, squamis persistentibus. Stamina sub quavis squama ad 3, caduca. Fl. ♀ parvi, cito excrescentes, subsessiles, basi tenuiter barbati.

Species 1, Americæ borealis regionibus interioribus indigena. *Seubert in Bot. Zeit.* 1844, 753, *t.* 7. Genus anomalum; an flores ♀ achlamydei, pericarpio alato, et membrana loculum vestiente pro testa descriptis?

Tribus XI. Eubaselleæ.

76. **Basella,** *Linn. Gen. n.* 382 (Basela).—Flores hermaphroditi, sessiles, cum rhachi spicæ articulati; bracteolæ infraflorales minutæ, caducæ, florales perianthio adnatæ in cupulam 2-labiatam connatæ. Perianthium carnosum, leviter compressum, ad medium 5-fidum, demum subbaccatum, tubo late obconico; lobi erecti, obtusi, concavi, fructiferi incurvi. Stamina 5, fauce tubi inserta, filamentis late subulatis, alabastro rectis; antheræ versatiles, in alabastro posticæ, oblongæ v. subsagittatæ, inclusæ. Ovarium globosum; styli 3, basi connati, stigmatibus lineari-clavatis intus papillosis; ovulum subsessile. Utriculus perianthio inclusus et basi adnatus, globosus, pericarpio tenui semini adhærente. Semen erectum, globosum, leviter compressum, testa crustacea, albumine parcissimo; embryo plano-spiralis, cotyledonibus magnis oblongo-lanceolatis tenuibus involutis radicula elongata acuta descendente multo latioribus.—Herba succulenta, glaberrima, dextrorsum volubilis, alte scandens, ramosissima. Folia alterna, subsessilia v. petiolata, ovata oblonga v. cordata, acuta v. obtusa, integerrima. Flores in spicas axillares breves v. elongatas simplices v. ramosas dispositi, albi violacei v. rubri. Bractea parva, lata, bracteolæque caducæ.

Species 1, Asiæ et Africæ tropicæ indigena, alibi inter tropica culta. *Moq. in DC. Prod.* xiii. ii. 222 (*excl. cit. H. B. et K.*). *Gærtn. Fruct.* 126. *Lam. Ill. t.* 215, *f.* 1. *Wight, Ic. t.* 896. *Jacq. f. Eclog. t.* 161.

77. **Tournonia,** *Moq. in DC. Prod.* xiii. ii. 225.—Flores hermaphroditi, cum pedicello apice ebracteolato articulati; bracteolæ florales basi perianthii adnatæ, orbiculares, concavæ. Perianthium carnosulum, 5-partitum, tubo brevi; segmenta oblongo-rotundata, subæqualia, obtusa, reticulatim nervosa. Stamina 5, fauci tubi inserta; antheræ parvæ, late oblongæ, versatiles, in alabastro posticæ. Ovarium late ovoideum; styli 3, basi connati, stigmatibus capitatis; ovulum subsessile. Utriculus perianthio immutato inclusus?, compresso-ovoideus, pericarpio membranaceo. Semen erectum . . . —Herba volubilis, glaberrima, gracilis, exsiccata nigrescens. Folia alterna, petiolata, ovato- v. rotundato-cordata, nervosa et reticulatim venosa. Flores minuti, in racemos abbreviatos axillares cymoso-ramosos dispositi, rhachi pedicellisque crassis. Bractea ad basin pedicelli brevis, caduca; bracteolæ infraflorales si adsint valde inconspicuæ, pedicello adnatæ, florales perianthii laciniis consimiles, sed breviores et latiores.

Species 1, Novæ Granadæ ad Quindiu incola. Descriptio fructus ex Moq. l. c.

78. **Ullucus,** *Lozano in Senan. Nuov. Granad.* 1809, 185, *ex DC. Prod.* iii. 360. (Melloca, *Lindl. in Gard. Chron.* 1847, 685, *et* 1848, 828, *cum ic. xylog.*)—Flores hermaphroditi, cum pedicello apice 2-bracteolato articulati; bracteolæ infraflorales minutissimæ, pedicello persistentes; florales basi perianthii insertæ, orbiculares. Perianthium rotatum, membranaceum, 5-partitum, tubo brevissimo; segmenta æqualia, a basi lato ovata, caudato-acuminata. Stamina 5, fauci tubi inserta, filamentis brevibus subulatis; antheræ minutæ, basifixæ, fere orbiculares, rimis lateralibus supra medium dehiscentes, in alabastro erectæ. Ovarium minutum, subglobosum; stylus brevis, crassus, stigmate obtuso; ovulum subsessile. Fructus perianthio inferne inclusus, ovoideus, baccatus. Semen erectum . . . —Herba carnosula, decumbens et volubilis, rhizomate repente caulibusque angulatis radices tuberiferas emittentibus. Folia alterna, crasse petiolata, rotundato-cordata, acuta, integerrima. Flores in racemos axillares amplos laxifloros dispositi, aurei. Bractea ad basin pedicelli lanceolata, membranacea, persistens; bracteolæ infraflorales valde inconspicuæ, florales membranaceæ, perianthio multo breviores.

Species 1, in Andibus Americæ australis indigena et culta. *Moq. in DC. Prod.* xiii. ii. 224 (Melloca). *Dcne. in Rev. Hortic. ser.* 3, ii. 441, *f.* 25. *Hook. Bot. Mag. t.* 4617, *ic. in Lem. Jard. Fleur. t.* 221, repetita. Fructus a nobis non visus, et semina a nemine descripta. Genus structura antherarum ab omnibus affinibus diversum. Opus Lozani a Candolleo citatum nobis ignotum est, nec in ulla Bibliographia Botanica recensitum. Nomen tamen, etsi primum in Prodromo editum, jure prioritatis gaudeat contra Lindleyanum.

Tribus XII. Boussingaultieæ.

79. **Boussingaultia,** *H. B. et K. Nov. Gen. et Sp.* vii. 194, *t.* 645 *bis.*—Flores hermaphroditi, cum pedicello apice 2-bracteolato articulati; bracteolæ infraflorales persistentes v. deciduæ; florales basi v. supra basin perianthii adnatæ. Perianthium membranaceum v. carnosulum, 5-partitum, tubo brevi; segmenta oblonga, obtusa, concava, patentia. Stamina 5, fauce tubi perianthii inserta, filamentis filiformi-subulatis in alabastro supra medium reflexis; antheræ oblongæ, versatiles, inclusæ. Ovarium ovoideum, umbonatum; stylus validus, rectus v. flexuosus, stigmate magno 3-lobo, v. styli 3, stigmatibus capitatis v. clavatis; ovulum subsessile. Utriculus perianthio inclusus, globosus, apice umbonatus, crasse stipitatus, pericarpio crassiusculo semini adhærente. Semen erectum, subreniforme, testa crustacea; embryo semiannularis, clavatus, albumen farinaceum semicingens, cotyledonibus latis plano-convexis, radicula crassa descendente.—Herbæ glaberrimæ, volubiles, radice perennante, caulibus robustis v. gracilibus. Folia alterna, petiolata v. subsessilia, ovata elliptica v. cordata, carnosa v. crassiuscula, integerrima. Flores parvi,

in racemos axillares et terminales simplices v. ramosos laxos v. densifloros dispositi, breviter v. gracile pedicellati. Bracteæ ad basin pedicelli persistentes v. deciduæ; bracteolæ infraflorales pedicello adnatæ v. caducæ, florales ima basi perianthii v. altius insertæ, segmentis breviores.

Species ad 10, Americæ tropicæ incolæ. Genus in sectiones 2 dividitur:—

1. Stylus validus, elongatus, stigmate 3-lobo. BOUSSINGAULTIA, *H. B. et K. l. c.* TANDONIA, *Moq. in DC. Prod.* xiii. ii. 226.

2. Styli 3, elongati, basi connati, stigmatibus clavatis v. capitatis. BOUSSINGAULTIA, *Moq. in DC. l. c.* 228, *non H. B. et K.* *Bot. Mag. t.* 3620. *Miers in Seem. Journ. Bot.* ii. 161, *t.* 18.

80. **Anredera,** *Juss. Gen.* 84. (Clairisia, *Abat. Act. Soc. Med. Seville, ex Moq. in DC. Prod.* xiii. ii. 229.)—Flores hermaphroditi, cum pedicello apice 2-bracteolato articulati; bracteolæ infraflorales caducæ; florales basi perianthii insertæ, naviculares, perianthium includentes, dorso longitrorsum latissime alatæ. Perianthium 5-partitum, hyalinum, tubo brevissimo carnosulo; segmenta subæqualia, oblonga, obtusa, 1-nervia, exteriora paulo majora. Stamina 5, disco crasso hypogyno inserta, filamentis subulatis in alabastro infra apicem reflexis; antheræ versatiles, sagittatæ, inclusæ. Ovarium minutum, rotundatum, compressum; styli 3, ima basi connati, stigmatibus dilatatis 2–3-lobis; ovulum sessile. Utriculus perianthio bracteolisque inclusus, crasse stipitatus, ovoideo-globosus, pericarpio carnosulo semini adhærente. Semen erectum, rotundatum, compressum, testa coriacea brunnea; embryo fere annularis, albumen parcum farinaceum cingens, cotyledonibus subclavatis, radicula valida infera.—Herba volubilis, gracilis, glaberrima, radice tuberosa, caule angulato. Folia alterna, in petiolum angustata, ovata, acuta, integerrima, carnosula. Flores parvi, albi, in spicas axillares pedunculatas cylindraceas flexuosas dispositi. Bractea ad basin pedicelli lanceolato-subulata, decidua; bracteolæ infraflorales triangulares, 1-nerves, florales maximæ, persistentes, in alas basi et apice productæ.

Species 1, Americæ subtropicæ a Texas ad Peruviam incola, in Egypto et in ins. Philippinis in hortis culta. *Gærtn. f. Fruct. t.* 213. *Lam. Ill. t.* 215, *f.* 2 (Basella).

ORDO CXXXII. PHYTOLACCACEÆ.

Endl. Gen. 975. Lindl. Veg. Kingd. 508. Baill. Hist. Pl. iv. 23.

Flores hermaphroditi v. unisexuales. *Perianthium* herbaceum v. coriaceum, rarius membranaceum v. coloratum, 4–5-partitum, rarissime obconicum v. disciforme; segmenta æqualia v. inæqualia, oblonga v. orbicularia, obtusa, æstivatione imbricata; fructifera persistentia, erecta patentia v. reflexa, immutata v. rarius aucta. *Petala* (*Stegnospermate* excepto) 0. *Stamina* 4 v. plura, raro perigyna, sæpius disco hypogyno inserta, 1–∞-seriata, dum segmentis perianthii isomera sæpissime iis alterna, dum plura plus minusve irregulariter inserta v. segmentis opposita et alterna; filamenta filiformia v. subulata, basi libera v. connata, sæpissime persistentia, antheris deciduis. *Antheræ* dorso affixæ, 2-loculares, loculi sæpe a basi alte liberi, rimis anticis lateralibus v. posticis dehiscentes, sæpissime deciduæ; pollen globosum. *Discus* hypogynus obscurus v. annularis. *Ovarium* superum, e carpellis 1 v. pluribus distinctis v. connatis, fundo perianthii sessilibus v. rarissime toro impositis. *Stylus* brevis v. 0; stigmata linearia filiformia v. subulata, intus papillosa v. rarius apicibus penicillatis v. capitellatis, sæpius recurva. *Ovula* in carpellis solitaria, funiculo brevi basi rarius angulo interiore loculi inserta, amphitropa v. campylotropa, micropyle non raro fungoso. *Fructus* nunc monocarpicus, coriaceus, crustaceus baccatus v. samaroideus, nunc polycarpicus, carpellis distinctis v. connatis, 1-locularis v. loculis tot quot carpellis 1-spermis. *Semina* erecta, rarissime

ascendentia, globosa reniformia v. sublenticularia, compressa; testa membranacea v. crustacea, lævis v. rugosa; arillus si adsit parvus, 2-lobus, in *Stegnospermate* magnus, semen includens. *Embryo* periphericus, albumen farinaceum v. carnosum cingens, in seminibus elongatis uncinatus v. superne abrupte deflexus; cotyledones incumbentes foliaceæ et plicato-convolutæ, v. lineares angustæ et semi-cylindricæ; radicula elongata, hilo proxima.

Arbores, frutices, v. herbæ basi lignosæ, sæpissime glabræ. Folia alterna, integerrima. Stipulæ 0 v. parvæ v. ad tuberculas reductæ. Flores sæpissime racemosi, rarius axillares, racemis terminalibus et axillaribus, sæpius virides v. albi, sæpissime bracteati et 2-bracteolati.

Species ad 60, pleræque tropicæ et subtropicæ; paucæ regiones temperatas utriusque hemispheriæ incolunt, in frigidis et alpinis desunt.

Ordo *Chenopodiaceis* affinis, recedens habitu, floribus racemosis, staminibus numerosis v. perianthii segmentis isomeris iisque alternis v. irregulariter insertis, ovario sæpe polycarpico fructuque magno. A *Ficoidearum* generibus e tribu *Molluginearum* carpellis uniovulatis *Phytolaccaceæ* non distinguuntur nisi habitu, defectu corollæ et staminodiorum, foliis nunquam oppositis et inflorescentia racemosa. *Illecebraceæ* differunt habitu semper herbaceo, foliis parvis augustis, stipulis scariosis, inflorescentia, et fructu membranaceo.

FORMÆ ABNORMES.

Petala adsunt in *Stegnospermate*.

Ovarium semi-inferum in *Agdestide*; 1-loculare, polyspermum in *Stegnospermate*.

Fructus in *Petiveria* elongatus; in *Stegnospermate* capsularis, 3-valvis, 3–5-spermus.

Arillus in *Stegnospermate* magnus, semen includens.

CONSPECTUS GENERUM.

Tribus I. Rivineæ. Flores hermaphroditi, rarius unisexuales. Perianthium 4–5-partitum. Ovarium monocarpicum. Fructus indehiscens. Cotyledones plicato-convolutæ.

* *Fructus globosus v. elongatus, baccatus v. coriaceus.*

1. RIVINA. Perianthii segmenta 4, parva, æqualia. Stamina 4. Stylus brevis, stigmate capitato.—*Amer. calid., in orb. vet. introd.*

2. VILLAMILLA. Perianthii segmenta 4, æqualia, fructifera reflexa. Stamina 8–16. Stigma sessile, penicillatum.—*Amer. trop.*

3. LEDENBERGIA. Perianthii segmenta 4, ampla, stellatim patentia. Stamina 12. Stylus brevis, stigmate penicillato—*Amer. trop.*

4. MOHLANA. Perianthium 2-partitum, segmento altero simplici, altero 3-lobo. Stamina 4. Stylus brevis, stigmate penicillato.—*Amer. et Afric. trop.*

5. PETIVERIA. Perianthii segmenta 4, elongata, fructifera erecta. Fructus elongatus, apice setis uncinatis auctus.—*Amer. calid.*

6. MICROTEA. Perianthii segmenta 4, brevia. Fructus globosus, asper v. setis uncinatis horridus—*Amer. trop.*

7. MONOCOCCUS. Flores unisexuales. Fructus subglobosus, spinulosus.—*Austral., Nov. Caled.*

** *Fructus samaroideus, longe alatus.*

8. SEGUIERA. Perianthium 5-partitum, segmentis fructiferis reflexis.—*Amer. calid.*

9. GALLESIA. Perianthium 4-partitum, segmentis fructiferis erectis.—*Brasil.*

Tribus II. Euphytolacceæ. Flores sæpius hermaphroditi. Perianthium 4–5-partitum. Ovarium 2-∞-carpicum. Fructus carnosus, rarissime capsularis. Testa membranacea v. crustacea, lævis. Embryo annularis, cotyledonibus angustis. Flores racemosi, rarius thyrsoidei.

10. PHYTOLACCA. Perianthium æquale. Carpella sessilia, libera v. connata, matura indehiscentia. Testa coriacea.—*Utriusque orbis reg. trop. et subtrop.*

11. ERCILLA. Perianthium æquale. Carpella toro elevato inserta, matura libera. Testa crustacea.—*Chili, Peru.*

12. Anisomeria. Perianthii segmenta inæqualia. Carpella sessilia, matura libera. Testa membranacea.—*Chili.*

13? Barbeuia. Perianthium æquale. Carpella 2, connata. Fructus 2-locularis.—*Madagascar.*

Tribus III. Gyrostemoneæ. Flores unisexuales. Perianthium integrum v. lobatum. Ovarium 1–∞-carpicum, carpellis connatis. Fructus siccus. Testa transverse rugosa. Embryo annularis v. hamatus, cotyledonibus sæpissime angustis. Flores axillares v. racemosi. Genera omnia Australiana.

14. Didymotheca. Perianthium 4-lobum. Fructus didymus, 2-locularis, 2-valvis.—*Australia austr. et occid.*

15. Codonocarpus. Perianthium obconicum. Carpella numerosa, matura ab axi secedentia, sutura ventrali dehiscentia.—*Australia.*

16. Gyrostemon. Perianthium obconicum. Carpella pauca v. numerosa, matura ab axi secedentia, suturis dorsalibus et ventralibus dehiscentia.—*Australia.*

17. Tersonia. Perianthium discoideum. Fructus globosus, lignosus, multilocularis, indehiscens.—*Australia occid.*

GENERA ANOMALA.

18. Stegnosperma. Calyx 5-partitus. Petala 5, decidua. Stamina 10. Carpella 3–5. *Fructus 1-locularis, 3–5-spermus.—California, Amer. cent., Ind. occ.*

19. Agdestis.—Perianthium 4–5-partitum. Ovarium semi-inferum, 4-loculare.—*Mexico.*

GENERA AFFINIA V. EXCLUSA.

Genera Lecostemon et Stylobasium, supra, i. 609 sub *Rosaceis* descripta, a Decaisneo in Comptes Rendus Acad. Sc. Par. lxxiii. 1144, forte non immerito ab illo ordine rejiciuntur et *Phytolaccaceis* referentur, a quibus tamen pluribus notis imprimis ovarii et seminis structura distant, etsi ovarium in *Lecostemone* revera 1-ovulatum sit. In utroque ordine genera sunt valde anomala.

Macarthuria, Endl., Adenogramma, Reichb., Gisekia, Linn., Semonvillea, Gay, et Limeum, Linn. (Dicarpæa, Presl), olim *Phytolaccaceis* adscripta, ad **Ficoideas** pertinent, supra, i. 856 ad 859.

Thelygonum, Linn., a nonnullis pro ordine distincto habitum et nuper a Baillonio inter *Phytolaccaceas* positum, nobis videtur vera **Urticacea**: vide infra.

Tribus I. Rivineæ.

1. **Rivina,** *Linn. Gen. n.* 162 (Rivinia). (Piercea, *Mill. Gard. Dict. ed* 6 *abr.*)—Flores hermaphroditi, racemosi. Perianthium corollinum, 4-partitum; segmenta subæqualia, obovato-oblonga, obtusa, concava, colorata; fructifera immutata, erecta v. patentia. Stamina 4, disco parvo hypogyno inserta, perianthii segmentis alterna, filamentis filiformibus; antheræ oblongæ, erectæ, in alabastro antice dehiscentes. Ovarium subglobosum, compressum, 1-loculare; stylus subterminalis, brevis, curvus, stigmate capitellato; ovulum sessile, amphitropum. Fructus globosus, compressus, pericarpio carnoso semini adhærente. Semen erectum, globoso-lenticulare, testa crustacea lævi v. rugulosa, arillo inconspicuo, endopleura membranacea; embryo annularis, albumen parcum farinaceum cingens, cotyledonibus convolutis, radicula robusta hilo proxima.—Herbæ basi frutescentes, erectæ, dichotome ramosæ, glabræ v. pubescentes, ramis sulcatis. Folia alterna, gracile petiolata, ovata ovato-lanceolata v. cordato-ovata, acuta obtusa v. longe acuminata, obscure crenata, membranacea; stipulæ minutæ, caducæ. Racemi axillares et in dichotomiis ramulorum, rarius terminales, graciles, penduli, multiflori, pedicellis gracilibus; bracteæ ad basin pedicellorum subulatæ bracteolæque infraflorales caducæ. Fructus pisiformis, ruber.

Species 1 v. 2 (apud auctores 5), Americæ tropicæ et subtropicæ incolæ; in Asia tropica et ins. Africanis introductæ. *Moq. in DC. Prod.* xiii. ii. 11 (*sect. Piercea*). *Gærtn. Fruct. t.* 77. *Lam. Ill. t.* 81, *f.* 1. *Bot. Mag. t.* 1781, 2333. *Baill. Hist. Pl.* iv. *fig.* 45 *ad* 50. *J. A. Schmidt in Mart. Fl. Bras.* xiv. ii. *t.* 76.

2. **Villamilla,** *Ruiz et Pav. Fl. Per. et Chil. Ic. ined. t.* 402, *pro Rivinæ sect. admissa a Moq. in DC. Prod.* xiii. ii. 10. (Trichostigma, *A. Rich. Fl. Cub.* ii. 306.)—Flores hermaphroditi, racemosi. Perianthium herbaceum, 4-partitum; segmenta subæqualia, obovata v. rotundata, concava, fructifera paullo aucta, patentia v. reflexa. Stamina 8–16, disco parvo hypogyno inserta; lobis perianthii alterna et opposita v. irregulariter inserta, filamentis filiformibus; antheræ lineares, longe 2-fidæ, versatiles, in alabastro postice dehiscentes. Ovarium subglobosum, leviter compressum, 1-loculare; stylus 0, stigmate terminali penicillato; ovulum sessile, amphitropum. Fructus globosus, compressus, pericarpio coriaceo semini adhærente. Semen erectum, globoso-lenticulare, testa crustacea fusca lævi v. subrugulosa, arillo inconspicuo, endopleura tenuiter coriacea; embryo annularis, albumen parcum farinaceum cingens, cotyledonibus oblongis convolutis, radicula robusta hilo proxima.—Suffrutices erecti v. scandentes, glabri v. tomentosi. Folia alterna v. in ramulis abbreviatis subopposita, petiolata, ovata v. elliptica, acuminata, integerrima v. obscure crenulata; stipulæ minutæ, caducæ. Racemi in ramulis abbreviatis terminales et axillares, graciles, cernui, multiflori, pedicellis gracilibus; bracteæ ad basin v. infra medium pedicelli subulatæ, bracteolæque infraflorales caducæ. Fructus pisiformis.

Species 4 v. 5, Americæ tropicæ incolæ: 1. *V. tinctoria*, Ruiz et Pav. l. c., erecta, tomentosa, foliis ima basi cordatis, petiolo brevi. 2. *V. peruviana*, Hook. f. (*Rivina peruviana*, Moq. l. c. excl. syn. Ruiz et Pav.), foliis tomentosis basi acutis, caule erecto, floribus majoribus. 3. *V. octandra*, Hook. f. (*Rivina octandra*, Linn.; Moq. l. c. *R. dodecandra*, Jacq. Obs. t. 2. Lam. Ill. t. 81, f. 2. *Trichostigma rivinoides*, A. Rich. l. c.). His addendæ species inedita et verisimiliter *Ledenbergia roseo-ænea*, Lemaire, Illustr. Hortic. xvi. t. 591, species e regione Amazonica superiore a nobis non visa, sed ex icone et auctoris descriptione evidenter *Villamillæ* potius quam *Ledenbergiæ* referenda.

3. **Ledenbergia,** *Klotzsch in Herb. Karsten, n.* 350 *ex Moq. in DC. Prod.* xiii. ii. 14. —Flores hermaphroditi, racemosi. Perianthium herbaceum, 4-partitum; segmenta lineari-oblonga v. -obovata, obtusa, fructifera aucta, membranacea, reticulata, stellato-patentia. Stamina 12, disco subhypogyno inserta, 4 exteriora perianthii segmentis alterna, filamentis liberis filiformibus; antheræ dorsifixæ, lineari-oblongæ, basi longe 2-fidæ. Ovarium minutum, lenticulare, 1-loculare; stylus brevis, crassus, sublateralis, curvus, stigmate penicillato. Achænium parvum, perianthii segmentis magnis stellatim patentibus stipatum, lenticulare, marginatum, reticulato-nervosum, pallidum. Semen lenticulare, erectum, testa crustacea glabra, arillo 0; embryo annularis, albumen farinaceum cingens, cotyledonibus submembranaceis, exteriore majore interiorem involutam amplectente; radicula conica, hilo proxima.—Suffrutex volubilis, glaber, caule subtereti cinerascente. Folia alterna, longe gracile petiolata, ovata v. elliptico-ovata, acuminata, integerrima, membranacea; stipulæ minutissimæ, ovatæ. Flores in racemos axillares elongatos longissime pedunculatos pendulos laxe dispositi, gracile pedicellati; rhachis et pedunculus racemi fere capillares; bracteæ ad basin pedicelli bracteolæque infraflorales minutæ, caducæ.

Species 1, Columbiæ, Venezuelæ, et ins. Martinique incola. Exemplar nobis adest unicum floriferum e Venezuela, *Fendler*, n. 1297.

4. **Mohlana,** *Mart. Nov. Gen. et Sp.* iii. 170, *t.* 290. (Hilleria, *Vell. Fl. Flum.* 47, *Ic.* i. *t.* 122.)—Flores hermaphroditi, irregulares, racemosi. Perianthium herbaceum, subcampanulatum, obliquum, 2-partitum, coloratum, segmento postico oblongo obtuso, antico multo majore 3-lobo, lobis obtusis medio longiore; fructiferum paullo auctum erectum, nervis reticulatis. Stamina 4, disco parvo hypogyno inserta, lobis perianthii alterna, filamentis filiformibus subæqualibus; antheræ sagittatæ, versatiles, in alabastro postice dehiscentes. Ovarium ovoideum, obtusum, 1-loculare; stylus brevis, subterminalis, stigmate penicillato; ovulum sessile, amphitropum. Fructus globosus, compressus, pericarpio carnosulo semini adhærente. Semen erectum, globoso-lenticulare,

testa crustacea, endopleura membranacea, arillo 0; embryo annularis, albumen farinaceum endopleuræ adhærens cingens, cotyledonibus linearibus convolutis, radicula valida hilo proxima.—Herba annua, erecta, fere glaberrima, caule simplici v. ramoso. Folia alterna, petiolata, ovata v. elliptico-lanceolata, acuminata, obscure crenulata, membranacea; stipulæ minutæ, caducæ. Racemi subterminales et axillares, erecti, floribus secundis albis v. rubris pedicellatis; bracteæ ad basin pedicellorum subulatæ, bracteolæque infraflórales caducæ.

Species 1, ab auctoribus multiplicata, Americæ et Africæ tropicæ incola. *Moq. in DC. Prod.* xiii. ii. 15. *Ruiz et Pav. Fl. Per. et Chil.* i. *t.* 102 (*Rivina*). *Hook. Ic. Pl. t.* 130 (*Rivina*). *J. A. Schmidt in Mart. Fl. Bras.* xiv. ii. *t.* 77.

5. **Petiveria,** *Linn. Gen. n.* 459. (Mapa, *Vell. Fl. Flum.* 59; *Ic.* i. *t.* 153.)—Flores hermaphroditi, racemosi. Perianthium herbaceum, basi conicum, 4-partitum; segmenta subæqualia, lanceolata, patentia, fructifera erecta, immutata. Stamina basi perianthii disco hypogyno inserta, v. 4 segmentis perianthii alterna, v. 5–8 sine ordine disposita, filamentis inæquilongis rigidis elongato-subulatis; antheræ dorsifixæ, lineares, basi et apice 2-fidæ. Ovarium oblongum, compressum, truncatum, tomentosum, vertice setis 1–6 subulatis deflexis auctum, 2-loculare; stylus brevis v. stigma sessile secus marginem ventralem ovarii decurrens longe penicillatum; ovulum erectum, oblongum, basifixum, amphitropum. Fructus perianthio patente stipatus, elongato-cuneatus, compressus, striato-costatus, utrinque medio carinatus, apice 2-lobus et uncinulis 1–6 rigidis appressis coronatus, pericarpio coriaceo semini adhærente. Semen erectum, lineare, testa membranacea, arillo 0, endopleura membranacea albumini parco farinoso adhærente; embryo dorsalis, erectus, cotyledonibus foliaceis inæqualibus superne replicatis, exteriore latissima basi profunde 2-loba interiorem minorem plicatam involvente, radicula valida recta infera.—Herba basi frutescens, gracilis, erecta, glabra v. puberula, dichotome ramosa, odore alliaceo. Folia alterna, petiolata, ovata, integerrima, membranacea; stipulæ minutæ. Flores parvi, in racemos axillares et terminales solitarios v. 2-nos gracillimos erectos v. nutantes sparsi, brevissime pedicellati, basi bracteati et 2-bracteolati. Fructus erectus.

Species 1, apud auctores multiplicata, Americæ calidæ a Florida ad Brasiliam australem indigena. *Moq. in DC. Prod.* xiii. ii. 8. *Gærtn. Fruct. t.* 75. *Lam. Ill. t.* 272. *Baill. Hist. Pl.* iv. *f.* 51, 52. *Sert. Petrop. t.* 18. *J. A. Schmidt in Mart. Fl. Bras.* xiv. ii. *t.* 75. Ovaria gemina Moquinio rarissime obvia a nobis non visa.

6. **Microtea,** *Swartz, Prod.* 53; *Fl. Ind. Occ.* i. 542, *t.* 12. (Schollera, *Rohr in Skrivt. Naturhist. Selsk. Kjobenh.* ii. 210. Potamophila, *Schrank, Pl. Rar. Hort. Mon.* ii. *t.* 63, *ex Moq.* Ceratococca, *Willd. in Roem. et Sch. Syst.* vi. 800. Aphananthe, *Link, Enum. Hort. Berol.* i. 383. Ancistrocarpus, *H. B. et K. Nov. Gen. et Sp.* ii. 186, *t.* 122.)—Flores hermaphroditi. Perianthium membranaceum v. herbaceum, 5-partitum; segmenta oblonga, obtusa, fructifera erecta v. patula. Stamina 5–8, basi perianthii inserta, filamentis filiformi-subulatis; antheræ dorsifixæ, didymæ, loculis rimis lateralibus dehiscentibus. Ovarium globosum, brevissime stipitatum, 1-loculare; styli v. stigmata 2–5, subulata; ovulum campylotropum, basifixum. Fructus globosus, breviter stipitatus, leviter compressus, tuberculatus v. glochidiatus, pericarpio semini adhærente. Semen erectum, testa crustacea, endopleura membranacea; embryo semi-annularis, albumen parcum carnosum cingens, cotyledonibus elongatis concavis latiusculis exteriore interiorem minorem involvente, radicula brevi crassa infera.—Herbæ annuæ, debiles, graciles, ramulis sulcatis, glabræ. Folia alterna, rarius opposita, petiolata, lanceolata elliptica ovata v. subcordata, integerrima; stipulæ 0, v. ad tuberculos reductæ. Flores minuti, in racemos terminales et axillares simplices v. ramosos rarius oppositifolios dispositi, albi; pedicellis brevibus v. elongatis, bracteatis et 2-bracteolatis. Fructus minutus.

Species ad 7, Americæ tropicæ orientalis incolæ. *Moq. in DC. Prod.* xiii. ii. 16. *Lam. Ill. t.* 182. *J. A. Schmidt in Mart. Fl. Bras.* xiv. ii. *t.* 78.

7. **Monococcus**, *F. Muell. Fragm. Phyt. Austral.* i. 46.—Flores monoici v. dioici. Perianthium 4-partitum, segmenta ♂ membranacea obtusa, ♀ herbacea acuta. Fl. ♂ : Stamina 10–20, basi perianthii inserta, filamentis brevibus subulatis basi liberis v. connatis ; antheræ dorsifixæ, lineari-oblongæ, basi longe bifidæ, extrorsum dehiscentes. Ovarii rudimentum 0 v. glanduliforme. Fl. ♀ : Staminodia 10–20, subulata. Ovarium breviter stipitatum, oblique ovoideum, 1-loculare, spinulosum ; stigma breve, crassum, recurvum, intus plumosum v. papillosum, papillis secus ovarii faciem ventralem productis ; ovulum basilare. Fructus perianthii segmentis recurvis basi stipatus, subglobosus, indehiscens, spinulis apice uncinatis dense tectus, 1-locularis, 1-spermus, pericarpio coriaceo semini adhærente. Semen erectum, subglobosum, testa membranacea albumini parco carnoso adhærente ; embryo erectus, cotyledonibus foliaceis superne replicatis, exteriore latissima basi profunde 2-loba interiorem longiorem angustiorem plicatam involvente, radicula breviuscula infera.—Frutex ramosus, fere glaber, ramulis teretibus uno latere puberulis. Folia alterna, petiolata, ovata v. ovato-lanceolata, obtusa, integerrima ; stipulæ minutæ, subulatæ. Flores parvi, in racemos terminales et axillares flexuosos dispositi, ♂ et ♀ in diversis racemis, v. ♂ in racemis ♀ subterminales pauci, pedicellis brevissimis bracteatis et 2-bracteolatis, ☿ liberis, ♀ rhachi adnatis. Fructus parvus.

Species 1, Australiæ orientalis et Novæ Caledoniæ incola. *Benth. Fl. Austral.* v. 144, *et in Hook. Ic. Pl. t.* 1077. Embryo fere *Petiveriæ*.

8. **Seguieria**, *Linn. Gen. n.* 676.—Flores hermaphroditi, racemosi. Perianthium membranaceum, 5-partitum ; segmenta subæqualia, obovata, obtusa, concava, petaloidea, fructifera immutata, reflexa. Stamina numerosa, disco hypogyno multiseriatim inserta, filamentis filiformibus carnosis ; antheræ dorsifixæ, lineares, obtusæ, basi longe 2-fidæ, versatiles, primum extrorsum dehiscentes. Ovarium stylo incluso acinaciforme, compressum, margine dorsali coriaceo, ventrali membranaceo, nucleo basali, 1-loculare, superne in stylum involutum angustatum, stigmate marginali decurrente ; ovulum basilare, campylotropum. Fructus samaroideus, nucleo globoso v. compresso lævi costato v. alato intus crustaceo, superne in alam acinaciformem venosam expansus, pericarpio semini non adhærente. Semen erectum, globosum orbiculare v. compressum, testa tenuiter coriacea, arillo 0 ; embryo annularis, albumen parcum mucosum cingens, cotyledonibus orbiculatis foliaceis basi 2-lobis complicato-convolutis, radicula gracili infera.—Frutices et suffrutices sarmentosi, glabri, ramis teretibus leviter sulcatis. Folia alterna, breviter petiolata, ovata obovata v. elliptica, subcoriacea ; stipulæ tuberculiformes v. in aculeas rectas v. decurvas mutatæ, v. 0. Flores inter minores, in racemos paniculatos axillares et terminales dispositi, gracile pedicellati, pedicellis bracteatis et 2-bracteolatis. Fructus ei *Securidacæ* simillimus.

Species 8 v. 10, Americæ tropicæ incolæ. *Moq. in DC. Prod.* xiii. ii. 6. *Benth. in Trans. Linn. Soc.* xviii. *t.* 19. *Baill. Hist. Pl.* iv. *f.* 54 *ad* 57. *J. A. Schmidt in Mart. Fl. Bras.* xiv. ii. *t.* 73.

9. **Gallesia**, *Casar. Nov. Stirp. Bras. Dec.* 43.—Flores hermaphroditi, racemosi. Perianthium herbaceum, 4-partitum ; segmenta subæqualia, obovata, concava, obtusa, fructifera aucta, erecta. Stamina perplurima, basi perianthii multiseriatim inserta, filamentis brevibus subulatis basi in annulum carnosulum connatis ; antheræ dorsifixæ, lineares, obtusæ, basi longe 2-fidæ, extrorsum dehiscentes. Ovarium stylo incluso ensiforme, basi 1-loculare, pubescens, stigmate simplici apicali ; ovulum basilare, campylotropum. Fructus samaroideus, nucleo compresso coriaceo superne in alam acinaciformem venosam expanso, pericarpio semini non adhærente. Semen erectum, orbiculare, compressum, testa tenuiter coriacea, arillo 0 ; embryo annularis, albumen parcum carnosum cingens, cotyledonibus foliaceis orbiculatis basi 2-lobis complicato-convolutis, radicula gracili infera. —Arbor elata, inflorescentia cano-puberula excepta glaberrima, odorem alliaceam spirans. Folia alterna, petiolata, ovata, acuta, coriacea ; stipulæ 0. Flores in racemos ample

paniculatos multifloros axillares et terminales dispositi, pedicellis brevibus crassis bracteatis, et 2-bracteolatis, bracteis bracteolisque ovatis obtusis pedicello appressis. Fructus pollicaris ei *Securidacæ* simillimus.

Species 1, Brasiliæ et Peruviæ orientalis incola. *Moq. in DC. Prod.* xiii. ii. 8. *Vell. Fl. Flum. Ic.* v. *t.* 4 (*Cratæva*). *J. A. Schmidt in Mart. Fl. Bras.* xiv. ii. *t.* 74.

Tribus II. Euphytolacceæ.

10. **Phytolacca,** *Linn. Gen. n.* 588.—Flores hermaphroditi, rarius dioici v. abortu unisexuales, racemosi. Perianthium herbaceum v. subcoloratum, 4-partitum; segmenta æqualia, oblonga, obtusa, fructifera immutata, patentia v. reflexa. Stamina 5–25, basi perianthii inserta, in fl. ♀ ad staminodia parva reducta; filamentis subulatis v. filiformibus basi liberis v. connatis; antheræ dorsifixæ, oblongæ v. subglobosæ, inclusæ v. exsertæ. Ovarium globosum, e carpellis 5–12 liberis v. plus minusve connatis constans; stigmata tot quot carpella, subterminalia v. angulo ventrali inserta, subulata, erecta v. recurva, basi discreta v. connata, intus papillosa; ovula in carpellis solitaria, basifixa, campylotropa. Fructus depresso-globosus, e carpellis 5–12 liberis v. connatis carnosis dorso convexis constans. Semina reniformia, compressa, basi rostellata v. obtusa, testa crustacea atra nitida, arillo 0, endopleura membranacea; embryo annularis, albumen farinaceum cingens, cotyledonibus semiteretibus, radicula elongata ascendente hilo proxima.—Frutices, herbæ, v. raro arbores, erecti v. scandentes, glabri v. ramulis junioribus et inflorescentia furfuraceo-pubescentibus, ramis teretibus sulcatis v. angulatis. Folia alterna, sessilia v. petiolata, acuta v. obtusa, integerrima; stipulæ 0. Flores mediocres, in racemos thyrsosve contractos axillares oppositifolios et extra-alares erectos v. nutantes dispositi, pedicellis basi bracteatis et altius 2-bracteolatis. Fructus succosus, interdum intense purpureus.

Species ad 10, tropicæ et subtropicæ, pleræque Americanæ, paucæ Africæ, Asiæ orientalis, mont. Himalayæ, et Asiæ Minoris incolæ.

Sectiones sequentes, characteribus levioris momentu incertisque separatæ, nequaquam nostro sensu pro generibus distinctis retinendæ :—

1. *Euphytolacca.* Flores hermaphroditi v. abortu unisexuales. Carpella matura in baccam polyspermam connata. *Gærtn. Fruct. t.* 77. *Lam. Ill. t.* 393. *Nees, Gen. Fl. Germ. Baill. Hist. Pl.* v. *f.* 22 *ad* 27. *Miq. Sert. Exot. t.* 3. *L'Hér. Stirp. t.* 69. *Torr. Fl. N. York, t.* 94. *J. A. Schmidt in Mart. Fl. Bras.* xiv. ii. 343, *t.* 80. Phytolacca, *Moq. in DC. Prod.* xiii. ii. 31.

2. *Pircunia* (*Pircuniæ* sect. *Pircuniastrum*, Moq.). Flores hermaphroditi v. abortu unisexuales. Carpella matura libera v. basi tantum connata. Species 3: 1. *P. acinosa*, Roxb. (*P. Kæmpferi*. A. Gr. et *Pircunia Latbenia*, Moq.), ex Asia orientali, caule herbaceo; 2. *P. stricta*, Hoffm. in Comm. Gœtt. xii. t. 3, ex Africa australi, caule erecto ut videtur herbaceo; 3. *P. abyssinica*, Hoffm. l. c. t. 2, ex Africa tropica et Madagascaria, caule fruticoso scandente.

3. *Pseudolacca* (*Pircuniæ* sect., Moq.). Flores dioici. Species 2, altera Americæ australis extratropicæ incola, in Europa austro-occidentali et Africa boreali sæpe culta, *P. dioica*, Linn., arbor trunco basi crasso, carpellis maturis liberis, *L'Hér. Stirp. t.* 70, *J. A. Schmidt in Mart. Fl. Bras.* xiv. ii. *t.* 79 (*Pircunia*); altera Asiæ occidentalis indigena, *P. pruinosa*, Fenzl; Walp. Ann. v. 742, trunco dichotome ramoso et carpellis maturis omnino connatis.

Pircunia, nomen primum ab Endlichero propositum fuit pro speciebus carpellis maturis liberis, et *P. dioicam* cum *Anisomeria* uti sectionem *Phytolaccæ*, includit. Pircunia, *Moq. in DC. Prod.* xiii. ii. 29, pro genere proprio propositum includit sectiones *Pircuniastrum* et *Pseudolaccam* absque *Anisomeria*.

11. **Ercilla,** *Ad. Juss. in Ann. Sc. Nat. ser.* 1, xxv. 11, *t.* 3. (Bridgesia, *Hook. et Arn. in Hook. Bot. Misc.* iii. 168, *t.* 102. Apodostachys, *Turcz. in Bull. Soc. Imp. Nat. Mosc.* 1848, i. 577.)—Flores hermaphroditi, racemosi. Perianthium submembranaceum, 5-partitum; segmenta oblonga, obtusa, æqualia, fructifera immutata, erecta. Stamina 8–10, disco hypogyno inserta, filamentis filiformibus carnosis, alternis brevioribus; antheræ medio dorsifixæ, exsertæ, oblongæ, loculis fere liberis introrsum dehiscen-

tibus. Ovarium e carpellis 4–8 toro brevi insertis subglobosis constans; styli totidem, ventrales, filiformes, erecti, demum divaricati et flexuosi, intus stigmatosi; ovula in carpellis solitaria, basifixa, campylotropa. Fructus e carpellis 4–8 liberis baccatis ovoideis compressis. Semina ovoideo-reniformia, testa crustacea, arillo 0; embryo annularis, albumen farinaceum cingens, cotyledonibus semiteretibus, radicula hilo proxima.—Frutex glaberrimus, volubilis, ramulis robustis teretibus. Folia alterna, petiolata, ovato-cordata, oblonga v. rotundata, obtusa emarginata v. apiculata, crasse coriacea; stipulæ 0. Flores in spicas axillares breves sessiles densifloras cylindraceas conferti, brevissime pedicellati; pedicello basi minute bracteato, sub flore 2-bracteolato, bracteolis ovatis concavis.

Species 1, Peruviæ et Chili incola. *Moq. in DC. Prod.* xiii. ii. 34. Genus *Phytolaccæ* proximum, differt habitu, foliis coriaceis, ovario toro imposito, stylis ventralibus, bracteolis majoribus. Fructus a nobis non visus.

12. **Anisomeria,** *Don in Edinb. New Phil. Journ.* xiii. 238.—Flores hermaphroditi v. unisexuales, racemosi. Perianthium carnosum, 5-partitum; segmenta subæqualia, orbiculata, fructifera erecta, immutata. Stamina 10–30, subhypogyna, unilateralia, filamentis crassiusculis subulatis; antheræ globosæ v. breviter oblongæ, antice dehiscentes. Ovarium e carpellis 5 rarius 4–6 liberis ovoideis in stylos breves recurvos subspathulatos intus stigmatosos attenuatis; ovula in carpellis solitaria, basifixa, campylotropa. Fructus basi perianthio stipatus, e carpellis 2–4 drupaceis turgidis oblique late obovoideis compressis basi rostratis, endocarpio crasse coriaceo v. subcrustaceo. Semen erectum, reniformi-rotundatum, compressum, testa membranacea, arillo 0, endopleura tenuissima; embryo uncinatim hippocrepicus, albumen farinaceum copiosum cingens, cotyledonibus angustis planis, radicula elongata hilo proxima.—Herbæ radicibus napiformibus v. fruticuli glaberrimi crassiusculi, ramulis teretibus v. angulatis. Folia alterna, sessilia et semiamplexicaulia, v. in petiolum basi incrassatum lignosum articulata, ovata v. obovata, obtusa, integerrima, crassiuscula. Flores in spicas racemosve terminales elongatos dispositi, virides, patentes v. nutantes, pedicellis basi bracteatis et sæpius superne 2-bracteolatis.

Species 2, Chilenses. *Moq. in DC. Prod.* xiii. ii. 25. *Pœpp. et Endl. Nov. Gen. et Sp. t.* 43 *ad* 45 (*Phytolacca*).

13? **Barbeuia,** *Thou. Gen. Nov. Madagasc.* 6.—Flores hermaphroditi, racemosi. Perianthium 5-partitum; segmenta orbiculata, concava, fructifera patentia, immutata. Stamina numerosa, multiseriata, disco annulari inserta, filamentis brevibus; antheræ lineares, sagittatæ, introrsum dehiscentes. Ovarium depresso-globosum, 2-loculare; stigmata 2, lineari-oblonga, crassa, erecto-patentia, basi connata, intus et marginibus papillosa; ovula in loculis solitaria, basifixa, campylotropa. Fructus capsularis, 2-locularis, 2-spermus. Semina arillata. . . .—Frutex debilis, glaber, sarmentosus, scandens, ramulis flexuosis. Folia alterna, petiolata, ovata, integerrima, glaberrima, lucida, cum petiolo in ramulum articulata. Flores majusculi, in racemos axillares breves rigidos dispositi, rhachi racemi compressa, pedicellis alternis elongatis sub flore incrassatis.

Species 1, Madagascariensis. *Baill. Adans.* iii. 312, *t.* 6, *et Hist. Pl.* iv. *f.* 41 *ad* 43. Flores tantum a Decaisneo benevole communicatos vidimus. Descriptio fructus ex Thouarsio, l. c.

Tribus III. Gyrostemoneæ.

14. **Didymotheca,** *Hook. f. in Hook. Lond. Journ.* vi. 278; *Fl. Tasm.* i. 309, *t.* 93.—Flores dioici, in racemos foliatos dispositi. Perianthium profunde 4-lobum; lobi ovati, obtusi, fructiferi immutati, patuli. Fl. ♂: Stamina 8–10, disco inserta, filamentis brevissimis; antheræ basifixæ, lineari-oblongæ, obtusæ, rimis lateralibus dehiscentes. Ovarii rudimentum 0. Fl. ♀: Staminodia 0. Ovarium didymum, compressum, 2-loculare; stigmata 2, e basi lata subulato-lanceolata, carnosa, intus et marginibus papil-

losa; ovula in loculis solitaria, angulo interiori affixa, ascendentia, campylotropa, micropyle fungoso. Capsula didyma, compressa, coriacea, lævis, loculis suturis dorsalibus dehiscentibus. Semina reniformia, compressa, testa crustacea fusca radiatim undulata et transverse striata, arillo parvo 2-lobo, endopleura membranacea; embryo gracilis, fere annularis, albumem copiosum carnosum cingens, cotyledonibus semiteretibus, radicula elongata hilo proxima.—Herba erecta, rigidula, glaberrima, basi fruticosa, ramosissima, ramis virgatis angulatis et striatis. Folia alterna, sessilia, lineari-lanceolata, acuta, carnosula, 1-nervia, integerrima. Stipulæ minutæ. Flores parvi, virides, in axillis supremis solitarii, subsecundi, pedicellati, pedicellis 2-bracteolatis. Fructus parvus.

Species 1, Australiæ meridionalis et Tasmaniæ incola. *Benth. Fl. Austral.* v. 144. *Baill. Hist. Pl.* iv. *f.* 74 *ad* 77.

15. **Codonocarpus,** *A. Cunn.*; *Endl. Gen.* 978. (Hymenotheca, *F. Muell. Fragm. Phyt. Austral.* i. 201.)—Flores monoici v. dioici, in racemos foliatos v. nudos dispositi. Perianthium obconicum, carnosulum, ore obscure sinuato-dentato, fructiferum auctum. Fl. ♂: Stamina 10–20, circa rudimentum ovarii glanduliforme 1-seriatim inserta; filamentis brevissimis; antheræ basifixæ, lineari-oblongæ, obtusæ, basi emarginatæ, rimis lateralibus dehiscentes. Fl. ♀: Ovarium hemisphæricum v. pyriforme, e carpellis 20–50 connatis et columnæ centrali apice dilatato adnatis compressis 1-locularibus constans; stigmata tot quot carpella, libera v. basi connata, brevia, linearia, intus papillosa; ovula in loculis solitaria, angulo interiore affixa, ascendentia, campylotropa, micropyle fungoso. Fructus obconicus campanulæformis v. pyriformis, carpellis 10–20 compressissimis demum liberis et ab axi solutis membranaceis v. coriaceis, suturis ventralibus et interdum dorsalibus dehiscentibus. Semina reniformia, compressa, testa crustacea transverse rugosa, arillo parvo 2-lobo, endopleura membranacea; embryo gracilis, fere annularis, albumen parcum farinaceum cingens, cotyledonibus semiteretibus, radicula elongata hilo proxima.—Arbores v. frutices glabri, ramulis teretibus. Folia alterna, coriacea, linearia et sessilia v. petiolata et ovata v. lanceolata, integerrima; stipulæ tuberculiformes. Flores parvi, basin versus ramulorum extra-alares v. in racemos graciles axillares et terminales dispositi; pedicellis 2-bracteolatis. Fructus majusculus, basi perianthio stipatus.

Species 3, Australiæ incolæ. *Benth. Fl. Austral.* v. 147. *Desf. in Mem. Mus. Par.* viii. 116, *t.* 10 (*Gyrostemon*). *Hook. Bot. Misc.* i. *t.* 53 (*Gyrostemon, quoad carpella 2-ovulata erronea*). *Baill. Hist. Pl.* iv. *f.* 72.

16. **Gyrostemon,** *Desf. in Mem. Mus. Par.* vi. 16, *t.* 6, *et* viii. *t.* 10A. (Cyclotheca, *Moq. in DC. Prod.* xiii. ii. 37.)—Flores dioici, in racemos foliatos dispositi. Perianthium herbaceum, obconicum v. disciforme, obscure 5–7-lobum. Fl. ♂: Stamina 8–50, circa rudimentum ovarii glanduliforme 1–∞-seriatim inserta, filamentis brevissimis; antheræ basifixæ, lineari-oblongæ v. obovoideæ, obtusæ, basi emarginatæ, rimis lateralibus dehiscentes. Fl. ♀: Staminodia 0; Ovarium globosum v. turbinatum, e carpellis 4–50 inter se liberis v. connatis columnæ centrali apice dilatatæ adnatis compressis 1-locularibus constans; stigmata tot quot carpella, basi breviter connata, subulata, intus marginibusque papillosa; ovula in loculis solitaria, angulo interiori affixa, ascendentia, campylotropa, micropyle fungoso. Fructus globoso-turbinatus, carpellis 4–50 coriaceis ab axi secedentibus suturis dorsalibus et ventralibus dehiscentibus. Semina reniformia, compressa, testa crustacea transverse rugosa, arillo parvo rugoso, endopleura membranacea; embryo fere annularis, albumen parcum farinaceum cingens, cotyledonibus semiteretibus, radicula elongata hilo proxima.—Frutices v. fruticuli glabri, ramosi, ramulis virgatis teretibus. Folia alterna, sessilia, linearia, carnosula; stipulæ tuberculiformes v. obsoletæ. Flores parvi, axillares et in racemos terminales dispositi, brevissime pedicellati, pedicellis 2-bracteolatis.

Species 3, Australiæ incolæ. *Benth. Fl. Austral.* v. 145. *F. Muell. Pl. Vict.* i. 198, *t. suppl.* 9 (*Didymotheca*). *Baill. Hist. Pl.* iv. *f.* 67 *ad* 71.

17. **Tersonia,** *Moq. in DC. Prod.* xiii. ii. 40 (*quoad pl.* ♀).—Flores dioici; racemosi, ♀ solitarii. Perianthium disciforme, carnosulum, obscure sinuato-dentatum. Fl. ♂: Stamina 8–14, circa rudimentum ovarii glanduliforme 1-seriatim inserta, filamentis brevissimis; antheræ basifixæ, lineari-cuneatæ, basi emarginatæ, rimis lateralibus dehiscentes. Fl. ♀: Staminodia 0. Ovarium globosum, concentrice zonatum, e carpellis perplurimis arcte connatis et columnæ centrali apice discoideo-dilatatæ adnatis constans; stigmata tot quot carpella, circa discum ad apicem columnæ radiantia, intus papillosa; ovula in carpellis solitaria, angulo interiore inserta, ascendentia, campylotropa, micropyle fungosa. Fructus globosus, lignosus, tuberculatus, apice umbilicatus, multilocularis, loculis indehiscentibus 1-spermis. Semina minuta, erecta, cylindracea, obtusa, testa tenuiter crustacea obscure transverse rugosa, arillo turbinato, endopleura membranacea; embryo uncinatus, albumen parcum carnosum (interdum deficiens) cingens, cotyledonibus angustis planis, radicula hilo proxima.—Frutex glaber, ramosus, decumbens, ramis ascendentibus. Folia alterna, linearia, teretia, carnosula; stipulæ tuberculiformes. Flores parvi, 2-bracteolati, ♂ racemis spicisve nudis laxifloris bracteati, ♀ sessiles. Fructus diametro nucis avellanæ, perianthio parvulo stipatus.

Species 1, Australiæ austro-occidentalis incola. *Benth. Fl. Austral.* v. 149.

GENERA ANOMALA.

18. **Stegnosperma,** *Benth. Bot. Sulph. Voy.* 17, *t.* 12.—Flores hermaphroditi, racemosi. Calyx 5-partitus, carnosus; segmenta oblonga, obtusa, imbricata, fructifera aucta, suberecta. Petala 5, membranacea, obovato-orbiculata, calyce breviora, in alabastro imbricata. Stamina 10, filamentis subulatis basi in annulum perigynum connatis, 5 calycis lobis alterna majora; antheræ dorsifixæ, late oblongæ, basi 2-fidæ, loculis introrsum dehiscentibus. Ovarium sessile, globoso-ovoideum, 1-loculare, loculo columna centrali percurso; stigmata 3–5, brevia, subulata, recurva, intus papillosa, basi connata; ovula tot quot stigmata, basilaria, erecta, amphitropa. Capsula globosa, coriacea, 5- rarius 3–4-gona, angulis costatis, 1-locularis, usque ad basin 5-valvis, 1–5-sperma, valvis intus carinatis. Semina erecta, arillo amplo carnoso albo apice pervio inclusa, obovoidea, subrostellata, testa crasse coriacea atra nitida, endopleura membranacea; embryo . . . .—Frutex ramosissimus, erectus, glaucus, ramulis teretibus. Folia alterna, breviter petiolata, ovata obovata v. elliptica, obtusa, integerrima, coriacea v. carnosula; stipulæ 0. Flores majusculi, in racemos terminales pedunculatos dispositi, roseo-virescentes, pedicellis crassiusculis basi bracteatis et 2-bracteolatis.

Species 1, Californiæ australis, Americæ centralis, et insularum Cubæ et St. Domingi incola. *Moq. in DC. Prod.* xiii. ii. 35. *A. Rich. Fl. Cub. t.* 44 *ter.*

19. **Agdestis,** *Moç. et Sessé, Fl. Mexic. ined. ex DC. Syst. Veg.* i. 543; *Prod.* i. 103.—Flores hermaphroditi, racemosi. Perianthium semisuperum, 4–5-partitum; segmenta membranacea, oblonga, obtusa, patentia, fructifera stellatim expansa, aucta, reticulatim venosa. Stamina numerosa, disco perigyno ad basin segmentorum perianthii pluriseriatim inserta, filamentis filiformibus; antheræ dorsifixæ, lineari-oblongæ, basi et apice 2-fidæ, loculis rimis lateralibus dehiscentibus. Ovarium semi-inferum, turbinatum, 3- rarius 4-loculare; stylus conico-subulatus stigmatibus 3 rarius 4 elongatis intus et apice papillosis; ovula in loculis solitaria, basilaria, semi-anatropa. Fructus inferus, turbinatus, perianthii segmentis alatus, 1-locularis, 1-spermus, pericarpio coriaceo semini adhærente. Semen sessile, globosum, testa crustacea fusca, arillo 0, endocarpio tenui; embryo annularis, albumen parcum farinaceum cingens, cotyledonibus late oblongis subfoliaceis obtusis radicula brevi infera multo latioribus.—Herba gracillima, glaberrima, volubilis, radice napiformi. Folia alterna, petiolata, cordato-rotundata, apiculata, membranacea, integerrima. Flores mediocres, in racemos paniculatos longe pedunculatos axillares dispositi, pedicellati, albi, rhachi pedicellisque filiformibus bracteatis et 2-bracteolatis.

Species 1, Mexici borealis incola. *Baill. Hist. Pl.* iv. *fig.* 44. *Griseb. Pfl. Trop. Amer.* 5.

ORDO CXXXIII. BATIDEÆ.

Lindl. Veg. Kingd. 286. Endl. Gen. 1327 (Genera incertæ sedis).

Flores dioici, in strobilos axillares dispositi. Fl. ♂ : *Strobilus* sessilis; squamæ liberæ, 4-fariam arcte imbricatæ, 1-floræ, persistentes. *Perianthium* cyathiforme, a dorso compressum, antice convexum, postice planum, supra medium transverse 2-lobum; lobi truncati, postico (superiore) majore subacuto anticum angustiorem truncatum in æstivatione obtegente. *Stamina* 4, ima basi perianthii inserta; filamenta crassiuscula, staminodiis totidem alternantia. *Antheræ* dorso insertæ, magnæ, oblongæ, 2-loculares; loculi infra medium distincti, introrsum dehiscentes; pollen globosum. *Staminodia* inter filamenta inserta, unguiculata, ungue gracili elongato; lamina ovato-rotundata, membranacea, dentata. *Discus* et ovarii rudimentum 0. Fl. ♀ : *Strobilus* pedunculatus, ovoideo-oblongus, 4–12-florus; squamæ basin versus strobili decussatim oppositæ, parvæ, orbiculatæ, deciduæ. *Perianthium* 0. *Stamina* et *staminodia* 0. *Ovaria* ovoideo-oblonga, in syncarpium carnosum connata, apicibus stigmatiferis liberis, singula 4-locularia. *Stylus* 0; stigma sessile, pulvinatum, obscure 2-lobum, lobis axi lateralibus. *Ovula* in loculis solitaria, erecta, funiculo basilari brevi, anatropa, raphe ventrali. *Fructus*, syncarpium ovoideo-oblongum, carnosum, stigmatibus tot quot ovaria persistentibus; loculis quaternis, endocarpio coriaceo. *Semina* erecta, clavata, leviter curva, testa membranacea; albumen 0. *Embryo* semini conformis; cotyledones magnæ, oblongæ, plano-convexæ; radicula brevis, conica, infera.

Frutex maritimus, glaber, erectus, ramosus, habitu *Suædæ*, ramis oppositis ascendentibus. Folia opposita, sessilia, carnosula, linearia v. lineari-oblonga, obtusa v. subacuta, semiteretia, integerrima. Stipulæ 0. Strobili solitarii et in ramos foliis orbatos paniculatim spicati.

Species 1, Americæ tropicæ a Florida ad Brasiliam incola, nec non in California et insulis Sandvicensibus obvia.

1. **Batis,** *Linn. Gen. n.* 1104.—Genus unicum. Character ordinis.

Species 1, uti supra. *A. DC. Prod.* xvii. 35. *Torr. Obs. Batis in Smiths. Contrib.* vi. *t.* 11, *ic. opt.*, *in Schnitzl. Ic. Fam. Nat. t.* 241* *repetita. Lemaout et Dcne. Trait. Bot.* 453, *cum ic. Tison in Baill. Dict. Bot.* i. 382.

Genus nulli arcte affine, habitu et floribus ♂ *Chenopodiaceis* accedit, ovario pluriloculari *Phytolaccaceis*, seminibus *Illecebraceis*, ab omnibus tamen notis essentialibus differt. Ovarii rudimentum in fl. ♂ a Decaisneo in Bull. Soc. Bot. Fr. v. 48 memoratum nunquam vidimus, quod etiam a Torreyo negatur. Petala in Prodromo cum illis (perianthii segmentis) *Empetracearum* comparata, nobis et situ et structura omnino staminodiis *Amarantacearum* homologa videntur.

ORDO CXXXIV. POLYGONACEÆ.

Endl. Gen. 304. Lindl. Veg. Kingd. 502.

Flores hermaphroditi, v. in paucis generibus unisexuales, regulares. *Perianthium* inferum, calycinum v. coloratum, lobis segmentisve 4–6, 1–2-seriatim imbricatis æqualibus v. seriei exterioris v. interioris minoribus, post anthesin immutatis v. exterioribus v. interioribus circa fructum accretis. *Stamina* 6–9, rarius pauciora v. indefinite plura, infra lobos v. ad basin perianthii 1-seriatim v. sub-2-seriatim affixa, rarius in flore ♂ in disco centrali conferta; filamenta filiformia v. basi dilatata, libera v. basi in annulum connata. *Antheræ* 2-loculares, sæpius versatiles, loculis discretis parallelis v. subparallelis, connectivo parvo v. rarius longiore v. latiore dorso connexis, rimis longitudi-

nalibus dehiscentibus. *Discus* annularis sæpe adest ad basin perianthii, integer v. crenis v. dentibus tot quot stamina iisque alternis instructus. *Ovarium* superum, sessile v. rarius basi breviter perianthio adnatum, 3-gonum v. compressum, rarissime 4-gonum, 1-loculare. *Styli* 3, 2 v. rarissime 4, ad apicem ovarii distincti v. basi connati, nunc brevissimi; apice in stigmata capitata peltata v. varie expansa v. fimbriata dilatati. *Ovulum* unicum, orthotropum, sessile v. ad apicem funiculi plus minus elongati erectum, v. funiculo apice recurvo pendulum. *Fructus* nuceus, indehiscens, 3-gonus compressus v. rarius 4-gonus, perianthio immutato v. varie aucto inclusus velatus v. vestitus, rarius e perianthio marcescente exsertus ; pericarpium crustaceum v. rarius coriaceum v. induratum. *Semen* in loculo erectum, sessile v. breviter stipitatum, pericarpio conforme nisi minus angulatum, interdum sulcis longitudinalibus profundis 3–6-lobum ; testa membranacea ; albumen copiosum, farinosum, semen implens, æquabile v. ruminatum. *Embryo* sæpius plus minus excentricus v. lateralis, varie curvus v. rectus interdum periphericus ; cotyledones planiusculæ, angustæ v. latæ, rarius latissimæ convolutæque ; radicula longa v. brevis, supera v. ascendens.

Herbæ frutices v. interdum arbores. Folia alterna v. rarius opposita, forma varia, rarius lobata v. divisa nec unquam composita, petiolo sæpius basi plus minus dilatato amplexicauli, ibidemque sæpe membranaceo-marginato, margine cum ocrea stipulina membranaceo-scariosa intrapetiolari caulem vaginantem continuo, folio delapso cicatricem annularem sæpius relinquente. Flores sæpius parvuli, intra bracteam cupulatam ocreiformem v. apertam v. involucrum 4–6-fidum solitarii v. sæpius fasciculati, fasciculis axillaribus v. in dichotomiis caulis v. secus rhachin spicæ v. racemi dispositis. Pedicelli sæpissime articulati.

Species ad 600, per orbem fere totum dispersæ, arborescentes fere omnes Americæ tropicæ incolæ, herbaceæ in regionibus temperatis v. montanis frequentiores, fruticosæ plurimæ ad regionem orientali-Mediterraneam v. Asiam occidentalem limitatæ.

Ordo distinctissimus, a cæteris Curvembryis facillime dignoscitur habitu, ocreis, perianthio, staminum situ, ovulo orthotropo, radicula supera, aliisque notis, et nulli alii ordini arcte approximatur.

FORMÆ ABNORMES.

Folia opposita v. verticillata in speciebus paucis *Eriogoni, in Lastarriæa, Chorizanthe, Pterostegia* et interdum in *Kœnigia.*

Stamina numerosa in *Calligono* et *Symmeria,* disco centrali nec perianthio affixa in floribus ♂ *Ruprechtiæ* et *Symmeriæ.*

Pistillum 4-merum in *Calligono.*

Ovulum funiculo summo apice recurvo pendulum in *Antigono, Brunnichia* et *Leptogono.* Funiculus pariter elongatus sed ovulum erectum in speciebus pluribus *Polygoni* aliisque nonnullis.

Perianthii fructiferi tubus supra nucem perfecte clausus v. solidus in *Oxygono, Emice* et *Symmeria,* carnosus v. bacciformis in *Coccolobo, Muehlenbeckia* et in *Polygoni* speciebus paucis e sectionibus *Cephalophilo* et *Aconogono,* nuci adnatus in speciebus pluribus *Coccolobi.*

CONSPECTUS GENERUM.

Tribus I. Eriogoneæ. Herbæ suffruticesve, foliis radicalibus v. infra inflorescentiam paucis, petiolo basi parum dilatato, ocrea nulla. Inflorescentia dichotome v. umbellatim ramosa, foliis floralibus seu bracteis sub ramis in unam 3-fidam connatis v. 3–∞-liberis. Involucrum tubulosum v. cupulatum, 4–8-dentatum v. lobatum, flores 1–∞-includens. Flores sæpius 6-meri 9-andri. Genera omnia Americana.

1. ERIOGONUM. Involucra 3–8-dentata, ∞-flora, floribus sæpissime exsertis.—*Amer. bor., Mexico.*

2. OXYTHECA. Involucra 4-fida, lobis aristatis, pauciflora, floribus sæpius inclusis.—*California, Chili.*

3. CENTROSTEGIA. Involucra tubulosa, 3–6-dentata, extus divaricato-calcarata, 2–4-flora.—*California.*

4. CHORIZANTHE. Involucra tubulosa v. infundibularia, 2–6-dentata, constanter 1-flora.—*California, Chili.*

Tribus II. Kœnigieæ. Herbæ humiles v. teneræ, foliis infra inflorescentiam alternis v. oppositis basi leviter dilatatis amplexicaulibus v. in vaginam brevissimam connatis, ocreis 0 v. obscuris. Inflorescentia dichotoma v. subumbellata, foliis floralibus sub ramis liberis v. subconnatis. Flores ad dichotomias capitati v. dense fasciculati, singuli bractea stipati. Perianthii lobi 6 v. pauciores, staminibus totidem v. paucioribus. Genera Americana v. borealia.

5. HOLLISTERIA. Bracteæ ovatæ, utrinque denso lanatæ. Perianthium lanatum, 5-6-fidum. Stamina 5-6.—*California.*

6. NEMACAULIS. Bracteæ ovatæ, extus nudæ, intus dense lanatæ. Perianthium glabrum, 6-fidum. Stamina 2-3.—*California.*

7. LASTARRIÆA. Perianthii dentes 6, uti folia floralia et bracteæ angusti, rigidi, recurvo-cuspidati. Stamina 3.—*Chili, California.*

8. PTEROSTEGIA. Bracteæ post anthesin valde auctæ, latæ, membranaceo-scariosæ, venosæ, dorso sæpe 2-alatæ v. 2-cristatæ. Herba tenera, foliis oppositis orbiculatis v, late 2-lobis. Perianthii lobi et stamina 6, rarius 5.—*California.*

9. KŒNIGIA. Bracteæ hyalinæ, pedicello breviores. Herbæ nanæ, teneræ, foliis alternis oppositisve parvis. Perianthii lobi et stamina sæpius 3 rarius 2 v. 4.—*Reg. arct. et subarct. Americæ et orbis veteris, mont. Asiæ.*

Tribus III. Eupolygoneæ. Herbæ suffruticesve, caule rarius volubili, v. frutices ramosissimi, foliis alternis, ocreis membranaceo-scariosis. Flores ad axillas v. ad nodos inflorescentiæ fasciculati, fasciculis, rarius floribus singulis, bractea vaginante v. concava stipatis. Perianthium 5-merum rarius 4-merum. Stamina 6-8 v. subinde pauciora (excepto *Calligono*). Styli sæpius filiformes; stigmata capitata (excepta *Polygoni* sectione *Pleuroptero*). Albumen integrum, æquabile.

10. CALLIGONUM. Stamina 12-18. Pistillum 4-merum. Nux in ordine majuscula, exserta, varie angulata alata v. muricata. Frutices ramosissimi, foliis angustis v. parvis.—*Asia occid. et med., Afric. bor.*

11. PTEROPYRUM. Stamina 8. Pistillum 3-merum. Nux exserta, 3-alata, alis supra medium interruptis. Frutices rigide ramosi, foliis parvis linearibus v. spathulatis.—*Oriens.*

12. ATRAPHAXIS. Stamina sæpius 6-8. Pistillum 2-3-merum. Nux perianthio aucto scarioso inclusa. Frutices ramosissimi, sæpe spinescentes, foliis angustis v. parvulis.—*Asia med. et occid. Afr. bor.*

13. OXYGONUM. Stamina 8. Pistillum 3-merum. Nux perianthii tubo 3-gono 3-alato v. 3-calcarato arcte inclusa, limbo marcescente coronata. Herbæ, foliis integris sinuato-dentatis v. pinnatifidis.—*Afr. or. trop. et austr.*

14. POLYGONELLA. Stamina 8. Pistillum 3-merum. Perianthii fructiferi segmenta 2 exteriora parva reflexa, 3 interiora erecta nucem includentia. Herbæ tenues, erectæ, foliis anguste linearibus, racemis spiciformibus gracilibus paniculatis.—*Amer. bor.*

15. POLYGONUM. Stamina 8 v. subinde pauciora. Pistillum 3-merum. Perianthium fructiferum parum auctum, nucem includens, membranaceum v. interdum baccatum, segmentis æqualibus v. 3 exterioribus majoribus interdum carinatis v. alatis. Herbæ rarius suffrutices, habitu polymorpho.—*Orbis fere totus.*

16. FAGOPYRUM. Omnia *Polygoni* nuce excepta perianthio longiore et cotyledonibus latissimis contortis plicatis radiculam involventibus. Herbæ eymis laxe corymbosis v. in capitulum contractis.—*Asia ? ibidem et in Eur. cult. et inquilinum.*

(Vide etiam 21, *Muehlenbeckiam*, cujus species nonnullæ *Polygono* accedunt.)

Tribus IV. Rumiceæ. Herbæ, rarius suffrutices v. frutices ramosi, foliis alternis v. radicalibus, ocreis membranaceo-scariosis. Flores ad axillas v. ad nodos inflorescentiæ fasciculati, fasciculis bractea vaginante v. concava stipatis. Perianthium 6-merum v. rarius 4-merum. Stamina 9 v. 6, rarissime subinde pauciora. Styli breves, recurvo-patentes, in stigmata late hippocrepica peltata v. fimbriata dilatati. Albumen integrum, æquabile.

17. RHEUM. Stamina 9 rarius 6. Perianthium 6-merum, fructiferum immutatum marcescens. Nux exserta, 3-alata. Herbæ robustæ.—*Asia med. et or.*

18. OXYRIA. Stamina 6. Perianthium 4-merum, fructiferi segmenta exteriora reflexa, interiora nuci 2-alatæ appressa. Herbæ humiles v. tenues, foliis radicalibus.—*Reg. arct. et mont. elatiores Eur. Asiæ et Amer. bor.*

19. RUMEX. Stamina 6. Perianthium 6-merum, rarius 4-merum, fructiferi segmenta exteriora immutata, interiora valde aucta, erecta, nucem 3-gonam exalatam includentia. Herbæ habitu vario, rarius frutices.—*Orbis fere totus.*

20. EMEX. Flores monoici, ♂: Stamina 4–6. Fl. ♀: Perianthium 6-merum, fructiferi aucti indurati tubus angulatus nucem arcte includens, limbus persistens, lobis exterioribus patentibus spinescentibus, interioribus erectis planis. Herbæ rigidulæ, foliatæ.—*Reg. Mediterr., Afr. austr., Australia.*

(Vide etiam 15, *Polygoni* sect. *Pleuropteram*, stigmatibus fimbriatis.)

Tribus V. Coccolobeæ. Arbores, frutices v. rarius suffrutices, caule sæpe scandente, foliis alternis, ocreis variis sæpe brevissimis v. fere obsoletis. Flores ad axillas v. secus rhachin inflorescentiæ intra bracteam vaginantem v. concavam fasciculati, rarius solitarii. Perianthium 5-merum. Stamina 8 v. subinde pauciora. Stigmata varia. Albumen sulcis longitudinalibus 3–6-lobum, sæpissimeque ruminatum.

21. MUEHLENBECKIA. Frutices suffruticesve, sæpe volubiles, floribus sæpius polygamo-dioicis. Perianthium fructiferum basi v. undique carnosum v. baccatum, nuce inclusa v. apice exserta. Albumen quam in sequentibus minus ruminatum.—*Australia, Nov. Zel., ins. Pacif., Amer. austr. extratrop. et Andin.*

22. COCCOLOBA. Arbores fruticesve, sæpe alte scandentes, floribus hermaphroditis. Perianthii fructiferi tubus carnosus v. baccatus, nucem includens eique sæpe adnatus, limbo immutato connivente v. marcescente coronatus.—*Amer. trop., Mexico, Florida.*

23. CAMPDERIA. Arbores fruticesve. Perianthium fructiferum auctum nucem includens, segmentis coriaceis exterioribus carinatis.—*Mexico, Amer. centr., Bras. bor.*

24. ANTIGONON. Caules a basi frutescente alte scandentes; inflorescentia cirrhifera. Perianthium fructiferum auctum, membranaceo-scariosum, coloratum, segmentis exterioribus majoribus late cordatis, interioribus oblongis. Ovulum ex apice funiculi pendulum, demum erectum.—*Mexico, Amer. centr.*

25. BRUNNICHIA. Frutex scandens, inflorescentia cirrhifera. Perianthium fructiferum auctum, oblongo-conicum, coriaceum, lobis conniventibus subæqualibus, basi in alam coriaceam secus pedicellum unilateralem productum. Ovulum *Antigoni.*—*Amer. bor.*

Tribus VI. Triplarideæ. Arbores fruticesve non scandentes, foliis alternis, ocreis sæpius brevissimis v. obsoletis. Flores secus rhachin inflorescentiæ intra bracteam vaginantem v. spathaceam solitarii v. fasciculati. Perianthium 6-merum. Stamina 3, 6, 9 v. ∞. Stigmata varia. Albumen sulcis longitudinalibus 3–6-lobum, ruminatum.

* *Flores hermaphroditi.*

26. LEPTOGONUM. Perianthium angustum, lobis linearibus exalatis, interioribus minoribus. Stamina 3. Ovarium globosum, obtuse 3-gonum. Ovulum ab apice funiculi pendulum.—*San Domingo.*

27. PODOPTERUS. Perianthii segmenta exteriora ala lata scariosa carinata. Stamina 6. Ovarium 3-gonum. Ovulum erectum.—*Mexico.*

** *Flores dioici.*

28. TRIPLARIS. Perianthium ♂ infundibulare. Stamina ∞, ad apicem tubi affixa. Perianthium ♀ fructiferum basi ovoideum nucem includens, lobis 3 exterioribus valde accretis oblongis alæformibus membranaceo-scariosis venosis. Nux acute 3-gona, faciebus planis.—*Amer. austr. trop.*

29. RUPRECHTIA. Perianthium ♂ 6-partitum. Stamina 9, disco centrali ad basin perianthii affixa. Perianthium ♀ fructiferum nunc *Triplaris*, nunc segmentis exterioribus oblongis subcoriaceis aveniis. Nux basi incrassata, 3–6-sulcata, angulis obtusis.—*Amer. austr. trop. et subtrop.*

30. SYMMERIA. Perianthium ♂ 6-partitum. Stamina ultra 20 in disco centrali densissime conferta. Perianthium ♀ fructiferum pyramidatum, acute 3-gonum, suberoso-carnosum, circa et supra nucem acute 3-gonam solidum, apice breviter 3-lobum.—*Guiana, Bras. bor., Senegambia;*

TRIBUS I. ERIOGONEÆ.

1. **Eriogonum,** *Mich. Fl. Bor. Amer.* i. 246, *t.* 24. (Espinosa, *Lag. Gen. et Sp. Pl. Nov.* 14, *ex char. brevi.*)—Involucrum campanulatum turbinatum v. cylindraceum, 5-8-dentatum v. lobatum. Flores in involucro ∞, v. rarissime casu solitarii, per anthesin ex involucro exserti. Perianthium 6-partitum v. alte 6-fidum, segmentis post anthesin sæpe auctis æqualibus v. exterioribus majoribus rarissime brevioribus. Stamina 9, basi perianthii v. altius affixa, filamentis filiformibus basi sæpe pilosis. Ovarium 3-quetrum; styli 3, breviter v. longiuscule filiformes, apice capitato-stigmatosi. Nux perianthio persistente obtecta, 3-quetra interdum 3-alata. Embryo nunc in medio albumine fere rectus, nunc excentricus v. fere lateralis incurvus, radicula tunc accumbenti-ascendente cotyledonibus longiore.—Herbæ suffruticesve cæspitosi v. annuæ tenuesque, lana densa brevi subfloccosa v. tomento incano præsertim ad basin caulis et in pagina inferiore foliorum rarius omnino deficiente. Folia ad basin caulis conferta subradicalia, v. in caule infra inflorescentiam pauca, alterna, integerrima, petiolo ima basi plus minus dilatata amplexicaulia, ocrea 0 v. obscura. Pedunculi v. rami floriferi a collo scapiformes v. in caule axillares terminalesque interdum apice involucrum unicum ferentes, sæpissime tamen in ramos 2–∞ semel v. repetite 2–3-chotomos v. umbellatos divisi. Bracteæ sub inflorescentiæ ramificationibus tot quot rami, basi sæpe connatæ, nunc brevissimæ adpressæ v. patentes, nunc in folia expansæ, nunc membranaceæ stipuliformes et interdum folia foventes intra bracteas sub involucro sessili oriunda. Umbellæ v. generales v. partiales interdum in capitula contractæ. Involucra solitaria v. complura capitata, intra bracteas 2 sessilia v. pedicellata, in inflorescentia dichotoma alaria v. terminalia, v. ramo altero dichotomiæ abortiente secus ramos paniculæ unilateraliter dissitæ. Bracteolæ intra involucrum inter pedicellos sæpe numerosæ tenerrimæ v. setaceæ, interdum perpaucæ v. 0.

Species notæ fere 100, Americæ borealis imprimis occidentalis incolæ, paucis usque ad Mexicum extensis. *Benth. in DC. Prod.* xiv. 5. *Torr. et Gray in Proc. Amer. Acad.* viii. 146. *S. Wats. in Proc. Amer. Acad.* xii. 254, xiv. 295, *et Bot. Calif.* ii. 16, *ined.*

Genus post Prodromum numero specierum valde accretum a Torrey et Gray l. c. reformatum et in series 14 divisum, imprimis ad habitum et inflorescentiam, partim etiam ex nuce angulata v. 3-alata v. ad embryonem axilem rectumque v. excentricum et curvulum. S. Watson nuperius sectiones tres primarias proposuit sat naturales, etsi præcipue ad involucra et bracteas definita sint.

1. *Eueriogonum.* Involucra turbinata, sæpius 2-linearia v. longiora (rarius minima), nec costata nec angulata, 4–8-dentata v. lobata. Bracteæ foliaceæ 2, 5 v. ∞, rarius subternæ. Species pleræque perennes. *Nutt. in Journ. Acad. Philad.* vii. *t.* 8, *f.* 2. *Hook. Fl. Bor. Amer. t.* 175 *ad* 177 *et in Kew Journ. Bot.* v. *t.* 10. *Benth. in Trans. Linn. Soc.* xvii. *t.* 18, *f.* 2. *A Gray, Bot. Amer. Expl. Exped.* ii. *t.* 14 B. *Torr. Bot. Sitgr. Exped. t.* 8, 11, 12; *Bot. Whipple Exped. t.* 19.

STENOGONUM, *Nutt. in Journ. Acad. Philad. ser.* 2, i. 170, est *E. salsuginosum,* Hook., species humilis ramosissima, ad *Eueriogonum* relata, etsi flores ex involucro minimo vix exserentur.

2. *Ganysma.* Involucra campanulata v. breviter turbinata, nec costata nec angulata, dentibus 5 rotundatis erectis, in paniculis repetite 2–3-chotomis pedunculata. Bracteæ parvæ, ternatæ, non foliatæ, sæpius triangulares rigidæque. Flores basi non attenuati. Species pleræque annuæ.—*Benth. in Trans. Linn. Soc.* xvii. *t.* 18, *f.* 1. *S. Wats. Bot.* 40 *Parall. t.* 33.

3. *Oregonium.* Involucra cylindraceo-turbinata, 5–6-nervia, sæpius costata v. angulata, breviter dentata, capitata fasciculata v. secus ramos virgatos paniculæ sparsa, semper erecta, 1–3 lin. longa. Bracteæ ternatæ, basi connatæ, sæpius breves rigidæque. Flores basi non attenuati. Species pleræque perennes.—*Benth. Bot. Sulph. t.* 22. *A. Gray, Bot. Amer. Expl. Exped.* ii. *t.* 14 A. *Dur. Bot. Williamson Exped. t.* 15 *ad* 17. *Torr. Bot. Sitgr. Exped. t.* 9, 10.

EUCYCLA, *Nutt. in Journ. Acad. Philad. ser.* 2, i. 166, est *E. ovalifolium,* Nutt. in Journ Acad. Philad. vii. t. 7 ad t. 8, f. 1, species a cæteris parum distincta perianthii segmentis utriusque seriei magis disparibus.

2. **Oxytheca,** *Nutt. in Journ. Acad. Philad. ser.* 2 i. 169. (Brisegnoa, *Remy in C. Gay, Fl. Chil.* v. 291.)—Involucrum turbinato-campanulatum, tubo brevi, lobis 4 spinuloso-

aristatis. Flores in involucro ∞, pedicellati at subinclusi. Perianthium 6-fidum, lobis subæqualibus. Stamina 9, basi perianthii affixa. Ovarium ovoideum v. oblongum, obscure 3-quetrum; styli 3, breves, apice capitato-stigmatosi. Nux compressa. Embryo excentricus, incurvus, cotyledonibus latis, radicula longa accumbenti-ascendente.—Herbæ annuæ, humiles. Folia radicalia rosulata, lineari-spathulata. Rami floriferi e collo erecti, repetite dichotomi, demum interdum valde accreti et undique intricato-ramosissimi. Bracteæ ad dichotomias 3, nunc parvæ distinctæque, nunc in unam latam perfoliatam aristato-3-lobam coalitæ. Involucra ad dichotomias solitaria, nunc minima longe pedicellata, nunc inter bracteolas sessilia v. subsessilia.

Species 5, Californicæ, quarum una etiam in Chili obvia. *S. Wats. Bot. Calif.* ii. 32 *ined., et Bot.* 40 *Parall. t.* 33, 34. *Miers in Trans. Linn. Soc.* xxi. 144, *t.* 17.

3. **Centrostegia,** *A. Gray in Torr. Bot. Parke Exped.* 19, *t.* 8.—Involucrum tubulosum v. infundibuliforme, apice 3–6-dentatum v. lobatum, dentibus rectis sæpius aristatis, extus basin versus calcaribus totidem acutis aristatisve divaricatis instructum. Flores in involucro 2–3 (rarius solitarii?), pedicellati at inclusi v. vix exserti. Perianthium 6-partitum, segmentis angustis subæqualibus. Stamina 9, basi perianthii affixa. Ovarium 3-quetrum; styli 3, filiformes, apice capitato-stigmatosi. Nux triquetra. Embryo excentricus, incurvus, cotyledonibus latis, radicula elongata accumbenti-ascendente.—Herbæ annuæ, pusillæ, glabræ v. vix puberulæ nec lanatæ. Folia radicalia rosulata, lineari-spathulata. Rami floriferi e collo erecti, repetite dichotomi. Bracteæ sub dichotomiis 3-partitæ v. 3-fidæ. Involucra ad dichotomias solitaria v. pauca, ad apices ramulorum sæpe plura subcapitata. Bracteolæ intra involucrum 0.

Species 2, Californicæ, *Torr. et Gr. in Proc. Amer. Acad.* viii. 192.

Genus quasi medium tenet inter *Eriogonum* et *Chorizanthem*, a S. Wats. in Proc. Amer. Acad. xii. 269 huic adjunctum. In *Chorizanthe* tamen involucra constanter 1-flora et calcaria a S. Watsonio in *C. commissurali* e Chile observata rarissima videntur, nam in specimine nostro desunt nec a C. Gayo memorantur.

4. **Chorizanthe,** *R. Br.*; *Benth. in Trans. Linn. Soc.* xvii. 416, *t.* 19.—Involucrum tubulosum v. infundibuliforme, apice 2–6-dentatum, dentibus acutis aristatisve divaricatis v. rarius erectis basi interdum scarioso-dilatatis. Flos in involucro unicus, sessilis v. pedicellatus, inclusus v. vix exsertus. Perianthium 6-fidum v. 6-partitum, segmentis sæpius æqualibus. Stamina 9, rarius 3–6, basi v. ad faucem perianthii affixa. Ovarium ovoideum v. oblongum; styli 3, filiformes, apice capitato-stigmatosi. Nux 3-gona. Embryo nunc axilis rectus cotyledonibus angustis, nunc excentricus incurvus cotyledonibus latis, radicula elongata accumbenti-ascendente.—Herbæ suffruticesve glabræ pubescentes v. sericeo-villosæ, nec lanatæ. Folia sæpius angusta, radicalia rosulata, in parte inferiore caulis opposita v. verticillata. Rami floriferi erecti dichotomi v. primarii rarius umbellati. Bracteæ ad dichotomias 3, sæpe in unam 3-fidam connatæ, v. sub umbella plures. Involucra ad dichotomias solitaria v. pauca, summa tamen v. interdum inflorescentia tota in cymam densam capitulumve terminale conferta, singula basi sæpe demum indurata, calcarata tamen adhuc non vidimus.

Species ad 30, quarum 8 Chilenses perennes v. suffrutescentes cum una annua, *Benth. in DC. Prod.* xiv. 24; cæteræ omnes annuæ Californicæ, *Torr. et Gray in Proc. Amer. Acad.* viii. 192, ubi in sectiones 3 sequentes distribuuntur.

1. *Euchorizanthe.* Involucrum 6-dentatum, 6-costatum. Stamina juxta basin perianthii affixa. Huc pertinent species Chilenses cum plerisque Californicis. Chorizanthe, *Benth. l.c., Torr. Bot. Williamson Exped. t.* 8.

2. *Mucronea.* Involucrum 2–4-dentatum. Stamina juxta basin perianthii affixa. Bracteæ ad dichotomias in unam latam 3-fidam interdum perfoliatam connatæ. Species 2, Californicæ. Mucronea, *Benth. in Trans. Linn. Soc.* xvii. 419, *t.* 20.

3. *Acanthogonum.* Involucrum 3–5-dentatum, transverse corrugatum. Stamina fauci perianthii breviter 6-lobi affixa. Species 2, Californicæ. *S. Wats. Bot.* 40 *Parall. t.* 34. Acanthogonum, *Torr. Bot. Whipple Exped.* 132 (76).

TRIBUS II. KŒNIGIEÆ.

5. **Hollisteria,** *S. Wats. in Proc. Amer. Acad.* xiv. 296.—Flores glomerati, singuli bractea ovata bracteolisque lanceolatis stipati, undique lana nivea involuti. Perianthium lanatum, 5–6-fidum, tubo intus subincrassato, lobis patentibus angustis æqualibus v. alternis minoribus. Stamina 5–9, infra (v. supra ?) medium perianthii affixa, filamentis filiformibus. Ovarium ovoideum; styli 3, filiformes, apice capitato-stigmatosi. Nux obtuse 3-quetra, acuminata. Embryo excentricus, incurvus, cotyledonibus orbiculatis, radicula elongata accumbenti-ascendente.—Herba dichotome ramosa ad articulationes demum fragilissima, undique albo-lanata. Folia alterna, ovata, membranacea, lanata. Stipulæ laterales, subfoliaceæ, lineari-acuminatæ, a petiolo distinctæ. Florum glomeruli in dichotomiis sessiles, inferiores 2–3-flori (superiores ∞-flori ?). Flores parvi, lanati, bracteas non superantes.

Species 1, Californica. Genus evidenter *Nemacauli* valde affine, nobis notum e fragmentis fragilibus partis superioris inflorescentiæ et specimine juniore ineunte florescentia nuper cum notis Grayi et S. Watsoni accepto.

6. **Nemacaulis,** *Nutt. in Journ. Acad. Philad. ser.* 2, i. 168.—Flores capitati, singuli bractea suborbiculata intus dense lanata bracteolisque setaceis stipati. Perianthium glabrum, campanulatum, alte 6-fidum, segmentis æqualibus. Stamina 2 v. 3, filamentis glabris. Ovarium 3-quetrum; styli brevissimi, apice capitato-stigmatosi. Nux ovoidea, obtuse 3-quetra. Embryo valde curvatus, excentricus, cotyledonibus orbiculatis, radicula elongata accumbenti-ascendente.—Herba annua. Folia subradicalia rosulata v. ad dichotomias caulis pauca fasciculata, lineari-spathulata, mollissime albo-lanata. Rami floriferi e collo oriundi tenues, rigiduli, interdum filiformes, patentes, glabri, remote dichotomi. Florum capitula terminalia v. ad dichotomias sessilia. Bracteæ sub capitulo v. potius sub dichotomia 3, sæpe basi connatæ, sub floribus singulis ovatæ v. orbiculatæ, extus glabræ, intus longe denseque albo-lanatæ. Flores parvi, glabri, bracteas non superantes.

Species 1, Californica. *Benth. in DC. Prod.* xiv. 23.

7. **Lastarriæa,** *Remy in C. Gay, Fl. Chil.* v. 289, *t.* 58.—Flores cymoso-glomerati, foliis floralibus subverticillatis bracteisque stipati. Perianthium tubulosum, rigidulum, 6-dentatum, dentibus recurvo-cuspidatis. Stamina 3, fauci perianthii affixa, filamentis brevibus. Ovarium 3-quetrum; styli 3, breviter filiformes, apice capitato-stigmatosi. Nux 3-quetra, oblonga. Embryo rectus v. leviter curvulus, subcentralis, albumine parco; cotyledones angustæ, radicula longiores.—Herba annua, pusilla, dichotoma, intricato-ramosissima, ramulis rigidulis articulato-fragillimis. Folia ad ramificationes 3–6-natim verticillata, parva, inæqualia. Inflorescentia densissime conferta, fastigiata, bracteis perianthiique lobis subsimilibus, cuspidulis recurvis tenacibus.

Species 1, Chilensis etiam in Californiæ maritimis lecta, ibi tamen forte inquilina. *Meissn. in DC. Prod.* xiv. 186. *Torr. et Gr. in Proc. Amer. Acad.* viii. 199.

8. **Pterostegia,** *Fisch. et Mey. Ind.* ii. *Sem. Hort. Petrop.* 48; *Sert. Petrop. t.* 21.—Flores solitarii v. in fasciculo pauci, singuli bractea post anthesin valde aucta membranaceo-scariosa stipati. Perianthium sessile, 6- v. rarius 5-fidum, lobis angustis æqualibus v. inæqualibus. Stamina 6 rarius 5, basi loborum affixa, filamentis filiformibus. Ovarium 3-quetrum; styli 3, breves, apice capitato-stigmatosi. Nux perianthio sæpius immutato longior, acute 3-gona. Embryo excentricus, curvus, cotyledonibus suborbiculatis, radicula longiuscula accumbenti-ascendente.—Herbæ dichotome ramosæ, ramis tenerrimis v. rigidioribus articulatisque diffusis v. prostratis. Folia opposita, petiolata, spathulata, orbiculata v. in eadem planta semel v. bis 2-loba, petiolis vagina brevi v. linea

transversa connexis. Flores minimi, ad axillas sessiles. Bractea fructifera valde aucta lataque cæterum quam maxime varia, sæpius argute dentata et cristis v. alis 2 dorsalibus nunc latissimis integerrimis dentatisve nunc parvis v. fere obsoletis instructa, et interdum perianthium ipsum circa fructum leviter scarioso-accreta.

Species 2, Californicæ. *Benth. in DC. Prod.* xiv. 27. *Torr. et Gr. in Proc. Amer. Acad.* viii. 200. *Hook. et Arn. Bot. Beech Voy. t.* 90.

9. **Kœnigia,** *Linn. Mant. n.* 1241.—Flores fasciculati, singuli bractea hyalina pedicello basi adnata demum parum aucta stipati. Perianthium alte 3-fidum, rarius 2-fidum v. 4-fidum. Stamina sæpius 3, supra lobos affixa, interdum 1, 2 v. 4, filamentis brevibus. Ovarium obtuse 3-gonum v. compressum; styli 3 v. 2, brevissimi, apice subcapitato-stigmatosi. Nux 3-gona v. compressa, pericarpio tenui. Embryo excentricus, plus minus arcuatus, cotyledonibus ovatis v. orbiculatis, radicula accumbenti-ascendente.—Herbæ annuæ, tenerrimæ, sæpe nanæ, glabræ. Folia ima opposita vagina brevi connexa, sub ramis solitaria petiolo basi leviter dilatato, summa plurima subverticillata, omnia parva, obovata, integerrima. Flores ad axillas pauci, intra folia ultima plures fasciculati, minimi, in pedicello articulati. Bractea hyalina tenerrima ad basin pedicelli, nunc minima post anthesin immutata, nunc demum aucta, semper tamen pedicello brevior.

Species 2, inter se valde affines nisi unius varietates, altera in regionibus arcticis et subarcticis hemisphærii borealis utriusque orbis et in montibus Sibiricis et Scopulosis late diffusa, altera Himalaica.—*Meissn. in DC. Prod.* xiv. 82. *Gærtn. Fruct. t.* 128. *Lam. Illustr. t.* 51. *Dcne. in Jacquem. Voy. Bot. t.* 147.

Tribus III. Eupolygoneæ.

10. **Calligonum,** *Linn. Gen. n.* 680. (Pterococcus, *Pall. Voy. ed. Fr.* ii. 547, *t.* 16. Pallasia, *Linn. f. Suppl.* 37. Calliphysa, *Fisch. et Mey. Ind.* i. *Sem. Hort. Petrop.* 24.)—Flores hermaphroditi. Perianthium 5-partitum, segmentis subæqualibus planis, post anthesin immutatum v. marcescens. Stamina (12–18), filamentis subulatis basi in discum hypogynum connatis; antheræ ovatæ. Ovarium 4-gonum; styli 4, breviter v. longiuscule filiformes, apice capitato-stigmatosi. Nux perianthio subpersistente multo longior, 4-gona, angulis in longitudinem rectis v. plus minus spiraliter tortis, in alam simplicem v. duplicem productis, integris serratis v. varie cristatis v. setis liberis v. varie dilatato-connatis appendiculatis v. echinatis. Semen oblongum, teres v. 4-gonum, testa tenui; embryo (in speciebus paucis examinatus) centralis, rectus, teres, cotyledonibus angustis radiculæ subæquilongis.—Frutices ramosissimi, ramis flexuosis rigidis v. novellis tenuibus alternis fasciculatisve. Folia alterna, anguste linearia v. subulata, nunc minima; ocrea brevis, membranacea. Flores ad axillas intra bracteam ocreiformem solitarii v. fasciculati, in pedicello brevi articulati, ebracteolati. Nuces sæpius valde accretæ.

Species ad 20, locorum aridorum v. arenosiorum Africæ borealis et Asiæ occidentalis et mediæ incolæ. *Meissn. in DC. Prod.* xiv. 28 (subtribus *Calligoneæ*). *Borszcz. Aral. Casp. Callig. in Mem. Acad. Petersb. ser.* 7, iii. *cum tabb.* 3. *Boiss. Fl. Or.* iv. 998. *Pall. Fl. Ross. t.* 77, 78 (*Pallasia*). *Gærtn. f. Fruct.* iii. *t.* 184 (*Pallasia*) et 215 (*Calligonum*). *Jaub. et Spach, Ill. Pl. Or. t.* 471.

Genera tria in Prodromo recepta a Borszczowio l.c. optime scrutata et in unum juncta. Auctor sectiones 4 proponit ad fructus alarum setarum appendiciumve formam distinctas. Habitus tamen aliique characteres in toto genere similes sunt v. variationes paucas præbent, ad diversitates fructus vix respondentes, et sectiones nimis artificiales remanent.

11. **Pteropyrum,** *Jaub. et Spach, Ill. Pl. Or.* ii. 7, *t.* 107 *ad* 109.—Flores hermaphroditi. Perianthium 5-partitum, segmentis parum inæqualibus v. 2 exterioribus paullo minoribus, post anthesin immutatum v. marcescens. Stamina 8, filamentis filiformibus annulo piloso affixis; antheræ oblongæ. Ovarium 3-gonum, acuminatum; styli 3, brevissimi, late capitato-stigmatosi. Nux late 3-alata, basi lata, apice in rostrum con-

tracta; alæ ad contractionem interruptæ v. divisæ, in parte superiore v. rostro alis basalibus nunc directe superpositæ, nunc nuce sub rostro distorto basalibus alternæ. Semen basi dilatatum, concavum v. 3-gonum, superne rostratum; embryo excentricus, leviter curvus, cotyledonibus oblongis radicula multo brevioribus.—Frutices ramis rigidis virgatis. Folia alterna v. ad nodos fasciculata, parva, linearia v. spathulata; ocreæ brevissimæ, fere ad lineam transversam demum evanidam reductæ. Flores parvi, ad nodos cum foliis fasciculati intra bracteam ocreiformem solitarii v. gemini, pedicello breviter filiformi ebracteolato.

Species 5 v. 6, Orientales, usque ad Affghanistan extensæ. *Meissn. in DC. Prod.* xiv. 31. *Boiss. Fl. Or.* iv. 1001. *Wight, Ic. t.* 1809.

12. **Atraphaxis,** *Linn. Gen. n.* 449.—Flores hermaphroditi. Perianthium 4–5-partitum, segmentis 2 exterioribus sæpius minoribus, fructiferum auctum, segmentis interioribus v. omnibus scariosis nucem obtegentibus. Stamina 6–8 rarius 9, filamentis ima basi sæpius dilatatis; antheræ ovatæ. Ovarium compressum v. 3-gonum; styli 2 v. 3, brevissimi, late clavato-stigmatosi. Nux perianthio accreto inclusa, lenticularis v. 3-gona. Embryo excentricus, incumbenti-curvulus v. fere rectus, cotyledonibus angustis, radicula breviore ascendente.—Frutices rigide ramosissimi, ramulis sæpe apice spinescentibus. Folia alterna v. ad nodos fasciculata, angusta v. parvula, sæpe rigidula, uninervia reticulato-venulosa v. subpennivenia; ocreæ membranaceo-scariosæ, utrinque in stipulam productæ. Flores ad nodos sæpius fasciculati, intra bracteam ocreiformem solitarii v. gemini, pedicellis filiformibus articulatis ebracteolatis.

Species enumeratæ 17, sed plures inter se ægre distinguendæ, Asiæ mediæ et occidentalis incolæ, una a Schweinfurthio etiam in Ægypti desertis lecta.—*Meissn. in DC. Prod.* xiv. 74. *Boiss. Fl. Or.* iv. 1020. *L'Hér. Stirp. Nov. t.* 14. *Wats. Dendrol. Brit. t.* 119. *Ledeb. Ic. Fl. Ross. t.* 411. *Jaub. et Spach, Ill. Pl. Or. t.* 110 *ad* 113. *Bot. Mag. t.* 1065 (*Polygonum*).

TRAGOPYRON, *Bieb. Fl. Taur. Cauc.* iii. 284. *Ledeb. Ic. Fl. Ross. t.* 422, 426, a Jaubert et Spach uti a Meissnero pro sectione *Atraphaxeos* retinetur, floribus 5-meris 8-andris 3-gynis, dum in specie typica sæpius 4-meri 6-andri 2-gyni sint, sed in *T. variabili*, Spach, a Boissiero ad *A. Billardieri*, Jaub. et Spach, vix ab *A. spinosa*, Linn. distinctam reducta, variant 4- v. 5-meri, 6–9-andri, 2- v. 3-gyni, et genus in integrum servatum naturale est.

13. **Oxygonum,** *Burch. Trav.* i. 548. (Ceratogonon, *Meissn. in Wall. Pl. As. Rar.* iii. 63.)—Flores polygami, ad axillas bractearum pauci. Perianthii tubus in fl. ☿ supra ovarium constrictus, in fl. ♂ vix ullus; limbus 5-partitus, segmentis 2 exterioribus paullo minoribus, post anthesin immutatus, marcescens. Stamina 8, limbo affixa, filamentis filiformibus; antheræ oblongæ. Ovarium tubo perianthii inclusum; styli 3, filiformes, basi sæpe connati, apice capitato-stigmatosi. Perianthii fructiferi tubus accretus, induratus, 3-gonus, angulis interdum alatis, faciebus sæpe prope basin v. medium versus tuberculo v. calcare patente duro instructis; limbus marcescens, ad apicem tubi diu persistens v. demum deciduus. Nux tubo clauso arcte inclusa at libera, angusta, testa fere membranacea. Embryo in albumine subcentralis, rectus, cotyledonibus planis late oblongis, radicula brevi supera.—Herbæ annuæ v. basi perennes, ramis elongatis. Folia alterna, integra sinuato-dentata v. irregulariter pinnatifida; superiora floralia mox ad bracteas vaginantes reducta; ocreæ membranaceo-scariosæ, truncatæ, margine sæpe ciliatæ. Racemi spiciformes terminales, elongati, virgati, bracteis floriferis dissitis. Pedicelli per anthesin exserti, fructiferi recurvi.

Species ad 7, Africæ orientalis tropicæ et australis incolæ. *Meissn. in DC. Prod.* xiv. 38, 39 (genera 2 ad specimina manca perperam distincta). *Boj. in Ann. Sc. Nat. ser.* 2, iv. *t.* 9 (*Polygonum*).

Genus ab omnibus distinctissimum, perianthio tubo supra nucem clauso *Emici* accedit, embryo *Rhei*, styli et characteres plures *Polygoni*. Alæ et calcaria perianthii fructiferi (nec nucis) in eodem specimine variant, imprimis in *O. alato*, Burch., ubi alæ nunc latæ nunc vix ad angulos prominentes, calcaria longiuscula v. sæpius ad tubercula reducta v. omnino nulla.

14. **Polygonella,** *Mich. Fl. Bor. Amer.* ii. 240. (Gonopyrum, *C. A. Mey. in Mem. Acad. Petersb. ser.* 6, vi. 144. Lyonia *et* Stopinaca, *Rafin. ex Endl.*)—Flores polygami hermaphroditi v. abortu unisexuales. Perianthium 5-partitum, segmentis 2 exterioribus minoribus patentibus v. demum reflexis, 3 interioribus erectis post anthesin accretis nuci appressis. Stamina 8, filamentis filiformibus v. basi leviter dilatatis v. interioribus basi latis 2-auriculatis; antheræ parvæ. Ovarium 3-gonum; styli 3, apice capitato-stigmatosi. Nux 3-gona, nitida, perianthii segmentis interioribus obtecta, pericarpio crustaceo. Embryo excentricus v. lateralis, rectus v. leviter incurvus, interdum flexuosus, cotyledonibus angustis.—Herbæ annuæ, erectæ, tenues, rigidulæ (v. basi frutescentes?). Folia alterna, lineari-subulata v. cuneata; ocreæ truncatæ v. obliquæ, nec scariosæ. Flores racemosi, parvi, colorati, secus rhachin intra bracteas parvas vaginantes sæpe imbricatas solitarii, pedicellati, racemis tenuibus paniculatis.

Species 5 v. 6, boreali-Americanæ. *Meissn. in DC. Prod.* xiv. 79 (*excl. P. articulata*).

15. **Polygonum,** *Linn. Gen. n.* 495.—Flores hermaphroditi v. rarius abortu polygami. Perianthium alte 5-lobum v. 5-partitum, sæpius coloratum, segmentis subæqualibus v. 3 exterioribus paullo majoribus, fructiferum nucem velans parum mutatum v. rarius succulentum v. 3-alatum. Stamina in flore 5-mero sæpius 8, in 4-mero 6, v. in utroque hinc inde pauciora, prope basin perianthii affixa; filamenta filiformia, ima basi sæpe dilatata v. circa discum annularem crenulatum basi perianthii adnatum crenis alterna; antheræ oblongæ ovatæ v. parvæ, loculis distinctis connectivo parvo junctis. Ovarium compressum v. 3-gonum; styli 2 v. 3, a basi distincti v. plus minus connati, stigmatibus terminalibus capitatis integris v. (in sect. *Pleuroptero*) latis subfimbriatis; ovulum sæpe stipitatum. Nux compressa v. 3-gona, angulis obtusis v. acutis, perianthio omnino obtecta v. apice brevissime exserta, pericarpio crustaceo nitido v. opaco v. rarius submembranaceo. Embryo excentricus v. lateralis, plus minus incumbenti- accumbenti- v. oblique curvulus, cotyledonibus angustis v. rarius oblongis radicula brevioribus v. longioribus.—Herbæ rarius basi frutescentes habitu vario, nunc humiles tenerrimæ v. prostratæ, nunc erectæ elatæ, interdum longe volubiles, rarissime fluitantes. Folia alterna, stipulis sæpissime membranaceo-scariosis, in ocream truncatam v. obliquam v. utrinque acuminatam integram laceram v. ciliatam connatis. Flores fasciculati v. rarius subsolitarii, fasciculis axillaribus v. intra bracteas laxas v. ocreas in spicas racemosve simplices v. paniculatos dispositis. Pedicelli infra v. supra medium articulati.

Species bene distinctæ vix 150, duplici fere numero a botanicis nonnullis recensitæ, per orbem fere totum terrarum late dispersæ, nec in frigidis alpinisve nec intra tropicos desunt, in hemisphærio boreali quam in australi numerosiores, nonnullæ tamen fere cosmopolitanæ. *Meissn. in DC. Prod.* xiv. 84, *et in Ann. Mus. Lugd. Bat.* ii. 56. *Hance in Ann. Sc. Nat. ser.* 5, v. 237. *Boiss. Fl. Or.* iv. 1025.

Genus polymorphum, species includit plures valde variabiles et extricatu difficiles, ab auctoribus interdum in genera plura, a Meissnero aliisque in sectiones divisum quarum sequentes nobis bene distinctæ videntur:—

1. *Tephis.* Fruticulus ramosissimus, dense foliatus, foliis parvis in petiolo brevi articulatis et inflorescentia *Avicularia.* Perianthium 4-fidum. Stamina vulgo 6, filamentis basi dilatatis. Nux compressa, stylis 2. Embryo incumbenti-incurvus. Species 1, Austro-Africana. Tephis, *Adans. Fam.* ii. 276.

2. *Avicularia.* Herbæ annuæ v. basi frutescentes, diffusæ prostratæ v. caulibus elongatis virgatis. Folia in petiolo brevi articulata, sæpius parvula; ocreæ scariosæ, sæpius utrinque in stipulas acuminatas v. laceras productæ. Florum fasciculi axillares v. superiores irregulariter et dissite spicati. Perianthium vulgo 5-partitum, staminibus 6 v. hinc inde paucioribus, filamentis 3 interioribus v. omnibus basi dilatatis. Nux 3-gona, stylis 3. Embryo lateralis, incumbenti-curvulus.—Species ad 50, per totam fere aream generis dispersæ, nonnullæ in cultis ruderatisve v. in arenosis maritimis cosmopolitanæ. *All. Fl. Pedem. t.* 90, *f.* 2. *Ten. Fl. Nap. t.* 35. *Waldst. et Kit. Pl. Hung. t.* 67. *Sibth. Fl. Græc. t.* 363, 364. *Ledeb. Ic. Fl. Ross. t.* 444. *Jaub. et Spach, Ill. Pl. Or. t.* 116 *ad* 126. *Wight, Ic. t.* 1808.

Duravia, a S. Wats. in Amer. Natural. vii. 665 pro sectione distincta proposita, est *P. californicum,*

Meissn., herba annua speciminibus nonnullis tenuibus *P. coarctati* v. *P. tenuis* similis, ab *Avicularia* separata ob folia basi non articulata et nucis pericarpium membranaceum, embryone accumbenti-incurvo. Specimina nostra nimis juvenilia sed folia inferiora articulata videntur et fructus (ex S. Wats. Bot. Calif. ii. 13 ined.) in speciminibus mancis tantum observatus.

3. *Pseudomollia*, Boiss. Fl. Or. iv. 1027 et 1043, species 1 v. 2 continet orientales, nanas, paronychioideas, tenues dichotomasque, v. ad glomerulum radicalem reductas, cæterum *Aviculariis* valde affines, sed styli 2 et nux compressa. Embryo elongatus fere periphericus. Specimina typica Kotschyana et Bungeana e Persia nobis desunt, sed specimen Griffithianum ex Affghanistan n. 1732, a Meissnero cum Kotschyano comparatum, characteri Boissieriano bene convenit, nisi caule paullo longius evoluto.

4. *Persicaria.* Herbæ interdum elatæ, erectæ v. ascendentes, rarius humiles v. suffrutices prostrati. Folia ovata lanceolata v. angusta, penninvenia, petiolo non articulato; ocreæ ore truncatæ nudæ v. ciliatæ. Spicæ aphyllæ, pedunculatæ, densæ v. interruptæ, terminales v. in axillis superioribus simplices v. plures subpaniculatæ. Flores in ocreis bracteantibus solitarii v. pauci, perianthio 5-mero sæpe colorato. Nuces compressæ v. 3-gonæ, stylis 2 v. 3. Embryo lateralis, incumbenti- accumbenti- v. oblique curvulus, cotyledonibus angustis. Species ad 50, per totam fere aream generis dispersæ, nonnullæ subcosmopolitanæ et una sæpe fluitans. Hic includimus sectiones tres Meissneri vix bene pro subsectionibus distinguendas: 1. *Persicariæ typicæ.* Herbæ sæpius nec semper annuæ, spicis sæpe laxis tenuibus v. brevibus. Flores sæpe pallidi, 2-gyni v. 3-gyni. Embryo sæpius, nec constanter in eadem specie, accumbenti-curvulus. *Reichb. Iconogr. Bot. t.* 491 *ad* 496. *All. Fl. Pedem. t.* 68, *f.* 2. *Wight, Ic. t.* 1798 *ad* 1801. *Meissn. in Mart. Fl. Bras.* v. i. *t.* 1, 3 *ad* 5. *Vell. Fl. Flum. Ic.* iv. *t.* 39, 42. 2. *Amblygonon.* Habitus specierum majorum *Persicariæ* v. caules elatiores et embryo incumbenti-curvulus. Species paucæ (*P. orientale*, Linn., et affines) Africæ, Asiæ et Americæ tropicæ incolæ. *Bot. Mag. t.* 213. *Meissn. in Mart. Fl. Bras.* v. i. *t.* 2. Lagunea, *Lour. Fl. Cochinch.* 220. 3. *Bistorta.* Herbæ rhizomate perenni, caule erecto subsimplici foliis plerisque subradicalibus. Spicæ terminales sæpius simplices densæque, floribus intense coloratis 3-gynis. Embryo accumbenti-incurvus. Species genuinæ 2 v. 3, boreales v. montanæ, gerontogeæ et Americanæ. *Wight, Ic. t.* 1797. *Klotzsch in Pr. Waldem. Reise, Bot. t.* 88, quibus addidit Meissner *P. amplexicaule*, Don, Lindl. Bot. Reg. 1839, *t.* 46, herbam Himalaicam caule elato subramoso et spicis sæpe 2–3, *P.* (*Amblygono*) *orientali* accedentem; et species 2 Himalaicas suffruticosas prostratas ramosissimas, spicis erectis longiusculis. *Wall. Pl. As. Rar. t.* 287. *Royle, Ill. Pl. Himal. t.* 80, *f.* 2, 3. *Bot. Mag. t.* 4622.

5. *Tovara.* Herbæ erectæ, foliis ovatis specierum nonnullarum *Persicariæ*, ocreis laxis. Spicæ aphyllæ, longissimæ, tenues, virgatæ, fasciculis dissitis paucifloris. Perianthium parvum, incurvum, 4-fidum. Stamina sæpius 5. Styli 2, longi, recti, fere ad apicem arcte contigui. Nux compressa, faciebus valde convexis. Embryo accumbenti-incurvus, cotyledonibus latiusculis. Species 2, inter se valde affines, altera boreali-Americana, altera Japonica, utraque in Prodromo xiv. 112 sub *Persicaria* inclusa. Tovara, *Adans. Fam.* ii. 276. Antenoron, *Raf. Fl. Ludov.* 28, charactere pessimo.

6. *Cephalophilon*, Meissn. Herbæ debiles, laxe ramosæ, nunc humiles tenerrimæ, nunc sæpius elongatæ flexuoso-scandentes, v. rarius validiores erectæ. Folia petiolata, ovata v. lanceolata, nunc deltoidea cordata v. hastata; ocreæ tubulosæ v. laxæ, non ciliatæ. Spicæ capituliformes globosæ v. rarius demum oblongæ, pedunculatæ, solitariæ v. paniculatæ, rarius subsessiles. Perianthium 5-fidum. Stamina 8 v. abortu pauciora. Styli 3 v. 2, sæpius basi v. interdum alte connati. Nux globosa v. compressa, perianthio succulento v. membranaceo arcte involuta. Embryo accumbenti-incurvus, cotyledonibus sæpius latiusculis. Species ad 24, pleræque Asiaticæ, una Australiana, paucæ Americanæ occidentales v. australes. *Wight, Ic. t.* 1804, 1805. *Klotzsch in Pr. Waldem. Reise, Bot. t.* 86.

In speciebus typicis rami læves sunt, et perianthium fructiferum sæpius membranaceum; inter illas *P. delicatulum* Meissn. insigne est caule tenerrimo nano, foliis parvis, et capitulis ad axillas subsessilibus. In eadem sectione sequentes includimus ab auctoribus nonnullis separatas:—

Ampelygonum, *Lindl. Bot. Reg.* 1838, *Misc.* 62 est *P. chinense*, Linn., Wight, Ic. t. 1806, species Asiatica late dispersa, caule validiore sæpe suberecto, capitulis sæpius corymboso-paniculatis, perianthio fructifero succulento baccato, quare interdum ad *Coccolobam* refertur.

Echinocaulos, *Hassk. in Flora* 1842, *Beibl.* ii. 20 (Chylocalyx, *Hassk. MS. olim, Meissn. in Ann. Mus. Lugd. Bat.* ii. 65) species 2 includit ex Asia orientali subscandentes, ramorum angulis retrorsum aculeatis v. setosis, perianthio fructifero ut in *P. chinensi* succulento, etsi membranaceum appareat in speciminibus siccis. Huc pertinent *P. perfoliatum*, Linn. et *P. Babingtonii*,

Hance (*Chylocalyx senticosus*, Meissn.). Petioli in priore ut in *P. chinensi* interdum basi auriculis foliaceis instructi.

Echinocaulon, Meissn., includit species plures Asiaticas v. Americanas ramis ut in *P. perfoliato* plus minus retrorsum aculeolatis setosisve, perianthio fructifero sæpius (an semper?) membranaceo. *Linn. Hort. Cliff. t.* 12. *Wight. Ic. t.* 1802, 1803. *Regel, Fl. Ussur. t.* 10.

7. *Aconogonum*, Meissn. Herbæ sæpe elatæ v. frutescentes. Spicæ v. racemi laxe cylindraceæ, sæpius paniculatæ. Flores 8-andri, 3-gyni. Perianthium fructiferum appressum, succulentum v. membranaceum. Nux insigniter 3-gona, perianthio inclusa v. breviter exserta. Embryo accumbenti-incurvus, cotyledonibus latiusculis planis. Species ad 8, Asiaticæ, quarum una etiam in montibus Europæis obvia. *All. Fl. Pedem. t.* 68, *f.* 1. *Ledeb. Ic. Fl. Ross. t.* 361, *Wight, Ic. t.* 1807. *Klotzsch in Pr. Waldem. Reise, Bot. t.* 87 (*Fagopyrum*).

De *P. molli*, Don, et *P. polystachyo*, Wall., dubium remanet an species revera distinctæ sint, an unius dioicæ sexus diversi, prior ♀ perianthio fructifero baccato, illa ♂ perianthiis majoribus immutatis, ovario in speciminibus nostris numerosis etsi parum aucto semper sterili, stirps utraque ad *Aconogonum* pertinet.

8. *Pseudopolygonella*, A. Gray. Herbæ annuæ, erectæ, graciles, habitu *Polygonellæ*, sed perianthii segmenta omnia circa fructum erecta, subæqualia v. 3 exteriora majora. Folia anguste linearia. Racemi spiciformes tenues, paniculati, bracteis parvis secus rhachin subimbricatis, floribus parvis, pedicellis filiformibus. Species 2, boreali-Americanæ, typica *P. articulatum* Linn., a Meissnero ad *Polygonellam* relata fuit, sed rite ad *Polygonum* revocatur. Perianthii segmenta omnia subæqualia, erecta, integerrima; ocreæ obtusæ, nec scariosæ nec ciliatæ. Huic adjungimus *P. fimbriatum*, Ell. (Thysanella, *A. Gray in Boston Journ. Nat. Hist.* v. 232), habitu simillimum, sed perianthii segmenta 3 exteriora circa fructum majora in alas dentatas v. laceras expansa, 2 interiora angustiora margine fimbriata; ocreæ scarioso-ciliatæ.

9. *Tiniaria*, Meissn. Herbæ volubiles, foliis cordatis hastatis v. sagittatis, ocreis breviter cylindraceis. Florum fasciculi in spicis simplicibus aphyllis axillaribus v. terminalibus secus rhachin dissiti. Perianthii fructiferi segmenta 3 exteriora majora, dorso carinata, carina obtusa v. in alam in pedicello plus minus decurrentem expansa. Stigmata 3, capitata, in stylo brevi sessilia v. subconnata. Nux perianthio accreto inclusa, 3-gona. Embryo accumbenti-incurvus. Huc pertinent *P. Convolvulus* L. et *P. dumetorum* L., utraque per regiones temperatas hemisphærii borealis late dispersa, cum speciebus v. forte varietatibus 3 v. 4 Americanis v. Asiaticis iis valde affinibus. Bilderdykia, *Dumort. Florul. Belg.* 18.

10. *Pleuropterus*. Herbæ longe volubiles v. elatæ, erectæ, flexuosæ. Racemuli floribundi, in paniculis axillaribus terminalibusque numerosi, floribus parvis 3-gynis. Perianthii fructiferi segmenta 3 exteriora ut in *P. dumetorum* aucta, carina dorsali in alam latam in pedicello plus minus decurrentem expansa. Styli breves, in stigmata peltata v. fimbriata expansi. Species 4, Japonicæ v. Asiæ temperatæ orientalis incolæ: *P. multiflorum*, Thunb., caule alto volubili et *P. cuspidatum* Sieb. et Zucc., Lindl. et Paxt. Fl. Gard. i. 137, *f.* 90, *P. Sachalinense* et *P. Weyrichii*, F. Schmidt, caule erecto elato. Pleuropterus, *Turcz. in Bull. Soc. Imp. Nat. Mosc.* 1848, i. 587.

16. **Fagopyrum,** *Gærtn. Fruct.* ii. 182, *t.* 119.—Flores hermaphroditi. Perianthium 5-partitum, segmentis subæqualibus v. exterioribus vix majoribus, fructiferum immutatum. Stamina 8, filamentis filiformibus, lobis glanduliformibus disci perianthio adnati alternis; antheræ ovatæ. Ovarium disco arcte cinctum, 3-gonum; styli 3, liberi v. basi breviter connati. Nux perianthio marcescenti multo longior, 3-gona, angulis nunc obtusis nunc valde prominentibus subalatis. Embryo albumine inclusus, cotyledonibus latissimis contortuplicatis circa radiculam ascendentem varie convolutis.—Herbæ erectæ, annuæ v. rhizomate perenni. Folia alterna, petiolata, cordata v. deltoidea, 3–5-nervia et pennivenia; ocreæ laxæ, integræ v. laceræ. Flores e bracteis vaginantibus secus ramulos cymæ subimbricatis breviter pedicellati; cymæ terminales v. axillares, longe pedunculatæ, nunc densæ capituliformes, nunc laxiores dichotomæ.

Species 2, originis adhuc incertæ, verisimiliter e montibus Asiæ mediæ v. orientalis oriundæ, a temporibus antiquioribus in Asia et jam diu etiam in Europa late cultæ, et facillime in locis cultis arenosisve inquilinæ.—*Meissn. in DC. Prod.* xiv. 143. *Nees, Gen. Fl. Germ. Monochl. n.* 53. *Reichb. Iconogr. Exot. t.* 176 (*Polygonum*). *Bot. Reg.* 1846, *t.* 26.

Tribus IV. Rumiceæ.

17. **Rheum**, *Linn. Gen. n.* 506, *Amœn. Acad.* iii. *t.* 4.—Flores hermaphroditi v. abortu masculi. Perianthium 6-partitum, patens, segmentis subæqualibus v. exterioribus paullo minoribus, post anthesin immutatum, marcescens. Stamina 9, rarius 6, filamentis basi v. altius incrassatis; antheræ ovatæ. Ovarium 3-gonum; styli 3, breves, recurvi, apice stigmatoso valde dilatato hippocrepico v. crenato-sublobato. Nux late v. anguste 3-alata. Embryo rectus, parum excentricus, cotyledonibus planis cordatis ovatis v. late oblongis, radicula brevi supera.—Herbæ robustæ, rhizomate crasso sublignoso. Folia ampla nunc maxima, sinuato-dentata v. palmatim lobata, basi 3–∞-nervia; ocreæ membranaceo-scariosæ, laxæ, marcescentes. Flores pedicellati, fasciculati, ebracteolati, fasciculis racemosis, racemis anguste paniculatis, foliis floralibus seu bracteis sub racemis paniculisve nunc amplis coloratis deciduis nunc parvis.

Species descriptæ 20, plures tamen reducendæ, Asiæ Sibiricæ Himalaicæ et orientalis incolæ. *Meissn. in DC. Prod.* xiv. 32. *Hayne, Arzneig.* xii. *t.* 6 *ad* 10. *Reichb. Iconogr. Exot. t.* 117. *Jaub. et Spach, Ill. Pl. Or. t.* 470. *Ledeb. Ic. Fl. Ross. t.* 491. *Royle, Ill. Himal. Bot. t.* 78, 78*a*. *Hook. f. Illustr. Himal. Pl. t.* 19. *Bot. Mag. t.* 3508, 4877, 6135. *Sweet, Brit. Fl. Gard. t.* 269.

Flores in *R. acuminato*, Bot. Mag. t. 4877, staminibus 6 delineati sunt, in illis tamen a nobis examinatis semper more generis 9 invenimus. In *R. nobili* tamen, Hook. f. Ill. Pl. Himal. t. 19, flores revera constanter 6-andros vidimus. Hæc species habitu insignis est; planta ineunte anthesi columnam elatam conicam refert, foliis floralibus amplis membranaceis coloratis venosis deorsum subimbricatis caulem inflorescentiamque velantibus. Paniculæ fructiferæ foliis floralibus emarcidis deciduisve denudantur.

18. **Oxyria**, *Hill, Veg. Syst.* x. 24, *t.* 24.—Flores hermaphroditi. Perianthii segmenta 4, 2 exteriora demum reflexa, 2 interiora majora erecta appressa. Stamina 6, filamentis brevibus; antheræ oblongæ. Ovarium compressum; styli 2, breves, patentes v. recurvi, in stigmata fimbriato-penicillata dilatati. Nux compressa, 2-alata. Embryo lateralis, rectus v. leviter incumbenti-incurvus, cotyledonibus lineari-oblongis radicula longioribus.—Herba perennis, humilis v. parum ramosa. Folia radicalia v. rarius unum etiam sub ramo infimo inflorescentiæ longe petiolata, orbiculato-cordata v. reniformia, integerrima; ocreæ membranaceo-scariosæ, latæ laxæque. Florum fasciculi ocrea parva stipati, secus ramos racemiformes paniculæ angustæ dissiti.

Species 1, in terris arcticis subarcticisque hemisphærii borealis utriusque orbis et in montibus elatioribus Europæ et Asiæ frequens. *Meissn. in DC. Prod.* xiv. 37. *Campd. Monogr. Rum. t.* 3. *Nees, Gen. Fl. Germ. Monochl. n.* 55. *Hook. Ic. Pl. t.* 483.

19. **Rumex**, *Linn. Gen. n.* 451.—Flores hermaphroditi v. abortu unisexuales. Perianthii segmenta 6, rarius 4, per anthesin interdum æqualia, exteriora post anthesin immutata, interiora circa fructum accreta, herbacea v. scariosa rarius rigida, integra v. margine fimbriato-dentata, costa interdum extus basi in tuberculum granuliformem incrassata. Stamina 6, filamentis brevissimis; antheræ oblongæ. Ovarium 3-gonum; styli 3, basi brevissime filiformes patentes v. recurvi, in stigmata varie fimbriata v. penicillato-multifida expansi. Nux perianthii segmentis interioribus arcte inclusa, 3-gona, angulis sæpius acutis interdum valde prominentibus. Embryo lateralis, incumbenti-incurvus v. rarius fere rectus, cotyledonibus linearibus v. oblongis.—Herbæ perennes v. rarius annuæ v. interdum suffrutices, rarius frutices elatiores. Folia nunc pleraque radicalia, nunc etiam in caule ramisque alterna, basi sæpe cordata v. hastata, integra dentata v. rarius subpinnatifida; ocreæ membranaceo-scariosæ sæpe hyalinæ, primum vaginantes, mox laceræ v. evanidæ. Flores ad nodos fasciculati, fasciculis bractea ocreiformi stipatis, pedicellis articulatis ebracteolatis; fasciculi nunc axillares, nunc in racemos paniculasve terminales dispositi.

Species enumeratæ ad 130, ab aliis auctoribus infra 100 æstimatæ, per regiones temperatas hemisphærii borealis latissime dispersæ, inter tropicos et in hemisphærio australi pauciores et sæpe

inquilinæ, nonnullæ in cultis ruderatisque nunc fere cosmopolitanæ. *Meissn. in DC. Prod.* xiv. 42, *et in Ann. Mus. Lugd. Bat.* ii. 55. *Nees, Gen. Fl. Germ. Monochl. n.* 54. *Boiss. Fl. Or.* iv. 1006. *Aresch. in Ofvers. K. Vet. Akad. Förh. Stockholm,* 1862, 57, *t.* 3.

Species pleræque facile distribuuntur in sectiones 2 naturales ab auctoribus consensu receptas: 1. *Lapathum.* Herbæ sæpius robustiores rarius humiles, foliis basi acutis obtusis v. auriculis obtusis cordatis. Perianthii segmenta interiora integerrima v. dentata, 2 v. omnia 3 basi extus sæpe granulifera.—*Hayne, Arzneigew.* xiii. *t.* 1 *ad* 5, 7. *Reichb. Iconogr. Eur. t.* 345, 366 *ad* 370, 486, 487, 516, 576. *Trim. Journ. Bot. t.* 131, 140, 146, 173. *Moris, Fl. Sard. t.* 108. *Guss. Pl. Rar. t.* 28, 29. *Ledeb. Ic. Fl. Ross. t.* 399. *Wight, Ic. t.* 1810. *Hook. Fl. Bor. Amer. t.* 174; *Ic. Pl. t.* 1245. 2. *Acetosa.* Herbæ suffrutices fruticesve, foliis sæpius plus minus hastatis sagittatisve, auriculis baseos acutis. Flores sæpe polygami. Perianthii fructiferi segmenta interiora sæpe valde aucta venoso-scariosa, semper integerrima et nunquam granulifera. *Hayne, Arzneig.* xiii. *t.* 6. *Jacq. Ic. Rar. t.* 67; *Hort. Vind.* iii. *t.* 93. *Lamb. in Trans. Linn. Soc.* x. *t.* 10. *Cav. Ic. t.* 22. *Sibth. Fl. Græc. t.* 346, 348. *Jaub. et Spach, Ill. Pl. Or. t.* 106. *Grant in Trans. Linn. Soc.* xxix. *t.* 90. ACETOSA, *Neck. Elem.* ii. 214. Characteres tamen supra dati interdum incerti. In *R. Lunaria, R. vesicaria, R. cordata,* etc. ad *Acetosam* relatis, folia basi sæpissime obtusissima v. obtuse-cordata, et fructus *R. venosæ* aliarumque nonnullarum sectionis *Lapathi Acetosam* referunt.

R. acetosella, Linn., Sibth. Fl. Græc. t. 349, species fere cosmopolitana, sæpe *Acetosæ* relata, in Prodromo pro sectione distincta recepta est, floribus sæpius dioicis paniculatis, perianthio fructifero parum aucto, segmentis interioribus nuci subglobosæ arcte appressis eamque non superantibus.

R. bucephalophorus, Linn., Cav. Ic. t. 41; Sibth. Fl. Græc. t. 345, herba annua humilis, in regione Mediterranea frequens, insignis est pedicello fructifero rigido superne dilatato recurvo, perianthio circa fructum rigido, segmentis nunc uno solo nunc 2 v. 3 valde auctis aculeato-dentatis non granuliferis.

20. **Emex,** *Neck. Elem.* ii. 214. (Vibo, *Mœnch, Meth.* 318. Centopodium, *Burch. Trav.* i. 340.)—Flores monoici. ♂: Perianthium 5–6-partitum, segmentis æqualibus patentibus. Stamina 4–6, filamentis filiformibus; antheræ ovatæ. Fl. ♀: Perianthium urceolatum, tubo ovoideo, limbi lobis 6 2-seriatis. Ovarium tubo inclusum, 3-gonum; styli 3, breves, patentes, in stigmata fimbriato-lacera dilatati. Perianthium fructiferum auctum durissimum, tubo 3- v. 6-angulato inter angulos transverse lacunoso; lobi exteriores patentes spinescentes, interiores erecti, latissimi v. angustiores, obtusi mutici v. aristati. Nux tubo arcte inclusa at libera, acute 3-gona, pericarpio membranaceo v. vix crustaceo. Semen subteres; embryo valde incumbenti-arcuatus, lateralis v. fere periphericus, cotyledonibus angustis radicula longioribus.—Herbæ (annuæ?) rigidulæ. Folia alterna, longiuscule petiolata, ovata, integerrima v. sinuato-subdentata; ocreæ membranaceo-scariosæ, mox laceræ v. evanidæ. Florum fasciculi axillares v. superiores folio florali abortiente racemosi. Flores ♂ in fasciculis superioribus in pedicellis filiformibus articulati, ♀ in fasciculis inferioribus arcte sessiles.

Species v. forte varietates 2, altera regionis Mediterraneæ incola, altera Austro-Africana etiam in Australia inquilina. *Meissn. in DC. Prod.* xiv. 40. *Sibth. Fl. Græc. t.* 347 (*Rumex*).

TRIBUS V. COCCOLOBEÆ.

21. **Muehlenbeckia,** *Meissn. Gen. Pl.* 316, *Comm.* 227. (Sarcogonum, *Don in Sweet. Hort. Brit. ed.* 3, *ex Endl.*)—Flores polygamo-subdioici. Perianthium alte 5-fidum, lobis segmentisve subæqualibus v. 3 exterioribus paullo majoribus, fructiferum sæpius basi v. undique carnoso-incrassatum v. succulentum. Stamina 8, basi perianthii affixa, filamentis filiformibus, antheris ovatis, v. in fl. ♀ ad staminodia brevia reducta v. 0. Ovarium 3-gonum, in fl. ♂ parvum sterile v. 0; styli 3, breves, nunc brevissimi, apice in stigmata late capitata sublobata v. fimbriata dilatati. Nux obtuse v. acute 3-gona, perianthio plus minus carnoso v. succulento velata v. sæpe apice exserta, pericarpio crustaceo v. coriaceo. Semen sæpe 3-sulcum v. sub-3-lobum; embryo excentricus v. lateralis, incumbenti- v. accumbenti-incurvus, cotyledonibus angustis oblongisve.—Frutices v.

suffrutices sæpius volubiles. Folia alterna, petiolata, nunc parva suborbiculata, nunc majora cordata deltoidea v. sagittata, interdum linearia paucaque v. omnino nulla; ocreæ breves, laxæ v. interdum vix ullæ. Flores parvi, intra bracteas vaginantes fasciculati, fasciculis nunc ad axillas solitariis, nunc sæpius in spicas racemulosve breves axillares terminalesque simplices v. subpaniculatas dispositis. Embryonem invenimus accumbenti- et incumbenti-incurvum in diversis seminibus ejusdem speciminis.

Species ad 15, Australiæ, Novæ Zelandiæ, ins. maris Pacifici et Americæ australis extratropicæ v. Andinæ incolæ. *Meissn. in DC. Prod.* xiv. 145, *et in Mart. Fl. Bras.* v. i. *t.* 22. *Hook. f. Handb. N. Zel. Fl.* 236. *Benth. Fl. Austral.* v. 273. *Labill. Pl. Nov. Holl. t.* 127. *Vent. Jard. Cels. t.* 88. *Endl. Iconogr. t.* 87. *Bot. Mag. t.* 3145. *Bot. Reg. t.* 1250 (*ic. omn. sub Polygono*).

M. platyclada, Meissn. (*Coccoloba platyclada,* Bot. Mag. t. 5382), ex ins. Solomon, insignis est ramis omnino aphyllis late complanatis phyllodineis tenuiter multiseriatis. Ocreæ ad lineas transversas reductæ. Flores singuli v. florum fasciculi ad nodos uno latere sessiles. Species nonnullæ perianthio fructifero vix carnoso et stigmatibus subcapitatis *Polygono* accedunt, habitu tamen et floribus dioicis *Muehlenbeckiæ* affiniores.

22. **Coccoloba,** *Linn. Gen. n.* 496.—Flores hermaphroditi v. hinc inde abortu unisexuales. Perianthii tubus per anthesin brevis subapertus, demum incrassatus carnosus v. succulentus nucem includens eique sæpius adnatus, limbus 5-partitus, segmentis subæqualibus, post anthesin immutatus connivens v. marcescens. Stamina 8, filamentis filiformibus, basi in annulum v. cupulam brevem connatis; antheræ ovatæ. Ovarium liberum, ovoideum v. oblongum, apice contractum in stylos 3 breves, stigmatibus parum v. conspicue dilatatis integris v. sublobatis. Nux tubo perianthii aucto globoso v. ovoideo arcte inclusa, sæpeque ei adnata, limbo marcescente sæpius coronata, pericarpio crustaceo v. duro, intus haud raro laminis plus minus intrusis prope basin divisa. Semen globosum v. ovoideum, varie 3–6-sulcatum, albumine plus minus ruminato; embryo excentricus v. lateralis, cotyledonibus orbiculato-cordatis planis v. latissimis subconvolutis, radicula brevi recta v. incumbenti ascendente.—Arbores fruticesve interdum alte scandentes. Folia alterna, sæpe coriacea, integerrima, nunc maxima orbiculata, nunc minima; ocreæ variæ, cylindraceæ v. laxæ, membranaceæ v. tenues parvæ et mox evanidæ. Flores intra bracteas parvas ocreiformes fasciculati, breviter pedicellati, fasciculis spicato-racemosis, racemis longis brevibusve simplicibus v. paniculatis terminalibus axillaribusque.

Species fere 80, omnes Americanæ imprimis tropicæ, perpaucæ extra tropicos in Mexico v. Florida obviæ. *Meissn. in DC. Prod.* xiv. 151, *et in Mart. Fl. Bras.* v. i. *t.* 7 *ad* 21. *Gærtn. Fruct. t.* 45. *Jacq. Obs. t.* 8, 9; *Stirp. Amer. t.* 73 *ad* 78; *Hort. Schœnbr. t.* 267, 352. *Hayne, Arzneig.* x. *t.* 4. *Nutt. Sylv. Amer.* ii. *t.* 88, 89. *Vell. Fl. Flum. t.* 40, 41, 43, 44 (*Polygonum*). *Hook. Exot. Fl. t.* 102. *Bot. Mag. t.* 3130, 3166, 4536. *Bot. Reg. t.* 1816.

23. **Campderia,** *Benth. Bot. Voy. Sulph.* 159, *t.* 52.—Flores hermaphroditi v. hinc inde abortu unisexuales. Perianthii tubus brevissimus, demum sub fructu vix auctus, carnosus; segmenta 5, per anthesin subæqualia, post anthesin aucta, coriaceo-carnosa, 3 exteriora majora carinata, 2 interiora plana, omnia erecta fructum velantia. Stamina 8, æqualia v. 3–4 cæteris majora, filamentis brevibus basi dilatatis et in annulum connatis; antherarum connectivum latiusculum. Ovarium 3-gonum; styli 3, breves, stigmatibus late capitatis; ovulum subsessile. Nux 3-gona, angulis valde prominentibus subacutis, basi carpophoro carnoso (perianthii tubo solido) insidens, cæterum libera, perianthii segmentis auctis arcte inclusa. Semen sulcis profundis 3–6-lobum, albumine ruminato; embryo excentricus, parum incurvus, cotyledonibus latiusculis.—Frutices v. arbusculæ laxe ramosæ. Folia alterna, pennivenia, tenuiter crebreque reticulato-venulosa; ocreæ laxiusculæ. Flores intra bracteas parvas ocreiformes sæpius gemini, fasciculis longe spicatis, spica terminali simplici. Perianthium fructiferum perfectum in *C. gracili,* Meissn. sola notum, ubi fere semipollicare est in vivo pulchre coccineum.

Species 2 v. 3, Mexici, Americæ centralis et Brasiliæ borealis incolæ. *Meissn. in DC. Prod.* xiv. 170, *et in Mart. Fl. Bras.* v. i. *t.* 6.

C. mexicana, Meissn., a *C. floribunda*, Benth., ex speciminibus nostris nequaquam differt. Species tamen tertia videtur *C. Lindeniana*, Benth., e Teapa (Tabasco), *Linden, n.* 1602, cujus ramuli et inflorescentia tenuiter ferrugineo-tomentelli, folia longe oblonga basi cordata. Fructus ignotus, sed ovarium sub anthesi more *Campderiæ* acute trigona, perianthii lobis nec tubo inclusa. Genus cæterum *Coccolobo* valde affine, nec nisi perianthio fructifero nuceque rite distinguendum.

24. **Antigonon,** *Endl. Gen.* 310.—Flores hermaphroditi. Perianthium 5-partitum, segmentis omnibus erectis, fructiferum auctum, membranaceo-scariosum, coloratum, segmentis 3 exterioribus majoribus late cordatis interioribus 2 oblongis. Stamina 7–8 (rarius 9?), filamentis filiformibus basi in annulum inter illa dentiferum connatis; antheræ ovatæ. Ovarium 3-gonum, in stylos 3 breves contractum, stigmatibus capitatis v. peltatis; ovulum sub anthesi ad apicem funiculi longi pendulum, demum erectum. Nux prominente 3-gona, perianthio accreto velata, pericarpio intus lævi. Semen subglobosum, sulcis profundis 3–6-lobum, albumine valde ruminato; embryo parum excentricus, incumbenti-curvulus, cotyledonibus anguste oblongis.—Caules a basi frutescente alte scandentes. Folia alterna, cordata v. deltoidea, petiolis amplexicaulibus; ocreæ parvæ v. ad lineam transversam reductæ. Flores intra bracteam parvam pauci, fasciculati, fasciculis racemosis, racemis terminalibus v. in axillis superioribus, rhachi sæpe in cirrhum ramosum desinente. Pedicelli breves, fructiferi tenues exalati. Flores primum parvuli, mox perianthiis accretis pulchre coloratis speciosi.

Species 3 v. 4, inter se difficillime distinguendæ, Mexici v. Americæ centralis incolæ, in variis regionibus Americæ calidioris ornamenti gratia cultæ.—*Meissn. in DC. Prod.* xiv. 184. *Hook. et Arn. Bot. Beech. Voy. t.* 69. *Bot. Mag. t.* 5816. *Fl. des Serres t.* 1886 (*quoad fructus male*). *Mast. in Gard. Chron.* 1877, i. 789.

25. **Brunnichia,** *Banks in Gærtn. Fruct.* i. 213, *t.* 45. (Rajania, *Walt. Fl. Carol.* 247.)—Flores hermaphroditi (v. abortu unisexuales?). Perianthium 5-fidum, lobis subæqualibus, fructiferum auctum, coriaceum, oblongo-conicum, exalatum, tubo fere suberoso, lobis conniventibus. Stamina 7–9, sæpius 8, e perianthii lobis per anthesin patentibus exserta, filamentis filiformibus, disco parum prominenti affixa; antheræ ovatæ. Ovarium 3-gonum; styli 3, elongati, apice capitato-stigmatosi; ovulum sub anthesi ad apicem funiculi longi pendulum, demum erectum. Pedicelli fructiferi uno latere ala coriacea cum perianthio continua instructi. Nux perianthio inclusa, 3-gona, pericarpio coriaceo intus rugoso intra sulcos seminis intruso. Semen sulcis profundis fere ad centrum in lobos 6 irregulariter divisum, albumine præter lobos subruminato; embryo in uno lobo leviter incumbenti-incurvus, cotyledonibus oblongis radicula sublongioribus.—Frutex scandens. Folia alterna, ovata, subcordata, petiolo basi amplexicauli, ocrea brevi v. obsoleta. Flores intra bracteam parvam fasciculati, fasciculis racemosis, racemis terminalibus axillaribusve ad apices ramorum paniculatis; rhaches racemorum v. interdum ramuli summi in cirrhum ramosum desinentes. Pedicelli per anthesin filiformes, prope basin articulati, fructiferi fere ad basin hinc alati.

Species 1, Americæ borealis civitatum australiorum incola. *Meissn. in DC. Prod.* xiv. 185.

Fallopia, *Adans. Fam.* ii. 274, 277, ab auctoribus dubie ad *Brunnichiam* relata, videtur ex auctoris notis et citatis genus omnino fictum ex *Anredera* et *Polygoni* sect. *Tiniaria*, cum cirrhis *Brunnichiæ*.

Tribus VI. Triplarideæ.

26. **Leptogonum,** *Benth. gen. nov.*—Flores hermaphroditi. Perianthium angustum, tubo brevi turbinato, alte 6-fidum, lobis linearibus erectis 3 interioribus minoribus. Stamina 3, ad apicem tubi lobis interioribus opposita, filamentis brevibus; antheræ ovato-globosæ, didymæ. Ovarium globoso-3-gonum, 3-sulcum, angulis prominentibus obtusis, loculo centrali parvo; stigmata 3, parva, sessilia, erecta; ovulum ab apice funiculi erecti pendulum (mox erectum?). Fructus . . .—Arbor v. frutex elatus. Folia alterna, ad apices ramulorum defoliatorum conferta, rigidula, pennivenia, venis primariis parallelis

subtus valde prominentibus, facie inferiore rufescente; ocreæ brevissimæ v. ad lineam transversam reductæ. Flores parvuli, sericeo-villosi, intra bracteam brevem oblique cupulatam solitarii v. gemini, secus rhachin spicæ tenuis subsessiles erecti approximati. Spicæ tenues, in innovationibus brevibus ad apices ramulorum inter folia plures, simplices v. ima basi in ramos 2–3 divisæ.

Species 1, *L. domingensis*, in arenosis San Domingo legit Schomburgk, n. 34. Genus pluribus notis *Ruprechtiæ* accedit, insigniter tamen differt floribus hermaphroditis, staminum numero et situ ovulo ut in *Brunnichia* pendulo, aliisque characteribus.

27. **Podopterus,** *Humb. et Bonpl. Pl. Æquin.* ii. 89, *t.* 107.—Flores hermaphroditi. Perianthii segmenta 6, 3 exteriora majora carina in alam membranaceo-scariosam in pedicello decurrentem expansa, minora plana erecta, fructiferum auctum, cæterum conforme. Stamina 6, filamentis filiformibus; antheræ ovatæ. Ovarium 3-gonum; styli breves, apice capitato-stigmatosi; ovulum subsessile. Nux perianthio clauso late 3-alato inclusa. Semen . . .—Frutex ramis rigide flexuosis, ramulis sæpe apice spinescentibus. Folia ad nodos fasciculata (a speciminibus nostris jam delapsa), obovato-oblonga, membranacea; ocreæ breves. Flores ad axillam bracteæ parvæ geminæ v. paucæ, fasciculis racemosis, racemis ad apices ramorum pluribus laxe subpaniculatis.

Species 1, Mexicana. *Meissn. in DC. Prod.* xiv. 171. Specimina nostra manca, et characteres plures ex Humb. et Bonpl. l. c. sumpti.

28. **Triplaris,** *Linn. Gen. n.* 103. (Velasquezia, *Bertol. Fl. Guatem.* 39, *t.* 11.)—Flores dioici. ♂: Perianthium infundibulare, limbo 6-fido, lobis æqualibus v. 3 interioribus paullo minoribus. Stamina 9, sæpe exserta, ad apicem tubi affixa, 3 lobis interioribus opposita, 6 lobis alterna, filamentis filiformibus. Ovarii rudimentum 0. Fl. ♀: Perianthium angustum, alte 6-fidum, lobis 3 exterioribus oblongis lanceolatisve erectis post anthesin auctis membranaceo-scariosis venosis aliformibus, 3 interioribus minoribus lineari-subulatis v. circa ovarium petaloideo-dilatatis. Ovarium acute 3-gonum, suberoso-carnosum, loculo centrali parvo; styli 3, breviter lineari-subulati, introrsum stigmatosi; ovulum sessile. Nux prominenter subacute 3-gona, perianthii basi ovoidea inclusa, apice lobis exterioribus quasi alis 3 coronata. Semen ovoideo-3-gonum; albumen sulcis plus minus profundis 3–6-lobum et ruminatum; embryo subcentralis, cotyledonibus latis planis v. leviter convolutis, radicula brevi supera.—Arbores ramis sæpius fistulosis. Folia alterna, breviter petiolata, sæpe ampla, ex ovato oblonga v. lanceolata, pennivenia et transversim venulosa, sæpeque impressionibus pluribus longitudinalibus e vernatione oriundis notata; ocreæ deciduæ. Flores intra bracteas sessiles v. subsessiles, in spicas longas molliter v. sericeo-pilosas simplices v. sæpius ramosas dispositi. Bracteæ ♂ sæpius latæ laxe 2–3-floræ, ♀ 1-floræ, ante anthesin anguste conicæ clausæ alabastrum includentes, per anthesin uno latere fissæ spathiformes.

Species enumeratæ 25, sed plures evidenter reducendæ et vix ultra 10 bene distinctas agnoscimus, per Americam australem tropicam late dispersæ. *Meissn. in DC. Prod.* xiv. 172, *et in Mart. Fl. Bras.* v. i. *t.* 24, 25. *Aubl. Pl. Gui. t.* 347. *Schomb. in Proc. Bot. Soc. Lond. t.* 2.

T. surinamensis, Cham., cum speciebus 4 v. 5 post eam in Prodromo enumeratis, verisimiliter unius varietates sunt et in *T. americana*, Linn., includendæ. Character Lœflingii, a Linnæo repetitus, videtur e flore fœmineo sumptus, perianthii lobis interioribus pro staminibus descriptis. Blochmannia, *Reichb. in Weig. Pl. Surin. exs. et Consp.* 163, est fide Meissnerii eadem species.

29. **Ruprechtia,** *C. A. Mey. in Mem. Acad. Petersb. ser.* 6, vi. 148, *t.* 4.—Flores dioici, ♂: Perianthium 6-partitum, patens, segmentis subæqualibus v. 3 interioribus paullo minoribus. Stamina 9, disco centrali lato sæpius pilosulo v. lobulato affixa, sæpius exserta, filamentis filiformibus; antheræ ovatæ v. oblongæ. Ovarii rudimentum 0 v. parvum pilosum. Fl. ♀: Perianthium alte 6-partitum, segmentis 3 exterioribus oblongis lanceolatisve erectis, post anthesin varie auctis, 3 interioribus multo minoribus linearibus nunc minutis v. vix conspicuis. Ovarium 3-gonum angulis obtusis et basi sæpe incrassatis, intus carnosum, loculo centrali parvo; stigmata erecta, oblonga v. lanceolata, ad

apicem ovarii sessilia v. stylis brevibus fulta; ovulum sessile. Nux obtuse 3-gona, pyramidata, basi incrassata 3–6-sulcata, perianthio toto v. ejus basi velata. Semen profunde 3–6-sulcatum, albumine lobato et ruminato; embryo subcentralis, cotyledonibus latis planis v. leviter convolutis.—Arbores v. frutices elatiores. Folia alterna, ovata v. lanceolata, quam in *Triplare* minora, pennivenia, impressionibus nullis vernationis. Ocreæ deciduæ. Flores intra bracteas parvas fasciculati, pedicellati, in racemos tenues multifloros sæpius breves simplices v. paniculatos dispositi.

Species fere 20, Americæ australis tropicæ v. subtropicæ incolæ. *Meissn. in DC. Prod.* xiv. 179. *Griseb. Pl. Lorentz.* 65.

Genus foliis inflorescentia floribus masculis et nucibus a *Triplari* bene distinctum, etsi perianthium fructiferum interdum subsimile. In sectiones 2 sequentes facile dividitur:—

1. *Pseudotriplaris.* Perianthium fructiferum (ei *Triplaris* subsimile) basi sericeo-villosum, ovoideum, lobis exterioribus accretis membranaceo-scariosis venosis alæformibus. Huc pertinent species 6 priores Prodromi, *Meissn. in Mart. Fl. Bras.* v. i. *t.* 26, cum *R. costata* et *R. Cruegeri*, Griseb., et *Triplari coriacea*, Karst. Fl. Columb. t. 169.

2. *Euruprechtia.* Perianthium fructiferum glabrum, segmentis exterioribus a basi erectis appressis oblongis subcoriaceis non venosis. Includit *R. salicifoliam*, C. A. Mey., Meissn. in Mart. Fl. Bras. v. i. t. 27, cum speciebus post illam in Prodromo enumeratis et *R. Virara*, Griseb.

30. **Symmeria**, *Benth. in Hook. Lond. Journ.* iv. 630.—Flores dioici (v. rarius in ramis diversis monoici?). ♂: Perianthium 6-partitum, segmentis omnibus suborbiculatis, exterioribus 2 v. 3 paullo minoribus. Stamina numerosa (20–50) in disco centrali dense conferta, filamentis breviter filiformibus. Ovarii rudimentum 0. Fl. ♀: Perianthium per anthesin masculo vix majus, segmentis 3 exterioribus liberis ovatis patentibus caducissimis, 3 interioribus majoribus, in massam carnosam obtuse 3-gonam apice 3-dentatam concretis, post anthesin valde auctum, pyramidato 3-gonum. Ovarium in cavo centrali inclusum at a pariete liberum, acute 3-gonum; stylus cum perianthio connatus, summo vertice intra dentes perianthii breviter liber, 3-alatus, stigmatibus 3 patentibus fimbriato-laceris mox deciduis. Perianthium fructiferum valde auctum, pyramidato-3-gonum, angulis acutis fere in alas coriaceas productis, suberoso-carnosum, apice breviter 3-lobum. Nux infra medium perianthii arcte inclusa, non tamen adnata, acutissime 3-gona, faciebus planis v. concavis nitidis. Semen conforme (in fructibus vix perfecte maturis observatum), albumine ruminato; embryo rectiusculus, cotyledonibus latis.—Arbores fruticesve. Folia alterna, ample oblonga, pennivenia; petioli breves, basi amplexicaules et membranaceo-dilatati, vix tamen distincte ocreati. Flores parvi, intra bracteas cupulares plures, brevissime pedicellati, fasciculis tenuiter spicatis, spicis ad apices ramorum paniculatis. Perianthium fructiferum sæpe 6–10 lin. longum.

Species 2, altera in Guiana et Brasilia boreali sat frequens, *Meissn. in DC. Prod.* xiv. 186, *et in Mart. Fl. Bras.* v. i. *t.* 23, alterius specimen masculum tantum vidimus in Herb. Hook. in Senegambia a Heudelot lectum sub n. 334; *S. paniculatæ* valde affinis videtur, notis pauci momenti diversa, sed stirpe fœminea adhuc ignota haud tute dignoscenda.

Ordo CXXXV. **PODOSTEMACEÆ.**

Endl. Gen. 268. Lindl. Veg. Kingd. 482. Tul. Podost. Monogr. in Archiv. Mus. Par. vi. 41.

Flores hermaphroditi v. in *Hydrostachi* dioici. *Perianthium* membranaceum, 3-fidum v. 5-partitum, v. 0, nisi pro perianthii segmentis haberes squamellas minimas v. lineares in pluribus generibus staminibus exterioribus alternis, a nonnullis staminodia dictis. *Stamina* hypogyna nunc ∞, numerosa v. pauca, filamentis liberis, in verticillum perfectum v. imperfectum circa ovarium disposita, nunc 2 v. rarius 3 filamentis plus

minus connatis v. stamen revera unicum ad unum latus ovarii, v. in flore ♂ stamen unicum subsessile. *Antheræ* ovatæ oblongæ v. breviter lineares, loculis 2 parallelis contiguis longitudinaliter dehiscentibus, ad basin connectivi angustissimi loculis brevioris v. subæquilongi affixæ. *Ovarium* sessile v. breviter stipitatum, liberum, 2-3-loculare, septis tenuissimis divisum v. septis jam ante anthesin evanidis v. abortivis 1-loculare v. in flore ♀ ab initio 1-loculare. *Styli* 2 v. 3, breves v. brevissimi, distincti v. basi brevissime connati, lineari-teretes, summo vertice v. superne v. fere a basi introrsum stigmatosi, v. ad stigmata lanceolata ovata varie dilatata v. brevissime pulviniformia reducti. *Ovula* ∞ sæpius numerossima, in placenta centrali crassiuscula septo utrinque adnata v. in flore ♀ in placentis 2 parietalibus sessilia, irregulariter ∞-seriata, anatropa. *Capsula* subglobosa ovoidea ellipsoidea v. oblonga, in generibus hermaphroditis 2-3-locularis v. septo abortivo 1-locularis, costis ∞ longitudinalibus sæpius prominulis rarius obscuris instructa, valvis 2 æqualibus v. inæqualibus v. 3 æqualibus septicide dehiscens, placenta centrali seminifera et in capsulis inæqualibus cum valva minore per dehiscentiam deciduis, valvis æqualibus v. in capsula inæquali valva majore diu in pedicellum persistentibus ; in genere dioico capsula 1-locularis, introrsum rima longitudinali folliculatim dehiscens. *Semina* numerosa, minima, sessilia, vulgo ellipsoideo-compressa, sub lente rugulosa, testæ cellulis crassis aquæ ope mire tumefactis hyalinisque. *Albumen* 0. *Embryo* semini conformis, rectus, sæpius ad medium in cotyledones 2 divisus, radicula hilum versus obtusissima.

Herbæ aquaticæ immersæ, frequentissime annuæ, sed haud raro perennantes interdumque plane perennes, sæpe pusillissimæ, humiliores e parenchymate quasi omnino confectæ, nobiliores fibris ligneis vasisque annularibus et propriis etiam donatæ. Caulis basi v. interdum ex toto (rhizoma a nonnullis dictus) explanatus v. crassus, super saxa repens et tenacissime adhærens v. adnatus, margine varie lobatus v. in ramos liberos dichotomos v. varie divisos desinens. Folia heteromorpha, modo parva squamiformia v. folia muscorum frondosorum simulantia secus caules elongatos v. ad basin pedunculorum disticha v. tristicha, modo majora (in una specie 2-3-pedalia) varie expansa lobata v. lacera v. angustissima et repetiter divisa frondes algarum v. interdum *Trichomanis* species 3-pinnatas simulantia, in caulis basin v. secus ramos varie disposita, interdum cum lobis v. ramis caulis continua ; hæc folia frondiformia in aqua fluitantia sæpe tenerrima facile deliquescentia et jam sub anthesi v. ante maturitatem fructus evanida, ita ut specimina sicca specierum revera foliatarum haud raro omnino aphylla videantur. Flores nunc in superficie caulis adnati v. explanati sigillatim sparsi v. fasciculati, nunc ad margines v. secus ramos caulis varie sparsi v. in spicam v. racemum simplicem v. ramosum dispositi, in axilla bracteæ concavæ sessiles v. breviter pedunculati, alabastro intra bracteam utriculiformem oblongam v. elongatam perfecte incluso ; per anthesin pedicellus sæpius elongatur et longe exseritur, bractea apice disrupta v. oblique fissa prope basin pedicelli persistente cupulata v. tubulosa et *spathella* dicta.

Species ad 120, scopulis immersis affixæ, in undis rapide fluentibus rivulorum amniumque tropicalium Americæ, Africæ et Asiæ, perpaucæ extratropicales in America boreali et Africa australi, una sola adhuc imperfecte nota in Australia (in fluv. Johnstone regionis tropicæ orientalis a W. Hill detecta), et altera valde dubia ex Europa (apud Insubres) provenire dicitur.

In hoc ordine elaborando fere in omnibus secuti sumus monographiam eximiam Tulasnei, cum additamentis posterioribus Weddellii, cujus observationes accuratissimas in speciminibus perplurimis herbarii Kewensis confirmare potuimus. Paullulum tantum ab illo dissentimus de interpretatione homologa squamellarum ad basin filamentorum iisque alternarum, in floribus sic dictis perianthio destitutis observatarum. Ex Weddellio staminodia sunt, nobis potius perianthii segmentorum rudimenta videntur. Situm occupant perianthii *Weddellinæ*, semper staminibus plus minus externa sunt, et ubi longiuscula lineariaque evadent nunquam rudimenta antherarum ostendunt. De situ partis stigmatosæ stylorum non semper certi sumus, nam styli in speciminibus siccis jam post fœcundationem sæpissime plus minus desiccati sunt. Affinitates ordinis adhuc omnino dubiæ remanent.

CONSPECTUS GENERUM.

Tribus I. Tristicheæ. Flores hermaphroditi. Perianthium tubulosum v. campanulatum,

3-fidum. Stamina 1–3. Ovarium 3-loculare, stylis 3. Herbæ bryoideæ, foliis parvis secus ramos elongatos numerosis sæpe tristichis v. ad basin pedicelli fasciculatis, spathella nulla.

1. TRISTICHA. Stamen 1. Rami floriferi tristiche foliati, apice sæpius corymbosi.—*Utriusque orbis reg. trop.*

2. TERNIOLA. Stamina 3. Rami v. gemmæ floriferi sæpius in caule adnato brevissimi, foliis parvis fasciculatis, rarius more *Tristichæ* elongati.—*Ind. or.*

Tribus II. Mourereæ. Flores hermaphroditi. Perianthii segmenta oblonga v. squamellæ lineares v. minimæ, staminibus exteriora iisque alterna. Stamina numerosa v. rarius infra 5, filamentis liberis v. rarius alte monadelphis, verticillum circa ovarium perfectum v. (dum pauca) imperfectum formantibus. Ovarium 2-loculare. Capsula æqualiter 2-valvis. Alabastra sæpissime spathella sacciformi v. tubulosa clausa involuta, post anthesin capsula sæpius pedicello elongato e spathella rupta exserta.

* *Perianthii segmenta 5, oblonga, staminibus æqualia, iisque alterna.*

3. WEDDELLINA. Pedicelli uniflori, sparsi.—*Guiana, Bras. bor.*

** *Perianthium 0 præter squamellas lineares v. parvas staminibus exteriores iisque alternas.*

† *Flores in scapo simplici v. ramoso distiche spicati v. racemosi.*

4. MOURERA. Flores superiores v. omnes pedicellati. Filamenta lineari-filiformia, libera. Styli lineares.—*Guiana, Brasilia.*

5. LONCHOSTEPHUS. Flores pedicellati. Filamenta oblonga, petaloidea, libera. Styli ovato-rotundati subquadrati.—*Brasilia.*

6. LACIS. Flores subsessiles. Filamenta alte in tubum subcorollinum connata. Styli lineares.—*Bras. bor.*

†† *Pedicelli uniflori, in caule adnato fasciculati v. secus ramos sparsi.*

7. MARATHRUM. Stamina 5–25, verticillo perfecto. Styli breviter lineares, contigui. Capsula apice obtusa, valvis concavis carinatis 3–5-costatis. Caules adnati rarius elongato-ramosi.—*Amer. trop.*

8. RHYNCHOLACIS. Stamina 5–12, verticillo perfecto. Ovarium 2-carinatum, carinis in stylos discretos desinentibus. Capsula compressa, 2-rostrata, valvis cymbiformibus carinatis 3-costatis.—*Bras. bor., Guiana.*

9. LIGEA. Stamina 2–∞, verticillo perfecto v. rarius imperfecto. Styli subteretes, contigui. Capsula apice obtusa, valvis concavis lævibus v. vix obscure costatis. Caules ramosi.—*Brasilia, Guiana.*

10. APINAGIA. Stamina 2–5, verticillo imperfecto. Styli breviter lineares, contigui. Capsula apice obtusa, valvis concavis prominenter 3-costatis. Plantæ parvæ habitu nunc *Marathro* nunc *Ligeæ* accedentes.—*Bras. bor., Guiana.*

11. LOPHOGYNE. Stamina 2–4, verticillo imperfecto. Stigmata sessilia, membranacea, patentia, late cristato-lobata. Capsula obtusa, valvis prominenter 3-costatis. Planta minima caule adnato.—*Brasilia.*

(Vide etiam 12, ANGOLÆAM, staminibus 3 vix connatis.)

Tribus III. Eupodostemeæ. Squamellæ exteriores ad latera filamenti v. columnæ stamineæ, utrinque 1, lineares v. minimæ, tertia rarius sub filamento. Stamina nunc 2 rarius 3, filamentis in columnam lateralem plus minus connatis, nunc 1. Ovarii septum sæpe evanidum. Capsula æqualiter v sæpe inæqualiter 2-valvis.

* *Stamina 3, basi brevissime connata.*

12. ANGOLÆA. Stigma subsessile, orbiculare. Capsula obtusa, valvis æqualibus.—*Afr. trop.*

** *Stamina 2, filamentis alte in columnam connatis.*

† *Capsulæ valvæ æquales v. vix inæquales.*

13. HYDROBRYON. Stigmata subsessilia, lata, plana, patentia, cristato-lobata. Capsula obtusa.—*Ind. or.*

14. PODOSTEMON. Styli (v. stigmata) breviter lineares v. ovati, suberecti, integri. Capsula obtusa.—*Amer. bor., Brasilia, Madag., Ind. or.*

15. CERATOLACIS. Styli (v. stigmata) lanceolati, acuti. Capsula 2-cornuta.—*Brasilia.*

†† *Capsulæ valvæ distincte inæquales.*

16. Mniopsis. Stigmata subsessilia, lata, brevissime multifida, fere in unum pulvinatum conferta. Columna staminea apice 3-fida, ramo centrali ananthero. Ovarium 2-loculare.—*Brasilia.*

17. Sphærothylax. Stigmata sessilia, brevia, lanceolata. Alabastra intra spathellam a pedicello apice inflexo reflexa. Ovarium 1-loculare.—*Afr. austr., Abyssinia.*

18. Castelnavia. Styli longe filiformes. Alabastra intra spathellam sessilia erecta. Ovarium 1-loculare. Plantæ minimæ.—*Fl. Araguay Brasiliæ.*

*** *Stamen* 1.

19. Oserya. Filamentum ovario arcte appressum, anthera extrorsum spectante, mox elastice dissiliente. Plantulæ nanæ.—*Mexico, Guiana, Brasilia.*

20. Devillea. Filamentum laxum, anthera introrsum spectante. Plantula nana, repens.—*Brasilia.*

Tribus IV. Hydrostachydeæ. Flores dioici, utriusque sexus in scapo simplici longe spicati. Folia longa, simplicia v. decomposita.

21. Hydrostachys. Stamen 1, anthera intra bracteam subsessilis. Ovarium 1-loculare, placentis 2 parietalibus; styli filiformes.—*Madagasc., Afr. austr. or.*

GENUS EXCLUSUM.

Halophila, Thou. (Diplanthera, Griff., Lemnopsis, Zipp.) ad **Naiadeas** refertur.

Tribus I. Tristicheæ.

1. **Tristicha,** *Thou. Nov. Gen. Madag.* 3. (Dufourea, *Bory in Willd. Spec. Pl.* v. 55; Philocrena, *Bong. in Mem. Acad. Petersb. ser.* 6, i. (*vel* iii. *pars* ii.), 80, *t.* 6.)—Flores hermaphroditi. Perianthium tenuiter membranaceum, 3-lobum, lobis obtusis leviter imbricatis. Stamen 1, filamento filiformi; anthera erecta, basi obtusa. Ovarium ovoideum v. ellipsoideum, 3-loculare; styli 3, lineares, breves, erecti mox patentes, introrsum stigmatosi; placentæ crassæ in angulo interno loculorum in centro ovarii connatæ. Capsula ovoidea, septicide 3-valvis, valvis 3-costatis æqualibus, septis evanidis v. a placenta solutis in margine valvarum persistentibus.—Herbæ bryoideæ inundatæ. Caules breves dense cæspitosi v. elongati fluitantes fastigiato-ramosissimi. Folia parva, sessilia, confertim tristicha, serieum 2 patentia, seriei tertiæ minora erecta. Flores ad apices ramulorum breviorum sæpius gemini; alabastra juniora subsessilia intra bracteas 2–3 quam folia majores; pedunculi tamen mox accreti, fructiferi longiusculi, basi bracteis stipati.

Species editæ 3, valde variabiles et vix limitibus certis distinctæ, inter tropicos per Americam et Africam late diffusæ. *Wedd. in DC. Prod.* xvii. 45; *Wight, Ic. t.* 1920.

Species quarta, ex insulis Philippinis, a Preslio ex specimine Hænkeano ad *Tristicham* relata, ab auctoribus recentioribus non visa, verisimiliter generis alieni est.

2. **Terniola,** *Tul. Podost. Monogr.* 189, *t.* 13. (Lawia, *Tul. in Ann. Sc. Nat. ser.* 3, xi. 112. Dalzellia, *Wight, Ic.* v. 34, *t.* 1919, 1920 (Tulasnea *in ic.*). Mnianthus, *Walp. Ann.* iii. 443.)—Flores hermaphroditi. Perianthium tenuiter membranaceum, 3-lobum, lobis obtusis erectis leviter imbricatis. Stamina 3, filamentis filiformibus liberis; antheræ erectæ, basi emarginatæ v. sagittatæ. Ovarium ovoideum v. ellipsoideum, 3-loculare; styli 3, breviter lineares, mox patentes, introrsum stigmatosi; placentæ crassæ in angulo interno loculorum in centro ovarii connatæ. Capsula ovoidea, septicide 3-valvis, valvis 3-costatis æqualibus, septis evanidis v. a placenta solutis in margine valvarum persistentibus.—Caules adnati thalliformes margine lobati, v. (in *T. ramosissima*, Wedd.) elongati fluitantes. Folia minima, setacea, in gemmis floriferis fasciculata, in ramis elongatis sparsa. Gemmæ floriferæ in caulis basi adnatæ v. secus ramos elongatos sparsæ, pedicello solitario basi fasciculo foliorum sæpius plus minus in vaginam connatorum stipati, spathella distincta nulla.

Species 7, Indiæ Orientalis Peninsulæ et Zeylaniæ incolæ. *Wedd. in DC. Prod.* xvii. 46.

TRIBUS II. MOURERÆ.

3. **Weddellina,** *Tul. in Ann. Sc. Nat. ser.* 3, xi. 113; *Podost. Monogr.* 194, *t.* 13.—Flores hermaphroditi. Perianthii segmenta 5, distincta, staminibus exterioribus alterna, oblongo-linearia, erecta, mox patentia. Stamina ∞ (5–25), filamentis filiformibus distinctis; antheræ erectæ, loculis basi apiceque discretis. Ovarium ovoideum, 2-loculare; stylus indivisus, stigmate terminali crassiusculo vix dilatato subdidymo. Capsula subglobosa, valvis 2 æqualibus haud prominule 3–5-costatis dehiscens.—Caules adnati, carnosi, breviter funiformes, intricate ramosi. Folia (v. frondes steriles) fluitantia, elongata, ramosissima (interdum 2–3-pedalia), stipite basi sæpe digiti crassitie ramisque primariis teretibus squamis v. tuberculis zonatim versicoloribus (*Spruce*) scaberrimis, ramulis membranaceis brevibus acutis secus ramos decurrentibus numerosis valdeque inæqualibus. Pedicelli ad margines ramorum adnatorum sparsi, bracteis parvis concavis instructi, quarum suprema interdum major breviter vaginans, sed non spathellam clausam formans.

Species 2, altera typica Guianensis, bracteis squamiformibus plurimis secus pedunculum fere ad apicem dissitis floribus 5–10-andris, *Wedd. in DC. Prod.* xvii. 48, altera (*W. Uaupensis*, Benth.) a Spruceo in fluvio Uaupes Brasiliæ borealis sub n. 2752 lecta, a Weddellio ad *W. squamulosam* typicam relata, sed, ex schedis Spruceanis floribusque perfectis a Weddellio non visis, differt statura majore, pedunculis multo longioribus, basi tantum bracteis paucis instructis, quarum suprema major et fere vaginata ad formam spathellæ accedit, et staminibus ultra 20 in flore examinato, 25 ex Spruceo.

4. **Mourera,** *Aubl. Pl. Gui.* i. 582, *t.* 233 (Lacis, *Schreb. Gen.* 366, *non Lindl.*).—Flores hermaphroditi. Squamellæ minutæ, setaceæ v. dentiformes, staminibus exterioribus alternæ, rarius obsoletæ. Stamina ∞ (10–40), filamentis filiformibus leviter complanatis liberis v. subinde ima basi connatis; antheræ lineari-oblongæ, basi sagittatæ. Ovarium oblongum v. ovoideum, 2-loculare; styli 2, breviter lineares, patentes, fere a basi introrsum stigmatosi. Capsula ovoidea v. oblonga, valvis 2 æqualibus 4–5-costatis dehiscens.—Caulis adnatus crassus, carnosus v. durus, simplex v. ramosus. Folia ad basin scapi ampla, ulviformia, irregulariter lacero-dentata v. pinnatim v. irregulariter inciso-lobata. Scapi erecti, simplices v. ramosi. Flores secus rhachin distichi, ad axillas bractearum solitarii, juniores spathella tubulosa clausa occlusi, evoluti e spathella apice lacera exserti, longiuscule pedicellati, v. haud raro inferiores usque ad capsulæ maturitatem intra spathellam subsessiles remanent.

Species 3, Guianæ et Brasiliæ tropicæ incolæ.—*Wedd. in DC. Prod.* xvii. 49. *Tul. Podost. Monogr. t.* 1, *et in Mart. Fl. Bras.* iv. i. *t.* 73.

5. **Lonchostephus,** *Tul. Podost. Monogr.* 198, *et in Mart. Fl. Bras.* iv. i. *t.* 73.—Flores hermaphroditi. Squamellæ staminibus alternæ paucæ minutæ v. 0. Stamina ∞ (5–8), filamentis planis oblongis petaloideis acutis; antheræ terminales, parvæ, lineares, recurvæ. Ovarium ellipsoideum, 2-loculare; styli 2, plani, ovato-rotundati subquadrati, margine stigmatosi. Capsula ovoidea, valvis 2 æqualibus prominenter 3-costatis dehiscens.—Caulis adnatus brevis, crassus, obrepens. Folia ad basin scapi plura, rosulata, patentia, subdichotome ramosa, lobis ultimis setaceis. Flores in scapo simplici breviter racemosi, subdistichi. Pedicelli ad axillam bracteæ sæpe lacero-dentatæ solitarii, spathella longiuscule vaginata apice lacera stipati.

Species 1, Brasiliensis. *Wedd. in DC. Prod.* xvii. 51. Genus a *Moureræ* speciebus minoribus paullulum differt filamentis petaloideis et stylorum forma.

6. **Lacis,** *Lindl. Introd. Nat. Syst. ed.* 2, 442, *non Schreb.*—Flores hermaphroditi. Squamellæ staminibus alternæ minutæ v. 0. Stamina ∞ (6–10), filamentis ultra medium in tubum fere corollinum connatis, superne linearibus liberis; antheræ lineares, sagittatæ. Ovarium anguste oblongum, 2-loculare; styli 2, lineares, fere a basi introrsum stigmatosi. Capsula oblonga, valvis 2 æqualibus prominenter 5-costatis dehiscens.—

Caulis adnatus, brevis, crassus, ramosus et quasi dentatus. Folia longe et anguste ulviformia, stipitata, pinnatim v. flabellatim repetiter divisa. Flores in scapo simplici distiche spicati, singuli ad axillam bracteæ parvæ hyalinæ fere sessiles, vix e spathella tubulosa vaginante apice lacera exserti.

Species 1, Brasiliæ borealis incola. *Wedd. in DC. Prod.* xvii. 52. *Tul. in Mart. Fl. Bras.* iv. i. *t.* 73.

7. **Marathrum,** *Humb. et Bonpl. Pl. Æquin.* i. 39, *t.* 11.—Flores hermaphroditi. Squamellæ staminibus alternæ minutæ v. 0. Stamina ∞ (5–25), filamentis filiformibus v. leviter dilatatis liberis v. subinde basi per paria connatis; antheræ lineares. Ovarium ovoideum v. oblongum, 2-loculare; styli 2, breviter lineares, liberi v. basi breviter connati, superne introrsum stigmatosi. Capsula ovoidea v. oblonga, valvis 2 æqualibus 3-rarius 5-costatis dehiscens.—Caulis adnatus crassus, squamosus, lobatus v. rarius elongato-ramosus. Folia sæpius elongata, nunc angusta ramosa ramis irregulariter filiformibus, nunc ulviformia longe lanceolata v. oblonga, subpinnatim lobata v. dentata, nunc tenuiter multifida repetiter pinnata frondes *Trichomanis* specierum dissectarum simulantia. Pedunculi uniflori, in caule adnato sparsi, basi spathella vaginati.

Species 6, Americæ tropicæ a Brasilia usque ad Mexicum incolæ. *Wedd. in DC. Prod.* xvii. 53. *Cham. in Linnæa* ix. *t.* 6. *Tul. Podost. Monogr. t.* 1, 2.

Genus *Mourerœ* valde affine, differt pedicellis in caule adnato sparsis nec in scapo racemosis. Formas duo præbet: 1. *Genuinæ*, pedicello apice in discum latum staminiferum expanso, staminibus ad marginem disci 5–8. Huc pertinent, *M. fœniculaceum*, *M. Schiedeanum*, et *M. utile*. 2. *Spuriæ*, pedicello apice ut in *Mourera* vix incrassato, staminibus 10–25: *M. oxycarpum*, *M. squamosum*, et *M. pauciflorum*.

M. lacunosum, Gardn., est *Lophogyne helicandra*, Tul.

8. **Rhyncholacis,** *Tul. in Ann. Sc. Nat. ser.* 3, xi. 95; *Podost. Monogr.* 81, *t.* 3, *ic. in Mart. Fl. Bras.* iv. i. *t.* 74 repetita.—Flores hermaphroditi. Squamellæ parvæ, ovatæ v. lanceolatæ, staminibus exterioribus alternæ. Stamina ∞ (5–12), verticillo perfecto, filamentis filiformibus v. leviter complanatis liberis v. subinde basi per paria connatis; antheræ lineares v. oblongæ, basi emarginatæ. Ovarium oblongum, compressum, 2-carinatum, 2-loculare, angulis in stylos breves dissitos introrsum stigmatosos desinentibus. Capsula oblonga v. ovata, plus minus septo contrarie compressa, breviter 2-rostrata, valvis 2 æqualibus cymbiformibus 3-costatis dehiscens, costa dorsali seu carina valde elevata.—Caulis adnatus crassus, ramosus. Folia brevia v. longiuscula, basi sæpe subteretia, circa pedicellorum fasciculos varie membranaceo-dilatata connataque, cæterum varie multifida, nunc lata fere ulviformia, nunc subfiliformia, semper repetiter lobata lobis ultimis tenuibus. Pedicelli in caule adnato sparsi v. sæpius fasciculati, basi parte persistente foliorum vaginati, spathella distincta nulla (v. cito deliquescente ?).

Species 7, Guianæ et Brasiliæ borealis incolæ. *Wedd. in DC. Prod.* xvii. 56.

9. **Ligea,** *Tul. Podost. Monogr.* 85, *t.* 4 *ad* 7. (Œnone *et* Ligea, *Tul. in Ann. Sc. Nat. ser.* 3, xi. 96.)—Flores hermaphroditi. Squamellæ staminibus alternæ minutæ. Stamina 6–∞ perfecte verticillata, v. pauciora verticillo imperfecto, filamentis leviter complanatis liberis; antheræ lineari-oblongæ, basi subsagittatæ. Ovarium ovoideum, læve, 2-loculare; styli 2, subteretes, contiguæ v. basi brevissime connati, obtusi (vertice stigmatosi ?). Capsula ovoidea v. globosa, valvis 2 æqualibus ecarinatis dorso convexis lævibus v. vix prominule 3-nervatis dehiscens.—Caules e basi adnata elongati, alii pauciflori longiores pinnatim ramosi foliiferi v. omnino aphylli, alii v. interdum omnes breviores ramosissimi. Folia sæpius angusta et lacera, v. interdum longe lanceolata et subintegerrima, in caulibus dichotomis parva linearia. Pedicelli in caulibus longis frondiformibus pauci, in dichotomis numerosi, breves, basi præter spathellam squamis paucis interdum in folia productis vaginati.

Species ad 13, Guianæ et Brasiliæ incolæ. *Wedd. in DC. Prod.* xvii. 58 *et* 59 (*Œnone* et *Neolacis* sect. *Euneolacis*).

Œnone, Tul., serius ab auctore ipso ad *Ligeam* reducta, a Weddellio iterum separatur ob stamina numerosiora in verticillum perfectum disposita, et species cæteras *Ligeæ* cum *Apinagia* ad genus suum *Neolacis* referuntur. Hæ tamen nobis multo melius tam habitu quam capsula vix v. non costata in *Ligea* retinendæ videntur etsi stamina sæpe ad 2–5 imperfecte verticillata reducuntur. In *L. Richardiana*, Tul. (*Neolacis*, Wedd.) variant 5–10 sæpius perfecte verticillata. Genera cæterum inter se valde affinia sunt. *L. alcicornis*, Tul. Podost. Monogr. 94, et in Mart. Fl. Bras. iv. i. t. 73 (*Œnone alcicornis*, Wedd.) melius a Spruceo in *Mourera* collocata fuit, ubi scapo ramoso ∞-floro, foliis ad basin scapi verticillatis, *M. Weddellianæ* approximatur.

10. **Apinagia,** *Tul. in Ann. Sc. Nat. ser.* 3, xi. 97; *Podost. Monogr. t.* 7. (Neolacis, *Wedd. in DC. Prod.* xvii. 59, *pro parte.*)—Flores hermaphroditi. Squamellæ staminibus alternæ v. in floribus 2–3-andris 3–5. Stamina 2–5, verticillo sæpius imperfecto, filamentis leviter complanatis liberis; antheræ lineari-oblongæ, loculis basi longiuscule discretis. Ovarium ovoideum, distincte costatum, 2-loculare; styli 2, tenues, contigui v. basi brevissime connati (superne stigmatosi?). Capsula globosa ovoidea v. oblonga, valvis 2 æqualibus prominenter 3-costatis dehiscens.—Herbæ parvæ, habitu in diversis sectionibus diversæ. Pedicelli præter spathellam basi nudi v. foliis cito deliquescentibus stipati.

Species ad 16, Guianæ et Brasiliæ borealis incolæ, in sectiones 2 bene distinctas distribuendæ:—

1. *Neolacis* (sect. *Euneolacis*, Wedd., excl. *N. Richardia*, *N. corymbosa*, *N. secundiflora* et forte *N. dissecta* ad *Ligeam* restituendis). Caules (e basi adnata?) dichotome ramosissimi, aphylli v. subinde in folia frondiformia expansi. Pedicelli in dichotomiis solitarii. Habitus fere *Ligeæ*, a qua hæc sectio differt staminibus paucioribus et capsulis prominenter costatis. *Mart. Nov. Gen. et Sp. t.* 2 (*Lacis*). *Tul. in Mart. Fl. Bras.* iv. i. *t.* 75, *f.* 1, 2.

2. *Chamælacis*, Wedd. Caulis adnatus, crassus, ramosus v. subinde membranaceo-dilatatus. Folia ad basin pedicellorum dissecta, fugacissima, in speciminibus siccis rara. Pedicelli in caule adnato sæpius fasciculati. Sectio *Marathro* valde affinis, differt præcipue statura pusilla et staminibus paucis. *Tul. Podost. Monogr. t.* 7, *f.* 2. *Bong. in Mem. Acad. Petersb. ser.* 6, i. (*vel* iii. *pars* ii.) *t.* 4 (*Lacis*). Monostylis, *Tul. Podost. Monogr.* 201, *et in Mart. Fl. Bras.* iv. i. *t.* 74, *f.* 3.

Sectio *Hymenolacis*, Wedd., a *Chamælaci* errore distincta fuit foliorum absentia. Adsunt certe in *N. Spruceana*, Wedd., etsi a speciminibus fructiferis jam deperita, verisimiliter etiam in planta juniore *N. membranaceæ*, sed post anthesin cito deliquescentia.

Blandowia, *Willd. in Gesellsch. Naturf. Fr. Berlin Mag.* iii. 100, *t.* 4, *f.* 2, plantula aquatica Peruviana ab auctore pro genere *Hepaticarum* descripta, ex charactere imperfecto et icone rudi absque dubio rite ad *Podostemaceas* relata est, et verisimiliter est species *Apinagiæ*, haud vero tute agnoscenda et nomen delendum. *B. Preissii*, Wedd. in DC. Prod. xvii. 85 (*Apinagia Preissii*, Tul.), ex Italia superiore, quam maxime dubia remanet.

11. **Lophogyne,** *Tul. in Ann. Sc. Nat. ser.* 3, xi. 99, *Podost. Monogr.* 109, *t.* 8, *f.* 2, *et in Mart. Fl. Bras.* iv. i. *t.* 73, *f.* 4.—Flores hermaphroditi. Squamellæ exteriores 3–4, lineari-setaceæ, staminibus alternæ, valde inæquales, una sæpe staminibus æquilonga. Stamina 2–4, verticillo imperfecto, filamentis distinctis leviter complanatis; antheræ lineares. Ovarium ellipsoideum, 2-loculare; stigmata 2, subsessilia, lata, plana, membranacea, patentia, cristato-lobata et dentata. Capsula ovoidea, valvis 2 æqualibus prominenter 3-costatis dehiscens.—Herba minima, caule adnato carnoso membranaceo-dilatato lobato. Folia (a nobis non visa) fasciculata, lobata v. multifida, lobis ultimis filiformibus. Pedicelli in caulis basi adnata sparsi v. in angulis loborum, præter spathellam squamis v. foliis brevibus crassis irregulariter lobatis subcarnosis stipati.

Species 2, Brasilianæ. *Wedd. in DC. Prod.* xvii. 65. Genus habitu speciebus minoribus *Apinagiæ* (*Chamælacis*) accedit, differt stigmate fere *Hydrobryi*.

Tribus III. Eupodostemeæ.

12. **Angolæa,** *Wedd. in DC. Prod.* xvii. 300.—Flores hermaphroditi. Squamellæ exteriores 2–4, minutæ. Stamina 3, unilateralia, filamentis leviter complanatis liberis v. basi brevissime connatis; antheræ oblongæ. Ovarium breviter stipitatum a staminibus leviter aversum, ovoideum v. junius oblongum, septis evanidis v. abortientibus

1-loculare, placenta centrali compressa; stigma subsessile, orbiculare, dense papillosum, vix didymum. Capsula ovoidea, valvis 2 æqualibus 3-costatis dehiscens.—Caules (e basi adnata?) lineares, basi incrassati, valde elongati, subdichotome ramosissimi, foliis a ramulis ultimis non bene distinguendis filiformibus. Spathellæ ad normam affinium juniores clausæ sed longiuscule pedunculatæ, in ramulis brevioribus fasciculatæ. Flores in spathella primum subsessiles, pedicello fructifero vix exserto.

Species 1, ad saxa in torrentibus Angolæ Africæ tropicæ vigens. Genus nulli prope affine inter *Moureræas* et *Eupodostemoneas* subintermedium.

13. **Hydrobryum**, *Endl. Gen.* 1375, *pro parte.*—Flores hermaphroditi. Squamellæ exteriores 2, ad latera columnæ stamineæ, longiuscule lineares. Stamina 2, filamentis in columnam lateralem apice 2-fidam alte coalitis; antheræ oblongæ. Ovarium ovoideum, compressiusculum, 2-loculare; stigmata 2 subsessilia, sæpius inæqualia, lata, plana, membranacea, patentia, cristato-lobata et dentata. Capsula ovoidea, valvis 2 æqualibus 5-costatis dehiscens.—Caulis adnatus expansus, membranaceo-carnosus, thalliformis. Gemmæ fertiles seu pedicelli foliis pluribus squamiformibus distiche imbricatis basi stipati, in caule adnato sparsi. Flos spathella intra squamas sessili inclusus, capsula pedicello elongato exserta. Gemmæ steriles foliis fasciculatis filiformibus a Weddellio descriptæ a speciminibus nostris jam deperitæ nec a Griffithio aliisque depictæ.

Species 1, Indiæ Bengalensis orientalis incola. *Wedd. in DC. Prod.* xvii. 66. *Griff. in Asiat. Res.* xix. 105, *t.* 17; *Ic. Pl. As. t.* 544 (*Podostemon*). *Wight, Ic. t.* 1918, *f.* 2.

Genus a *Podostemone* (*Polypleuro*) differt stigmatibus iis *Lophogynis* similibus.

14. **Podostemon**, *Mich. Fl. Bor. Amer.* ii. 164, *t.* 44. (Dicræa, *male* Dicræia, *Thou. Gen. Nov. Madag.* 2.)—Flores hermaphroditi. Squamellæ exteriores 2, ad latera columnæ stamineæ, lineares, sæpe longiusculæ. Stamina 2, filamentis in columnam lateralem apice 2-fidam alte coalitis; antheræ late oblongæ. Ovarium ovoideum, 2-loculare; styli suberecti, breviter lineares v. ovati, acuti (margine stigmatosi?). Capsula ovoidea, obtusa, valvis 2 æqualibus v. vix inæqualibus, 3- v. 5-costatis, dehiscens, valva utraque persistente v. una post dehiscentiam decidua.—Herbæ in diversis sectionibus habitu diversæ. Pedicelli in caule adnato sparsi v. in ramis evolutis terminales v. laterales, basi præter spathellam nudi v. ∞-squamati. Flos in spathella sessilis, capsula pedicello accreto exserta.

Species ad 20, Americæ borealis, Brasiliæ, Madagascariæ et Indiæ orientalis incolæ. *Wedd. in DC. Prod.* xvii. 67 *et* 72 (*Dicræa et Podostemon*).

Genus a Michauxio et Thouarsio eodem anno stabilitum, ad specimina e regionibus distantibus (America boreali et Madagascaria) inter se non comparata, a Tulasneo et Weddellio in genera duo dividitur, patria et habitu neglectis, imprimis ad capsulæ valvis, in *Podostemone* inæqualibus una sola persistente, in *Dicræa* æqualibus utraque persistente, sed speciminibus perplurimis scrutatis distinctio nobis nec clara nec constans apparet. Sutura usque ad pedicellum attingit, et valva una sæpe paullo angustior in eodem specimine paullo post dehiscentiam cadit, v. utraque more generum præcedentium diu persistit. Sectiones sequentes facilius distinguendæ videntur:—

1. *Eupodostemon.* Caulis erectus v. fluitans, superne corymboso-ramosus, gemmis floriferis subterminalibus, inter ramulos v. folia ramosissima longe filiformia v. abbreviata. Huc pertinet species typica boreali-Americana, *Hook. Comp. Bot. Mag.* ii. *t.* 20 (*Lacis*) et, ei facile approximanda, *P. Chamissois*, Tul. Podost. Monogr. et in Mart. Fl. Bras. iv. i. t. 74, f. 2 (*P. disticha*, Wedd.), Cham. in Linnæa ix. t. 5 (*Lacis*), e Brasilia.

2. *Dicræa.* Caules plus minus evoluti, sæpe ramosi, nunc ramosissimi, gemmis floriferis quam in *Eupodostemone* paucioribus secus ramos lateralibus. Huc pertinere videntur præter speciem typicam Madagascariensem a nobis non visam (*D. minutiflora*, Tul.?), *D. dichotoma* et *D. elongata*, Tul., *D. stylosa*, Wight, et *D. algæformis*, Bedd., omnes Indicæ. *Wight, Ic. t.* 1916, 1917. *Bedd. in Trans. Linn. Soc.* xxv. *t.* 24.

3. *Polypleurum.* Caulis adnatus dilatatus, breviter at varie ramosus, gemmis floriferis paucisquamatis, in superficie sparsis v. submarginalibus. Hic includendæ *Podostemonis* sectiones *Griffithella* et *Zeylanidium*, Tul., cum *Dicræa Wallichii*, Tul., *D. pterophylla* et *D. minore*, Wedd.

Griff. in Asiat. Res. xix. 103, *t.* 17; *Ic. Pl. Asiat. t.* 542, 543 (*Podostemon*). *Tul. Podost. Monogr. t.* 8, *f.* 5 (*Mniopsis*) *et t.* 9, *f.* 3 (*Hydrobryum*). *Wight, Ic. t.* 1918, *f.* 2 *ad* 5 (*Hydrobryum et Mniopsis*).

P. subulatus, Tul. Podost. Monogr. t. 9, f. 4, Wight, Ic. t. 1918, f. 1, e Zeylania, caule magis evoluto interdum breviter libero subcorymboso inter *Polypleurum* et *Eupodostemon* quasi medium tenet.

Genus POLYPLEURUM, *Tayl. in Herb. Hook.*, a Tulasneo et Weddellio citatum, nunquam editum fuit. Ex scheda citata Taylori opusculum in conventu societatis *Royal Irish* (nec *Hist.*) *Academy* lectum fuit, sed nunquam in lucem productum.

4. *Selaginoides.* Gemmæ floriferæ in caule adnato dense fasciculatæ, elongatæ, undique usque ad spathellam squamis crassis tetrastiche imbricatis obtectæ. In ramis v. gemmis sterilibus squamæ plurimæ pariter imbricatæ, superiores apice in folia longe filiformia desinentes, et folia summa a basi filiformia, Species indica. *Bedd. in Trans. Linn. Soc.* xxv. 223, *t.* 25 (*Mniopsis*). Huic forte affinis est species Australiana e hujus ordine supra memorata, cujus genus ex speciminibus imperfectis non rite determinandum.

In *Dicræa imbricata*, Tul., e Madagascaria, nobis ignota, gemmæ floriferæ terminales dicuntur ut in *Eupodostemone*.

15. **Ceratolacis,** *Wedd. in DC. Prod.* xvii. 66.—Flores hermaphroditi. Squamellæ exteriores 2, ad latera columnæ stamineæ, lineares, breves. Stamina 2, filamentis in columnam lateralem 2-fidam ad medium connatis; antheræ ovatæ. Ovarium oblongum, 2-carinatum, 2-loculare, angulis in stylos lanceolatos acutos desinentibus. Capsula oblonga, apice truncata, stylis induratis divergentibus 2-cornuta, valvis 2 cymbiformibus carinatis obscure 3-nerviis dehiscens.—Caulis adnatus parvus, carnosulus, oblongus v. linearis, irregulariter sinuatus v. ramosus. Folia parva, tenera, fasciculata, linearia, 2–3-furca. Pedicellus in fasciculo unicus, e spathella tubulosa 2-fida demum exsertus.

Species 1, Brasiliana. *Tul. Podost. Monogr.* 126, *t.* 10, *f.* 1 (*Dicræa*), *ic. in Mart. Fl. Bras.* iv. 1, *t.* 74, *f.* 1 *repetita.* Specimen nostrum valde mancum et characteres florales imprimis ex ic. et descr. citatis, quæ genus ostendunt *Podostemoni* affine, cum capsula *Rhyncholacis*.

16. **Mniopsis,** *Mart. et Zucc. Nov. Gen. et Sp.* i. 3, *t.* 1. (Crenias, *Spreng. Syst. Cur. Post.* 247.)—Flores hermaphroditi. Squamellæ exteriores 2, ad latera columnæ stamineæ, lineares, longiusculæ. Stamina 2, filamentis in columnam lateralem superne 3-fidam ultra medium connatis, ramis lateralibus antheriferis intermedia ananthera; antheræ ovato-quadratæ. Ovarium late ovoideum, obliquum, linea suturali obliqua ad stipitem non attingente, inæqualiter 2-loculare; stigmata 2, subsessilia, brevia, lata, plurifida, laciniis crassis lanceolatis dense papillosis patentibus. Capsula subglobosa, valvis 2 valde inæqualibus oblique dehiscens, valva minore dissiliente, majore prope basin dorsifixa persistente.—Plantulæ pusillæ bryoideæ, caulibus teretiusculis ex toto v. solum apice confertim foliatis. Folia integra squamiformia v. ∞-partita. Flores axillares v. solitarii terminales, in spathella sacciformi inclusi, pedicello accreto demum exserti. (*Char. ex ic. et descr. citat.*).

Species 2, Brasilianæ, a nobis non visæ. *Wedd. in DC. Prod.* xvii. 77. *Tul. Podost. Monogr. t.* 8, *f.* 4, *ic. in Mart. Fl. Bras.* iv. 1, *t.* 74, *f.* 4, *repetita.*

De filamenti intermedii columnæ stamineæ homologia dubium remanet, videtur tamen ex iconibus staminodium, stamini tertio *Angolææ* respondens, potius quam squamella tertia exterior columnæ adnata.

17. **Sphærothylax,** *Bisch. in Flora*, 1844, 426, *t.* 1. (Anastrophea, *Wedd. in DC. Prod.* xvii. 78.)—Flores hermaphroditi. Squamellæ exteriores 2, parvæ, ad latera columnæ stamineæ. Stamina 2, filamentis in columnam lateralem complanatam connatis; antheræ ad apicem columnæ sessiles. Ovarium ovoideum, septo abortivo 1-loculare; stigmata 2, brevia, lanceolata, sessilia, erecta v. inflexa. Capsula ovoidea, valvis 2 late 3-costatis parum inæqualibus dehiscens, majore prope basin affixa persistente, minore ad basin non perfecte attingente decidua.—Caules alii basi adnati explanati lateque lobati, alii his marginales v. in superficie sparsi elongati lineares v. in ramos longos lineari-fili-

formes divisi. Spathellæ aliæ in superficie caulis adnati sparsæ sessiles v. subinnatæ, aliæ secus caules elongatos v. ramos primarios dense fasciculatæ sessiles v. brevissime stipitatæ. Pedicelli diu intra spathellam apice reflexi, demum exserti spathella plus duplo longiores, incurvi v. fere recti, capsula matura sæpius erecta.

Species 2, altera (*Wedd. in DC. Prod.* xvii. 78) typica Capensis, nana, capsulis minimis globosis, altera (*Anastrophea*, Wedd.) Abyssinica, multoties major, capsulis ovoideis, a Weddellio generice distincta floribus in spathella reflexis et anthera unica 4-loculari. Flores tamen in specie typica pariter in spathella reflexi ut jam a Bischofio l. c. t. 1, f. 6, delineantur, et nostro sensu antheræ in *Anastrophea* more generum affinium duæ sunt perfecte distinctæ 2-loculares que, nec in unum 4-locularem connatæ.

18. **Castelnavia,** *Tul. et Wedd. in Ann. Sc. Nat. ser.* 3, xi. 108.—Flores hermaphroditi. Squamellæ exteriores 2 v. 3 lineares ad basin staminum v. 0. Stamina 2, rarius fortuito 3 v. 1, filamentis complanatis ad unum latus ovarii breviter connatis. Ovarium ovoideum, curvulum, septo abortivo v. evanido 1-loculare, prope basin oblique affixum ; styli 2, longe filiformes (superne introrsum stigmatosi ?). Capsula oblique ovoidea v. oblonga, 2-valvis, valvis 3–5-nerviis, sutura valde obliqua separatis, altera majore dorso prope basin affixa persistente, altera minore per dehiscentiam decidua.—Caules adnati tenues, explanati, varie ramosi, exsiccati sæpe albi. Folia in superficie caulis sparsim fasciculata v. lateralia, late membranacea et lacera v. filiformia multifida. Gemmæ floriferæ paucisquamatæ squamis interdum in folia filiformia desinentibus v. subnudæ, spathella interdum in caule ipso immersa v. ad marginem exserta v. gemmam squamatam terminans. Capsula modo intra spathellam etiam matura sessilis, modo plus minus pedicellata exsertaque.

Species 7, omnes ad rupes fluminis Araguay, Brasiliæ tropicæ, limitatæ. *Wedd. in DC. Prod.* xvii. 80. *Tul. Podost. Monogr. t.* 11, 12, *ic. in Mart. Fl. Bras.* v. 1, *t.* 76 *repetitæ.*

Carajæa, *Wedd. in DC. Prod.* xvii. 84, est plantula pusilla in eodem flumine Araguay lecta et a Tulasneo in Podost. Monogr. 175, in *Castelnavia* inclusa, cui habitu et stylis filiformibus convenit; capsula tamen adhuc ignota, et a genere paullulum differt filamentis a basi liberis. Species igitur dubia remanet, nos specimina non vidimus.

19. **Oserya,** *Tul. et Wedd. in Ann. Sc. Nat. ser.* 3, xi. 105.—Flores hermaphroditi. Squamellæ exteriores 2, minutæ, ad latera filamenti. Stamen 1, filamento laterali complanato primum ovario arcte appresso, polline emisso elastice dissiliente (*Schomb.*) ; anthera oblonga, extrorsum 2-locularis. Ovarium oblique oblongum, 2-loculare ; stigmata 2 brevissima, sessilia, libera. Capsula ovoidea, plus minus obliqua, valvis 2 inæqualibus 3–5-costatis, majore persistente, altera paullo minore decidua, sutura vix ad basin attingente.—Plantulæ nanæ. Caules a basi adnata breves, pusilli, ramis crassiusculis, ramulis foliisve subdistichis a basi latiuscula setaceo-multifidis. Spathellæ parvæ, in parte adnata caulis v. ad basin ramorum sessiles v. breviter pedunculatæ. Capsula e spathella longiuscule pedicellata.

Species 4, Mexici, Guianæ et Brasiliæ incolæ. *Wedd. in DC. Prod.* xvii. 83. *Tul. Podost. Monogr.* 151, *t.* 10, *f.* 2, 3, *ic. in Mart. Fl. Bras.* iv. 1. *t.* 75, *f.* 3, *repetita.* Specimina nostra manca, characterem damus imprimis ex ic. et descr. citatis et ex Schomburgkii schedis et icone ad vivum depicta.

20. **Devillea,** *Tul. et Wedd. in Ann. Sc. Nat. ser.* 3, xi. 107, *et in DC. Prod.* xvii. 82.—Flores hermaphroditi. Squamellæ exteriores 3, lineares, breves, una infra filamentum, 2 ad latera. Stamen 1, filamento laterali filiformi; anthera oblongo-ovata, basi emarginata, introrsum 2-locularis. Ovarium globosum, 2-loculare, septo vix perspicuo. Capsula globosa, valvis inæqualibus sutura tamen vix excentrica, valva majore persistente minore decidua.—Herbula caule adnato repente filiformi ramoso, e nodis gemmas v. caules breves foliiferos emittente. Folia circa pedicellum disticha, tenuia, dichotome laciniata, basi dilatata et ligula instructa. Spathella longe tubulosa, pedicello breviter exserto. (*Char. ex ic. et descr. citat.*)

Species 1, Brasiliæ tropicæ incola, a nobis non visa. *Tul. Podost. Monogr. t.* 13, *f.* 1, *ic. in Mart. Fl. Bras.* iv. 1, *t.* 75, *f.* 4, *repetita.* Genus evidenter *Oseryæ* valde affine.

TRIBUS IV. HYDROSTACHYDEÆ.

21. **Hydrostachys,** *Thou. Gen. Nov. Madag.* 2.—Flores dioici, utriusque sexus dense spicati, singuli intra bracteam sessiles, perianthio squamellisve 0. Fl. ♂ : Stamen intra bracteam planiusculam membranaceam 1, filamento brevissimo, extrorsum antheræ loculos 2 majusculos distinctos ferente. Fl. ♀ : Ovarium intra bracteam cucullatam v. cymbiformem mox induratam sessile, 1-loculare, placentis 2 parietalibus; styli 2, filiformes, erecto-divergentes, elongati (superne longiuscule stigmatosi?). Capsula parva, ovoidea v. oblonga, in bracteæ basi accreta scaphoidea recepta, stylis emarcidis diu coronata, 1-locularis, introrsum rima longitudinali dehiscens fere follicularis v. demum sub-2-valvis. Semina in placentis 2 parietalibus numerosa.—Caulis adnatus crassus, tuberiformis. Folia elongata, e margine lateribusque caulis oriunda, basi dilatata et intus ligulata, simplicia simpliciter pinnatifida v. bis terve pinnatisecta, rhachi præter lobos majores sæpe lobis parvis numerosis appendiculata. Spicæ cauli adnato affixæ, pedunculatæ, foliis parum v. multo breviores; bracteæ floriferæ circa rhachin ∞-seriatæ, in spica juniore dense imbricatæ, post anthesin laxiores, semper tamen flores et fructus obtegentes; scapus sub spica nudus v. papillis v. squamellis velatus.

Species editæ 9, forte ad 6 reducendæ, Madagascariæ et Africæ austro-orientalis incolæ. *Wedd. in DC. Prod.* xvii. 86. *A. Juss. in Deless. Ic. Sel.* iii. *t.* 91 *ad* 94. *Klotzsch in Peters, Mossamb. Bot. t.* 52, 53.

ORDO CXXXVI. NEPENTHACEÆ.

Endl. Gen. 345. Lindl. Veg. Kingd. 287.

Flores dioici. *Perianthium* simplex, 4- rarius 3-partitum, segmentis oblongis patentibus extus pubescentibus intus glandulosis 2-seriatim imbricatis a basi distinctis v. rarissime in flore ♀ in tubum obconicum basi connatis. *Discus* 0. Fl. ♂ : *Stamina* 4–16, filamentis in columnam teretem connatis; antheræ in capitulum connatæ, 1-seriatæ v. paucæ in capitulo altius irregulariter insertæ sub-2-seriatæ, 2-loculares, loculis parallelis contiguis rima longitudinali extrorsum dehiscentibus rectis v. flexuosis. *Ovarii* rudimentum 0. Fl. ♀ : *Staminodia* 0. *Ovarium* superum, ovoideum v. oblongum, 4- rarius 3-gonum, basi et apice truncatum v. attenuatum, rarissime apice intruso 3-lobum, 4- rarius 3-loculare, carpellis segmentis perianthii oppositis; stylus 0, stigmate discoideo 4- rarius 3-lobo, lobis integris v. 2-lobis. *Ovula* perplurima, placentis parietibus septorum affixis ∞-seriatim affixa, adscendentia, anatropa. *Capsula* coriacea, 4- rarius 3-gona, truncata v. rarissime apice 3-loba, loculicide 4- rarius 3-valvis; valvæ coriaceæ, medio septiferæ, lobis stigmatis simplicibus 2-lobisve coronatæ. *Semina* perplurima, septis utrinque affixa, adscendentia, imbricata, funiculo inconspicuo, umbilico prope basin nuclei minuti ovoidei, raphe filiformi intra testæ basin adscendente libera, testa membranacea sæpissime utrinque in caudem capillarem producta. *Embryo* in axi albuminis carnosi rectus; cotyledones lineares, radicula teres, brevis, infera; germinatio epigæa.

Suffrutices fruticesve glabri v. parce pilosi, vasis spiralibus ubique repleti. Caules prostrati v. sarmentosi et ope cirrhorum ad apices foliorum oriendorum scandentes, interdum longissimi, parce ramosi, cylindracei v. obtuse 3-goni. Folia alterna, exstipulata, sessilia v. in petiolum alatum angustata, plus minus amplexicaulia, nervis longitudinalibus paucis parallelis margine approximatis a basi costæ sæpius oriundis, venis transversis perplurimis per totam longitudinem costæ egredientibus; costa valida in cirrhum simplicem apice in ascidium operculo auctum desinens producto. Ascidia forma varia, ad apicem cirrhi decurvi v. penduli recurvo-erecta, in foliis inferioribus sæpius ampullacea, in

senioribus angustiora, 3-costata et nervis longitudinalibus numerosis percursa; costa postica infra insertionem operculi in calcar simplex v. 2–3-fidum rarius in setis solutum producta; superficies interna ascidii superne cæruleo-glauca opaca eglandulosa, inferne raro tota nitida et glandulis lympham copiosam aquosam secernentibus operta; os ascidii peristomio nitido cylindraceo v. dilatato sæpissime transversim annulato costato v. sulcato cinctum; operculum in ore ascidii articulatum, primum os claudens, demum ascendens erectum v. rarissime refractum, extus glabrum v. pubescens, intus glandulosum. Inflorescentia racemosa, simplex v. composita, v. paniculata, tandem succrescente caule lateralis. Flores parvi, virescentes, siccitate atro-brunnei v. purpurei.

Species bene notæ 31, Asiæ tropicæ, Madagascariæ, ins. Seychellarum, Australiæ tropicæ et Novæ Caledoniæ, sed præsertim Archipelagi Malayani incolæ.

Genus unicum, nulli arcte affine etsi characteribus pluribus *Aristolochiaceis* et *Cytinaceis* accedat, habitu et œconomia distinctissimum. De anatomia, organographia et physiologia confer opuscula et tractatus numerosa in DC. Prod. xvii. 91 citata.

GENUS UNICUM.

1. **Nepenthes,** *Linn. Gen. n.* 1019 (Phyllamphora, *Lour. Fl. Cochinch.* 606). Character ordinis.

Species uti supra 31. *Hook. f. in DC. Prod.* xvii. 91, ubi genus in sectiones 2 dividitur:—

1. *Anourosperma.* Semina ovoidea, testa inappendiculata. Perianthii floris ♀ tubus obconicus, limbus 3–4-fidus. Ovarium obpyramidatum, vertice 3–4-lobo depresso, lobis apice introrsum stigmatosis. Species 1, ex ins. Seychellarum. *P. Wright in Trans. Roy. Irish Acad.* xxiv. *t.* 29, 30.

2. *Eunepenthes.* Semina nucleo ovoideo, testa utrinque in caudam elongatam sæpe longissimam capillarem producta. Perianthii floris ♀ segmenta patentia. Ovarium oblongum v. fusiforme, apice integrum, stigmate discoideo latiore coronatum. Species includit omnes cæteras generis. *Gærtn. Fruct.* ii. *t.* 83. *Brongn. in Ann. Sc. Nat. ser.* 1, i. *t.* 5. *Nees in Ann. Sc. Nat. ser.* 1, iii. *t.* 19, 20. *Korth. Verh. Nat. Geschied. t.* 1 *ad* 4, 20 *ad* 22. *Miq. Illustr. Fl. Archip. t.* 1 *ad* 6, *et Journ. Bot. Neerl. t.* 1, 2. *Blume, Mus. Bot. Lugd. Bat.* ii. *t.* 1. *Vriese, Tuinb. Fl. t.* 9, 10. *Hook. f. in Trans. Linn. Soc.* xxii. *t.* 69 *ad* 74. *Hook. Ic. Pl. t.* 888. *Bot. Mag. t.* 2798, 4285, 5080, 5109. *Fl. des Serres, t.* 213, *ic. a Bot. Mag. repetita et ic. plur. in Diariis Hortul. recent.*

ORDO CXXXVII. **CYTINACEÆ.**

CYTINACEÆ et RAFFLESIACEÆ, R. Br. Endl. Gen. 75. Lindl. Veg. Kingd. 91, 93. Solms-Laub. in Bot. Zeit. 1874, 337, et in Mart. Fl. Bras. iv. ii. 117.

Flores regulares, unisexuales v. hermaphroditi. *Perianthium* simplex, carnosum, cylindraceo-clavatum globosum v. campanulatum, tubo basi ovario adnato v. in fl. ♂ solido, supra ovarium sæpius producto, limbus 3–10-partitus, segmentis simplici v. duplici serie imbricatis v. valvatis. *Stamina* 8–∞; antheræ circa columnam genitalem centralem carnosam v. ad faucem perianthii sessiles, 2-loculares, loculis rima longitudinali v. poro terminali dehiscentibus; pollen globosum v. 3-lobum, sæpe viscosum. *Ovarium* inferum rarissime semisuperum, 1-loculare v. placentis multilamellatis varie intricatis imperfecte multilocellatum, stigma indivisum discoideum v. lobatum v. stigmata ∞ in vertice ovarii v. columnæ genitalis sessilia. *Ovula* numerosissima, placentas parietales v. ab apice loculi pendulas undique obtegentia, subsessilia et orthotropa v. a funiculo pendula et anatropa, integumento unico. *Fructus* carnosus, apice perianthii parte superiore decidua nudus v. limbo marcescente coronatus, 1-locularis sed sæpe placentis intricato-ramosissimis repletus, indehiscens v. irregulariter ruptus. *Semina* minuta, numerosissima, placentas parum prominulas obtegentia v. placentarum ramis intricatis quasi immixta; testa

cellulosa. *Albumen* cellulosum, embryonem minutum breviter dicotyledoneum fovens, haud raro tamen nucleus induratus, et nisi diligentissime observetur homogeneus videtur embryone difficillime detecto.

Herbæ parasiticæ, carnosæ, squamis sparsis v. imbricatis instructæ v. omnino aphyllæ, ad florem unicum subsessilem reductæ, v. caule plus minus evoluto ∞-floræ, floribus in spicam terminalem confertis sessilibus.

Species ad 22, per regiones calidas et temperatas Europæ australis Africæ et Americæ v. per plagas humidas tropicas Asiæ sparsæ, in radicibus v. ramis fruticum v. arborum variorum innato-parasiticæ.

Ordo jam diu *Aristolochiaceis* et *Nepenthaceis* non sine causa approximatus, ab utroque tamen distinctissimus, tam habitu quam characteribus carpologicis. Nulli alii ordini accedere videtur.

CONSPECTUS GENERUM.

Tribus I. Rafflesieæ. Squamæ sparsæ v. imbricatæ. Flores sæpissime abortu unisexuales Perianthii segmenta 4–10, imbricata v. rarissime valvata. Antheræ circa columnam genitalem 1–3-seriatim verticillatæ. Stigmata 1–∞, vertice columnæ sessilia.

* *Caulis evolutus, squamis sparsis, floribus ∞ spicatis.*

1. CYTINUS. Antheræ 8–10 ad apicem columnæ 1-seriatim verticillatæ, loculis longitudinaliter dehiscentibus. Stigma terminale, integrum v. brevissime radiato-lobatum. Baccæ placentæ parietales valde intrusæ.—*Reg. Mediterr.*, *Afr. austr.*, *Mexico.*

** *Flos solitarius parvus, in rhizomate sessilis, bracteis imbricatis ovario basi adnatis perianthii segmentis subsimilibus stipatus.*

2. APODANTHES. Antheræ ∞, circa basin v. infra apicem columnæ 1–3-seriatim verticillatæ, poro terminali dehiscentes. Stigma terminale, obtusum v. concavum. Placentæ parietales, latæ, sæpe continuæ, parum prominentes.—*Mexico, Amer. austr. trop. et extratrop.*, *Afr. trop.*, *Oriens.*

*** *Flos solitarius magnus, in rhizomate sessilis, bracteis imbricatis basi ovario adnatis perianthii lobis valde dissimilibus stipatus.*

3. RAFFLESIA. Perianthii lobi 5, lati, imbricati. Antheræ circa columnæ collum serie simplici cavis reconditæ, globosæ, poro unico dehiscentes. Stigmata in vertice explanato columnæ ∞, conica.—*Archip. Malay.*

4. BRUGMANSIA. Perianthii lobi 5–6, 2–3-fidi, induplicatim valvati. Antheræ circa columnæ basin simplici serie dense verticillatæ, poris 2 superpositis dehiscentes. Stigma in vertice columnæ indivisum.—*Archip. Malay.*

5. SAPRIA. Perianthii lobi 10, duplici serie imbricati. Antheræ circa columnæ basin simplici serie verticillatæ, poro unico dehiscentes. Stigma in centro disci columnam terminantis unicum, conicum.—*Bengala orient.*

Tribus II. Hydnoreæ. Squamæ 0. Flos hermaphroditus, in rhizomate solitarius, subsessilis, majusculus. Perianthium crassissimum, valvatim 3–4-lobum. Antheræ ad faucem in massas 3–4 subcontinuas sessilesque confertæ. Stigma in vertice ovarii sessile, disciforme, tubo perianthii inclusum.

6. HYDNORA. Antherarum massæ ad faucem annulum continuum formantes. Placentæ ab apice loculi pendulæ, a parietibus liberæ.—*Afr. austr. et trop.*

7. PROSOPANCHE. Antheræ in massam ovoideam confertæ, faucem claudentes. Placentæ parietales, ab apice loculi liberæ.—*Amer. austr. extratrop.*

GENUS EXCLUSUM.

THISMIA, Griff. (SARCOSIPHON, Blume) a Lindleyo dubie *Cytinaceis* adscripta, inter *Monocotyledones* quærenda est juxta **Burmanniaceas.**

TRIBUS I. RAFFLESIEÆ.

1. **Cytinus,** *Linn. Gen. n.* 1232. (Thyrsine, *Gleditsch, Syst. Pl.* 286.)—Flores monoici v. dioici. Perianthii tubus in fl. ♂ solidus, in fl. ♀ ovario adnatus, limbus campanulatus, lobis 4–9 2-seriatim v. contorto-imbricatis. Fl. ♂: Antheræ 8–10, ad apicem columnæ centralis 1-seriatim verticillatæ, adnatæ, extrorsum 2-loculares, loculis parallelis contiguis rima longitudinali dehiscentibus, connectivis ultra loculos sæpius in appendices breves liberas productis. Fl. ♀: Ovarium inferum, 1-loculare; stylus columnaris, stigmate terminali globoso sulcato apice obtuso v. brevissime radiatim lobato; ovula numerosissima, placentas 8–14 parietales valde intrusas undique obtegentia, orthotropa. Fructus baccatus. Semina minima, testa duriuscula; embryo in apice albuminis indurati cellulosi minutus.—Herbæ coloratæ, subcarnosæ, in radicibus parasiticæ. Caules breves, crassi, simplices, squamis alternis coloratis instructi. Flores in spicam terminalem simplicem dispositi, singuli ad axillam bracteæ sessiles v. breviter pedicellati, bracteolis 2 oppositis stipati v. ebracteolati. Flores mediocres.

Species 4, regionis Mediterraneæ, Africæ australis et Mexici incolæ.—*Hook. f. in DC. Prod.* xvii. 107.

Genus jam a R. Br. in Trans. Linn. Soc. xix. 245, bene definitum, ab auctoribus nonnullis in genera 3 dividitur, inter se patria et quodammodo characteribus distincta, sed melius pro sectionibus retinenda: 1. Species typica Mediterranea, in *Cistaceis* parasitica, floribus monoicis 4-meris 2-bracteolatis. *Cav. Ic. t.* 171. *Trattin. Thes. Bot. t.* 29. *Brot. Phytogr. Lusit. t.* 51. *Hook. Exot. Fl. t.* 153. *Reichb. Ic. Fl. Germ. t.* 540. *Sibth. Fl. Gr. t.* 938.

2. *Hypolepis.* Species Capensis, in *Eriocephalo* parasitica, floribus dioicis 6-meris 2-bracteolatis. *Hook. Ic. Pl. t.* 336. PHELYPEA, *Thunb. Nov. Gen. Pl.* 91, *non Desf.* HYPOLEPIS, *Pers. Syn. Pl.* ii. 598.

3. *Bdallophyton.* Species 2, Mexicanæ, dioicæ, floribus 4–5-meris ebracteolatis. *A. Gray in Proc. Amer. Acad.* v. 188. BDALLOPHYTON, *Eichl. in Bot. Zeit.* 1872, 709, *t.* 8, *in DC. Prod.* xvii. 301 ad *Cytinum* reductum.

Seminis *Cytini* nucleus, in sicco observatus, homogeneus videtur, itaque fere ab omnibus botanicis descriptus est, sed ex observationibus ad vivum diligenter institutis a Gasparrini in Parlat. Giorn. Bot. Ital. ii. 7, t. 1, et serius accuratiusque in Rendic. Accad. Sc. Nap. i. 188, cum tab. editis, embryo minimus ac distinctus in apice albuminis cellulosi includitur. Confer etiam Solms-Laubach in Bot. Zeit. 1874, 369, t. 8, f. 12, qui stratum unicum cellularum albuminis circa embryonem invenit, cui tamen verisimiliter observationes Gasparrinii ignotæ erant.

2. **Apodanthes,** *Poit. in Ann. Sc. Nat. ser.* 1, iii. 422, *t.* 26, *f.* 1. (Pilostyles, *Guillem. in Ann. Sc. Nat. ser.* 2, ii. 21, *t.* 1. Frostia, *Berter. in Endl. Gen.* 76. Sarna, *Karst. in Nov. Act. Nat. Cur.* xxvi. 920, *t.* 65.)—Flores dioici. Perianthii tubus in fl. ♂ solidus, in fl. ♀ ovario adnatus, ovoideus v. globosus, ultra ovarium non productus; limbus 4–6-partitus, segmentis 1-seriatim imbricatis interdum squamis bracteantibus subsimilibus. Discus epigynus carnosus, columnam genitalium cingens. Fl. ♂ (ubi noti): Columna apice incrassata v. dilatata, plana v. convexiuscula, margine pilosa; antheræ numerosæ, circa basin v. infra apicem columnæ sessiles, 1–3-seriatim verticillatæ, 1-loculares, poro unico apice extrorsum dehiscentes. Fl. ♀: Ovarium inferum v. rarius semi-inferum, 1-loculare. Discus epigynus carnosus, cum stylo brevi conico v. vix distincto continuus, vertice stigmatoso obtuso conico v. subgloboso medio sæpe intruso; ovula numerosissima, anatropa, placentas parietales (sæpius 4) latas interdum confluentes undique obtegentia. Bacca squamis perianthiique segmentis persistentibus circumdata. Semina minuta, testa reticulata, albumine celluloso (e stratu unico cellularum, *Solms-Laub.*).—Planta tota parva v. minima, flore e rhizomate innato solitario sessili. Squamæ seu bracteæ basi ovario adnatæ, irregulariter v. subregulariter pauciseriatim imbricatæ, perianthii segmentis subsimiles, interiores iis approximatæ v. bene distantes.

Species descriptæ 10, in ramis fruticum parasiticæ, per varias regiones imprimis Americæ, Africæ et Orientis dispersæ. *Hook. f. in DC. Prod.* xvii. 113. *Gardn. in Hook. Ic. Pl. t.* 655. *Welw. in*

Trans. Linn. Soc. xxvii. 67, *t.* 22. *Torr. Bot. Emory Exped. t.* 52. *Solms-Laub. in Mart. Fl Bras.* iv. ii. 122, *t.* 27. *Boiss. Fl. Or.* iv. 1072 (*Syn. plura sub Pilostyli*).

In specie typica *Apodanthe* Guianensi in *Casearia* parasitica, et in *Sarna*, Karst., specie Columbiana in ramis *Flacourtiæ*, flores ♂ ignoti et in flore ♀ perianthii segmenta a bracteis superioribus plus minus distant. Species cæteræ ab auctoribus pluribus sub nomine *Pilostylis* distinguuntur bracteis numerosioribus, superioribus interdum a perianthii segmentis parum distinctis, et ovarii loculo intus tereti nec quadrato; character tamen prior variat de specie in speciem, et ovarii loculus in omnibus specibus ob placentas 4 intus obscure quadratus, in speciminibus nostris *A. caseariæ* certe non acute quadratus ut in ic. Poitæi delineatur.

3. **Rafflesia,** *R. Br. in Trans. Linn. Soc.* xiii. 201, *t.* 15 *ad* 22, xix. 242, *t.* 22 *ad* 26. —Flores dioici. Perianthii carnosi tubus basi hemisphæricus, in fl. ♂ solidus, in fl. ♀ ovario adnatus, supra ovarium late campanulatus; limbus 5-partitus, segmentis 1-seriatim imbricatis latis integris patentibus v. recurvis, fauce corona elevata carnosa cincta. Columna genitalium brevis, lata, crasso-carnosa, annulo simplici v. duplici cincta, vertice in discum explanata, disci superficie stylis v. processubus styliformibus conicis onusta, margine elevato indiviso. Fl. ♂: Columna infra discum constricta, collo serie simplici antherarum cavis reconditarum circumdato; antheræ globosæ, sessiles, multicellulosæ, poro unico apicali dehiscentes; processus styliformes læves. Fl. ♀: Columna mari conformis, sed styli (v. stigmata) apice hispido-papillosi et antheræ imperfectæ v. 0. Ovarium inferum, placentis labyrinthiformibus in locellos numerosos divisum; ovula numerosissima, placentas undique obtegentia iisque immixta, anatropa, funiculo elongato extra medium arcte recurvato. Semina numerosissima, minuta, funiculo apice dilatato vix latiora, recurvata, castanea, testa crustacea lacunosa, albumine celluloso (e stratu unico cellularum, *Solms-Laub.*); embryo minutus.—Plantæ carnosæ, flore e rhizomate innato solitario magno nunc giganteo lurido odore cadaverino, intra squamas seu bracteas plures basi ovario adnatas sessili. (*Char. ex ic. et descr. citat. imprimis R. Br. et Blume*).

Species 4, in Archipelago Malayano in radicibus *Vitium* parasiticæ. *Hook. f. in DC. Prod.* xvii. 110. *Beccari, Nuov. Giorn. Bot. Ital.* vii. 71. *Blume, Fl. Jav. Rhiz.* 7, *t.* 1 *ad* 3, *ic. in Fl. des Serres, t.* 1505 *ad* 1508 *iteratæ. Miq. Fl. Ind. Bat.* i. ii. *t.* 29, 30; *Analect. Bot. Ind.* iii. *t.* 2, 3. *De Vriese, Mem. Raffl.* 1853, *cum tabb.* 2. *Teschem. in Bost. Journ. Nat. Hist.* iv. *t.* 6, *ic. in Ann. Nat. Hist. ser.* 1, ix. *t.* 6 *iterata. Hook. Comp. Bot. Mag.* i. *t.* 14, 15.

4. **Brugmansia,** *Blume in Van Hall, Bijdr. Natuurk. Wetensk,* ii. 422; *Fl. Jav. Rhiz.* 13, *t.* 4 *ad* 6. (Zippelia, *serius* Mycetanthe, *Reichb. ex Endl. Gen. Suppl.* ii. 6.)—Flores dioici v. interdum hermaphroditi. Perianthii carnosi tubus basi ovario adnatus, supra ovarium late campanulatus; limbus 5–6-partitus, segmentis alte 2–3-fidis induplicatim valvatis per anthesin patentibus recurvisve. Columna genitalium apice capitata; capitulum convexum, sulcatum, pilosum, medio constrictum, vertice depressum, margine superiore crenulata. Antheræ numerosæ (40–60), serie simplici sulcis capituli respondente circa ejus basin dense verticillatæ, subglobosæ, connatæ, 2-loculares, sæpissime 2-porosæ, poris superpositis. Ovarium inferum, 1-loculare; stylus crasse columnaris, stigmate capitato indiviso; ovula numerosissima, placentas parietales carnosas indefinite numerosas undique obtegentia, anatropa. Fructus subbaccatus. Semina numerosissima, minuta, obovoidea v. pyriformia, funiculo recurvo.—Plantæ carnosæ, flore e rhizomate innato solitario magno, intra squamas seu bracteas plures imbricatas basi ovario adnatas subsessili. (*Char. imprimis ex ic. et descr. Blume*).

Species 2, in Archipelago Malayano in radicibus *Vitium* parasiticæ. *Hook. f. in DC. Prod.* xvii. 113. *Beccari in Nuov. Giorn. Bot. Ital.* i. 85, *t.* 5, vii. 74.

5. **Sapria,** *Grif. in Trans. Linn. Soc.* xix. 314, *t.* 34, 35.—Flores dioici. Perianthii carnosi tubus basi in fl. ♂ solidus, in fl. ♀ ovario adnatus, supra ovarium late campanulatus, intus 20-carinatus; limbus 10-partitus, segmentis duplici serie imbricatis recurvo-patentibus, fauce corona annulari semiclausa. Columna genitalium brevis, basi exannulata, sursum in discum dilatata concavum longe pilosum, centro in stylum v. processum

styliformem unicum conicum productum. Fl. ♂: Antheræ ad 20, simplici serie ad basin columnæ verticillatæ, sessiles, 2–3-loculares, apice (deorsum spectante) 1-porosæ. Processus terminalis styliformis lævis. Fl. ♀: Antheræ castratæ. Ovarium 1-loculare; stylus seu disci conus bene evolutus papillosus; ovula numerosissima, placentas plures parietales undique obtegentia, anatropa. Fructus magnus, globosus, perianthio indurato coronatus.—Planta carnosa, flore e rhizomate innato solitario magno lurido odore cadaverino, intra bracteas plures oppositas imbricatas basi ovario adnatas sessili. (*Char. ex ic. et descr. Griff.*).

Species 1, in Bengalia maxima orientali, in radicibus truncisque *Vitium* parasitica.—*Hook. f. in DC. Prod.* xvii. 112.

TRIBUS II. HYDNOREÆ.

6. **Hydnora,** *Thunb. in Vetensk. Akad. Handl. Stockh.* 1775, 69, *t.* 2 *fl.*, *et* 1777, 144, *t.* 4 *fr.* (Aphyteia, *Achar. in Linn. Amœn. Acad.* viii. 310, *t.* 7.)—Flores hermaphroditi. Perianthium crasso-carnosum, cylindraceo-clavatum, tubo basi ovario adnato supra ovarium producto et sub fauce sæpe contracto; limbus in lobos 3 v. 4 crassissimos valvatim divisus. Antheræ numerosæ, lineari-flexuosæ, ad faucem in annulum sessilem sub 3–4-lobum dense confertæ, loculis parallelis rima longitudinali dehiscentibus. Ovarium inferum, 1-loculare, stigmate sessili lato depresso sub-3–4-lobo striato coronatum; ovula numerosissima, placentas numerosas ab apice loculi pendulas obtegentia. Fructus, perianthii parte libera decidua, subglobosus, crassus, stigmate persistente coronatus, intus placentis auctis in massam intricatam subconcretis repletus. Semina minuta, numerosissima, intra massam placentarum undique intermixta, testa cellulosa. Embryo in albumine copioso subcartilagineo minimus.—Plantæ crasso-carnosæ, aphyllæ, rhizomate in radicibus (præcipue *Cotyledonum* v. *Euphorbiacearum*) parasitico sæpeque innato, cæterum e flore unico majusculo in caulem brevem basi contracto constante. Squamæ nullæ, sed superficies saltem in sicco sæpe areolata, areolis elevatis squamas adnatas simulantibus.

Species editæ 8, sed verisimiliter ulterius comparatæ ad 5 reducendæ, Africæ tropicæ et australis incolæ. *Hook. f. in DC. Prod.* xvii. 109 (subgen. *Euhydnora*). *Dcne. in Bull. Soc. Bot. Fr.* xx. 75. *Beccari in Nuov. Giorn. Bot. Ital.* iii. 5, vii. 70. *R. Br. in Trans. Linn. Soc.* xix. *t.* 27, *ad* 30. *E. Mey. in Nov. Act. Nat. Cur.* xvi. *t.* 58, 59. *Gærtn. Fruct.* ii. *t.* 137. *Trattin. Thes. Bot. t.* 31. *Harv. Thes. Cap. t.* 187. *Wedd. in Ann. Sc. Nat. ser.* 3, xiv. *t.* 8. *Solms-Laub. in Bot. Zeit.* 1874, 385, *t.* 8, qui *Hydnoram* et *Prosopanchem* ob albumen copiosum et habitum in ordinem distinctum a *Cytineis* (*Rafflesiaceis*) separat.

Decaisne l.c. species 2 flore 4-mero a 3-meris distinxit pro sectione sub nomine *Dorhynæ*.

7. **Prosopanche,** *De Bary in Abhandl. Naturf. Gesellsch. Halle,* x. 243, *t.* 1, 2.—Flores hermaphroditi. Perianthium crasso-carnosum, cylindraceo-clavatum, tubo basi ovario adnato supra ovarium producto; limbus in lobos 3 crassissimos valvatim divisus. Antheræ numerosæ, lineari-flexuosæ, ad faucem in massam ovoideam 3-dymam subsessilem v. filamentis 3 brevissimis crassis fultam densissime confertæ (stamina 3 antheris polythecis, *Burmeister*), loculis parallele confertis rima longitudinali dehiscentibus; corpuscula 3 sub fauce intra tubum perianthii cordato-2-loba, staminum massis alterna (staminodia, *Burm.*; falso placentæ, *Miers*). Ovarium inferum, 1-loculare etsi placentis fere repletum; stigmate sessili lato depresso 3-sulcato; ovula numerosissima, placentas numerosas parietales lamelliformes loculum implentes undique obtegentia iisque quasi immixta (placentæ 3 multilamellatæ, *Burm.*). Bacca perianthii parte superiore delapsa subglobosa, seminibus numerosissimis placentis irregulariter ramosissimis immixtis repleta. Embryo minimus, in centro albuminis copiosi.—Planta crasso-carnosa, aphylla, *Hydnoræ* simillima e rhizomate flores singulos emittente constans.

Species 1, in America australi extratropica (reipublicæ Argentinæ provinciis interioribus) in radicibus *Prosopidis* parasitica, olim structura interiore imperfecte nota in *Hydnora* inclusa, nunc rite

separata. *Hook. f. in Journ. Linn. Soc.* xiv. 182. *Solms-Laub. in Bot. Zeit.* 1874, 372. *Miers in Trim. Journ. Bot.* 1873, 257, *t.* 135, qui in *Hydnora* retinuit, parte libera perianthii tubi pro ovario descripta, ovario vero ex icone excluso.

Ordo CXXXVIII. ARISTOLOCHIACEÆ.

Endl. Gen. 344. Lindl. Veg. Kingd. 792.

Flores hermaphroditi. *Perianthium* simplex, basi ovario adnatum, supra ovarium varie productum, æqualiter 3-lobum v. irregulariter integrum dentatum v. 3-lobum, lobis valvatis. *Stamina* 6 v. ∞, circa ovarii apicem v. columnam stylarem 1- v. 2-seriatim affixa, filamentis brevibus crassis liberis v. a columna haud distinguendis. *Antheræ* liberæ v. columnæ adnatæ, erectæ, loculis parallelis distinctis, rima longitudinali extrorsum v. staminum exteriorum lateraliter dehiscentibus. *Discus* 0. *Ovarium* inferum v. rarius semisuperum, perfecte v. imperfecte 4–6-loculare, placentis a parietibus intrusis in centro ovarii conniventibus v. coalitis. *Styli* in columnam brevem crassam apice in lobos stigmatosos 3-∞ alte breviter v. obscure divisam coaliti. *Ovula* in quoque loculo ∞, sæpe numerosa, anatropa, horizontalia v. pendula, in series 1 v. 2 superposita. *Capsula* nunc perianthio persistente coronata putrefactione sola aperiens, nunc sæpius perianthii parte supera decidua septicide v. placenticide dehiscens. *Semina* in loculis ∞, sæpius numerosa, horizontalia v. pendula, substantia celluloso-spongiosa cum endocarpio continua interdum immersa, ovoidea v. oblonga, obtuse 3-quetra v. compressa et plana v. concava, testa crustacea v. duriuscula rugosa v. lævi, raphe in semine plano-concavo sæpe carnoso-incrassata v. dilatata. *Albumen* copiosum, carnosum. *Embryo* prope hilum albumine inclusum, minimum, oblongum v. ovoideum, cotyledonibus sese applicitis radiculæ subæquilongis.

Herbæ rarius frutices, sæpe volubiles, interdum altissime scandentes, totæ fricatu v. flore solo sæpe fœtentes. Folia alterna, petiolata, sæpe cordata, integerrima v. 3–5-loba. Stipulæ 0. Flores mediocres v. magni rarius parvuli, virentes flavescentes luride purpurascentes v. variegati, terminales axillares v. ad basin caulis laterales, solitarii v. breviter cymosi v. racemosi. Bracteæ variæ, sæpe desunt.

Species ad 200, per regiones temperatas calidioresque totius fere orbis late dispersæ, temperatas præcipue in hemisphærio boreali.

Ordo nulli prope accedit, olim cum *Dioscorideis* comparatus et, uti *Piperaceæ,* caulis anatomia ei Monocotyledonearum approximatur, sed embryo in utroque ordine certe dicotyledoneus.

CONSPECTUS GENERUM.

1. Asarum. Ovarium inferum v. semisuperum, hemisphæricum v. subglobosum. Perianthium supra ovarium 3-lobum, æquale, persistens. Stamina circa stylum 12, 2-seriata, antheris liberis.—*Eur., Asia temp., Amer. bor.*

2. Bragantia. Ovarium inferum, lineare, stipitiforme. Perianthium 3-lobum, æquale, supra ovarium articulatum, deciduum. Stamina circa stylum simplici serie 6–12, libera v. basi stylo adnata.—*Ind. or., Archip. Malay.*

3. Thottea. Ovarium inferum, lineare, stipitiforme. Perianthium 3-lobum, æquale, supra ovarium articulatum, deciduum. Stamina circa stylum duplici serie numerosa, libera v. basi stylo adnata.—*Archip. et Penins. Malay.*

4. Holostylis. Ovarium inferum, lineare, stipitiforme. Perianthium irregulare, supra ovarium articulatum, deciduum, oblique campanulatum, supra genitalia haud constrictum. Antheræ 6, columnæ stylari 1-seriatim adnatæ.—*Brasilia.*

5. Aristolochia. Ovarium inferum, lineare oblongum v. obovoideum. Perianthium irregulare, polymorphum, supra ovarium articulatum, deciduum, circa genitalia utriculosum, supra

genitalia plus minus constrictum. Antheræ 6–∞, columnæ stylari 1-seriatim adnatæ.—*Orbis utriusque reg. calid. et temp.*

GENUS EXCLUSUM.

Trichopodium, Lindl., ab auctore *Aristolochiaceis* adscriptum ad **Dioscorideas** pertinet.

1. **Asarum,** *Linn. Gen. n.* 589. (Heterotropa, *Morr. et Dcne. in Ann. Sc. Nat. ser.* 2, ii. 314, *t.* 10.)—Perianthium basi ovario adnatum, subhemisphæricum, supra ovarium late campanulatum v. urceolatum, fauce varie constricta v. aperta, lobis 3 (rarius 4?) æqualibus valvatis. Stamina 12 (rarius 8?), ovario 2-seriatim affixa eique interdum breviter adnata, filamentis crassiusculis v. brevissimis; antherarum loculi extrorsum v. seriei exterioris sublateraliter dehiscentes, connectivo ultra loculos varie producto. Ovarium inferum semi-inferum v. basi tantum leviter immersum, subglobosum v. vertice planum, imperfecte v. perfecte 6- rarius 4-loculare, placentis parietalibus valde intrusis, in centro dilatatis et sæpe contiguis v. interdum coalitis; styli 6 rarius 4, crassiusculi, liberi v. plus minus in columnam connati, superne introrsum stigmatosi; ovula in quoque loculo ∞, 2-seriatim superposita, horizontalia v. pendentia. Capsula coriacea, semi-infera v. infera, perianthio staminibusque persistentibus coronata, putrefactione aperta. Semina oblonga, complanata, facie interna valde concava marginibus fere involutis, raphe carnosa percursa; albumen et embryo ad normam ordinis.—Herbæ perennes, caudicibus repentibus quotannis caules plerumque brevissimos 1–3-squamatos et folia 1–2 gerentes emittentibus. Folia longe petiolata, cordata reniformia v. subhastata. Flores terminales, solitarii, breviter pedunculati. Perianthium saltem intus fusco-purpureum v. luridum, lobis obtusis acutis v. caudato-acuminatis.

Species notæ 13, regionum temperatarum hemisphærii borealis incolæ, scil. 4 Americanæ, 1 Europæa, 1 Himalaica, 7 Asiaticæ orientales v. Japonicæ. *Duch. in DC. Prod.* xv. i. 422. *Maxim. in Bull. Acad. Petersb.* xvii. 162; *Mel. Biol.* viii. 395. *Reichb. Ic. Fl. Germ. t.* 668. *Nees, Gen. Fl. Germ. Monochlam. n.* 51. *Torr. Fl. N. York, t.* 92. *Field et Gardn. Sert. Pl. t.* 32. *Hook. Exot. Fl. t.* 40. *Bot. Mag. t.* 2769, 3746, 4933, 5380. *Sweet, Brit. Fl. Gard. t.* 18, 95. *Lodd. Bot. Cab. t.* 889. *Reg. Gartenfl. t.* 440.

Genus distinctissimum, habitu subuniforme, variat de specie in speciem perianthio ad faucem varie constricto v. nudo, ovario apice plus minus libero, staminibus stylisque majus minusve evolutis liberis v. connatis, vix tamen in sectiones distinctas dividendum.

2. **Bragantia,** *Lour. Fl. Coch.* 528. (Apama, *Lam. Dict.* i. 91. Ceramium, *Blum. Bijdr.* 1134, *nomen mutatum in* Vanhallia, *Roem. et Schult. Syst.* vii. 18, *v. in* Munnickia, *Reichb. Consp.* 85. Trimeriza, *Lindl. Bot. Reg. sub. t.* 1543. Asiphonia, *Griff. in Trans. Linn. Soc.* xix. 333, *t.* 37. Strakæa, *Presl, Epimel. Bot.* 221. Cyclodiscus, *Klotzsch in Monatsber. Acad. Berlin,* 1859, 591.)—Perianthium basi ovario adnatum, lineare, stipitiforme, supra ovarium articulatum, late campanulatum, 3-fidum, fauce aperta quandoque intus annulata, lobis valvatis æqualibus. Stamina 6–12, simplici serie stylum cingentia, filamentis brevibus subnullisve liberis v. varie coalitis; antherarum loculi connectivo crassiusculo ultra loculos brevissime et obtuse producto extrorsum adnati. Ovarium inferum, 4-loculare; stylus supra ovarium breviter v. brevissime lateque integer, in lobos 3–∞ stigmatosos sæpius lineares divisus; ovula in loculis numerosa, 2-seriatim superposita, pendula. Capsula perianthio deciduo apice nudata, longe linearis, 4-gona, septicide 4-valvis, placentam centralem 4-angulatam (an semper?) relinquens. Semina oblongo-3-gona, testa crustacea v. duriuscula rugosa, substantia celluloso-spongiosa cum placenta continua sæpe involuta; albumen et embryo ad normam ordinis.—Frutices suffruticesve parum ramosi, tomentosi v. glabrati. Folia alterna, breviter petiolata, 3–5-nervia, pennivenia. Flores quam in *Thottea* multo minores, in una specie ad apices ramorum laxe cymoso-corymbosi, in altera ad axillas pauci breviter cymosi, in tertia prope basin caulis racemosi. Capsula sæpius pluripollicares.

Species adsunt 3 (v. 4?) præter typicam Loureireanam nobis ignotam, Indiæ orientalis et Archipelagi Malayani incolæ.—*Duch. in DC. Prod.* xvi. i. 429. *Benn. Pl. Jav. Rar. t.* 11. *Wight, Ic. t.* 520.

Species singulæ inter se differunt inflorescentia, staminum stylique ramorum numero, vix tamen commode pro sectionibus monotypicis habendæ. *Strakæa melastomifolia*, Presl, est certe eadem ac *B. corymbosa*, Griff. Nomen genericum Lamarckianum jure prioritatis gaudet, futile tamen erit hodie rejicere Loureireanum jam diu ab omnibus botanicis receptum.

3. **Thottea,** *Rottb. in Dansk. Vidensk. Selsk. Skrift. ser.* 2, ii. 529, *t.* 2. (Lobbia, *Planch. in Hook. Lond. Journ.* vi. 144, *t.* 3.)—Perianthium basi ovario adnatum, lineare, stipitiforme, supra ovarium articulatum, late campanulatum v. urceolatum, 3-fidum, fauce aperta v. vix contracta, lobis valvatis æqualibus. Stamina ∞, sæpius numerosa, duplici serie stylum cingentia eique sæpius breviter adnata, filamentis brevissimis; antherarum loculi connectivo latiusculo ultra loculos haud producto extrorsum adnati. Ovarium inferum, subperfecte 4-loculare, placentis in centro contiguis at vix coalitis; stylus supra ovarium breviter lateque integer, in lobos crassiusculos obtusos 5–20 stigmatosos divisus; ovula in loculis numerosa, 2-seriatim superposita, pendula. Capsula perianthio deciduo apice nudata, longe lineari-4-gona, septicide 4-valvis, margines placentiferas filiformes (an semper?) liberans. Semina oblongo-3-gona, testa crustacea duriuscula elevato-rugosa, substantia celluloso-spongiosa continua plus minus involuta; albumen et embryo ad normam ordinis.—Frutices erecti v. sarmentosi, ferrugineo-tomentosi v. glabrati. Folia alterna, breviter petiolata, ampla, coriacea, pennivenia, reticulato-venulosa basique sæpius plus minus distincte 3–5-nervia. Flores mediocres v. magni, ad axillas breviter cymosi, v. (in specie Beccariana a nobis non visa) ad basin caulis racemosi. Capsulæ sæpe semipedales.

Species 5, Peninsulæ et Archipelagi Malayani incolæ. *Duch. in DC. Prod.* xv. i. 428. *Griff. in Trans. Linn. Soc.* xix. *t.* 36. *Beccari in Nuov. Giorn. Bot.* ii. i. *t.* 1. (Spec. 1 Maingayana adhuc inedita).

T. grandiflora, Rottb., a cæteris differt floribus magnis, cymæ ramis 2-3 longiusculis, sed nequaquam a cæteris pro sectione separanda. Ovula in omnibus speciebus pendula, errore pictoris in *T. dependente* erecta delineata. Genus *Bragantiæ* valde affine, vix differt floribus majoribus et staminibus 2-seriatis.

4. **Holostylis,** *Duchartre in Ann. Sc. Nat. ser.* 4, ii. 33, *t.* 5, *et in DC. Prod.* xv. i. 431. —Perianthium basi ovario adnatum, lineare, stipitiforme, supra ovarium articulatum, latissime et oblique campanulatum, supra genitalia intus annulatum, extus tamen haud constrictum. Stamina 6, filamentis connectivisque a columna stylari non distinctis; antheræ circa columnam 1-seriatim adnatæ, loculis extrorsum dehiscentibus. Ovarium inferum, perfecte 6-loculare; columna stylaris cylindracea, crassa, apice in discum concavum crenatum v. breviter lobatum supra vel introrsum stigmatosum dilatata; ovula in loculis ∞, horizontalia, superposita. Capsula oblonga, septicide 6-valvis, placentis linearibus marginibus valvularum adhærentibus v. demum liberatis. Semina horizontalia, obovata, plano-compressa, marginibus obtusis, raphe ventrali in alam crassam carnosam semini ipsi æquilatam dilatata, testa tenuiter crustacea lævi; albumen et embryo ad normam ordinis.—Herba e caudice perenni subsimplex. Folia pauca, magna, reniformia, pedatim 5–9-nervia. Flores in caulibus radicalibus aphyllis v. apice demum foliatis pauci, dissiti, breviter pedicellati, bractea parva subtensi.

Species 1, Brasiliensis. *Mast. in Mart. Fl. Bras.* iv. ii. 81, *t.* 17. Genus vix ac ne vix ab *Aristolochia* perianthii forma distinctum.

5. **Aristolochia,** *Linn. Gen. n.* 1022.—Perianthium basi ovario adnatum, lineare oblongum v. obovoideum, supra ovarium plus minus distincte articulatum sæpeque externe gibbis 1–6 appendiculatum, circa genitalia utriculosum globosum v. oblongum, supra genitalia constrictum v. varie contractum intusque sæpe annulatum v. appendice annulari reflexa instructum, superne tubulosum rectum curvum reduplicatum v. varie flexuosum, apice in limbum quam maxime varium, integrum 1–2-labiatum 3-lobum v. 1–3-caudatum expansum. Stamina 6, rarius 4 v. 10–∞, circa columnam stylarem 1-seriata, filamentis connectivisque a columna haud distinctis; antheræ columnæ adnatæ, loculis extrorsum dehiscentibus. Ovarium inferum, imperfecte v. perfecte 6- rarius 5- v. 4-loculare, placentis

parietalibus nunc parum prominulis nunc sæpius in centro ovarii conniventibus v. coalitis; stylus v. columna stylaris brevis, crassus, superne in lobos stigmatosos 3 v. 6 rarius ∞, crassos obtusos v. rarius lineares v. brevissimos divisus; ovula ∞, in loculis 2-seriatim v. in placentis parietalibus utrinque 1-seriatim superposita. Capsula apice perianthio deciduo denudata, a basi ad apicem v. rarius ab apice basin versus septicide v. placenticide 6-valvis rarius 5- v. 4-valvis. Semina sæpius numerosa, horizontalia, obovata, compressa, plana v. sæpius facie concava ibidemque raphe carnosa percursa, extus lævia v. tuberculato-rugosa, haud raro substantia celluloso-spongiosa immersa, testa crustacea v. indurata; albumen et embryo ad normam ordinis.—Herbæ rhizomate perenni seu tuberosa v. frutices sæpe volubiles interdum altissime scandentes, rarissime arborescentes. Folia alterna, sæpius petiolata, integerrima v. 3–5-loba, sæpe basi cordata et 5–7-nervia. Pedunculi axillares, 1-flori, solitarii fasciculati v. breviter racemosi. Bractea 0, v. ad basin pedunculi stipulam simulans, v. in medio pedunculo sub ovario unica. Perianthium viride flavescens luridum v. variegatum, forma et magnitudine quam maxime varians, nunc infrapollicare tenuisque nunc 2-pedale superne latissimum. Planta tota fricatu v. flores sæpius fœtentes.

Species ad 180, per regiones calidiores temperatasque totius fere orbis late dispersæ, aliæ in locis cultis frequentes, plurimæ tamen ad aream parvam limitatæ v. rarissimæ.—*Duch. in Ann. Sc. Nat. ser.* 4, ii. 29, *t.* 5, 6, *et in DC. Prod.* xv. i. 433. *Cham. et Schl. in Linnæa*, vii. *t.* 5, 6. *Klotzsch in Monatsb. Acad. Berl.* 1859, 593, *t.* 2 (*tribus Aristolochiaceæ*). *Boiss. Fl. Or.* iv. 1075. *Griseb. Symb. Fl. Argent.* 148.

Genus naturalissimum, etsi perianthii forma quam maxime varium, a Duchartreo anno 1854 in sectiones, imprimis ad gynostegii indolem bene definitas et areæ geographicæ convenientes etsi non semper habitu nec aliis characteribus distinctas, bene divisit. Klotzsch, anno 1859, tentamen Duchartrei negligens v. forte ejus inscius, fere easdem sectiones sub aliis nominibus pro generibus propriis constituit. His postea addendæ sunt species quædam Africanæ sectionem novam constituentes, et genus nobis dividendum videtur in sectiones 4, characteribus Duchartreanis limitandas; cæteras ab hoc auctore propositas ad subsectiones reducimus.

1. *Diplolobus*, Duch. Columna stylaris 6-loba, infra lobos supra antheras annulo prominulo cincta. Antheræ 6, circa columnam æquidistantes, lobis oppositæ. Perianthii tubus rectus incurvus v. flexuosus, limbus sæpius 1-labiatus, rarius periphericus utrinque subæqualis. Species ultra 40, omnes gerontogeæ. *Reichb. Ic. Fl. Germ. t.* 669 *ad* 672. *Nees, Gen. Fl. Germ. Monochlam. n.* 50. *Hayne, Arzneigew.* ix. *t.* 20, 22 *ad* 24. *Waldst. et Kit. Pl. Rar. Hung. t.* 240. *Sibth. Fl. Gr. t.* 934 *ad* 937. *Desf. in Ann. Mus. Par.* x. *t.* 18, 19; *Fl. Atl. t.* 249, 250. *Jaub. et Spach, Ill. Pl. Or. t.* 97 *ad* 100, 127 *ad* 129. *Moggr. Fl. Ment. t.* 64, 87. *Bot. Mag. t.* 1115, 1116.

Genus *Aristolochia* a Klotzsch in Monatsber. Acad. Berl. 1859, 593, ad hanc sectionem limitatur, et icones supra citatæ ad subsectionem typicam pertinent, perianthii utriculo immediate supra ovarium posito. In speciebus pluribus Asiaticis v. Mascarensibus perianthii tubus inter ovarium et utriculum plus minus productus stipitiformis, et subsectionem *Podanthemum*, Kl., formant. Huc referendæ Wight, Ic. t. 771 et 1858. Subsectio *Acerostylis*, Duch., species v. varietates 2 continet ex Africa orientali, columna stylari apice minus distincte lobata, annulo sub apice latiore. Huc pertinent specimina a Schweinfurthio recepta sub nomine *A. rigidæ*, Duch., aliaque floribus minoribus ab Olivero in Hook. Ic. Pl. t. 1273 sub nomine *A. somaliensis* edita, quæ forte melius quam Schweinfurthiana cum dimensionibus a Duchartreo datis quadrant. Annulus infra lobos styli in hac sectione a Duchartreo margine stigmatosus dicitur, quod tamen vix confirmare possumus. Papillæ stigmatosæ potius ad apicem columnæ sitæ videntur.

2. *Polyanthera*. Columna stylaris apice 10–20-loba, lobis integris 2-fidisve, infra lobos exannulata. Antheræ 10–24, circa columnam arcte approximatæ. Perianthium magnum, limbo nunc maximo (2-pedali latoque) remote subulato 3-dentato, nunc 3-fido lobis acutis v. longissime caudatis. Species 4, Africæ tropicæ occidentalis incolæ. *Hook. f. in Trans. Linn. Soc.* xxv. 185, *t.* 14. *Bot. Mag. t.* 5672. *Mast. in Gard. Chron.* 1879, i. 494.

3. *Gymnolobus*, Duch. Columna stylaris apice æqualiter 6- rarius 5-loba, infra lobos exannulata; antheræ 6, rarius 5, circa columnam æquidistantes, lobis oppositæ. Perianthium varium, mediocre, rarius parvulum, sæpe magnum nunc maximum, limbo 1-labiato, 2-labiato v. rarius peripherico. Species ad 100, omnes Americanæ. *Mast. in Mart. Fl. Bras.* iv. ii. 82, *t.* 18 *ad* 26. *Jacq. Stirp. Amer. t.* 144 *ad* 146; *Ic. Rar.* t. 188, 608; *Hort. Schœnbr. t.* 183, 497. *Jacq. f. Ecl. t.* 26. *Desf. in*

Ann. Mus. Par. ii. *t.* 35. *Vahl, Symb.*, ii. *t.* 47. *H. B. et K. Nov. Gen. et Sp. t.* 110 *ad* 114, 116, 117. *Mart. Nov. Gen. et Sp. Bras. t.* 48 *ad* 54. *Vell. Fl. Flum. Ic.* ix. *t.* 96 *ad* 100. *Karst. Ausw. Neu. Gew. t.* 8. *Link et Otto Ic. Sel. t.* 13. *Maund, Botanist, t.* 96. *Bot. Mag. t.* 2545, 3756, 3769, 4120, 4221, 4361, 4368, 4467, 5295, 5420, 5700, 5869, 5880, 6387. *Bot. Reg. t.* 689 1399, 1453, 1543, 1680, 1824 *et* 1842, *t.* 60. *Illustr. Hortic. t.* 568 *et ser.* 3, *t.* 1, 30, 40, 63. (Icones plurimæ in variis diariis hortulanorum repetitæ.) HOWARDIA, *Klotzsch in Monatsber. Acad. Berl.* 1859, 607.

Icones supra citatæ omnes ad subsectionem typicam pertinent genitalibus 6-meris. Subsectio *Einomeia* species continet ad 10, Mexicano-Texanas v. Cubenses, genitalibus 5-meris. *Jacq. Stirp. Amer. t.* 147. *H. B. et K. Nov. Gen. et Sp. t.* 115. *Seem. Bot. Her. t.* 72. EINOMEIA, *Klotzsch in Monatsber. Acad. Berl.* 1859, 605.

4. *Siphisia*, Duch. Columna stylaris apice 3-loba, lobis integris emarginatis irregulariter crenatis v. rarius 2-fidis, infra lobos exannulata. Antheræ 6, per paria lobos opposita approximatæ. Perianthii tubus sæpissime reduplicatus, limbus varius, sæpe periphericus. Species ad 14, Asiaticæ v. Americanæ hemisphærii borealis. *L'Hér. Stirp. Nov. t.* 7, 7 *b. Wall. Pl. As. Rar. t.* 103. *Bot. Mag. t.* 534, 1369, 3640, 4918, 6067. *Lodd. Bot. Cab. t.* 641. *Illustr. Hortic. t.* 522. SIPHISIA, *Raf. Med. Fl.* i. 62 *ex Duch.* HOCQUARTIA, *Dumort. Comm. Bot.* 30.

Icones supra citatæ ad subsectionem typicam pertinent, columnæ stylaris lobis integerrimis sæpius erectis, capsulis oblongis v. elongatis interdum longissimis, seminibus numerosissimis arcte superpositis. Duchartre sub nomine sectionali *Hexodon*, species 2 distinxit styli lobis 2-fidis scil. *A. sericeam*, Benth., e Guatemala cui tamen lobi columnæ in specimine examinato subintegri apparent; et *A. Kæmpferi*, Willd., e Japonia, Kæmpf. Ic. Jap. t. 49, ubi columnæ lobi potius irregulariter crenato-dentati quam 2-fidi videntur. *A. lineata*, Duch. Rev. Hortic. ser. 4, iii. 280, f. 15, ex icone Japonica descripta, omnino ad *A. Kæmpferi* pertinet; folia sæpe in eadem planta alia late reniformia v. ovato-cordiformia alia angusta hastato-3-loba. Species cæterum *Hexodontis* vix pro subsectione a *Siphisiis* typicis separandæ. Sectio *Asteriolites*, Duch. (ENDODECA, *Raf. ex Klotzsch in Monatsber. Acad. Berl.* 1859, 599), imprimis ad *A. serpentariam*, Linn., Jacq. Hort. Schœnbr. t. 385; Hayne, Arzneigew. ix. t. 21. Torr. Fl. N. York, t. 91, ex America boreali constituta est, cui adjungit Duchartre *A. reticulatam*, Nutt., a Klotzschio in *Siphisia* inclusam pariter ex America boreali. Hæ duæ species, pro subsectione bene distinguuntur columnæ stylaris lobis latis varie emarginatis v. undulato-sublobatis, capsula breviter globosa v. depressa oligosperma, valvis post semina delapsa sæpe stellato-patentibus.

A. longifolia, Champ. e Hong-Kong, a Duchartreo rite ad *Siphisias* typicas refertur, ubi pluribus notis ad *A. Thwaitesii*, Hook. accedit, quæ forte pariter e China provenit.

Præter genera Rafinesquiana supra citata, plurima in Endl. Enchirid. 218 citata nec definita a nemine admissa, hic consulto omittimus.

ORDO CXXXIX. **PIPERACEÆ.**

Endl. Gen. 265. Lindl. Veg. Kingd. 515. Miq. Syst. Pip. Roterodami, 1843; Illustr. Piper. in Nov. Act. Nat. Cur. xx. Suppl. cum tabb. 92. Cas. DC. Mem. Fam. Pip. in Mem. Soc. Phys. Genev. xviii. cum tabb. 7. SAURUREÆ, Endl. Gen. 266. Lindl. Veg. Kingd. 521.

Flores hermaphroditi v. unisexuales. *Perianthium* (excepta *Lactore*) 0. *Stamina* 2–6 v. rarissime 7–8 (v. 1?), hypogyna, filamentis liberis v. rarius basi ovario adnatis. *Antheræ* terminales, erectæ, in filamento sæpe articulatæ, loculis 2 distinctis v. in unum confluentibus longitudinaliter dehiscentibus. *Ovarium* sessile v. rarius in stipitem contractum, e carpellis 3–4 ∞-ovulatis distinctis v. basi coalitis, v. 1-loculare et 1-ovulatum; stigmata nunc 3–4, in ovarii lobos v. carpella discreta, v. ovarium indivisum terminantia, nunc unicum sessile, penicillatum v. indivisum. *Ovulum* unicum erectum, v. plura ascendentia, orthotropa. *Fructus* parvus, in generibus ∞-carpellatis capsularis v. in coccos v. follicula 3–4 secedens, in generibus 1-ovulatis indehiscens, baccatus,

pericarpio succulento v. tenui et fere sicco. *Semen* v. semina globosa, ovoidea v. oblonga, testa membranacea v. tenuiter subcarnosa, rarius coriacea. *Albumen* copiosum, farinaceum, sæpius niveum, extus haud raro induratum. *Embryo* minimus, sacculo amniotico inclusus, in foveola albuminis ad extremitatem ab hilo remotam situs, radicula supera, cotyledonibus brevibus sæpius parum distinctis.

Herbæ, frutices v. rarissime arbores, sæpe aromaticæ v. stimulantes. Systema fibro-vasculare caulis, ex obs. Casim. DC., 'modo (in caule lignoso *Piperis*) duplex, id est fasciculis periphericis tubum periphericum lignosum formantibus et fasciculis in medulla sparsis sæpe tubum lignosum internum formantibus, semper inter se et cum periphericis quoque nodo anastomosantibus ; modo (in caule annuo *Peperomiæ*) simplex, id est nunc tubo peripherico nunc fasciculis sparsis constans.' Folia alterna v. rarius opposita v. 3-4-natim verticillata, rarissime 5-6-na, integerrima v. rarissime 3-fida, 3-∞-nervia v. a basi pennivenia, haud raro pellucido-punctata v. succulenta. Stipulæ dum adsint petiolo adnatæ, v. ad basin dilatatam amplexicaulem petioli reductæ, v. postice in unam oppositifoliam connatæ, v. omnino nullæ. Interdum etiam prophyllus ramuli oppositifolii stipulam oppositifoliam simulat. Spicæ, rarius racemi (a nonnullis haud feliciter amenta dictæ) plus minus pedunculatæ, sæpius simplices, terminales v. mox oppositifoliæ, rarius axillares v. plures in pedunculo communi sparsæ, in *Lactore* ad florem 1 v. 2-5 reductæ. Flores parvi, sæpe minuti, secus rhachin sparsi v. sæpius rhachin undique dense obtegentes, interdum annulatim v. spiraliter dense ∞-seriati. Bracteæ subquoque flore sæpe peltatæ, sessiles v. stipitatæ, interdum adnatæ v. concavæ v. rarius lanceolatæ.

Species fere 1000, per orbem utrumque late dispersæ, *Pipereæ* vix extra tropicos extensæ, *Saurureæ* in regionibus temperatis v. subtropicis Americæ et Asiæ orientalis.

Ordo nulli arcte affinis, olim ob structuram caulis junioris, stipularum indole, etc. Monocotyledoneis adscriptus, sed embryo, ex observationibus Kunthii a botanicis recentioribus iterum iterumque repetitis, certe dicotyledoneus. Inter ordines Dicotyledonearum seminum structura *Piperacearum* in solis *Nymphæaceis* observatur, quæ tamen aliis characteribus longe distant. Inter Monochlamydeas Micrembryeas, *Piperaceæ* a *Chloranthaceis* differunt ovario supero, ab omnibus aliis perianthio sæpissime omnino deficiente aliisque notis.

De caulis anatomia confer Miq. Syst. Pip. et Cas. DC. tractatum supra citatos.

FORMÆ ABNORMES.

Perianthium adest calycinum 3-partitum in *Lactore*.

Capsula in coccos indehiscentes v. folliculares secedens in *Saururo* et *Lactore*, 1-locularis apice aperiens in *Houttuynia*.

Albumen potius oleosum quam farinaceum in *Lactore*.

CONSPECTUS GENERUM.

Tribus I. Saurureæ. Ovarii carpella 3-4, 2-8-ovulata.

1. LACTORIS. Perianthium 3-partitum. Stamina 6, filamentis anthera multo brevioribus. Ovarii carpella distincta. Frutex ramosissimus parvifolius, pedunculis 1-3-floris.—*Juan Fernandez.*

2. SAURURUS. Perianthium 0. Stamina 6, 8, v. abortu pauciora, filamentis sub ovario liberis. Ovarii carpella distincta. *Capsula* 3-4-cocca. Herbæ foliis amplis cordatis, racemo floribundo exinvolucrato.—*Amer. bor., Asia or.*

3. HOUTTUYNIA. Perianthium 0. Stamina 3-6, filamentis basi breviter v. alte ovario adnatis. Ovarium e carpellis connatis 1-loculare. Capsula apice inter stigmata aperiens. Herbæ foliis basi cordatis spica floribunda basi sæpius bracteis 4-6 petaloideis involucrata. —*California, Asia or. temp. et subtrop.*

Tribus II. Pipereæ. Ovarium 1-loculare 1-ovulatum. Fructus indehiscens. Perianthium 0.

4. ZIPPELIA. Flores hermaphroditi, in racemo dissiti. Stamina 6. Ovarium minimum, stylo multo majore crasso carnoso coronatum, stigmatibus 4 distinctis. Fructus siccus, dense glochidiato-muricatus.—*Java.*

5. PIPER. Flores hermaphroditi v. unisexuales, dense cylindraceo-spicati v. (in *Ottonia*)

confertim racemosi, v. rarius (in *Maldera*) ♂ secus rhachin dissiti. Stamina 2–6, antherarum loculis distinctis v. rarius (in *Heckeria* paucisque *Chavicis*) in unum confluentibus. Ovarium obtusum v. subrostratum, stigmatibus 3–4 rarius 2 v. 5 coronatum. Bacca nuda. Arbores fruticesve rarius herbæ elatiores.—*Utriusque orbis reg. calid.*

6. Verhuellia. Flores hermaphroditi v. polygami, tenuissime spicati. Stamina 2, antherarum loculis globosis connectivo lato separatis. Ovarium stigmatibus 3–4 distinctis coronatum. Herbæ tenerrimæ, repentes.—*Ind. occid.*

7. Peperomia. Flores hermaphroditi v. rarissime abortu unisexuales, tenuissime v. dense spicati. Stamina 2, antherarum loculis in unum 2-valvem confluentibus. Stigma in ovario sessile, terminale v. laterale, penicillatum v. indivisum. Herbæ nunc tenerrimæ repentes, nunc humiles subacaules, v. elatiores tenues v. succulentæ, sæpius annuæ.—*Utriusque orbis reg. calid.*

8? Symbryon. Flores ♀ (soli noti) tenuiter spicati, spicis 4–5 in pedunculo confertis. Ovarium globosum, inter bracteolas 2 ovatas acuminatas sessile. Stigma terminale, parvum, indivisum. Frutex foliis ovatis coriaceis 3–5-nerviis impunctatis.—*Cuba.*

Genera exclusa v. dubia.

Dugagelia, Gaud. in Freyc. Voy. 513, ab auctoribus dubie *Peperomiæ* relata, charactere manco non recognoscenda et nomen deleatur.

Laurea, Gaud. l. c., est *Bagassa*, Aubl., inter **Urticaceas.**

Aponogeton, Thunb., et Ouvirandra, Thou., ab Endlichero in *Saurureis* inclusæ, ad **Alismaceas** pertinent.

Tribus I. Saurureæ.

1. **Lactoris,** *Philippi in Verh. Zool. Bot. Ver. Wien*, xv. 521, *t.* 13.—Flores hermaphroditi, in pedunculo solitarii v. pauci. Perianthii segmenta 3, calycina, leviter imbricata. Stamina 6, hypogyna, 2-seriata, 3 exteriora segmentis alterna, 3 interiora segmentis opposita, erecta, filamentis brevissimis; antheræ subsessiles, latæ, loculis extrorsum parallelis distinctis rima longitudinali dehiscentibus, connectivo ultra loculos late producto obtuso. Ovarii carpella 3, ima basi subconnata, in stylos breves apice introrsum stigmatosos producta; ovula in quoque carpello 6–8, marginibus intrusis carpellorum affixa. Fructus carpella parum aucta, introrsum folliculatim dehiscentia. Semina in quoque carpello 4–6, ascendentia, oblonga, testa membranacea tenuiter reticulato-striata; albumen copiosum, tenuiter carnosulum; embryo minutus, prope apicem albuminis inclusus, obovoideus, radicula supera.—Frutex diffuse ramosissimus, glaber, ramis more *Piperis* nodosis. Folia alterna, parva, obovata, integerrima, ad axillas sæpe fasciculata; stipulæ membranaceæ, petiolo adnatæ, amplexicaules. Flores ad axillas solitarii v. pauci, in racemulum folio breviorem dispositi, singuli in axilla bracteæ e stipulis connatis compositæ breviter pedicellati.

Species 1, Chilensis.

Genus habitu et sapore *Peperomiarum* nonnullarum, floribus fere *Saururi*, ab omnibus tamen *Piperaceis* differt inflorescentia et perianthio evoluto.

2. **Saururus,** *Linn. Gen. n.* 464. (Mattuschkia, *Gmel. Syst. Nat.* ii. 589, *nomen generi* Anonymo, *Walt. Fl. Car.* 127 *adscriptum.* Spathium, *Lour. Fl. Coch.* 217.)—Flores hermaphroditi, racemosi, intra bracteam pedicellatam sessiles. Perianthium 0. Stamina sub ovario 6 v. 8 v. abortu pauciora, filamentis filiformibus liberis; antheræ erectæ, basifixæ, loculis parallelis longitudinaliter dehiscentibus. Ovarii carpella 3 v. 4, distincta v. basi cohærentia, in stylos erectos v. apice recurvos superne introrsum stigmatosos attenuata; ovula in quoque carpello 2–4, marginibus inflexis carpelli affixa, ascendentia. Fructus subglobosus, e coccis 3–4 arcte contiguis at distinctis extus rugosis clausis v. demum introrsum rima longitudinali v. subfolliculatim dehiscentibus, pericarpio crassiusculo. Semen in quoque cocco sæpius unicum, globosum, erectum, testa pallida membranaceo-carnosula; albumen farinaceum, extus induratum nitidumque; embryo ad normam ordinis.—Herbæ excepto racemo glabræ. Folia alterna, lata, cordata, stipulis membranaceis

petiolo adnatis. Flores parvi, in racemo terminali mox oppositifolio numerosi. Bracteæ ad apicem pedicelli ovatæ, in racemo novello imbricatæ, demum sub staminibus patentes.

Species 2, altera Americæ borealis, altera Asiæ orientalis incola. *Cas. DC. in DC. Prod.* xvi. i. 238. *Jacq. f. Ecl. t.* 18.

Species Asiatica, *S. Loureirii*, Dcne, ab ins. Philippinis usque ad Japoniam extensa, includit *Saururopsin Cumingii*, Cas. DC. l. c. 239. SAURUROPSIS typica, *S. chinensis*, Turcz. in Bull. Soc. Imp. Nat. Mosc. 1848, i. 589, ex Amoy, *Fortune* n. 102, est varietas vix distincta foliis paullo angustioribus. Squamæ hypogynæ sub flore oppositæ ab auctore descriptæ sunt stamina semiabortiva, quæ hinc inde etsi rarius in speciminibus Fortunianis aliisve observantur.

3. **Houttuynia**, *Thunb. Fl. Jap.* 12, 234, *t.* 26. (Polypara, *Lour. Fl. Coch.* 61. Anemia, *Nutt. in Ann. Nat. Hist. ser.* 1, i. 136. Anemiopsis, *Hook. et Arn. Bot. Beech.* 390, *t.* 92.)—Flores hermaphroditi, spicati, intra bracteam sessilem sessiles. Perianthium 0. Stamina 6 rarius 8 v. abortu pauciora, filamentis filiformibus basi infra medium ovarii v. altius ei adnatis apice liberis; antheræ oblongæ, erectæ, loculis parallelis longitudinaliter dehiscentibus. Ovarium e carpellis 3 v. 4 alte connatis, 1-loculare, placentis totidem parietalibus e marginibus carpellorum plus minus inflexis parum prominulis; styli totidem, liberi, erecti v. subrecurvi, apice introrsum stigmatosi; ovula in quoque placenta ∞ (6–8), 2-seriata, horizontalia v. ascendentia. Fructus subglobosus, 1-locularis, apice inter stylos aperiens. Semina ∞, globosa, testa membranacea; albumen farinaceum, extus vix induratum; embryo ad normam ordinis.—Herbæ perennes, basi radicantes v. surculos reptantes emittentes. Folia alterna, lata v. oblonga, basi sæpius cordata. Stipulæ amplæ, membranaceæ, basi petiolo adnatæ v. in unam connatæ. Spicæ terminales, pedunculatæ, densæ, basi bracteis 4–6 albis petaloideis sæpius involucratæ. Flores sessiles, interdum rhachi crassiore leviter immersi. Bracteæ sub floribus in spica juniore imbricatæ v. jam ante anthesin staminibus breviores vix conspicuæ.

Species 2 v. 3, una Californica, altera Asiatica, per regionem Himalaicam, Chinam et Japoniam late dispersa, tertia Chinensis adhuc dubia. *Cas. DC. in DC. Prod.* xvi. i. 237 *et* 238.

In specie typica Asiatica, *Bot. Mag. t.* 2731, folia fere omnia caulina, cordata; involucrum 4-phyllum v. rarius 5–6-phyllum; bracteæ intra spicam etiam juniorem staminibus breviores parum conspicuæ. In specie Californica, quæ *Anemiopsis*, Hook. et Arn., folia pleraque radicalia, angustiora et basi leviter tantum cordata, caulina primaria ad stipulam amplam reducta, ramulorum tamen dum adsint radicalibus conformia; involucrum sæpius 6-phyllum et bracteæ intra spicam quam in Asiatica majores, juniores imbricatæ. Characteres tamen floris et fructus omnino iidem. *A. Bolanderi*, Cas. DC. in Linnæa xxxvii. 333, nobis ignota est, sed descriptio in omnibus convenit speciei typicæ in California et Mexico late dispersa.

GYMNOTHECA, *Dcne. in Ann. Sc. Nat. ser.* 3, iii. 100, *t.* 5, a nobis non visa est, sed, ex icone et descriptione fusiore, *H. cordatæ*, Thunb. valde affinis est habitu foliis floribusque, differt spica paullo laxiore exinvolucrata, an specimen involucro ætate jam delapso ut interdum observatur in *H. cordata*, an species revera ab initio exinvolucrata haud patet. In utroque casu *Houttuyniæ* congener videtur.

TRIBUS II. PIPEREÆ.

4. **Zippelia**, *Blume in Rœm. et Schult. Syst.* vii. 1614.—Flores hermaphroditi, dissite racemosi. Perianthium 0. Stamina 6, hypogyna, filamentis crassis brevibus; antheræ oblongæ, erectæ, crassiusculæ, loculis introrsum parallelis longitudinaliter dehiscentibus, connectivo ultra loculos crasso obtuso. Ovarium minimum, glanduloso-muricatum; stylus ovario multo major, crasso-carnosus, ovoideus, 4-sulcus, stigmatibus 4 brevibus distinctis coronatus; ovula 2 vidimus, uno solo perfecto a basi erecto, altero minore mox abortiente. Fructus subsiccus, globosus, indehiscens, dense glochidiato-muricatus, stylo haud aucto coronatus. Semen conforme, albumine farinoso; embryo ad normam ordinis.—Herba rhizomate perenni repente. Caulis erectus v. vix ramosus, ad nodos articulatus. Folia alterna, oblique cordata, 5–9-nervia, petiolo in stipulam amplexicaulem dilatato. Racemi graciles, oppositifolii. Flores parvi, intra bracteam concavam obtusam breviter pedicellati, bracteis pisi magnitudinis.

Species 1, Javanica. *Benn. Pl. Jav. Rar.* 76, *t.* 16. *Cas. DC. Prod.* xvi. i. 256, ubi ad sectionem Americanam *Steffensiam* generis *Piperis* refertur; nobis tamen longe diversa videtur inflorescentia, staminum numero et situ, antherarum forma, stylo et fructu. Character noster ex speciminibus Zollingerianis It. 2, n. 2847. In analysi Bennettiana (in Miq. Ill. Pip. t. 92 repetita) fig. 3, ovarium delineatur jam post anthesin aliquantum auctum; per anthesin stylo 3–4-plo minus est.

5. **Piper,** *Linn. Gen. n.* 43, *pro parte.*—Flores hermaphroditi v. unisexuales, dense cylindraceo-spicati v. rarius subracemosi. Perianthium 0. Stamina 2–4, rarius 5–∞, filamentis brevibus v. rarius bracteas excedentibus; antheræ ovatæ v. abbreviatæ, rarius elongatæ, loculis nunc distinctis parallelis dorso appositis, connectivo parum conspicuo v. rarius ultra loculos producto, nunc terminalibus divergentibus v. divaricatis contiguis at distinctis longitudinaliter dehiscentibus, nunc rarius in unum terminalem rima unica bivalvatim dehiscentem confluentibus. Ovarium per anthesin sessile v. vix stipitatum, 1-loculare, obtusum v. stylo conico v. elongato rostratum, stigmatibus 2–5 (sæpius 3–4) distinctis erectis v. recurvis coronatum; ovulum unicum, a basi erectum. Bacca parva, ovoidea v. globosa, interdum 3–4-angulata, lævis, nunc intra bracteas v. rhachi succulenta plus minus immersa, nunc sessilis exserta, nunc rarius breviter v. longe stipitata; pericarpium succulentum v. tenuiter carnosum. Semen conforme, testa sæpius tenui; albumen farinosum, extus sæpe induratum; embryo ad normam ordinis.—Frutices interdum scandentes, rarius arbores v. herbæ elatæ, ramis sæpius ad nodos articulatis. Folia alterna, integerrima v. in una specie 3-fida, basi æqualia v. dimidiata, 3–∞-nervia v. a basi pennivenia; stipulæ nunc petiolo adnatæ aliformes, nunc in unam oppositifoliam connatæ v. ad basin petioli parum dilatatam amplexicaulemque reductæ, v. rarius omnino inconspicuæ. Flores cum bracteis subtendentibus peltatis adnatis v. concavis rhachin spicæ dense obtegentes, ad quamque bracteam solitarii, sessiles v. rarius stipitati, rarissime unius sexus secus rhachin dissiti. Spicæ pedunculatæ v. rarius subsessiles, primum terminales, mox oppositifoliæ, rarius (in *Macropipere*) ad axillas solitariæ v. 2–3-næ, v. (in *Heckeria*) in pedunculo axillari umbellatæ.

Species descriptæ ultra 600, per regiones calidiores utriusque orbis latissime dispersæ, in Asia orientali usque ad Japoniam extensæ, in America tropica numerosissimæ, in Africa pauciores, in Europa et America boreali præter Mexicum desunt. *Cas. DC. Prod.* xvi. i. 240, *et in Linnæa* xxxvii. 334 *et* 384. Species tamen plurimæ adhuc imperfecte notæ, in futurum verisimiliter delendæ erint; et numerus forte ad 500 reducendus.

Genus vastum et polymorphum, sed naturale et optime definitum, primum a Kunthio et fere in eodem tempore a Miquelio diligenter scrutatum et in genera plura divisum. Hæc tamen Casimir de Candolle in Prodromo bene in unum iterum conjunxit, et sectiones plures minus feliciter imprimis ad staminum numerum distinxit. Nostro sensu circumscriptiones et characteres a Kunthio v. a Miquelio propositi divisiones magis naturales præbent, etsi non semper accurate definitas. Numerus staminum in pluribus speciebus sat constans, vix tamen cum habitu consentaneus, in aliis variat a 2 ad 5, et uti bene monuit Kunth, interdum etiam in vivo haud facile determinatur, et in sicco difficillime observatur. Etiam stigmatum numerus in nonnullis speciebus variat. Sectiones sequentes a Candolleanis, Kunthianis, Miquelianisve paullo mutatæ distinctiores videntur.

A. *Species gerontogeæ, floribus unisexualibus sæpissime dioicis, v.* (*in speciebus paucis Eupiperis*) *polygamis.*

1. *Muldera.* Flores dioici, ♂ 2–∞-andri, in cyatho (bractea?) carnoso sessili v. stipitato subgloboso v. obliquo vertice aperto inclusi, secus rhachin spicæ dissiti; ♀ secus rhachin sparsi, sessiles v. leviter immersi, bractea adnata margine membranacea parum elevata cincti. Species ad 9, Indiæ orientalis et Archipelagi Malayani incolæ. *Cas. DC. Prod.* xvi. i, 241 (*sect.* Schizonephos). Muldera, *Miq. Comm. Phyt.* 34 (1840); *Ill. Pip. t.* 59, 60. *Wight, Ic. t.* 1943, 1944. Schizonephos, *Griff. Notul.* iv. 383 (1854).

Sectio quoad spicam ♂ a toto genere distinctissima, spica tamen ♀ parum ab illa *Eupiperis* differt. Figuræ dextra et sinistra iconis Wightianæ 1943, in Prodromo ad species diversas relatæ, stirpes ♂ et ♀ unius speciei exhibent, et *Piper Wightii*, Miq., Wight, Ic. t. 1939, Cas. DC. Prod. xvi. i. 365, vix a stirpe ♀ ejusdem speciei differre videtur.

2. *Macropiper.* Spicæ unisexuales, densissimæ, axillares, solitariæ v. in summis axillis 2–3-næ.

Stamina 2–3, antherarum loculis distinctis dorso appositis parallelis v. divergentibus. Stigmata 3. Baccæ sessiles, sæpe cum bracteis rhachibusque succulentis fere in syncarpium connatæ. Species ad 6, insularum maris Pacifici, Australiæ et Novæ Zelandiæ incolæ. *Cas. DC. Prod.* xvi. i. 334 (*Pothomorphe* B). *Seem. Fl. Vit. t.* 75. MACROPIPER, *Miq. Comm. Phyt.* 35; *Illustr. Pip. t.* 27.

Sectio inflorescentia a toto genere distinctissima, ab *Heckeria* (*Pothomorphe*, Miq.) quacum in Prodromo jungitur, differt insuper spicis unisexualibus, antherarum loculis distinctis et habitu.

3. *Eupiper.* Spicæ sub anthesi densissimæ, oppositifoliæ, omnes unisexuales v. in paucis speciebus androgynæ v. floribus polygamis hermaphroditisque in eadem specie sic dictæ trioicæ. Stamina sæpius 2–3, antherarum loculis dorso appositis distinctis parallelis v. divergentibus v. rarius apice subconfluentibus. Stigmata in ovario obtuso 3, rarius 2 v. 4. Species ultra 100, omnes gerontogeæ. *Cas. DC. Prod.* xvi. i. 339.

Genera sequentia Miqueliana sat naturalia, sed non semper characteribus definitis separata, ad subsectiones *Eupiperis* reducenda videntur:—

a. CUBEBA, *Miq. Comm. Phyt.* 33, *t.* 1 *ad* 3 (*Piper*) *et t.* 5; *Illustr. Pip. t.* 46 *ad* 48. Flores stricte dioici. Baccæ nunc breviter nunc longiuscule stipitatæ, etsi ovaria sæpius per anthesin sessilia. *Wall. Pl. As. Rar. t.* 91. *Wight, Ic. t.* 1932 (*Cubeba*).

b. CHAVICA, *Miq. Syst. Pip.* 222; *Illustr. Pip. t.* 28 *ad* 41, species numerosas includit, spicis omnibus stricte unisexualibus dioicis, floribus nullis hermaphroditis intermixtis. Stigmata in ovario obtuso sessilia. Baccæ sessiles v. subsessiles. *Wight, Ic. t.* 1926 *ad* 1930 (*Chavica*). *Deless. Ic. Sel.* iii. *t.* 89. *Hayne, Arzneig.* xiv. *t.* 20, 21 (*Chavica*).

CHAVICA, *Cas. DC. Prod.* xvi. i. 388, pro genere proprio admittitur, sed ad species 5 limitatur antherarum loculis ut in *Heckeria* terminalibus demum in unum 2-valvem confluentibus.—*Miq. Illustr. Pip. t.* 42, 43. *Wight, Ic. t.* 1931 (*omnes sub Chavica*).

c. PIPER, *Miq. Syst. Pip.* 305; *Illustr. Pip. t.* 49 *ad* 56 limitatur ad species plus minus polygamas floribus nonnullis hermaphroditis in parte inferiore spicarum fœminearum v. interdum spicæ plures (v. etiam omnes?) e floribus hermaphroditis solis. Cætera *Chavicæ*. *Wight, Ic. t.* 1933 *ad* 1938, 1940 *ad* 1942. *Hayne, Arzneig.* xiv. *t.* 6.

COCCOBRYON, *Klotzsch in Miq. Syst. Pip.* 343; *Illustr. Pip. t.* 61, est species Africana tam tropica quam australis, floribus polygamis *Piperis*, Miq., nec habitu a quibusdam speciebus diversa, sed stigmata constanter 2 tantum. Cas. DC. Prod. xvi. i. 336 e flore hermaphrodito sectionem *Coccobryon* constituit, species 13 continentem nostro sensu in variis sectionibus præcedentibus distribuendas. *P. birmanicum*, Cas. DC., est *P. stylosum*, Miq., Cas. DC. n. 428; ejusdem var. *macrostachyum*, Cas. DC., nobis non differre videtur a *P. muricato*, Bl.; Miq. Illustr. Pip. t. 54, in Prodromo inter *Cubebas* numerato, sed potius ad *Piperum*, Miq. pertinente. *P. cubense*, Cas. DC., rite a Grisebachio ad *Enckeam* relatum fuit. *P. piluliferum*, H. B. et K., *P. quitense*, Cas. DC., et *P. cyrtopodon*, Cas. DC., ad sectionem *Peltobryon* referrimus; *P. San Carlosianum*, *P. imperiale*, aliasque nonnullas ad *Steffensiæ* subsectionem *Artanthem*.

4. *Rhyncholepis.* Spicæ densissimæ, breves. Flores dioici v. polygami et stamina 2–3 *Eupiperis*. Ovarium in stylum conicum v. longiusculum apice 3–4-stigmatiferum attenuatum. Bacca sessilis, apice rostrata. Species 3 v. 4, Asiaticæ *Eupiper* cum *Peltobryo* arcte connectentes. Huc pertinent *P. rhyncholepis*, Cas. DC. (RHYNCHOLEPIS, *Miq. Syst. Pip.* 282; *Ill. Pip. t.* 45), species 2 rite in unam a Cas. DC. junctæ dioicam, bracteis in stirpe ♂ longe acuminatis antheris minimis loculis apice confluentibus, *P. stylosum*, Miq.; Cas. DC. n. 428 (*P. birmanicum* Cas. DC. n. 400, excl. var. β) antherarum loculis perfecte distinctis, *P. penangense*, Cas. DC. n. 464, Miq. Illustr. Pip. t. 44 (*Chavica*), et forte species quarta e specimine imperfecto non rite determinata.

B. *Species Americanæ* (*una etiam per orbem veterem extensa*), *floribus hermaphroditis v. rarissime abortu dioicis.*

5. *Peltobryon.* Spicæ oppositifoliæ, densissimæ, globosæ oblongæ v. rarius elongatæ. Flores hermaphroditi. Stamina 3–5, rarius 2. Ovarium in stylum conicum v. longiusculum apice 2–4-stigmatiferum attenuatum. Bacca sessilis, apice rostrata. Species ad 16, Austro-Americanæ, *Cas. DC. Prod.* xvi. i. 258 (*Steffensiæ* § 3 A). *Ruiz et Pav. Fl. Per. et Chil. t.* 53*a*, 60*b*, 61*a*. PELTOBRYON, *Klotzsch*; *Miq. Syst. Pip.* 369; *Illustr. Pip. t.* 67, *et in Mart. Fl. Bras.* iv. i. *t.* 4, 5, staminibus sæpius 4, stigmatibus sæpius 3. Hic etiam includendæ videntur CALLIANIRA, *Miq. Syst. Pip.* 344; *Illustr. Pip. t.* 62, species Mexicana (*P. melastomoides*, Cham.; Cas. DC. n. 19) staminibus sæpius 5, stigmatibus 3 et SPHÆROSTACHYS, *Miq. Syst. Pip.* 375; *Illustr. Pip. t.* 68, species Andina (*P. piluliferum* H. B. et K.; Cas. DC. n. 404) staminibus ex Miq. 3–4, ex Cas. DC. 2, stigmatibus 2, spicis parvis subglobosis. Sectio *Rhyncholepidi* valde affinis.

6. *Steffensia.* Spicæ oppositifoliæ, densæ, cylindraceæ, sæpe elongatæ, rarissime breves. Flores hermaphroditi, sessiles v. (in *Ottonia*) pedicellati. Stamina 4–6 v. rarius 2–3. Ovarium obtusum, stigmatibus 3–4, rarius 5 v. 2. Species bene notæ ultra 350, omnes Americanæ, *Cas. DC. Prod.* xvi. i. 243 *ad* 330 (sect. *Enckea, Steffensia* et *Carpunya* excl. speciebus paucis). Subsectiones sequentes, quoad species plerasque facillime distinguuntur, interdum vero species ambiguæ v. variabiles genera v. sectiones bene limitare prohibent.

a. Ottonia. Flores in spica tenui ut in *Enckea* sparsi, sed omnes intra bracteam pedicellati, spica in racemum transformata. Stamina et stigmata sæpius 4. Species ad 20. *Cas. DC. Prod.* xvi. i. 252 (*Steffensiæ* § 2*a*). *Vahl, Ecl.* i. *t.* 1. *Vell. Fl. Flum. Ic.* i. *t.* 55. OTTONIA, *Spreng. Neu. Entd.* i. 255; *Miq. Syst. Pip.* 536 (*Ottoniæ genuinæ*), *et in Mart. Fl. Bras.* iv. i. *t.* 22, 23; *Illustr. Pip. t.* 92. SERRONIA, *Gaudich. in Deless. Ic.* iii. 54, *t.* 90. *Moric. Pl. Nouv. Amer. t.* 57.

b. Enckea. Flores in spica sæpius tenui densaque sparsi, sessiles, sed bracteis parum conspicuis non annulati nec distincte regulariterque spirales. Stamina vulgo 5–6. Stigmata 3. Baccæ sæpius exsertæ sed sessiles, apice obtusæ. Species ultra 20, *Cas. DC. Prod.* xvi. i. 243 (excl. n. 19 ad *Peltobryon* et n. 20 ad *Artanthem* referendis). *Jacq. Ic. Rar. t.* 8. *Jacq. f. Ecl. t.* 76. *Vell. Fl. Flum. Ic.* i. *t.* 61. ENCKEA, *Kunth in Linnæa* xiii. 590. *Miq. Syst. Pip.* 346; *Illustr. Pip. t.* 63 *ad* 66; *et in Mart. Fl. Bras.* iv. i. *t.* 3.

P. marginatum, Jacq. in Prodromo sub *Enckea* (n. 20) inclusum, nobis potius ad *Artanthem* pertinere videtur.

CARPUNYA, *Presl, Epimel. Bot.* 228, species plures continet ab *Ottonia* distinctas floribus sessilibus, ab *Enckea*, cui inflorescentia accedunt, staminibus vulgo 4. A Kunthio et Miquelio in *Ottonia* includuntur. Species typicæ sunt *P. Carpunya*, Ruiz et Pav. Fl. Per. t. 63*b*; Cas. DC. n. 371, et *Ottonia Lessertiana*, Miq., Illustr. Pip. t. 92 (*P. Lessertianum*, Cas. DC. n. 67) quæ ex speciminibus nostris ad unam speciem pertinent inter affines foliis lævibus nitidulis aliisque notis facile distinctam. A Miquelio, Preslio et Cas. DC. tamen separantur sed characteribus diversis. Stamina ex Cas. DC. in *P. Lessertiano* 4, in *P. Carpunya* 3, ex Miq. et Presl in utroque 4. Stigmata ex Miq. 4–5 in *P. Lessertiano*, 3 in *P. Carpunya*, sed bacca ex Cas. DC. in utroque subgloboso-3-gona, ex Preslio 4-gona. Cæterum Cas. DC. in sectione sua *Carpunya*, Prod. xvi. i. 326, species plures admittit quæ nobis inter *Peltobryon*, *Enckeam* et *Artanthem* distribuendæ videntur.

c. Artanthe. Flores in spica densa sæpe elongata nunc longissima densi, cum bracteis in series regulariter annulares v. distincte spirales dispositi. Stamina sæpius 4, interdum 3, rarius 2 v. 5. Ovarium sessile, obtusum, stigmatibus 3 v. 4 rarius 2 v. 5. Baccæ sæpius bracteas parum excedentes, interdum rhachi bracteisque succulentis subinclusæ. Species ad 300. *Cas. DC. Prod.* xvi. i. 251 (sect. *Steffensia*, excl. § 2 et § 3 A, paucisque aliis). *Ruiz et Pav. Fl. Per. et Chil. t.* 53 *ad* 64 (*excl. t.* 53*a*, 59*a*, 60*b*, 61*a* et 63*b*). *Vahl, Ecl. t.* 2, 3, 11, *Jacq. Ic. Rar. t.* 210, 211, 215. *Jacq. f. Ecl. t.* 84, 93, 94. *Rudge, Pl. Gui. t.* 6, 7, 13, 14. *Vell. Fl. Flum. Ic.* i. *t.* 56 *ad* 60. *Opiz in Rel. Hænk. t.* 26 *ad* 28, 29, *f.* 1. *Bertol. Fl. Guatemal. t.* 1. STEFFENSIA et SCHILLERIA, *Kunth in Linnæa*, xiii. 609 *ad* 726. ARTANTHE, *Miq. Comm. Phyt.* 40, *t.* 7, 8; *Syst. Pip.* 377; *Illustr. Pip. t.* 69 *ad* 91; *et in Mart. Fl. Bras.* iv. i. *t.* 6 *ad* 21 *et t.* 24 (*Ottonia*). *Benth. Bot. Sulph. t.* 54. *Seem. Bot. Her. t.* 38 *ad* 42.

7. *Nematanthera.* Spicæ oppositifoliæ, parvæ, densæ. Flores hermaphroditi (v. unisexuales?), sessiles. Stamina 2 (*Miq.*) v. 1 (*Cas. DC.*); anthera linearis, filamento ovarioque 2–3-plo longior, loculis lateralibus, connectivo obtuse clavato coronata. Ovarium obtusum, stigmatibus 2–3. Species 2, Guianenses. *Cas. DC. Prod.* xvi. i. 367. NEMATANTHERA, *Miq. in Linnæa* xviii. 606, *t.* 11. Antheræ in ordine anomalæ, iis *Ascarinæ* v. *Hedyosmi* accedentes.

8. *Heckeria.* Spicæ densissimæ, elongatæ, in pedunculo axillari plures subumbellatæ. Flores hermaphroditi, sessiles. Stamina 2–3; antheræ parvæ, loculis confluentibus 2-valves. Ovarium obtusum, stigmatibus 3. Folia ampla, interdum peltata. Species ad 8, omnes Americanæ, una tamen etiam in orbe vetere inter tropicos late dispersa. *Cas. DC. Prod.* xvi. i. 331 (sect. *Pothomorphe*, errore *Potomorphe*, A.). *Jacq. Ic. Rar. t.* 216. *Ruiz et Pav. Fl. Per. et Chil. t.* 59*a*. *Vell. Fl. Flum. Ic.* i. *t.* 54. *Link et Otto, Ic. Pl. Sel. t.* 6. *Saund. Ref. Bot. t.* 230. HECKERIA, *Kunth in Linnæa* xiii. 564 (1839 etsi forte initio 1840 edita). POTHOMORPHE, *Miq. Comm. Phyt.* 36 (Dec. 1840 forte initio 1841 edita); *Illustr. Pip. t.* 25, 26. *Wight, Ic. t.* 1925. In *P. Ottonis*, Miq. Illustr. Pip. t. 25, antheræ 2-loculares delineatæ sunt, sed in specimine Seemanniano a Miquelio determinato certe confluentim 1-loculares sunt, ut jam observavit Kunth in cæteris speciebus.

6. **Verhuellia,** *Miq. Syst. Pip.* 47. (Mildea, *Griseb. Cat. Pl. Cub.* 63.)—Flores her-

maphroditi v. polygami, tenuissime et interrupte spicati. Perianthium 0. Stamina 2, filamentis brevissimis; antherarum loculi distincti, divergentes, connectivo latiusculo separati. Ovarium inter stamina sessile, ovoideum, stigmatibus 3–4 coronatum; ovulum unicum, a basi erectum. Bacca minuta, globosa, fere exsucca, pericarpio tenui. Semen conforme, testa membranacea; albumen farinosum; embryo ad normam ordinis.—Herbæ tenerrimæ, diffusæ v. prostratæ repentesque, ad nodos radicantes, ramis filiformibus. Folia alterna v. ad nodos fasciculata, petiolata, rotundata v. reniformia, tenuia. Spicæ filiformes, ad nodos inter folia pedunculatæ. Flores minutissimi, secus rhachin dissiti v. superiores ♂ magis approximati, intra bracteam sessilem peltatam sessiles v. breviter pedicellati.

Species 2, Indiæ occidentalis incolæ. *Cas. DC. Prod.* xvi. i. 391. *Miq. Ill. Pip. t.* 1, *f. a* quoad analysin imperfecta, a *Cas. DC. in Mem. Pip. t.* 1, correcta, ubi tamen stigmata longiora depicta quam in speciminibus nostris. *Schmitz in Flora*, 1872, 401, *t.* 7, 8.

Genus habitu plerisque notis *Peperomiis* (*Acrocarpidiis*) nonnullis simillimum, sed antheris stigmatibusque distinctum. *V. brasiliensis*, Miq. Ill. Pip. t. 1, f. b, a Cas. DC. rite ad *Peperomiam* refertur. *V. Knoblecheriana*, Cas. DC., nobis pariter ad *Peperomiam* revocanda videtur. Est *P. Knoblecheriana*, Schott in Bot. Zeit. 1851, 225, t. 5, planta in horto Schœnbrunnensi in humo ex Africa centrali recepta enata et ex icone tam habitu quam patria a *Verhuellia* recedit et *Peperomiæ pellucidæ* approximatur. Character Prodromi verisimiliter ad iconem instructus ubi stigmata 4 distincta apparent. In descriptione tamen Schottii antheræ globosæ nec biglobosæ, et stigma unicum penicillatum, dicuntur.

7. **Peperomia,** *Ruiz et Pav. Fl. Per. et Chil.* i. 29, *t.* 44 *ad* 52.—Flores hermaphroditi, dense v. dissite sæpiusque tenuiter spicati. Perianthium 0. Stamina 2, filamentis brevibus v. rarius bracteas excedentibus; antheræ transversim oblongæ v. subglobosæ, loculis in unum 2-valvem confluentibus. Ovarium sessile v. basi contractum substipitatum, apice obtusum acutum v. rostratum; stigma indivisum, sæpe penicillatum, terminale v. infra rostrum ovarii laterale; ovulum unicum, a basi erectum. Bacca parva sæpe minuta, fere exsucca, pericarpio tenui. Semen conforme, testa membranacea v. coriacea; albumen farinosum; embryo ad normam ordinis.—Herbæ annuæ v. caudice repente v. tuberoso basi perennantes, caulibus prostratis repentibus filiformibusque v. erectis tenuibus v. succulentis. Folia alterna opposita v. 3–4-natim verticillata rarius 5–6-na, integerrima, carnosula succulenta v. tenuiter membranacea, sæpius pellucido-punctata; stipulæ 0. Flores minuti, nunc spicæ rhachin undique dense obtegentes, seriebus annularibus v. spiralibus conferti v. sparsi, sessiles v. foveolis rhacheos leviter immersi, nunc secus rhachin filiformem dissite sparsi. Spicæ in pedunculo terminali v. mox oppositifolio solitariæ geminæ v. plures subumbellati, v. secus rhachin communem sparsæ, pedunculo polystachyo rarissime axillari. Bracteæ sub quoque flore sessiles, interdum peltatim affixæ.

Species descriptæ (nonnullæ ulterius reducendæ) fere 400, per regiones calidiores utriusque orbis late dispersæ, ex maxima tamen parte Americanæ, ubi a Chile et republica Argentina usque ad Mexicum et Floridam extensæ. *Cas. DC. Prod.* xvi. i. 392, *et in Linnæa* xxxvii. 365 *et* 387. *Henschen, Etudes Peperom. in Nov. Act. Reg. Soc. Sc. Upsal. ser.* 3, viii. *cum tabb.* 7. *Miq. Illustr. Pip. t.* 2 *ad* 23, *in Mart. Fl. Bras.* iv. i. *t.* 1, 2, *et in Linnæa* xx. *t.* 1. *H. B. et K. Nov. Gen. et Sp.* i. *t.* 3 *ad* 17. *Opiz in Rel. Hænk. t.* 29, *f.* 2, *t.* 30. *J. V. Thomps. in Trans. Linn. Soc.* ix. *t.* 21. *Seem. Bot. Her. t.* 37. *Wawra, Pr. Maxim. Reise, Bot. t.* 19, 20, 82, 83. *Schott in Bot. Zeit.* 1851, 225, *t.* 5. *Wight, Ic. t.* 1921 *ad* 1924. *Hook. Ic. Pl. t.* 91, 327, 332; *Exot. Fl. t.* 21 *ad* 23, 58, 66, 67, 92, 164, 165. *Bot. Mag. t.* 5568, 5634. *Link et Otto, Ic. Sel. t.* 7. *Regel in Bull. Soc. Imp. Nat. Mosc.* 1858, *t.* 3, *et Gartenfl. t.* 265, 271. *Saund. Ref. Bot. t.* 12, 13, 40, 41, 211, 302. PIPERIS sp. *Linn. Hort. Cliff. t.* 4. *Jacq. Ic. Rar. t.* 9, 212 *ad* 214, 217 *ad* 219. *Rudge, Pl. Gui. t.* 5. *Vell. Fl. Flum. Ic.* i. *t.* 62 *ad* 65. In pluribus iconibus hic citatis antheræ errore 2-loculares delineatæ sunt, antherarum effœtarum valvis patentissimis incaute pro loculis distinctis sumptis.

Genus bene limitatum et habitu sat varium, sed difficillime in sectiones distinctas dividitur. Species in Prodromo in series artificiales distribuuntur, characteribus tamen in pluribus ambiguis. Henschen in Mem. cit. in Nov. Act. Acad. Ups. ser. 3, viii. sectiones 2 accepit: *Acrocarpidium*,

floribus in rhachi filiformi spicæ sessilibus, baccis maturis basi contractis sessilibus, et *Eupeperomia* floribus in foveolis rhacheos carnosæ spicæ plus minus immersis, baccis pedicello demum brevissime carnoso impositis et subsectiones 2 agnovit: *Micropiper* stigmate terminali et *Rhynchophorum* stigmate infra apicem styli v. ovarii rostri laterali. Species tamen intermediæ sæpe occurrunt. Miquel genera distincta sequentia proposuit, sat naturalia sed male definita:—

Acrocarpidium, *Miq. Syst. Pip.* 51. Herbæ Americanæ, teneræ, radicantes, caulibus filiformibus in arborum truncos sæpe longe reptantibus. Baccæ breviter stipitatæ, apice angustæ.

Phyllobryon, *Miq. Syst. Pip.* 50; *Illustr. Pip. t.* 2, est *Peperomia foliiflora*, Ruiz et Pav. Fl. Per. et Chil. t. 45, charactere fere *Acrocarpidii*, sed habitu et inflorescentia peculiari. Ramuli floriferi fasciculati folium unicum sub fasciculo spicarum ferentes folia simulant longe petiolata spicas ad basin limbi ferentia.

Erasmia, *Miq. Syst. Pip.* 199; *Illustr. Pip. t.* 24, est species Mexicana ab *Acrocarpidio* distincta habitu et stigmate elongato-conico. Formam typicam delineatam spicis pluribus secus pedunculum longum sparsis non vidimus, sed specimen in herb. Kew a Miquelio inscriptum 'forma minor pauciflora' et a Cas. DC. in Prodromo sub *P. Erasmia* n. 22 descriptum, spicis in pedunculo geminis, est specimen typicum *P. lancifoliæ*, Hook. Ic. Pl. t. 332, Cas. DC. Prod. n. 172.

Tildenia, *Miq. in Diar. Instit. Reg. Nederl.* 1842, *ex ejusd. Syst. Pip.* 69, species Americanæ acaules v. subacaules foliis plerisque radicalibus, et Micropiper, *Miq. Comm. Phyt.* 39, *t.* 5, 6, 8, 9, species utriusque orbis stigmate terminali, ab auctore ipso Syst. Pip. ad sectiones *Peperomiæ* reducuntur.

P. Galeottiana, Hook. Ic. Pl. t. 327; Cas. DC. Prod. n. 11, est *P. Mexicana*, Miq., Cas. DC. Prod. n. 7. *P. brevipes*, Cas. DC. Prod. n. 20, eadem videtur ac *P. guayaquilensis*, Cas. DC. n. 37. *P. diffusam*, Cas. DC. n. 14, a speciminibus nonnullis *P. galioidis*, H. B. et K., Cas. DC. n. 362 distinguere nequimus. *P. subpeltata*, Cas. DC. n. 94, eadem videtur ac *P. Jamesoniana*, Cas. DC. n. 103. *P. nummularifolia*, H. B. et K., Cas. DC. n. 141, foliis plerisque alternis, non specifice distincta videtur a *P. circinata*, Link, Cas. DC. n. 266, foliis plerisque oppositis, nam species aliæ oppositifoliæ variare videntur foliis hinc inde alternis, uti species nonnullæ foliis sæpius ternatim verticillatis variant foliis oppositis. Oppositio foliorum est in ordine abnormis nec ut in *Chloranthaceis* normalis.

8? **Symbryon,** *Griseb. Cat. Pl. Cub.* 64.—Flores unisexuales (an polygami?), ♀ soli noti, tenuiter spicati. Ovarium minimum, sessile, globosum, stigmate minuto indiviso coronatum; ovulum unicum a basi erectum.—Frutex glaber. Folia alterna, petiolata, ovata, acuminata, 3–5-nervia, transversim venulosa, subcoriacea, impunctata. Stipulæ 0. Spicæ ♀ 4–5, ad apicem pedunculi terminalis v. oppositifolii subdigitatim conferti. Flores secus rhachin puberulum sparsi, bractea parva lanceolata obtecti et bracteolis 2 oppositis e basi lata subulato-acuminatis vix bractea brevioribus stipati.

Species 1, Cubensis. *Cas. DC. Prod.* xvi. i. 471.

Genus *Peperomiæ* affine videtur, etsi folia firma et impunctata et bracteolæ evolutæ (ob formam vix pro staminodiis habendæ) cæterum in ordine ignotæ. Flores in speciminibus adhuc juniores.

Ordo CXL. CHLORANTHACEÆ.

Endl. Gen. 264. Lindl. Veg. Kingd. 519.

Flores unisexuales v. masculo cum fœmineo basi cohærentibus pseudohermaphroditi. Fl. ♂: *Perianthium* 0. *Stamina* 1 v. 3, in massam 3-lobam connati; filamenta brevissima, cum connectivo continua. *Antheræ* 2-loculares, loculis adnatis parallelis v. divergentibus longitudinaliter dehiscentibus, v. staminum lateralium 1-loculares. Fl. ♀: *Perianthium* ovario adnatum apice minute 3-dentatum, v. margine nullo prominente inconspicuum. *Ovarium* inferum v. nudum, 1-loculare; stigma sessile, v. rarius stylo brevi fultum, truncatum subclavatum v. breviter lineare, indivisum. *Ovulum* unicum, orthotropum,

ab apice pendulum. *Drupa* parva, ovoidea v. globosa, exocarpio carnoso v. succulento, endocarpio crustaceo v. indurato. *Semen* conforme, pendulum, testa membranacea. *Albumen* copiosum, carnosum. *Embryo* ab hilo remotus, minutus, albumine inclusus, cotyledonibus divaricatis v. vix distinctis, radicula infera.

Herbæ, frutices v. arbores, sæpius aromatici. Folia opposita, plerumque denticulata, pennivenia, petiolis basi linea transversa connexis v. in vaginam plus minus elongatam connatis. Stipulæ parvæ subulatæ ad margines vaginæ v. basin petiolorum. Inflorescentiæ terminales v. ramulis floriferis abbreviatis paucifoliatis v. aphyllis pseudoaxillares. Flores spicati v. fœminei varie paniculati v. capitati. Bracteæ variæ.

Species ad 25, per Americam tropicam, Asiam tropicam et orientalem et insulas maris Pacifici usque ad Novam Zelandiam dispersæ. *Solms-Laub. in DC. Prod.* xvi. i. 472.

Ordo a botanicis plurimis *Piperaceis* approximatus et iis adjunctus a Cordemoyo in Adansonia iii. 293, quem secutus est Baillon, Hist. Pl. iii. 494, ab illis tamen notis pluribus essentialibus distat, præsertim foliis stricte oppositis, staminum indole, pistillo monocarpico, ovario infero, embryone in albumine carnoso incluso, etc. Characteribus nonnullis *Monimiaceis* accedit, sed ab omnibus limitibus certis longe separatur.

CONSPECTUS GENERUM.

1. CHLORANTHUS. Flores pseudohermaphroditi, spicati, ♂ 1–3-andro, basi ovario nudo lateraliter adnato.—*Asia trop. et or.*

2. ASCARINA. Flores unisexuales, spicati. Stamen 1. Ovarium nudum.—*Ins. Pacif., N. Zelandia.*

3. HEDYOSMUM. Flores unisexuales, ♂ spicati, ♀ varie paniculati v. capitati. Stamen 1. Ovarium (perianthii adnati limbo coronatum) apice 3-dentatum.—*Amer. trop.*

1. **Chloranthus,** *Swartz in Philos. Trans.* lxxvii. 359, *ed. abr.* xvi. 302. (Creodus, *Lour. Fl. Coch.* 88. Cryphæa, *Hamilt. in Brewst. Edinb. Journ. Sc.* ii. 11. Peperidia, *Reichb. Consp. Gen.* 212*a*. Nigrina, *Thunb. Nov. Gen.* 58 (*char. falso*) *ex ic. in Nov. Act. Soc. Sc. Upsal.* vii. *t.* 5.)—Flores pseudohermaphroditi, masculo cum fœmineo basi lateraliter connatis, spicati. Perianthium 0. Stamina 3, anthera centrali 2-loculari, lateralibus 1-locularibus in massam 3-lobam connatis, v. 1, lateralibus deficientibus. Ovarium nudum; stigma subsessile, truncatum.—Frutices v. herbæ perennes, caule ad nodos articulato. Folia opposita, linea transversa connexa, vix vaginantia, interdum paribus 2 arcte approximatis subverticillata. Spicæ terminales, tenues, simplices v. ramosæ.

Species ad 8, Asiæ tropicæ et orientalis a Bengala usque ad Japoniam et ins. Philippinarum incolæ. *Solms-Laub. in DC. Prod.* xvi. i. 474.

Genus facile in sectiones 3 dividitur:—

1. *Euchloranthus.* Andrœcium 3-lobum, lobo medio antheram 2-locularem lateralibus antheras 1-loculares ferentibus, connectivis crassis apice parum productis obtusis. *L'Hér. Sert. Angl. t.* 2. *Lindl. Collect. Bot. t.* 17. *Blume, Fl. Jav. Chlor. t.* 1. *Wight, Ic. t.* 1945. *Bot. Mag. t.* 2190.

2. *Tricercandra.* Andrœcium 2-lobum, lobo medio antheram 2-locularem lateralibus antheras 1-loculares ferentibus, connectivis ultra loculos in appendicem longe linearem productis. TRICERCANDRA, *A. Gray in Perry, Jap. Exped.* ii. 318, *et Mem. Amer. Acad.* vi. 405. SAINTLEGERIA, *Cordem. in Baill. Adans.* iii. 300. *Rupr. Dec. Pl. Amur. t.* 2.

3. *Sarcandra.* Andrœcium indivisum, anthera unica 2-loculari. *Blume, Fl. Jav. Chlor. t.* 2. SARCANDRA, *Gardn. in Calc. Journ. Nat. Hist.* vi. 348. *Wight, Ic. t.* 1946.

2. **Ascarina,** *Forst. Char. Gen.* 117, *t.* 59.—Flores dioici (v. rarius monoici ?) utriusque sexus spicati. Perianthium 0. Anthera unica, subsessilis, linearis, cylindracea, loculis parallelis longitudinaliter dehiscentibus, connectivo angusto obtuso vix ultra loculos producto. Ovarium nudum; stigma subsessile, truncatum.—Frutices v. arbusculæ aromaticæ, ramulis ad nodos articulatis. Folia opposita, obtuse serrata, pennivenia, petiolis basi in vaginam brevissimam amplexicaulem connatis, stipulis minimis. Spicæ axillares v. terminales, simplices v. basi ramosæ v. fasciculatæ.

Species 3 v. 4, inter se valde affines, insularum maris Pacifici a Taiti usque ad Novam Caledoniam et Novam Zelandiam incolæ. *Solms-Laub. in DC. Prod.* xvi. i. 478. *Seem. Fl. Vit. t.* 74.

Species Novo-Zelandica, *A. lucida*, Hook. f. Fl. N. Zel. i. 228, in Prodromo perperam nomine novo *A. rubricaulis* designatur; sed forte stirps Novo-Caledonica sub hoc nomine inclusa specifice distincta erit. Powell formas 2 distinctas *A. lanceolatæ*, Hook. f., in ins. Samoa invenit, alteram valde aromaticam, alteram inodoram in montibus elatioribus crescentem.

3. **Hedyosmum,** *Swartz, Prod. Fl. Ind. Occid.* 84; *Fl. Ind. Occid.* 957, *t.* 18. (Tafalla, *Ruiz et Pav. Prod. Fl. Per. et Chil.* 136, *t.* 29; *Syst. Veg.* 269.)—Flores monoici v. dioici, inflorescentiis unisexualibus. Fl. ♂ spicati, ebracteati. Anthera unica, subsessilis, linearis v. oblonga, connectivo ultra loculos breviter appendiculato v. subpeltato, loculis parallelis longitudinaliter dehiscentibus. Fl. ♀ varie capitulati v. dissiti. Perianthii tubus ovario adnatus; limbus brevissimus, 3-dentatus. Stylus brevissimus, apice stigmatosus, v. stigma sessile, obtusum, rarius lineare v. clavatum. Drupa parva, globosa v. ovoidea, interdum 3-quetra v. 3-costata, exocarpio succulento haud crasso, endocarpio sæpius duro. Semen ordinis.—Arbores v. frutices elatiores, aromaticæ, ramis ad nodos sæpe articulatis. Folia opposita, plerumque serrata, petiolis basi connatis in vaginam brevem v. longiusculam, stipulis ad marginem vaginæ parvis. Inflorescentiæ axillares v. in axillis ultimis pseudoterminales, in speciebus diversis variæ.

Species enumeratæ 23 sed verisimiliter ad 16 reducendæ, Americæ tropicæ incolæ. *Solms-Laub. in DC. Prod.* xvi. i. 479, ubi in sectiones 3 distribuuntur, sed formas 4 quoad inflorescentiam distinctas agnovimus. 1. In specie typica, *H. nutante*, Sw., flores monoici, spicæ ♂ in pedunculo longo tenui aphyllo nutantes; antheræ connectivum ultra loculos in appendicem erectam loculis æquilongam productum, flores ♀ secus ramos paniculæ cymosæ dissiti. 2. In *H. Grisebachii*, Solms, e Cuba, flores ut in omnibus sequentibus dioici; spicæ ♂ in panicula plures sessiles; antheræ connectivum supra loculos latiusculum obtusum in loculos recurvum, flores ♀ ut in *H. nutante* secus ramos paniculæ cymosæ dissiti v. rarius hinc inde glomerati. Hæc species tamen referenda videtur (ex ic. et descr.) ad *H. Bonplandianum*, Kunth, H. B. et K. Nov. Gen. et Sp. t. 634, 635, cujus statio Kunthio ignota erat, sed verisimiliter ad plantas Cubenses ab Humb. Bonpl. in Cuba lectas pertinet. 3. In *H. arborescente*, Sw., affinibusque pluribus ex America australi, flores dioici; spicæ ♂ in panicula plures sessiles v. breviter pedicellati; antheræ connectivum obtusum ultra loculos vix productum v. iis subbrevius, verticem peltatum antheræ formans; flores ♀ per 3–5 glomerati bracteis subinclusi glomerulis paniculatis. 4. In *H. scabro*, Solms, cui *H. Mandoni*, Solms, referendum videtur, in *H. parvifolio*, Cordem., a quo *H. cumbalense*, Karst. Fl. Columb. ii. *t.* 168 vix differt, paucisque aliis flores dioici; spicæ utriusque sexus in axillis summis ramulorum solitariæ sessiles, ramulo florifero interdum axillari ad pedunculum apice 2-foliatum reducto, spicæ ♂ demum sæpius valde elongatæ floribundæ, ♀ globosæ v. ovoideæ floribus sub bracteis carnosulis fere occultæ, fructiferæ fere in syncarpium connatæ; ab his sectio *Artocarpoides*, Solms, non differt nisi capitulis syncarpiisve ♀ adhuc majoribus floribus numerosioribus, stigmate lineari.

Ordo CXLI. **MYRISTICEÆ.**

Endl. Gen. 829. Lindl. Veg. Kingd. 301. Baill. Hist. Pl. ii. 498.

Flores dioici, regulares. *Perianthium* inferum, deciduum, 3-lobum v. rarius 2- v. 4-lobum, lobis æstivatione valvatis. Fl. ♂: *Staminum* filamenta in columnam centralem elongatam v. brevissimam nunc fere obsoletam connata. *Antheræ* 3–∞ (usque ad 18), columnæ in annulum parallele adnatæ, v. ad apicem columnæ brevissimæ erectæ liberæque v. in massam globosam connatæ, 2-loculares, loculis rima longitudinali dehiscentibus. *Ovarii* rudimentum 0. Fl. ♀: *Staminodia* 0. *Ovarium* in fundo perianthii sessile, liberum, 1-loculare. *Stigma* sessile v. subsessile, capitatum v. depressum. *Ovulum* unicum, e basi loculi erectum, anatropum. *Fructus* carnosus, in valvas 2 rarius 4 tarde dehiscens. *Semen* erectum, arillo carnoso v. tenui sæpius colorato integro lobato v. lacero involutum; testa carnosa v. tenuis, intus sæpe indurata. *Albumen* durum, copiose

plicato-ruminatum. *Embryo* prope hilum minimus, cotyledonibus divaricatis, radicula brevi infera.

Arbores sæpe aromaticæ. Folia alterna, integerrima, pennivenia, sæpe pellucido-punctata. Stipulæ 0. Flores parvi nunc minimi, masculi sæpius fasciculati v. subumbellati, fasciculis umbellisve bractea caduca stipatis plus minus paniculatis ; bracteolæ sub pedicellis minutæ v. 0. Flores fœminei sæpius pauciores, interdum solitarii. Inflorescentiæ axillares v. supra-axillares.

Species ad 80, pleræque Asiæ et Americæ tropicæ incolæ, perpaucæ Africanæ, una Madagascariensis, una Australiensis. *Alph. DC. Prod.* xiv. 189, *et in Mart. Fl. Bras.* v. i. 107, *t.* 38 *ad* 44. *Gærtn. Fruct. t.* 41. *Lam. in Mem. Acad. Sc. Par.* 1788, 148, *t.* 5 *ad* 9.

Genus unicum, nulli arcte affine. A nonnullis botanicis *Anonaceis* approximatur, ab aliis *Monimiaceis*, ab utroque ordine characteribus gravioribus, imprimis staminum indole et situ et pistilli structura recedit. Ovarium versimiliter circa ovulum unicum bicarpellatum est.

GENUS EXCLUSUM.

HYALOSTEMMA, Wall. in Lindl. Veg. Kingd. 302, sub *Myristiceis* recensitum, est *Miliusa* inter **Anonaceas**.

1. **Myristica,** *Linn. Gen. ed.* 2 (1742) *in ed.* 3 *omissa et a Linn. f. Suppl.* 40 *pro genere novo descripta.*—Genus unicum. Character ordinis.

Species, uti supra ad 80, ab Alph. DC. l. c. in sectiones 13 distributæ, quæ tamen nobis melius ad 7 sequentes reducendæ videntur :—

1. *Eumyristica* (*Eumyristica* et *Caloneura*, DC.). Antheræ 9–∞ rarius 6, lineares, adnatæ, columna cylindracea v. fusiformi pro maxima parte ab illis obtecta basi breviter nuda. Fructus sæpius majusculus, ovoideus v. oblongus, rarius subglobosus. Flores mediocres v. in ordine majusculi, pedicellati. Species ad 25 Asiaticæ cum una Australiensi, una etiam in aliis terris inquilina. *Hook. Exot. Fl. t.* 155, 156. *Blume, Rumphia, t.* 55 *ad* 59. *Bedd. Fl. Sylv. t.* 267 *ad* 269. *A. DC. in Mart. Fl. Bras.* v. i. *t.* 38.

Icon *M. laurifoliæ*, Hook. et Thoms. ; Bedd. l. c. t. 267, columnæ stamineæ partem nudam exhibet antheris longiorem, in floribus a nobis examinatis breviorem vidimus.

2. *Virola*, A. DC. Antheræ sæpius 3–6, rarissime plures, lineares, adnatæ, columna cylindracea pro maxime parte ab illis obtecta basi breviter nuda. Fructus inter minores, ovoidei globosi v. latiores quam longi. Flores parvuli v. minimi, ♂ numerosi, laxe paniculati. Species ad 12 omnes Americanæ. *A. DC. in Mart. Fl. Bras.* v. i. *t.* 39 *ad* 44. VIROLA, *Aubl. Pl. Gui.* 904, *t.* 345. SEBOPHORA, *Neck. Elem.* ii. 188.

M. platysperma, Spruce, A. DC. Prod. xiv. 695, et in Mart. Fl. Bras. v. i. 108, t. 39, ad sectionem Asiaticam refertur ob bracteolarum sub singulis floribus præsentiam. Hæ bracteolæ tamen minutæ et raræ sunt, nec in icone depictæ, et species melius recensenda videtur in sectione Americana *Virola*, ubi etiam in *M. sebifera* bracteolæ minutæ interdum in inflorescentia juvenili observantur.

3. *Pyrrhosa*, Blume. Antheræ 6–∞, lineares, in massam globosam in fundo perianthii sessilem v. subsessilem connatæ. Fructus globosus v. ovoideus, sæpius inter minores. Flores minimi subglobosi, ♂ numerosi paniculati. Species ad 10, Asiaticæ. *Blume, Rumphia, t.* 64. *Wall. Pl. As. Rar. t.* 90. Antheras interdum apice breviter liberas vidimus iis *Gymnacrantheræ* accedentes.

4. *Gymnacranthera* (*Gymnacranthera* et *Compsoneura*, A. DC.). Antheræ 5–6, lineares, ad apicem columnæ brevissimæ v. in fundo perianthii erectæ, conniventes, liberæ v. basi breviter connatæ. Fructus et flores *Pyrrhosæ*. Species 3, Americanæ. *A. DC. in Mart. Fl. Bras.* v. i. 119, *t.* 40, *f.* 2. *Benth. in Hook. Ic. Pl. t.* 1260, cum 2 Asiaticis. *Bedd. Fl. Sylv. t.* 270. His forte addenda species Guianensis inedita, Sagot, n. 1195, antheris pariter in fundo perianthii subsessilibus erectis, sed brevibus nec linearibus.

5. *Otoba* (*Sychnoneura*, *Otoba* et *Iryanthera*, A. DC.). Antheræ sæpius 3, breves, ad apicem columnæ elongatæ tenuis v. prope basin incrassatæ adnatæ. Fructus brevis, interdum latus et prominenter 2-costatus. Flores parvi, paniculati, perianthio sæpe fere 3-partito. Species ad 15, Americanæ. *Humb. et Bonpl. Pl. Æquin.* ii. *t.* 103. *Wawra, Pr. Max. Reise, Bot.* 66, *t.* 57.

In *M. surinamensi* et affinibus columnæ pars inferior nuda antheræ subæquilonga v. parum longior, in plerisque speciebus iis multo longior, *M. Hostmanni*, columna staminea apice subclavata, sectionem cum *Irya* connectit.

6. *Irya* (*Horsfieldia* et *Irya*, A. DC.). Antheræ 3–6, breves, ad apicem columnæ plus minus clavatæ v. vertice leviter concavæ adnatæ, columnæ parte nuda tenui iis multo longiore. Fructus globosus v. ovoideo-oblongus. Flores parvi nunc minimi, paniculati. Species 4 v. 5, Asiaticæ v. Africanæ. *Wall. Pl. As. Rar. t.* 89. *Blume, Rumphia, t.* 62, 63. *Benth. in Hook. Ic. Pl. t.* 1261, 1262. HORSFIELDIA, *Willd. Spec. Pl.* iv. 872.

In *M. Horsfieldia*, Bl., et in speciebus 2 ex Africa tropica, flores ♂ dense globoso-capitati in receptaculo carnoso sessiles v. brevissime pedicellati, in *M. Irya*, Gærtn., distinctius pedicellati fasciculati. Sectio *Dictyoneura*, A. DC., species unica Madagascariensis nobis ignota, ex charactere dato verisimiliter *Iryæ* adsocianda.

7. *Knema*, Blume. Antheræ 3–6, breves, ad apicem columnæ in discum dilatatæ adnatæ, circa marginem disci distinctæ, radiantes. Fructus globosus v. ovoideus. Flores parvi nunc minimi, paniculati. Species 11, Asiaticæ.—*Blume, Rumphia, t.* 60, 61. *Bedd. Fl. Sylv. t.* 271. KNEMA, *Lour. Fl. Cochinch.* 604.

ORDO CXLII. **MONIMIACEÆ.**

Endl. Gen. 313. Lindl. Veg. Kingd. 298. Baill. Hist. Pl. i. 289. ATHEROSPERMEÆ, Lindl. Veg. Kingd. 300.

Flores hermaphroditi v. unisexuales, regulares. *Perianthium* inferum, globosum ovoideum turbinatum depressum v. rarius campanulatum, dentibus lobisve sæpe conniventibus 4–∞, 2–∞-seriatim imbricatis, æqualibus v. exterioribus sepaloideis in interiora plus minus petaloidea gradatim v. abrupte mutatis nunc minimis v. rarius obsoletis, perianthio tunc ore subclauso rarius impervio. *Discus* staminifer tubo perianthii alte adnatus, rarius apice breviter liber. *Stamina* sæpius indefinita, pauca v. plurima 1–2-seriata, v. sæpe numerosa discum ∞-seriatim obtegentia, perianthio inclusa; filamenta brevia nunc brevissima, v. subnulla, sæpius complanata, basi utrinque glandula more *Laurinearum* aucta v. nuda. *Antheræ* erectæ, cum filamento continuæ, lateraliter introrsum v. extrorsum 2-loculares, loculis distinctis v. apice confluentibus, rima longitudinali v. valva a basi sursum recurva dehiscentibus. *Staminodia* in fl. ♀ sæpe desunt. *Ovarii* carpella ∞ v. rarissime solitaria, in fundo perianthii sessilia v. disco carnoso tubum vestiente v. implente semi-immersa v. sepulta, 1-locularia, stylo brevi nunc brevissimo v. elongato coronata; stigma terminale, obtusum v. parvum. *Ovulum* unicum, a basi erectum v. ab apice pendulum, excentrice affixum, anatropum v. rarius orthotropum; ovarii rudimenta in fl. ♂ desunt. *Fructus* carpella distincta, rarius solitaria, perianthio aucto inclusa v. perianthio deciduo in receptaculo disciformi v. parvulo sessilia v. stipitata, indehiscentia, sæpius drupacea, exocarpio succoso carnoso v. rarius membranaceo, endocarpio osseo crustaceo v. membranaceo. *Semen* erectum v. pendulum, testa membranacea. *Albumen* carnosum. *Embryo* prope hilum axilis v. rarius ab hilo remotus, minimus v. dimidium albuminis superans, cotyledonibus sæpius ovatis erectis v. divaricatis, radicula infera v. supera.

Arbores fruticesve, rarius scandentes, sæpius fragrantes. Folia opposita v. rarius alterna, integerrima v. irregulariter serrata, coriacea v. rarius membranacea, penninervia. Stipulæ 0. Flores cymosi v. racemosi rarius solitarii, parvi v. mediocres, inflorescentiis axillaribus v. rarius terminalibus quam folia brevioribus. Bracteæ parvæ v. 0, rarius geminæ inflorescentiam juniorem valvatim includentes.

Species vix 150, Americæ et Asiæ calidioris ins. Mascarensium Australiæ et ins. Maris Pacifici australis incolæ. In Africa diu incognitæ, nunc genere parvo in regione tropica occidentali habitationem sibi vindicant.

Ordo biformis sed bene naturalis, a pluribus botanicis *Anonaceis* approximatur ob gynœcium apocarpicum et embryonem sæpius minimum, sed perianthio calycino apetalo albumine æquabili aliisque notis essentialibus longiuscule recedit. *Laurineis* affinior præsertim tribus *Atherosperma-*

rum quarum antheræ peculiares omnino *Laurinearum*, et olea aromatica in utroque ordine eadem, sed *Monimiaceæ* characteribus cæteris tam floris quam seminis facillime distinguuntur, nec cum ullo alio ordine confundendæ.

FORMÆ ABNORMES.

Folia alterna in speciebus perpaucis *Tambourissæ* et *Siparunæ*, in *Levieria*, *Amborella* et *Glossocalyce*.

Flores juniores bracteis 2 valvatis inclusi in *Atherospermo* et *Doryphora*.

Perianthium? e squamis imbricatis membranaceis caducissimis in *Piptocalyce* et *Trimenia*; perianthii lobi 8–∞, 2–∞-seriati in *Peumo*, *Hortonia* et *Levieria*.

Gynæcium 1-carpicum in *Piptocalyce* et *Trimenia*.

Stylus in carpellis maturis fere basilaris in *Doryphora* et *Nemuaro*.

Ovulum orthotropum? in *Daphnandra* et *Amborella*.

Embryo dimidium albuminis æquans v. paullo superans, cotyledonibus rectis in speciebus paucis *Hedycaryæ*, divaricatis extrariisque in *Peumo*.

CONSPECTUS GENERUM.

Tribus I. Monimieæ. Antherarum loculi rima longitudinali bivalvatim dehiscentes, distincti v. apice confluentes. Ovulum pendulum.

* *Drupæ perianthio aucto vertice contracto subclauso omnino inclusæ. Antherarum loculi distincti.*

1. MONIMIA. Perianthium junius poro parvo dentato pervium, ♂ per anthesin in valvas 4–6 fissum. Stamina pleraque basi 2-glandulosa. Carpella in discum perianthium intus vestientem sessilia, v. in eo leviter immersa.—*Ins. Mascar.*

2. TAMBOURISSA. Perianthium *Monimiæ*. Stamina eglandulosa. Carpella in disco perianthium intus vestiente omnino sepulta.—*Ins. Mascar.*, *Java.*

3. PALMERIA. Perianthium ♂ depressum, lobis inflexis clausum. Stamina eglandulosa. Carpella intra perianthium sessilia, libera (v. pulpa circumdata?). Caulis scandens.—*Australia*, *Nov. Guinea.*

** *Drupæ in receptaculo disciformi sessiles v. stipitatæ, perianthio cæterum circumscisse deciduo.*

† *Antheræ subsessiles loculis apice in unum confluentibus.*

4. MOLLINEDIA. Perianthii ♂ lobi 4, conniventes. Stamina ∞, intra perianthium irregulariter ∞-seriata. Flores sæpius dioici.—*Amer. trop.*, *Australia.*

5. KIBARA. Perianthii ♂ lobi 4, conniventes. Stamina 4, lobis opposita, 1–4 interiora. Flores sæpius monoici.—*Ind. or.*, *Archip. Malay.*, *Australia.*

6. EPHIPPIANDRA. Perianthium ♂ per anthesin alte 4-fidum. Stamina 4 in lobis solitaria, 6 prope basin loborum. Flores dioici.—*Madagascaria.*

†† *Antherarum loculi paralleli, distincti.*

7. MATTHÆA. Perianthii ♂ ore seriei duplici loborum 4 subclausum. Stamina 4, filamentis brevissimis eglandulosis.—*Archip. Malay.*

8. HEDYCARYA. Perianthii lobi 7–10, parvi, conniventes. Stamina numerosa, filamentis brevissimis eglandulosis.—*Australia*, *Nov. Zel.*, *Nov. Caledonia*, *ins. Fiji.*

9. PEUMUS. Perianthii lobi 10–12. Stamina numerosa, filamentis angustis basi utrinque glandula auctis.—*Chile.*

*** *Drupæ in receptaculo parum aucto sessiles v. stipitatæ, perianthii lobis deciduis v. emarcidis.*

10. HORTONIA. Flores hermaphroditi. Perianthii lobi numerosi. Stamina 7–12.—*Ind. or.*, *Zeylan.*

11. LEVIERIA. Flores dioici. Perianthii ♂ segmenta 8, ♀ dentes 4. Stamina numerosa. Folia alterna.—*Nov. Guinea.*

12. AMBORELLA. Flores dioici. Perianthii ♂ lobi 5–7. Stamina numerosa. Folia alterna. —*Nov. Caledonia.*

13? PIPTOCALYX. Flores polygami. Perianthii segmenta v. squamæ ad 6. Stamina ∞, filamentis filiformibus. Ovarii carpellum unicum. Caulis scandens.—*Australia*,

14? TRIMENIA. Flores polygami. Squamæ (perianthii segmenta v. bracteæ) ∞, imbricatæ. Stamina 9–12, filamentis brevissimis. Ovarii carpellum unicum. Caulis arboreus.—*Ins. Fiji.*

Tribus II. Atherospermeæ. Antherarum loculi distincti, valvis sursum a basi ad apicem solutis dehiscentes. Ovulum erectum v. rarius pendulum. Perianthium fructiferum auctum, carpella includens, demum sæpe varie fissum v. circumscissum.

* *Discus carnosus, perianthii ♀ tubum inter carpella implens.*

15. CONULEUM. Perianthium ♂ ante anthesin impervium (per anthesin circumscissum?), ♀ circa disci apicem circumscissum, ore terminali parvo integerrimo.—*Guiana.*

16. SIPARUNA. Perianthium utriusque sexus apice pervium ore undulato v. lobis 4–6 conniventibus subclauso, fructiferum totum persistens.—*Amer. trop.*

17. GLOSSOCALYX. Perianthium utriusque sexus limbo oblique cyathiformi hinc in acumen breve v. longum producto coronatum, fructiferum persistens.—*Afr. trop. occid.*

** *Discus inter carpella sæpius pilosus at non intrusus.*

† *Flores juniores bracteis 2 valvatim involucrantibus inclusi.*

18. ATHEROSPERMA. Flores in involucro solitarii. Antheræ muticæ. Perianthium fructiferum depresso-globosum.—*Australia.*

19. DORYPHORA. Flores in involucro terni. Antheræ connectivo apice longe subulato appendiculatæ. Perianthium fructiferum anguste tubulosum. Stylus excentricus, demum carpello accreto fere basilaris.—*Australia.*

†† *Flores laxe cymosi v. breviter racemosi, exinvolucrati.*

20. NEMUARON. Antheræ introrsum 2-locellatæ. Perianthium fructiferum tubulosum, 2–3-valve. Ovulum erectum. Stylus excentricus, demum carpello accreto fere basilaris.—*Nov. Caledonia.*

21. LAURELIA. Antheræ lateraliter 2-locellatæ. Perianthium fructiferum tubulosum, demum sæpe fissum. Ovulum erectum. Stylus in carpello lineari v. fusiformi terminalis. —*Chile, Nov. Zelandia.*

22. DAPHNANDRA. Antheræ extrorsum 2-locellatæ. Perianthium fructiferum anguste tubulosum. Ovulum pendulum. Stylus in carpello angusto terminalis.—*Australia.*

GENERA EXCLUSA.

CALYCANTHACEÆ, a Baillonio *Monimiaceis* inclusæ, jam supra i. 15 pro ordine distincto ab his perianthio seminibus aliisque notis longe diverso recensitæ sunt.

TRIBUS I. MONIMIEÆ.

1. **Monimia,** *Thou. Hist. Veg. Afr. Austr.* 35, *t.* 9.—Flores dioici. Fl. ♂: Perianthium ovoideum v. globosum, ore minuto 4–6-dentatum, demum in lobos 4–6 valvatos alte fissum. Discus parietem totum vestiens, intus glaber. Stamina numerosa, multiseriata, brevia, filamentis brevibus basi utrinque glandula sæpe stipitata auctis; antheræ ovoideæ, loculis distinctis parallelis lateralibus rima longitudinali subintrorsum dehiscentibus. Fl. ♀: Perianthium globosum, diu subclausum, disco interne piloso. Staminodia 0. Carpella pauca, in disco sessilia v. leviter immersa, in stylum tenuem contracta; ovulum pendulum, anatropum. Drupæ parvulæ, perianthio aucto globoso clauso v. irregulariter fisso inclusæ, endocarpio indurato-crustaceo. Semen pendulum; embryo parvus, in seminibus examinatis imperfectus; cotyledones (ex Tulasneo) divaricatæ.—Frutices. Folia opposita, integerrima, coriacea, sæpe molliter pubescentia. Flores parvuli, ad axillas breviter cymosi.

Species 3, ins. Mascarensium incolæ. *A. DC. Prod.* xvi. ii. 661. *Bory, Voy. Iles Afr. t.* 13 (*Ambora*). *Tul. in Arch. Mus. Par.* viii. *t.* 29.

2. **Tambourissa,** *Sonn. Voy. Ind. Or.* iii. 267, *t.* 134. (Ambora, *Juss. Gen.* 401. Mithridatea, *Schreb. Gen. Pl.* 783.)—Flores dioici v. monoici. Fl. ♂: Perianthium ovoideum v. subglobosum, carnosum, obtusissimum, junius impervium v. apice minute 4–6-dentatum,

demum in lobos 4–6 valvatos patentes alte fissum. Discus parietem totum vestiens. Stamina numerosa, multiseriata, eglandulosa; antheræ subsessiles, oblongæ, loculis distinctis parallelis lateralibus sæpius undulatis rima longitudinali dehiscentibus. Fl. ♀: Perianthium subclausum. Staminodia 0. Carpella numerosa, disco carnoso glabro parietem undique vestiente sepulta, stylo brevissimo conico solo intra cavum perianthii e disco prominente; ovulum pendulum, anatropum. Drupæ intra perianthium auctum carnosum subclausum inclusæ, mediante disco connatæ v. in locellis disci liberæ. Semen pendulum; embryo brevis, axilis, in seminibus examinatis ¼ longitudinis albuminis, cotyledonibus ovatis v. ellipticis.—Arbores. Folia opposita v. rarius alterna, coriacea. Flores ad axillas v. ad apices ramorum pauci, cymosi v. racemosi, in ordine sæpe majusculi, rarius in paniculam terminalem dispositi.

Species descriptæ 14, quarum una Javanica, cæteræ omnes Mascarenses.—*A. DC. Prod.* xvi. ii. 658. *Tul. in Archiv. Mus. Par.* viii. *t.* 25 *ad* 27 (*Ambora*).

3. **Palmeria,** *F. Muell. Fragm. Phyt. Austral.* iv. 151, v. 2.—Flores dioici. Fl. ♂: Perianthium hemisphæricum, lobis 4–6 leviter imbricatis plano-conniventibus subclausum. Discus perianthii tubum vestiens intus pilosulum. Stamina numerosa, multiseriata, eglandulosa; antheræ subsessiles, lanceolatæ, loculis parallelis distinctis rima longitudinali introrsum dehiscentibus. Fl. ♀: Perianthium subglobosum, ore minuto. Staminodia 0. Carpella numerosa, distincta, perianthio inclusa, stylis filiformibus ex ore breviter exsertis; ovulum pendulum, anatropum. Drupæ perianthio aucto irregulariter globoso v. pyriformi inclusæ. Semen pendulum; embryo in speciminibus adhuc imperfectum.—Frutices scandentes (v. arbores ?). Folia opposita, integerrima. Flores parvi, in cymis axillaribus racemiformis v. paniculis parvis plurimi, pedicellati, ebracteati.

Species 1 v. 2 Australienses. *Benth. Fl. Austral.* v. 291, *et in Hook. Ic. Pl. t.* 1263, quibus addidit tertiam e Nova Guinea *Beccari, Malesia,* 186.

4. **Mollinedia,** *Ruiz et Pav. Fl. Per. et Chil. Prod.* 83, *t.* 15; *Syst. Veg.* 142. (Tetratome, *Pœpp. et Endl. Nov. Gen. et Sp.* ii. 46, *t.* 163.)—Flores unisexuales, sæpius dioici. Fl. ♂: Perianthium ovoideum globosum turbinatum v. rarius oblongum, lobis 4 biseriatim imbricatis conniventibus rarius subpatentibus æqualibus v. interioribus majoribus interdumque dentatis. Discus tubo adnatus. Stamina ∞, pauca v. numerosa, irregulariter ∞-seriata; antheræ ovoideæ v. oblongæ, sessiles v. vix stipitatæ, loculis rima longitudinali dehiscentibus apice in unum confluentibus. Fl. ♀: Perianthium post anthesin supra discum circumscisse deciduum. Staminodia 0. Carpella numerosa in receptaculo ∞-seriata; ovulum pendulum, anatropum. Drupæ ∞, ovoideæ, in receptaculo disciformi dilatato sessilia v. stipitata. Semen pendulum; embryo parvus, axilis, cotyledonibus ovatis rectis, radicula supera.—Arbores fructicesve. Folia opposita, integerrima v. dentata. Flores parvuli, in cymis brevibus laxis racemiformibus v. thyrsoideis axillaribus v. subterminalibus pedicellati. Bracteæ minimæ v. 0.

Species ad 30, quarum 3 (v. 4?) Australienses, cæteræ omnes Americæ calidioris incolæ a Brasilia australi usque ad Mexicum.—*A. DC. Prod.* xvi. ii. 663. *Tul. in Archiv. Mus. Par.* viii. 373, *t.* 31 *ad* 33, *et in Mart. Fl. Bras.* iv. i. *t.* 84 *ad* 86. *Benth. Fl. Austral.* v. 286.

5. **Kibara,** *Endl. Gen.* 314. (Brongniartia, *Blum. Bijdr.* 435, *non H. B. et K.* Sciadicarpus, *Hassk. in Flora,* 1842, *Beibl.* ii. 20. Sarcodiscus, *Griff. Notul.* iv. 380; *Ic. t.* 545. Wilkiea, *F. Muell. in Trans. Phil. Inst. Vict.* ii. 64.)—Flores monoici, rarius dioici. Fl. ♂: Perianthium ovoideum globosum v. hemisphæricum, lobis v. dentibus 4 2-seriatim imbricatis conniventibus subclausum v. rarius magis apertum. Discus tubo adnatus v. superne liber, annularis v. tubulosus. Stamina 5–8, 2-seriata, 4 ad marginem disci lobis dentibusve opposita, 1–4 interiora minora, omnia perianthio breviora; antheræ subsessiles, loculis rima longitudinali dehiscentibus apice in unum confluentibus. Fl. ♀: Perianthium post anthesin supra discum circumscissum, deciduum. Staminodia 0. Carpella ∞, in receptaculo conferta, libera; ovulum pendulum, anatropum. Drupæ ∞, ovoideæ, in receptaculo disciformi dilatato sessiles v. stipitatæ. Semen pendulum;

embryo parvus, axilis, cotyledonibus ovatis rectis, radicula supera.—Arbores fruticesve. Folia opposita, integerrima v. dentata. Flores parvuli, in cymis paniculisve brevibus axillaribus lateribusve pedicellati. Bracteæ minimæ v. 0.

Species ad 10, Indiæ orientalis, Archipelagi Malayani et Australiæ incolæ.—*A. DC. Prod.* xvi. ii. 670. *Benth. Fl. Austral.* v. 288. *Beccari, Malesia,* 186. *Blum. Mus. Bot.* ii. *t.* 9.

6. **Ephippiandra,** *Dcne. in Ann. Sc. Nat. ser.* 4, ix. 278, *t.* 7.—Flores dioici. Fl. ♂: Perianthium globosum aut pyriforme, junius subclausum 4-dentatum, demum in lobos 4 valvatos patentes fissum. Discus parietem vestiens glabrum. Stamina intra discum 10, 2–3-seriata; antheræ 4 in lobos, 6 ad eorum basin sessiles, transversæ, subreniformes, 1-loculares, rima supera dehiscentes. Fl. ♀: Carpella ∞, exigua, in receptaculo carnoso pateriformi cum basi perianthii persistente confertim sessilia, obtusissima; ovulum pendulum, anatropum. Fructus . . .—Arbuscula habitu *Myrti.* Folia opposita, integra, perennantia. Flores ♂ in axillis 1–2, pedicellati. (*Char. ex Dcne.*)

Species 1, Madagascariensis, a nobis non visa. *A. DC. Prod.* xvi. ii. 662.

7. **Matthæa,** *Blum. Mus. Bot.* ii. 89, *t.* 10.—Flores dioici. Fl. ♂ (a nobis non visi): Perianthium depresso-turbinatum, ore seriei duplici loborum 4 subclausum. Stamina 5, filamentis brevissimis; antheræ ovoideæ, 2-loculares, loculis rima longitudinali dehiscentibus (*Blume*). Fl. ♀: Perianthium depresso-globosum, fere hemisphæricum, junius clausum, per anthesin circumscisse dehiscens. Staminodia 0. Carpella numerosissima, receptaculum latum planum dense obtegentia, sessilia v. breviter stipitata, in stylum oblongum brevissimum desinentia; ovulum pendulum, anatropum. Drupæ carnosæ, in receptaculo disciformi pedicellatæ. Semen pendulum, albumine carnoso duro; embryo teres, rectus, longiusculus, radicula supera, cotyledonibus brevibus rectis.—Frutex. Folia opposita, coriacea, integerrima v. remote serrulata, glabra. Flores ad axillas v. ad nodos vetustos ramorum fasciculati, pedicellati.

Species unica, Archipelagi Malayani incola.—*A. DC. Prod.* xvi. ii. 669.

8. **Hedycarya,** *Forst. Char. Gen.* 127, *t.* 64.—Flores dioici. Fl. ♂: Perianthium depressum v. hemisphæricum, lobis 7–10 parvis inflexis subclausum. Discus adnatus, parietem fere totum vestiens. Stamina numerosa, discum fere totum obtegentia; antheræ subsessiles, loculis distinctis parallelis a latere rima longitudinali dehiscentibus. Fl. ♀: Perianthium sub anthesi supra basin disciferum circumscissum deciduum. Staminodia 0. Carpella numerosa, discum obtegentia, sessilia, in stylum brevem obtusum desinentia; ovulum pendulum, anatropum. Drupæ mediocres v. parvæ, in receptaculo disciformi stipitatæ v. sessiles. Semen pendulum, albuminosum; embryo axilis, brevis v. dimidio albuminis longior, cotyledonibus rectis, radicula supera.—Arbores fruticesve. Folia opposita, integerrima v. dentata, coriacea. Flores ad axillas breviter cymosi v. in paniculas breves racemiformes dispositi. Bracteæ parvæ v. 0.

Species ad 8, una Novo-Zelandica, altera Australica, cæteræ Novæ Caledoniæ v. ins. Fiji incolæ. *A. DC. Prod.* xvi. ii. 672. *Baill. Adans.* ix. 132. *A. Rich. Fl. Nov. Zel. t.* 33 (*Zanthoxylum*). *Raoul, Choix Pl. N. Zel. t.* 30. *Tul. in Archiv. Mus. Par.* viii. *t.* 34.

In plerisque speciebus fructus carpella plura sed non numerosa stipitata, inter quas in *H. dentata* embryonem invenimus dimidium longitudinis albuminis superantem, cotyledonibus amplis ellipticis fere ut in icone *A. Richardi*, supra citata, depictus est. In specie Novo-Caledonica fructu simili, embryo vix quartam partem albuminis attingit, cotyledonibus orbiculatis radicula vix longioribus. In *H. angustifolia*, A. Cunn.; Benth. Fl. Austral. v. 291; F. Muell. Pl. Vict. t. suppl. 2, carpella numerosa, parva, globosa, in receptaculum carnosulum sessilia, fructum *Mori* simulant. In his embryonem vidimus subteretem, cotyledonibus parum dilatatis.

9. **Peumus,** *Pers. Syn.* ii. 629. (Ruizia, *Ruiz et Pav. Fl. Per. et Chil. Prod.* 135, *t.* 29; *Syst. Veg.* 266, *non Cav.* Boldea, *Juss. in Ann. Mus. Par.* xiv. 134.)—Flores dioici. Fl. ♂: Perianthii tubus late campanulatus, lobi 10–12, 2–3-seriatim imbricati, exteriores herbacei v. membranacei, interiores magis petaloidei. Discus calycis tubum vestiens,

intus pilosus. Stamina numerosa, in disco ∞-seriata, tubo inclusa; filamentis angustis brevibus basi utrinque glandula substipitata auctis; antheræ 2-loculares, loculis distinctis parallelis a latere rima longitudinali dehiscentibus. Fl. ♀: Perianthium masculo minus, lobis minoribus magis inæqualibus, post anthesin supra basin disciferam circumscissum, deciduum. Staminodia pauca, parva. Carpella ∞, in fundo perianthii sessilia, tomentosa, in stylum brevissimum desinentia; ovulum pendulum, anatropum. Drupæ 2–5, rarius solitariæ, in receptaculo discoideo brevissime stipitatæ, parvulæ. Semen pendulum, albumine copioso; embryo juxta hilum, cotyledonibus amplis divaricatis radicula supera longioribus.—Arbuscula sempervirens, fragrans. Folia opposita, coriacea, scabra, subtus elevato-venosa. Flores albi, in cymas terminales foliis breviores v. vix longiores dispositi.

Species 1, Chilensis. *A. DC. Prod.* xvi. ii. 674. *Endl. Iconogr. t.* 21 (*Ruizia*). *Bot. Reg.* 1845, *t.* 57 (*Boldoa*).

Embryo ab auctoribus minimus dicitur; in seminibus tamen a nobis examinatis dimidium saltem albuminis longitudinem æquantem invenimus, qualis in Lindl. Veg. Kingd. 298 depictus, albumine tamen inclusus nec extrarius.

Persoon primus nomen *Peumi* generi Pavoniano attribuit. Peumus, *Molin.*, est genus fictum hexandrum, e characteribus generum variorum *Monimiacearum* et *Laurinearum* compositum.

10. **Hortonia,** *Wight, ex Arn. in Mag. Zool. and Bot.* ii. 545.—Flores hermaphroditi. Perianthii tubus brevis, campanulatus, lobi ∞ (ultra 20), ∞-seriatim imbricati, ab extimis latis sepaloideis in intimos petaloideos spathulatos v. lineares gradatim mutati. Discus tubum vestiens, intus pilosus. Stamina 7–12, ad marginem disci 1–2-seriatim affixa, lobis breviora, filamentis brevibus angustis basi utrinque glandula magna auctis; antheræ ovatæ, loculis distinctis parallelis extrorsum rima longitudinali dehiscentibus. Carpella in centro perianthii ∞, sessilia, in stylum brevem nunc brevissimum contracta, stigmate tenui v. parum dilatato; ovulum pendulum, anatropum. Drupæ oblique ovatæ, in receptaculo vix incrassato breviter stipitatæ, perianthii reliquiis emarcidis circumdatæ. Semen late ovatum, plano-compressum, albumine carnoso; embryo axilis, brevis, cotyledonibus obovatis erectis v. divergentibus radicula supera longioribus.—Frutices fragrantes. Folia opposita, integerrima, coriacea, pennivenia v. subtriplinervia. Flores pallide flavi, in cymis laxis brevibus ad axillas pedunculatis haud numerosi. Bracteæ parvæ v. 0.

Species v. varietates insignes 2 v. 3, Zeylaniæ et Peninsulæ Indiæ Orientalis incolæ. *A. DC. Prod.* xvi. ii. 672. *Wight, Ic. t.* 1997, 1998.

11. **Levieria,** *Beccari, Malesia*, 192.—Flores monoici. Fl. ♂: Perianthii tubus subnullus, segmenta 8, 4 exteriora 2-seriatim subsepaloidea, 4 interiora subpetaloidea. Stamina numerosa, ∞-seriata, exteriora segmentis interioribus subconformia, interiora minora angustiora, connectivis apice subtruncatis; antheræ (subsessiles?), loculis lateralibus distinctis rima longitudinali dehiscentibus. Fl. ♀: Perianthium subglobosum, urceolatum, apice 1-bracteatum, ore 4-dentato-lobato, dein irregulariter fissum, intus pilosum. Carpella ∞, receptaculo acervata, ovoideo-oblonga, stylo crasso corniculato terminata; ovulum pendulum, anatropum. Drupæ ovoideæ, receptaculo incrassato margine reflexo insidentes, endocarpio crustaceo; embryo minutus, axilis, cotyledonibus ovatis divergentibus radicula supera longioribus.—Frutex innovationibus tomentosis. Folia alterna, elliptica v. elliptico-lanceolata, apicem versus obtusissime repando-dentata, longe acuminata. Racemi axillares, foliis breviores, subsimplices v. parce ramosi. Drupæ in receptaculo fructifero sessiles, parvæ. (*Char. ex Beccari.*)

Species 1, Novæ Guineæ et Amboynæ incola, a nobis non visa.

12. **Amborella,** *Baill. Adans.* x. 354.—Flores dioici. Fl. ♂: Perianthium hemisphæricum, lobis 5–7 sub-2-seriatis latis conniventibus. Discus tubum vestiens intus leviter pilosus. Stamina ∞ (ultra 20), ∞-seriata, inclusa, filamentis brevissimis latis eglandulosis; antheræ oblongæ, loculis distinctis parallelis rima longitudinali introrsum dehis-

centibus. Fl. ♀ ignoti. Fructus carpella ∞ (3–6) parvula, in receptaculo parvo stipitata, oblique ovali-oblonga, compressiuscula, vix drupacea, rete elevato rugosa, stylo brevi coronata, pericarpio sicco indurato-crustaceo. Semen juxta apicem funiculo laterali affixum, pendulum, testa membranacea, albumine carnoso, embryone minuto ex obs. Bailloni ad extremitatem inferam ab hilo remoto.—Frutex subsarmentosus. Folia alterna, ovali-oblonga, pennivenia, reticulato-venulosa, margine integerrima v. undulato-repanda. Flores parvi, cymis laxis brevibus ad axillas subsessilibus. Bracteæ 0.

Species 1, Novo-Caledonica, foliis alternis et fructibus parvis valde rugosis fere echinatis insignis, quoad flores fœmineos ulterius inquirenda. Embryonem minutum in seminibus examinatis haud deteximus.

13? **Piptocalyx,** *Oliv. in Benth. Fl. Austral.* v. 292.—Flores polygami. Perianthii tubus discifer brevissimus v. 0, segmenta ad 6, 2-seriatim imbricata, subæqualia, membranacea, squamiformia, caducissima. Stamina ∞, filamentis breviter filiformibus; antheræ oblongo-lineares, filamento subæquilongæ, loculis distinctis parallelis rima longitudinali dehiscentibus. Ovarii carpellum in fl. ☿ 1, sessile, stigmate lato sessili; ovulum pendulum, anatropum. Fructus ignotus.—Frutex scandens. Folia opposita, integerrima, pennivenia. Flores parvi, racemosi, flore terminali hermaphrodito, lateralibus masculis oppositis brevissime pedicellatis. Bracteæ parvæ, caducissimæ.

Species 1, Australiæ orientalis incola.

14? **Trimenia,** *Seem. Fl. Vit.* 425, *t.* 99.—Flores polygami. Squamæ numerosæ, ovatæ, membranaceæ, ∞-seriatim imbricatæ, ab exterioribus (bracteis?) in interiores (perianthii segmenta?) gradatim increscentes, stamina pistillumque includentes, anthesi peracta caducissimæ. Fl. ♂: Stamina 9–12, toro 2–3-seriatim affixa, filamentis brevissimis liberis; antheræ magnæ, lineari-oblongæ, loculis lateraliter adnatis parallelis longitudinaliter subextrorsum dehiscentibus, connectivo ultra loculos in conum brevem producto. Ovarii rudimentum parvum. Fl. ♀ v. pseudohermaphroditi: Stamina marium nisi minora antheris tenuibus ut videtur effœtis. Ovarii carpellum 1, oblongum, 1-loculare; stigma in vertice oblique truncato sessile, latum, undique papilloso-penicillatum; ovulum 1, ab apice loculi pendulum, anatropum. Fructus . . . . —Arbor (*Seemann*) glabra ramulis interdum lineis a petiolo decurrentibus angulatis. Folia opposita, petiolata, leviter serrata, pennivenia, venis primariis transversis parallelis. Flores laxe racemulosi, racemulis in axillis superioribus v. ad apices ramorum paniculatis, paniculis ebracteatis v. bracteis minutis caducis, pedicellis brevibus. Flores plerique ♂, nonnulli ☿ v. ♀ in panicula irregulariter dispositi.

Species 1, ins. Fiji incola. Genus evidenter *Piptocalyci* valde affine, et forte melius notum illi adjungendum, sed seminis structura in utroque ignota locus systematicus adhuc dubius; a *Ternstrœmiaceis* quibus adsociavit Seemann certe longe distans.

Tribus II. Atherospermeæ.

15. **Conuleum,** *A. Rich. in Mem. Soc. Hist. Nat. Par.* i. 391, *t.* 25.—Flores dioici (rarius monoici?). Fl. ♂: Perianthium obovoideo-clavatum, in speciminibus nostris integerrimum, impervium (an demum circumscissum?). Discus in fundo perianthii brevis, carnosulus, parum prominens; antheræ in disco sessiles, in speciminibus nostris 7–8, 4 ad marginem disci latæ, apice introrsum 2-locellatæ, locellis valvis sursum dehiscentibus, 3–4 interiores angustiores, truncatæ, locellis parvis v. effœtis. Pistilli rudimentum 0. Fl. ♀: Perianthium ovoideum, apice ore parvo integerrimo pervium, per anthesin ad apicem tubi circumscissum, parte libera decidua. Discus carnosus intus inter carpella intrusus, cavum in loculos dividens, supra tubum prominens, in conum apice poro parvo pervium productus. Carpella in loculis disci plus minus inclusa, in stylos tenues demum ultra conum prominentes desinentia, libera v. superne cohærentia; ovulum erectum, anatropum. Fructus . . . . —Arbuscula ramulis, foliis inflorescentiaque more *Elæag-*

norum lepidotis. Folia opposita, integerrima. Flores parvuli, in cymas breves axillares dispositi, ♂ pedicellati, ♀ subsessiles.

Species 1, Cayennensis. *A. DC. Prod.* xvi. ii. 643 (*Siparunæ* sect.). Specimina 2 tantum vidimus, ♂ a Martinio, ♀ a Sagotio lecta.

16. **Siparuna,** *Aubl. Pl. Gui.* 864, *t.* 333. (Citrosma, *Ruiz et Pav. Fl. Per. et Chil. Prod.* 134, *t.* 29; *Syst. Veg.* 263.)—Flores polygamo-dioici v. rarius monoici. Perianthii tubus ovoideus subglobosus obconicus v. urceolatus, superne interdum carnosus valdeque dilatatus; limbus brevis, connivens, ore undulato v. breviter lateque 4–6-lobo, rarius breviter expansus. Discus tubo adnatus, in fl. ♂ ad faucem pone antheras annulatus v. vix prominens, in fl. ♀ carnosus, intra tubum plus minus inter carpella intrusus, cavum in loculos dividens, ad faucem sæpe prominens et circa stylos connivens. Stamina fl. ♂ pauca v. numerosa, perianthio inclusa; antheræ sessiles v. in filamenta brevia lata contractæ, ad marginem disci 1-seriatæ v. intra discum 2–∞-seriatæ, introrsum prope apicem 2-locellatæ, locellis valvis sursum dehiscentibus; interiores dum adsint sæpe angustiores locellis interdum effœtis. Carpella fl. ♀ pauca v. plura, singula locellis disci plus minus inclusa, in stylum desinentia; styli liberi v. apice connati e perianthio demum breviter exserti; ovulum e basi loculi erectum, anatropum. Fructus ficiformis perianthio cum disco aucto sæpius carnoso intus irregulariter ∞-loculato, Drupæ in loculis fructus liberæ, exocarpio sæpius tenui, endocarpio fragili v. duro lævi rugoso v. echinato. Semen erectum, testa membranacea, albumine copioso; embryo juxta hilum minimus.—Frutices v. arbusculæ odore grato, indumento simplici rarius stellato v. lepidoto. Folia sæpius opposita. Flores laxe cymulosi, cymulis geminatim axillaribus v. in ramis vetustis lateralibus folio multo brevioribus, pedicellis sæpius brevibus.

Species ad 60, per Americam tropicam late dispersæ. *A. DC. Prod.* xvi. ii. 643 (*excl. sect. Conulea*). *Tul. in Archiv. Mus. Par.* viii. *t.* 28 *ad* 30, *et in Mart. Fl. Bras.* iv. i. *t.* 82, 83 (*Citriosma*). *Poepp. et Endl. Nov. Gen. et Sp. t.* 164 (*Citrosma*).

17. **Glossocalyx,** *Benth. in Hook. Ic. Pl. t.* 1301, 1302.—Flores dioici. Fl. ♂: Perianthii tubus campanulatus, ore latiusculo annulo interiore carnoso semiclauso, limbus late et oblique cyathiformis, valde inæqualiter 5-dentatus v. sublobatus, uno latere in acumen lanceolatum breve v. longe linguiforme productus. Discus tubo adnatus, in fl. ♂ præter annulum faucis parum prominens, in fl. ♀ carnosus, intra tubum plus minus inter carpella intrusus, cavum in loculos dividens, ab annulo faucis subdistinctus. Stamina ∞, perianthio inclusa, intra discum 2–3-seriata, filamentis brevibus latis subconnatis; antheræ ad apicem filamenti sessiles, ovatæ, introrsum 2-locellatæ, valvis sursum dehiscentes. Carpella fl. ♂ ∞, singula locellis disci plus minus inclusa, in stylum desinentia; styli liberi, e perianthii fauce breviter exserti; ovulum e basi loculi erectum. Fructus immaturus (in *G. longicuspide*) subglobosus, angulatus, carnosus, limbo perianthii emarcido coronatus, maturum non vidimus, sed verisimiliter ei *Siparunæ* similis.—Arbores ramulis gemmisque novellis pilis rigidulis pubescentibus. Folia alterna, breviter petiolata, longe oblonga v. obovali-oblonga, acuminata, pennivenia. Flores ad axillas pauci, fasciculati, breviter pedicellati.

Species 2, Africæ tropicæ occidentalis incolæ. Genus *Siparunæ* affine, differt patria, foliis omnibus alternis et perianthii forma peculiari.

18. **Atherosperma,** *Labill. Pl. Nov. Holl.* ii. 74, *t.* 224.—Flores polygamo-monoici v. dioici. Fl. ♂: Perianthii tubus brevis, late campanulatus; lobi 8, rarius 10, subæquales, 2-seriatim imbricati, exterioribus parum latioribus. Discus tubum vestiens. Stamina 10–12, inclusa, margine disci 2–3-seriatim affixa, filamentis brevibus planis utrinque glandula aliformi auctis; antheræ breves, latæ, extrorsum 2-locellatæ, locellis valvis sursum dehiscentibus. Fl. ♀: Perianthii tubus campanulatus; lobi quam in masculo minores, nonnulli v. fere omnes sæpe caducissimi v. deficientes. Staminodia numerosa, ∞-seriata. Carpella in fundo perianthii numerosa, libera, in stylos longiusculos desinentia; ovulum erectum, anatropum. Perianthium fructiferum depresso-globosum, ore

leviter contracto staminodiis persistentibus quasi denticulato. Carpella angusta, in stylos longos exsertos plumosos desinentia, sicca, pericarpio tenui. Semen erectum, testa membranacea; embryo in basi albuminis carnosi brevis, axilis, cotyledonibus brevibus rectis, radicula infera.—Arbor. Folia opposita, integerrima v. dentata. Flores ad axillas solitarii, breviter pedunculati, intra bracteas 2 cymbiformes valvatim involucrantes demum deciduas sessiles.

Species 1, Australiana. *Benth. Fl. Austral.* v. 284.

19. **Doryphora,** *Endl. Gen. Pl.* 315; *Iconogr. t.* 10. (Learosa, *Reichb. ex Endl. Gen. Pl. Suppl.* ii. 35.)—Flores hermaphroditi. Perianthii tubus per anthesin brevissimus campanulatus, post anthesin auctus cylindraceus; lobi 6, 2-seriatim imbricati. Discus adnatus, tenuis. Stamina perfecta sæpius 6, ad apicem tubi lobis opposita, filamentis brevibus basi utrinque glandula aliformi auctis; antheræ extrorsum 2-locellatæ, locellis valvula sursum dehiscentibus, connectivo in acumen longum subulatum producto. Staminodia intra stamina 6–12. Carpella ∞, in fundo perianthii sessilia, distincta, stylo elongato mox laterali; ovulum erectum, anatropum. Perianthium fructiferum cylindraceum, sæpe fissum, lobis caducis. Carpella sicca a latére accreta, ascendentia, stylo longo plumoso demum fere basali; pericarpium tenue. Semen erectum, maturum ignotum.—Arbor. Folia opposita, dentata. Flores axillares, intra bracteas 2 cymbiformes valvatim involucrantes terni, sessiles, capitulo breviter pedunculato.

Species 1, Australiana. *Benth. Fl. Austral.* v. 283.

20. **Nemuaron,** *Baill. Adans.* x. 351.—Flores hermaphroditi. Perianthii tubus per anthesin brevis; lobi 6–8, 3–4-seriati. Stamina 4–8, filamentis basi utrinque glandula auctis; antheræ introrsum 2-locellatæ, locellis valvis sursum dehiscentibus, connectivo haud producto. Staminodia ∞, interiora, parva. Carpella pauca, anguste conica, receptaculo tubum perianthii vestienti adnata, stylo longo fragilissimo; ovulum erectum. Perianthii tubus fructifer auctus, carnosus, 2–3-valvatim fissus, carpellis lateraliter accretis subhippocrepiformibus, stylo laterali fere basilari. Pericarpium semini adnatum.—Frutices glabri. Folia opposita, coriacea, crenato-dentata. Flores pauci, in cymas breves axillares dispositi.

Species 2, Novo-Caledonicæ, una tantum nobis nota e specimine vix perfecto, charactere partim ex Baill. l. c.

21. **Laurelia,** *Juss. in Ann. Mus. Par.* xiv. 134. (Pavonia, *Ruiz et Pav. Fl. Per. et Chil. Prod.* 127, *t.* 28, *Syst. Veg.* 253.)—Flores polygamo-monoici v. dioici. Fl. ♂: Perianthii tubus brevis, campanulatus; lobi 6–12, 2–3-seriati, subæquales v. exteriores breviores. Stamina 6–12, filamentis brevibus utrinque glandula oblonga auctis; antheræ connectivo brevissimo apiculatæ, locellis lateralibus oblongis valvis sursum dehiscentibus. Fl. ♀ v. ☿: Perianthium post anthesin auctum, ovoideo-cylindraceum v. anguste tubulosum, demum 2–3-valvatim fissum. Stamina interiora v. omnia ad staminodia parva reducta. Carpella ∞, lineari-fusiformia, longe pilosa, in stylos longos plumosos demum exsertos desinentia; ovulum erectum, anatropum. Seminis embryo in basi albuminis axilis, brevis, cotyledonibus brevibus rectis v. parum divergentibus; radicula infera.—Arbores elatæ, grate odoræ. Folia opposita, coriacea, integerrima v. serrato-dentata. Cymæ v. racemi axillares, folio breviores.

Species 2, altera Chilensis, altera Novo-Zelandica. *A. DC. Prod.* xvi. ii. 675. *Hook. Fl. N. Zel.* i. 218, *t.* 51. Embryonem vidimus usque ad tertiam partem albuminis attingentem. Genus ab *Atherospermo* inflorescentia staminibus aliisque notis bene distinctum videtur.

22. **Daphnandra,** *Benth. Fl. Austral.* v. 285.—Flores hermaphroditi. Perianthii tubus brevis, per anthesin campanulatus, post anthesin auctus, anguste cylindraceus; lobi ∞, 4 exteriores herbacei per paria oppositi, 6–8 interiores longiores, subpetaloidei, 2-seriati. Stamina perfecta 4–5, filamentis planis utrinque glandula aliformi auctis; antheræ breves, extrorsum 2-locellatæ, locellis valvis sursum dehiscentibus. Staminodia intra stamina ∞,

sub-2-seriata, interiora glanduliformia. Ovarii carpella ∞, glabra, in stylum pilosum desinentia; ovulum ex apice loculi pendulum, orthotropum? Perianthium fructiferum anguste tubulosum. Carpella pauca, inclusa, angusta, stylis longis plumosis demum exsertis. Pericarpium tenue, semini adnatum; albumen copiosum; embryonem in seminibus vix maturis non deteximus.—Arbor. Folia opposita, petiolata, serrata v. rarius integerrima. Flores parvi, in cymas v. paniculas thyrsoideas axillares dispositi. Bracteæ parvæ, caducissimæ.

Species nobis nota 1, Australiensis. *Tul. in Archiv. Mus. Par.* viii. *t.* 34 (*Atherosperma*) alteram addidit *F. Muell. Fragm. Phyt. Austral.* x. 105, a nobis non visam. Genus *Laureliæ* pluribus notis affine, differt tamen staminibus, et ovulum in floribus plurimis e variis speciminibus iterum iterumque examinatis semper pendulum invenimus, nec a basi erectum ut in omnibus cæteris *Atherospermeis.*

Ordo CXLIII. **LAURINEÆ.**

Lindl. Veg. Kingd. 535. Endl. Gen. 315. Nees, Laurin. Expositio, Vratislaviæ, 1833; Syst. Laurinearam, Berolini, 1836. Baill. Hist. Pl. ii. 429. Cassythaceæ, Lindl. Veg. Kingd. 538. Hernandiaceæ, Endl. Gen. 332. Lindl. Veg. Kingd. 531, sub Thymelæaceis.

Flores hermaphroditi v. abortu polygami v. dioici, regulares. *Perianthium* inferum v. rarius ovario adnato subsuperum, tubo brevi nunc brevissimo, patente campanulato ovoideo v. rarius oblongo, post anthesin immutato v. varie aucto; limbi segmenta ad normam 6 v. rarius 4 (in *Icosandra* 10 ?) duplici serie imbricata v. rarius in quaque serie subvalvata, inter se similia parva herbacea v. petaloidea et æqualia, v. exteriora minora v. rarius paullo majora, rarissime hinc inde abortiva v. numero aucta. *Stamina* v. staminodia ad normam numero segmentorum duplo plura iisque opposita, in ordines 4 v. series 2 disposita ad apicem tubi v. infra segmenta disco staminifero tubo adnato affixa, ordinis primi segmentis exterioribus ordinisque secundi segmentis interioribus opposita seriem exteriorem formantia, ordinis tertii primis et ordinis quarti secundis opposita seriem interiorem efficientia; in speciebus paucis numerus staminum auctus v. hinc inde abortu reductus, v. stamina ordinis unius alteriusve (ordinis quarti sæpissime) ad staminodia reducta; filamenta libera, sæpius plus minus complanata, brevia brevissima v. antheris paullo rarius duplo longiora, ordinis tertii et quarti dum adsint basi v. prope basin utrinque glandula magna globosa v. capitata sessili v. stipitata aucta, seriei exterioris nuda v. rarissime pariter 2-glandulosa. *Antheræ* erectæ, cum filamento continuæ, complanatæ v. rarius obovoideæ, seriei exterioris facie interiore locellis 2 v. 4 sæpius connectivo crassiusculo immersis præditæ, valvulis tot quot locella a basi ad apicem dehiscentes; ordinis tertii in generibus pluribus reversæ. *Ovarium* in fundo perianthii sessile, per anthesin (excepta *Hernandia*) liberum, in generibus paucis post anthesin tubo accretum quasi inferum, uniloculare et verisimiliter e carpello unico constans. *Stylus* terminalis, brevis, brevissimus v. ovario paullo longior, simplex, interdum leviter obliquus v. incurvus; stigma nunc parvum obtusum, nunc plus minus in laminam recurvam v. discum integrum v. irregulariter lobatum dilatatum. *Ovulum* 1 (addito rarius secundo mox abortivo), apici loculi lateraliter affixum, pendulum, anatropum. *Fructus* baccatus carnosus v. rarius drupaceus v. siccus, indehiscens, perianthio deciduo nudus, v. perianthio toto v. partim persistente immutato v. varie aucto disciformi v. cupulato impositus v. basi cinctus, v. perianthii tubo apice clauso omnino inclusus, intra quem liber v. cum eo arcte concretus quasi inferus, pedicello fructifero interdum incrassato. *Semen* pendulum, exalbuminosum; testa membranacea sæpius pericarpio adnata v. maturitate omnino evanida, rarius inter cotyledones intrusa dissepimentum spurium mentiens. *Embryo* rectus; cotyledones

crasso-carnosæ, sæpius sibi arcte appressæ, interdum demum conferruminatæ; radicula supera, inter cotyledones retracta; plumula conspicua.

Arbores fructicesve (excepta *Cassytha*), sæpius (excepta *Hernandia*) oleo æthereo aromatico scatentes, ligno sæpe durissimo interdum fœtido. Folia alterna v. sparsa, rarius et vix stricte opposita, coriacea et perennantia, rarius membranacea et annua, sæpius (excepta *Hernandia*) glanduloso-punctata, pennivenia v. plus minus distincte 3–5-nervia, inter venas sæpius copiose venuloso-reticulata, indivisa v. rarius 2–3-loba, cæterum integerrima; in *Cassytha* caules herbacei, volubiles, aphylli. Stipulæ 0. Flores parvi, nunc minimi, virentes v. flavi, sæpius cymosi umbellati v. capitati, cymulis umbellis capitulis v. rarius floribus singulis racemosis paniculatis v. subsolitariis, racemis paniculisve axillaribus v. ad basin innovationum lateralibus v. subterminalibus, rarius ramulum hornotinum revera terminantibus. Gemmæ foliigenæ uti florigenæ interdum ante evolutionem squamis imbricatis mox deciduis obtectæ (sic dictæ *perulatæ*). Bracteæ sub ramulis inflorescentiæ pedicellisque sæpius parvæ caducissimæ v. 0, rarius diutius persistentes, in generibus paucis 4–6 sub umbellis v. capitulis involucrum globosum formantes; bracteolæ sub floribus desunt. Indumentum dum adsit e pube brevi sæpe ferruginea pilis simplicibus constat.

Species descriptæ ad 900, plures tamen valde dubiæ, pro maxima parte regionum calidiorum Americæ, Asiæ, Australiæ et insularum maris Pacifici incolæ, paucæ extratropicæ per Americam tam borealem quam australem, regionem Mediterraneam, insulas Canarienses, Africam australem et Novam Zelandiam dispersæ, perpaucæ hucusque in Africa tropica detectæ.

Ordo distinctissimus ab omnibus botanicis admissus, perianthio fructu et præsertim staminum indole facillime dignoscendus. Antherarum dehiscentia peculiaris in solis *Monimiaceis* (*Atherospermiis*), *Berberideis* et quodammodo in *Hamamelideis* paucis repetitur. Priores quæ aroma aliisque nonnullis characteribus *Laurineis* accedunt differunt perianthio, gynœcio pleiocarpico, albumine copioso, etc., *Berberideæ* et *Hamamelideæ* characteribus fere omnibus præter staminales.

'Ordinis magni summeque naturalis genera rite definiendi et in tribus bene circumscriptas distribuendi negotium est difficillimum, et propter floris fructusque structuram in permultis nimis imperfecte adhuc cognitam etiam nunc nequaquam absolutum.' (*Meissn. in DC. Prod.* xv. i. 3). Genera a Neesio inordinate multiplicata fuerunt, ad characteres sæpe in speciebus singulis haud raro minus accurate observatos, et Meissner rite plurima cum aliis conjunxit. Quæ servavit sæpe ad perianthii fructiferi naturam distinxit, sed etiam hic character valde incertus est. In dimidio saltem specierum descriptarum fructus adhuc ignotus est; in aliis speciebus specimina fructifera sola absque floribus nobis adsunt, et haud raro species accuratius observatæ aliter quam in Prodromo distribuendæ sunt. Dolendum est insuper quod Nees interdum genera antiqua a Jussiæo aliisque accurate definita neglexit, et nominibus novis signavit in Prodromo incaute servatis. Plurima igitur mutare non libentes coacti sumus, et inter genera hic definita (e.g. inter *Perseam* et *Ocoteam*) species plurimæ adsunt, fructibus ignotis incertæ, v. forte revera intermediæ. Habitus sæpe in eodem genere diversus, in generibus diversis idem.

CONSPECTUS GENERUM.

Tribus I. Perseaceæ. Arbores fructicesve foliati. Stamina ordinis tertii reversa, antheris extrorsum locellatis, valvis sursum dehiscentibus. Folia sæpissime perennantia. Inflorescentiæ sæpius laxæ, pedunculatæ. Stamina ordinis primi et secundi eglandulosa, perfecta v. ad staminodia parva reducta v. interdum 0; ordinis tertii perfecta v. rarius elocellata (staminodia), fere semper basi 2-glandulosa; ordinis quarti ad staminodia eglandulosa reducta v. 0.

* *Antheræ 2-locellatæ. Fructus perianthii tubo aucto vertice clauso omnino obtectus v. ei adnatus quasi-inferus.*

1. Cryptocarya. Flores 3-meri. Perianthii limbi segmenta subæqualia, embryonis cotyledones integræ.—*Asia trop., Australia, Nov. Zel., Afr. austr., Amer. trop. et austr.*

2. Ravensara. Seminis lobi 6 in totidem loculos spurios pericarpii descendentes. Cætera *Cryptocaryæ.—Madagasc.*

3. Cyanodaphne. Perianthii limbi segmenta exteriora multo minora. Cætera *Cryptocaryæ.* —*Asia trop.*

4? Icosandra. Flores 5-meri. Fructus ignotus.—*Chile.*

** *Antheræ 2-locellatæ. Fructus nudus v. perianthii tubo aucto cinctus, maturus semper apice exsertus.*

† *Stamina perfecta 9.*

5. Apollonias. Flores hermaphroditi. Staminodia ordinis quarti evoluta. Bacca perianthio parum aucto indurato 6-fido stipata.—*Ins. Canar., Penins. Ind. or.*

6. Beilschmiedia. Flores hermaphroditi. Staminodia ordinis quarti evoluta. Bacca pedicello vix incrassato insidens, perianthio v. deciduo v. immutato.—*Asia trop., Australia, Nov. Zel., Afr. trop., Amer. trop.*

7. Dehaasia. Flores hermaphroditi. Perianthii segmenta exteriora parva. Staminodia 0. Bacca pedicello carnoso-incrassato insidens, perianthio deciduo.—*Archip. Malay.*

8. Aydendron. Flores hermaphroditi v. polygamo-dioici, inflorescentia utriusque sexus subsimili. Staminodia ordinis quarti pauca parva v. 0. Perianthium sub fructu auctum cupulatum induratum.—*Amer. trop.*

9. Ampelodaphne. Flores stricte dioici, paniculis ♂ laxe ramosissimis floribundis, ♀ dense v. interrupte spiciformibus. Staminodia in fl. ♂ 0. Perianthium sub fructu auctum cupulatum truncatum vix induratum.—*Amer. trop.*

†† *Stamina ordinis primi et secundi sola perfecta.*

10. Aiouea. Flores 3-meri. Staminodia ordinis tertii angusta, basi 2-glandulosa, ordinis quarti ovata v. 0. Bacca pedicello incrassato perianthii reliquiis coronato insidens.—*Amer. trop.*

11? Potameia. Flores 2-meri. Staminodia ordinis tertii angusta, basi 2-glandulosa, ordinis quarti minima v. 0. Bacca perianthio parum aucto segmentis reflexis insidens.—*Madagasc.*

††† *Stamina ordinis tertii sola perfecta.*

12. Endiandra. Antheræ liberæ. Perianthium deciduum v. sub fructu immutatum.—*Asia trop., Australia, Amer. trop.*

13. Acrodiclidium. Antheræ liberæ. Perianthium fructiferum cupulatum induratum, margine sæpe duplici.—*Amer. trop.*

14. Misanteca. Antheræ in columnam circa pistillum connatæ.—*Amer. trop.*

*** *Antheræ 4-locellatæ (interiores nonnullæ rarius abortu 2-locellatæ. Fructus nudus v. perianthii tubo aucto cinctus, maturus semper apice exsertus.*

† *Stamina ordinis tertii sola perfecta.*

15. Eusideroxylon. Antheræ vertice subæqualiter 4-locellatæ.—*Borneo.*

†† *Stamina perfecta 9.*

16. Cinnamomum.—Flores hermaphroditi v. abortu polygami. Staminodia ordinis quarti capitata, stipitata v. subsessilia. Perianthii fructiferi segmenta a medio v. a basi decidua, tubo explanato sub fructu parum aucto. Folia sæpius 3-nervia.—*Asia trop. et subtrop., Australia trop., alibi inquilina.*

17. Machilus. Flores *Cinnamomi*. Perianthii fructiferi segmenta persistentia, reflexa.—*Asia trop. et or.*

18. Persea. Flores *Cinnamomi*. Perianthium totum sub fructu persistens appressum v. subpatens, v. a basi deciduum.—*Asia trop. et subtrop., ins. Canar., Amer. trop. et temp.*

19. Ocotea. Flores sæpius dioici. Staminodia ordinis quarti parva, oblonga setacea v. subclavata v. sæpius 0. Antheræ basi contractæ, locellis per paria superpositis. Perianthii fructiferi tubus auctus truncatus cupulatus concavus v. rarius disciformis.—*Amer. trop. et subtrop., ins. Canar., Afr. austr., ins. Mascar.*

20? Dicypellium. Flores dioici, ♂ ignoti. Perianthium fl. ♀ cum staminodiis post anthesin auctum rotato-patens sub fructu persistens.—*Brasilia.*

21. Nectandra. Flores hermaphroditi v. rarius polygamo-dioici. Staminodia *Ocoteæ* v. 0. Antheræ exteriores breves latæ subsessiles, locellis in arcum seu fere in lineam transversam dispositis. Perianthii fructiferi tubus auctus truncatus sæpius cupulatus.—*Amer. trop.*

22. Pleurothyrium. Flores hermaphroditi. Staminodia ordinis quarti capitato-cordata. Antheræ exteriores subsessiles, breves, latæ, disco carnoso in lobos seu dentes 6 staminibus alternos diviso cinctæ. Fructus ignotus.—*Peruvia et Columbia.*

23. SYNANDRODAPHNE. Flores hermaphroditi. Staminodia ordinis quarti brevia. Antheræ exteriores disco annulari elevato insidentes, cæterum subsessiles, dorso basi utrinque squamella parva auctæ. Fructus ignotus.—*Nov. Granat.*

Tribus II. Litseaceæ. Arbores fruticesve foliati. Staminum omnium antheræ introrsum locellatæ valvis sursum dehiscentibus. Folia perennantia v. in speciebus haud paucis annua. Stamina perfecta interdum ut in *Perseaceis* 6 v. 9, interdum vero etiam quarti ordinis perfecta v. additis nonnullis interioribus (rarius exterioribus?) plus quam 12, ordinis primi et secundi sæpius eglandulosa, interiora plerumque 2-glandulosa. Inflorescentia sæpius (excepto *Sassafridio*) brevis, densa, subsessilis v. breviter pedunculata.

Excepta: Antheræ ordinis quarti extrorsum ut in *Perseaceis* versæ in *Umbellularia*, sed flores ut in *Litsea* involucrati.

* *Inflorescentia laxa v. imbricato-bracteata.*

24. SASSAFRIDIUM. Flores hermaphroditi. Stamina perfecta 9, antheris 4-locellatis. Staminodia ordinis quarti capitato-cordata. Inflorescentia laxe paniculata. Habitus *Ocoteæ.—Amer. trop.*

25. SASSAFRAS. Flores dioici. Stamina perfecta 9, antheris 4-locellatis; staminodia 0. Racemi laxi, breves ad basin innovationum.—*Amer. bor.*

26. ACTINODAPHNE. Flores dioici. Stamina perfecta 9, antheris 4-locellatis; staminodia 0. Flores sessiles, dense fasciculati v. brevissime racemosi.—*Ind. or., Archip. Malay., China, Japonia.*

** *Flores umbellati capitati v. rarius solitarii, umbellis capitulisve ante anthesin involucro 4–6-bracteato inclusis.*

† *Antheræ 4-locellatæ.*

27. DODECADENIA. Flores hermaphroditi, in involucro sessili solitarii. Stamina 12–∞.—*Ind. or.*

28. LITSEA. Flores dioici, in involucro 4–6 rarius ∞ rarissime 2. Stamina in flore 3-mero 9, 12 v. ∞, in flore dimero 6.—*Asia trop. et or., Australia, alibi inquilina.*

29. UMBELLULARIA. Omnia *Litseæ* nisi antheræ ordinis quarti extrorsum spectantes.—*California.*

†† *Antheræ 2-locellatæ.*

30. ITEADAPHNE. Flores sæpius unisexuales, in involucro minuto solitarii. Stamina 6, rarius 7–9.—*Asia trop.*

31. LINDERA. Flores dioici, in involucro 4–6 rarius ∞. Stamina sæpius 9.—*Asia trop. et or.*

32. LAURUS. Flores polygami, in involucro sæpius 4. Perianthii segmenta 4. Stamina 12–20 rarissime pauciora.—*Reg. Mediter., ins. Canar.*

Tribus III. Cassytheæ. Caules volubiles, filiformes, aphylli. Cætera *Perseacearum.*

33. CASSYTHA. Flores et fructus *Cryptocaryæ.—Amer., Asia et Afr. trop., Australia.*

Tribus IV. Hernandieæ. Arbores foliati. Antheræ 2-locellatæ, valvis lateraliter dehiscentibus v. cito deciduis. Ovarium inferum.

34. HERNANDIA. Flores monoici, in involucro 3, centralis ♀ involucello basi cinctus, laterales ♂ nudi. Fructus involucello valde aucto inclusus.—*Utriusque orbis reg. trop.*

GENERA AFFINIA AUT DUBIA V. EXCLUSA.

GYROCARPEÆ, seu ILLIGERA, Blume, GYROCARPUS, Jacq., et SPARATTANTHELIUM, Mart., ob antheras valvulis more *Laurinearum* dehiscentibus, ab auctoribus pluribus pro subordine harum recensitæ, a nobis supra, i. 689 ad *Combretaceas* referentur. Genera nonnulla *Monimiacearum* etiam antheris *Laurinearum* gaudent.

GOMORTEGA, Ruiz et Pav. Fl. Per. et Chil. Prod. 62, t. 10; Syst. Veg. 108, Ic. ined. t. 397 (ADENOSTEMUM, Pers. Syn. i. 467, C. Gay. Fl. Chil. v. 302, t. 60) est genus adhuc valde dubium et varie descriptum. Arbor dicitur foliis oppositis quæ tamen latiora et inflorescentia laxior in Fl. Per. et Chil. depicta quam in Gay. Fl. Chil. Antheræ 2-locellatæ, valvis more *Laurinearum*

ascendentibus, sed de numero et situ uti de numero partium perianthii auctores longe differunt. Ovarium varie descriptum superum v. inferum; stylus ex Ruiz et Pav. breviter filiformis, ramis 2 v. 3 breviter filiformibus. Fructum a Leyboldio accepimus, evidenter idem ac a Ruiz et Pav. depictus et a Philippi in litt. ad DC. (Prod. xv. i. 507) descriptus; drupa est ovoideo-globosa evidenter e carpellis 3 arcte conferruminatis composita; exocarpium carnosum, crassiusculum; endocarpium crassum, lignosum, durissimum, 3-loculare, loculo uno tantum fertile. Semen ovatum, plano-compressum, testa crassiuscula fere cartilaginea, albumine copioso; embryo plano-compressus, albumine duplo saltem brevior, radicula supera lata obtusa cum cotyledonibus obovato-orbiculatis planis continua. Floribus igitur stirpis alienæ descriptis, fructu nequaquam *Laurineis* conveniente forte ad **Euphorbiaceam** quamdam pertinente, genus a *Laurineis* expellendum nisi omnino delendum.

PEUMUS, Molina, Hist. Nat. Chile, ed. angl. i. 288, est genus falsum, e confusione stirpium ad genera diversa pertinentium fictum. Character floris nulli nisi *Laureliæ* convenit, cætera ad species *Cryptocaryæ*, *Peumi*, Pers., etc., referenda videntur.

KEULIA, Molina, a Neesio sub *Adenostemate* citatur, sed nullum genus hoc nomine signatum in opere Moliniano invenimus.

NYROPHYLLA et ADAPHUS, Neck. Elem. ii. 240, genera ad species *Lauri*, Linn., proposita, ex charactere dato nequaquam recognoscenda sunt.

CHRISTMANNIA, Dennst. Schl. Hort. Malab. 30, genus ad *Courondi*, Rheede, Hort. Malab. iv. 103, t. 50, propositum, a Rosenthal, Syn. Pl. Diaphor. 1066 ad *Laurineas* refertur. Icon citata *Salaciæ* convenit inter **Celastrineas**, stamina tamen numerosa dicuntur. Genus igitur incertum delendum est.

LICARIA, Aubl. Pl. Gui. 313, t. 121, e Guiana, floribus fructibusque ignotis, DENDRODAPHNE, Beurl. in R. Vetensk. Akad. Stockh. Handl. 1854, 145, floribus fructibusque indescriptis, et CHIBACA, Bert. in Rosenth. Syn. Pl. Diaphor. 238, ubi nomen tantum, genera remanent indefinita et nomina delenda.

INOCARPUS, Forst., olim *Hernandiaceis* adscriptus, est **Leguminosa**, supra i. 552.

SARCOSTIGMA, Wight et Arn., inter **Olacineas** (*Phytocreneas*) recensetur, supra, i. 354.

TRIBUS I. PERSEACEÆ.

1. **Cryptocarya,** *R. Br. Prod. Fl. N. Holl.* 402.—Flores hermaphroditi. Perianthii tubus turbinatus v. ovoideus, post anthesin apice constrictus, limbi segmenta 6, subæqualia. Stamina perfecta 9, ordinis primi et secundi eglandulosa, antheris introrsum 2-locellatis, ordinis tertii basi utrinque glandula subsessili aucta, antheris extrorsum 2-locellatis; staminodia ordinis quarti ovata, breviter stipitata, v. a basi angusta. Ovarium in fundo perianthii sessile, tubo inclusum; stylus breviter exsertus, stigmate obtuso v. discoideo. Fructus tubo perianthii aucto indurato v. tenuiter subdrupaceo v. carnosulo, globoso v. oblongo, lævi v. ∞-costato inclusum, ore clauso, limbo deciduo v. rarius diu persistente; pericarpium membranaceum v. induratum, tubo perianthii accretum adnatum v. sæpius liberum v. facile solubile. Seminis testa membranacea, a pericarpio sæpe vix distinguenda.—Arbores fruticesve. Folia alterna v. sparsa, rarius subopposita, coriacea, pennivenia v. triplinervia. Flores parvi, in paniculas axillares v. subterminales pedunculatas dispositi.

Species ad 40, Asiæ tropicæ, Australiæ, Austro-Caledoniæ, ins. Sandwicensium, Africæ australis et Americæ australis tropicæ et extratropicæ incolæ. *Meissn. in DC. Prod.* xv. i. 68, *et in Mart. Fl. Bras.* v. ii. 164, *t.* 56. *Benth. Fl. Austral.* v. 295. *Hook. Journ. Bot.* iv. *t.* 23 (*Laurus*). *Wight, Ic. t.* 1829, 1830. *Bedd. Fl. Sylv. t.* 299. *Ruiz et Pav. Fl. Per. et Chil. Ic. ined. t.* 358*a* (*Laurus*). CARYODAPHNE, *Nees, Syst. Laur.* 225. *Meissn. in DC. Prod.* xv. i. 77.

Genus characteribus floralibus et fructu intra perianthium incluso quasi infero constans, variat pericarpii indole, vix tamen in genera v. sectiones distinctas dividendum. In plerisque speciebus embryo maturus intra tegmen duplex continetur, exterius (tubus perianthii) nunc tenuiter carnosum, nunc induratum siccum v. extus carnosulum, interius (pericarpium) membranaceum, liberum v exteriori leviter adhærens sed aqua calida solubile; testa in his cum pericarpio omnino confluens v. evanida; in aliis speciebus pericarpium cum tubo perianthii concretum, testa membranacea a pericarpio distincta v. interdum evanida. In *C. Wightiana*, Thw., testam membranaceam vidimus inter cotyledones more *Beilschmiediæ fagifoliæ* intrusam. In *C. Griffithiana*, Wight, pericarpium cum

tubo perianthii intus induratum in fundo loculi intrusum et lacunosum locellos spurios vacuos formans, sed forte fructus examinati casu abnormes erant. In *C. Peumo*, Nees, ex Chile, et *C. angustifolia*, E. Mey., ex Africa australi, perianthii tubus fructifer oblongus, tenuiter carnosus, sicco fragilis, pericarpio membranaceo distincto; hæ species tamen a genere nequaquam separandæ videntur.

BELLOTA, *C. Gay, Fl. Chil.* v. 297, *t.* 59 (BOLDU, *Nees, Syst. Laur.* 177 ; *Meissn. in DC. Prod.* xv. i. 67), species unica Chilensis, flores ostendit omnino *Cryptocaryæ*. Folia pleraque opposita et insigniter venosa. Fructus nec a C. Gayo nec a Meissnero visus, a Neesio ad specimen Pœppigianum cum fructu semiadulto descriptus, bacca dicitur perianthio persistente non mutato nonnihil rigescente basi cincta, sed verisimiliter ad stirpem alienam pertinuit. Fructus enim in Museo Kewiano a Leiboldio acceptus est omnino normæ *Cryptocaryæ* conforme, ovoideo-subglobosus, pollicem longus, perianthii tubo cum pericarpio concreto duro extus lævi, ore perfecte clauso. Baillon, Hist. Pl. ii. 435, *C. Peumo* cum *Bellota* ad genus *Boldu* refert, et fructum prioris describit. BOLDU, Feuill. Hist. Pl. Medic. ii. 11, t. 6, a Neesio infeliciter ad *Bellotam* refertur. *Boldu* apud Chilenses hodiernos imprimis *Peumum*, Pers., ex ordine *Monimiacearum* designat, et verisimiliter nomen vulgo arboribus variis tam *Laurinearum* quam *Monimiacearum* adhibetur. Icon Feuillæi inflorescentiam ostendit potius *Peumi* quam *Bellotæ*, character floris nulli convenit nisi *Laureliæ*, R. et Pav. Fructus olivæformis imprimis in *Cryptocarya Peumo* observatur.

2. **Ravensara,** *Sonner. Voy. Ind. Or.* iii. 248, *t.* 127. (Agathophyllum, *Juss. Gen.* 431. Evodia, *Gœrtn. Fruct.* ii. 100, *t.* 103, *non Forst.*)—Flores hermaphroditi (v. polygami ?). Perianthii tubus turbinatus v. obovoideus, post anthesin apice constrictus ; limbi segmenta 6, subæqualia. Stamina perfecta 9, ordinis primi et secundi eglandulosa, antheris introrsum 2-locellatis, ordinis tertii basi utrinque glandula subsessili aucta, antheris extrorsum 2-locellatis ; staminodia ordinis quarti ovata, breviter stipitata (v. interdum deficientia ?). Ovarium in fundo perianthii sessile, tubo inclusum ; stylus breviter exsertus. Fructus tubo perianthio aucto globoso carnoso-oleoso v. intus indurato inclusus, ore subclauso, limbo deciduo ; pericarpium cum tubo perianthii confluens, intus a basi ultra medium costis 6 intrusis in centro connatis in loculos 6 plus minus perfectos divisum. Semen ex apice indiviso pendulum, in lobos 6 in loculos spurios descendentes divisum, testa membranacea a pericarpio libera v. demum plus minus adnata.—Arbores glabræ, valde aromaticæ. Folia sparsa, coriacea, pennivenia. Paniculæ paucifloræ, in axillis superioribus pedunculatæ. Flores parvi.

Species 3 v. 4 Madagascarienses. *Baill. Adans.* ix. 299. *Meissn. in DC. Prod.* xv. i. 109 (*Agathophyllum*). *Lam. Illustr. t.* 404 (*Evodia*) *et* 825 (*Agathophyllum*). Character supra datus ex *R. aromatica*, Sonn., sumptus, quæ sola nobis nota.

3. **Cyanodaphne,** *Blume, Mus. Bot. Lugd. Bat.* i. 333.—Flores hermaphroditi. Perianthii tubus campanulatus ; limbi segmenta 6, 3 exteriora multo minora. Stamina perfecta 9, ordinis primi et secundi eglandulosa, antheris introrsum 2-locellatis, ordinis tertii basi utrinque glandula subsessili aucta, antheris extrorsum 2-locellatis ; staminodia quarti ordinis parva, ovata. Ovarium in fundo perianthii subsessile, tubo inclusum, stylo breviter exserto. Fructus, a nobis non visus, perianthii tubo baccato limbo persistente coronato inclusus.—Arbores. Folia sparsa, in ramulis novellis brevibus conferta. Gemmæ paucisquamatæ. Paniculæ ad basin innovationum pedunculatæ, floribus parvis numerosis.

Species 2, Archipelagi Malayani incolæ. *Meissn. in DC. Prod.* xv. i. 76. *Blume, Rumphia* i. *t.* 46 (*Dehaasia*).

4 ? **Icosandra,** *Philippi in Linnæa* xxix. 39.—Flores hermaphroditi. Perianthii tubus (ovoideus ?) ; limbi segmenta 10, subæqualia. Stamina perfecta 15, omnia eglandulosa, filamentis brevissimis ; antheræ ordinis primi et secundi introrsum, ordinis tertii extrorsum 2-locellatæ ; staminodia ordinis quarti oblongo-filiformia. Ovarium tubo perianthii immersum. Fructus . . . .—Arbor elegans. Folia subopposita, valde coriacea, pennivenia. Paniculæ foliatæ, folia bis v. ter æquantes. (*Char. ex Philippi.*)

Species 1, Chilensis, a nobis non visa. *Meissn. in DC. Prod.* xv. i. 506.

5. **Apollonias,** *Nees, Laur. Expos.* 10; *Syst. Laur.* 95.—Flores hermaphroditi. Perianthii tubus brevis; limbi segmenta 6, subæqualia. Stamina perfecta 9, filamentis filiformibus, ordinis primi et secundi eglandulosa, antheris introrsum 2-locellatis, ordinis tertii basi utrinque glandula sessili v. breviter stipitata aucta, antheris extrorsum 2-locellatis; staminodia ordinis quarti ovoidea v. cordata, brevissime stipitata. Ovarium haud immersum, in stylum attenuatum. Bacca globosa v. ovoidea, basi perianthio parum aucto indurato 6-fido stipata.—Arbores. Folia sparsa, pennivenia, coriacea. Paniculæ axillares et subterminales, nunc breves densæ brevissime pedunculatæ, nunc laxiores paucifloræ v. longius pedunculatæ, folia rarius superantes. Flores parvuli.

Species 2, altera Canariensis, altera Zeylanica. *Meissn. in DC. Prod.* xv. i. 64. *Webb, Phytogr. Canar. t.* 203 (*Phœbe*). *Wight, Ic. t.* 1819. *Bedd. Fl. Sylv. t.* 291. Genus pluribus notis *Perseæ* sect. *Phœbe* valde affine, differt antheris 2 nec 4-locellatis.

6. **Beilschmiedia,** *Nees in Wall. Pl. As. Rar.* ii. 69; *Syst. Laur.* 197.—Flores hermaphroditi. Perianthii tubus brevis nunc brevissimus; limbi segmenta 6, subæqualia. Stamina perfecta 9; ordinis primi et secundi eglandulosa, antheris introrsum 2-locellatis, ordinis tertii antheris extrorsum 2-locellatis, glandulis baseos ad utrumque lätus sæpe stipitatis et interdum inter filamenta tertii v. secundi ordinis irregulariter interpositis; staminodia ordinis quarti ovoidea v. cordata, brevissime stipitata. Ovarium sessile nec immersum, in stylum attenuatum. Bacca oblonga ovoidea v. globosa, pedicello haud v. parum incrassato insidens, basi nuda, perianthio toto deciduo.—Arbores fruticesve. Folia sparsa, sæpe subopposita, coriacea, pennivenia. Flores parvi, paniculis axillaribus nunc densis fasciculiformibus sessilibus nunc laxis pedunculatis; inflorescentia junior in speciebus paucis squamis imbricatis caducissimis obtecta.

Species ad 20, Africæ et Asiæ tropicæ, Australiæ, Novæ Zelandiæ et Americæ tropicæ incolæ.

Genus *Dehaasiæ* valde affine nec differt nisi staminodiis ordinis quarti evolutis et pedicello fructifero minus incrassato, in sectiones 3 potius patria quam characteribus distinctas dividitur:—

1. *Eubeilschmiedia.* Species Asiaticæ ad 10, foliis sæpe nec semper suboppositis, perianthii tubo brevissimo v. brevi; *Meissn. in DC. Prod.* xv. i. 63; *Kurz, For. Fl. Burm.* ii. 293; *Wight, Ic. t.* 1828; *Bedd. Fl. Sylv. t.* 263, inclusis etiam *Haasia Wightii*, Nees, Wight, Ic. t. 1831; Bedd. Fl. Sylv. t. 298, et *H. oppositifolia*, Meissn., staminodiis in utraque specie normalibus et pedicello fructifero parum incrassato. Genus a Neesio primo conditum fuit ad *Laurum bilocularem*, Roxb. (*B. Roxburghianam*, Nees, et *B. fagifoliam*, Nees), apud quas testa seminis pericarpio plus minus adhærens, inter cotyledones plica membranacea plus minus intrusa, baccam basi quasi in loculos 2 dividit, et auctor nomine Roxburghiano seductus ovarium dixit 2-loculare. Roxburgh tamen, uti bene monet Wight, antheras 2-loculares nec ovarium in mente habuit, et 'plica membranæ internæ inter cotyledones prominula quæ, etiamsi in aliis quoque Laurinearum generibus observetur in isto tamen ante omnia in oculis cadit' (*Nees in Wall. l. c.*). Nos hanc plicam nec in omnibus *Beilschmiediis* veris nec constanter in *B. Roxburghii* invenimus.

2. *Nesodaphne.* Species 3, quarum 2 Novozelandicæ inter se dissimiles, una *Beilschmiediis* typicis panicula bracteata cæterisque characteribus arete affinis, altera, cum specie tertia Australiensi, a *Hufelandiis* Americanis nec charactere nec habitu separanda.—Nesodaphne, *Hook. f. Fl. N. Zel.* i. 217. *Meissn. in DC. Prod.* xv. i. 66. *Benth. Fl. Austral.* v. 299.

3. *Hufelandia.* Species 7 Americanæ et Africanæ tropicæ, foliis alternis paniculis laxis ebracteatis, perianthii tubo in aliis minus abbreviato quam in *B. fagifolia*, in aliis tamen nonnullis, Asiaticis simillimo. Hufelandia, *Nees in Laur. Expos.* (Vratislaviæ, 1833) 21 *cum tabb.* 2, *Meissn. in DC. Prod.* xv. i. 65. Hic auctor species 2 sub *H. pendula* confudi videtur: (1) *Laurus pendula*, Sw., pedicello fructifero recurvo (Jamaica, *M'Fadyen*, Orizaba, *F. Mueller*), et (2) *H. Thomæa*, Nees, pedicello fructuque erectis, in India occidentali vulgatior (Cuba, *Wright*, Jamaica, *Purdie*, etc.). Species Africanæ in Prodromo sub *Oreodaphne* recensitæ sunt.

7. **Dehaasia,** *Blume, Rumphia* i. 161, *t.* 44, 45, 47. (Haasia, *Nees, Syst. Laurin.* 372.)—Flores hermaphroditi. Perianthii tubus brevissimus; limbi segmenta 6, 3 exterioribus multo minoribus. Stamina perfecta 9, ordinis primæ et secundæ eglandulosa, antheris introrsum 2-locellatis, ordinis tertii basi utrinque glandula subsessili aucta, antheris extrorsum 2-locellatis; staminodia 0 (v. rarius pauca minuta?). Ovarium sessile, haud immersum, in stylum brevem attenuatum. Bacca oblonga, pedicello valde

incrassato-carnoso colorato imposita, perianthio toto deciduo.—Arbores. Folia alterna, coriacea, pennivenia. Paniculæ axillares, sæpius longe pedunculatæ. Flores parvi.

Species ad 10, quarum tamen nonnullæ non satis notæ, Archipelagi Malayani incolæ. *Meissn. in DC. Prod.* xv. i. 60 (*Haasia*), exclusis tamen *H. pedunculari*, ob antheras 4-locellatas ad *Perseam*, et *H. Wightii* et *H. oppositifolia*, ob staminodia quarti ordinis evoluta et pedicellum fructiferum minus incrassatum ad *Beilschmiediam* referendis.

8. **Aydendron,** *Nees in Linnæa* viii. 36 ; *Syst. Laur.* 245.—Flores hermaphroditi v. polygamo-dioici. Perianthii tubus crassiusculus, campanulatus v. ovoideus, demum sæpe apice constrictus ; limbi segmenta 6, subæqualia. Stamina perfecta 9, filamentis latis v. angustis, ordinis primi et secundi eglandulosa, antheris introrsum 2-locellatis, ordinis tertii basi utrinque glandula subsessili aucta, antheris juxta apicem extrorsum 2-locellatis; staminodia ordinis quarti pauca parva v. 0, rarius magis evoluta capitato-cordata. Ovarium perianthii tubo inclusum, stylo breviter exserto. Bacca primum perianthii tubo subgloboso inclusa, mox exserta, matura globosa ovoidea v. oblonga, perianthii tubo aucto indurato cupulato truncato margine simplici v. duplici basi cincta, limbo deciduo.—Arbores. Folia sparsa, coriacea, pennivenia. Paniculæ pedunculatæ, axillares v. subterminales, longæ laxæque v. folio breviores. Flores parvi, glabri v. tomentosi.

Species ad 45, Americæ tropicæ incolæ. *Meissn. in DC. Prod.* xv. i. 88 *et* 172, *et in Mart. Fl. Bras.* v. ii. 176 *et* 282, *t.* 62 *ad* 66, 103, 104 (*Aydendron et Goeppertia*). *Ruiz et Pav. Fl. Per. et Chil. Ic. ined. t.* 355 (*et* 360?) (*Laurus*).

Genus ab *Ocotea* differt antheris 2-locellatis, et pariter variat floribus hermaphroditis v. abortu unisexualibus et fructu juniore plus minus e cupula exserto. Goeppertia, *Nees, Syst. Laur.* 365 (Endlicheria, *Nees in Linnæa* viii. 37, vel Schauera *ejusd. in Lindl. Introd. Nat. Syst. ed.* 2, 202 *in adnot.*) a Grisebachio ad *Aydendron* reducta, iterum a Meissnero separata pro speciebus evidentius dioicis, fructu vel ignoto v. in speciebus a nobis visis eodem ac in *Aydendro*. Character sexualis forte sectiones duas distinguit sed species aliter quam in Prodromo distribuendæ, nam, e.g., *Goeppertia argentea*, Meissn., evidenter eadem est ac *Aydendron verticillatum*, Meissn., et *Goeppertia polyantha*, Meissn., quam maxime affinis est *Aydendro ripario*, Nees.

Goeppertia caudata, Meissn. (Spruce, n. 2638), videtur potius *Ocoteæ* (*Oreodaphnis*) species. Flores in speciminibus abortu subfœmineæ antheris longiuscule stipitatis effœtis v. obscure 4-locellatis.

Aydendron tenellum et *A. goyazana*, Meissn., staminodiis ordinis tertii longis angustis haud locellatis et perianthio fructifero parum aucto eum pedicello incrassato continuo, ad *Aioueam* referenda.

Aydendron floribundum, Meissn., quoad flores generi conforme nisi perianthii tubo longiore angustioreque, a cæteris speciebus valde diversum fructu (a nobis non viso sed a Meissnero in Fl. Bras. t. 62 et 105 depicto) magno, perianthii tubo cum pericarpio concreto crasso-carnoso apice supra semen clauso, et species forte ad *Cryptocaryam* referenda est.

9. **Ampelodaphne,** *Meissn. in DC. Prod.* xv. i. 81, *et in Mart. Fl. Bras.* v. ii. 167, *t.* 57.—Flores dioici. Perianthii tubus in fl. ♂ brevis, in fl. ♀ ovoideus v. abbreviatus, ad faucem constrictus ; limbi segmenta 6, subæqualia. Stamina in fl. ♂ perfecta 9, ordinis primi et secundi eglandulosa, antheris introrsum 2-locellatis, ordinis tertii basi utrinque glandula sessili aucta, antheris extrorsum 2-locellatis ; staminodia 0. Ovarium abortivum. Staminodia in fl. ♀ 6 v. 9 brevia, sessilia, squamæformia. Ovarium tubo perianthii inclusum, stylo breviter exserto. Bacca junior perianthii tubo aucto inclusa, demum exserta, basi perianthii tubo aucto cupuliformi truncato vix indurato cincta.—Arbores fruticesve. Folia sparsa v. in ramulis novellis conferta, coriacea, pennivenia. Flores parvi, subsessiles, ♂ numerosi laxe et ample paniculati, ♀ in paniculas densas fere spiciformes breves v. longiores interruptasque conferti. Paniculæ utriusque sexus laterales v. ad basin innovationum axillares. Flores sæpe tomentosi v. hirsuti, nunc tamen glabri.

Species nobis notæ 5, Brasilianæ et Guianenses. Genus ab *Aydendro* differt habitu, inflorescentia, et floribus strictius dioicis.

10. **Aiouea,** *Aubl. Pl. Gui.* i. 310, *t.* 120. (Douglassia, *Schreb. Gen. Pl.* 809. Colomandra, *Neck. Elem.* ii. 142. Ehrardia, *Scop. fide Nees.*)—Flores hermaphroditi. Perianthii

tubus ovoideus v. subcampanulatus; limbi segmenta 6, subæqualia. Stamina perfecta 6, ordinis primi et secundi, rarius 3 tantum ordinis primi, filamentis brevibus v. longiusculis eglandulosis, antheris introrsum 2-locellatis; staminodia ordinis tertii angusta, basi utrinque glandula magna aucta, apicem versus rarius imperfecte 1-2-locellata, ordinis quarti ovato-triangularia subsessilia v. rarius 0. Ovarium perianthii tubo inclusum, stylo plus minus exserto. Bacca ovoidea v. oblonga, pedicello incrassato sæpius obconico perianthii reliquiis induratis coronato imposita.—Arbores v. frutices glaberrimi, sæpius nitidi. Folia sparsa, coriacea, pennivenia. Paniculæ axillares subterminalesque, laxæ. Flores sæpius minimæ numerosæque.

Species ad 8, inclusis nonnullis adhuc indescriptis, Brasiliæ, Guianæ et Indiæ occidentalis incolæ. *Meissn. in DC. Prod.* xv. i. 82, *et in Mart. Fl. Bras.* v. ii. 169, *t.* 58.

Specimina Spruceana n. 2415 (v. 2414) a Meissnero ad varietatem *A. brasiliensis* relata, differunt foliis longe et anguste acuminatis et staminibus ordinis secundi ad staminodia brevia fere setacea reductis.

11? **Potameia**, *Thou. Nov. Gen. Madag.* 5.—Flores hermaphroditi. Perianthii tubus obconicus; limbi segmenta 4, subæqualia. Stamina perfecta 4, eglandulosa, filamentis brevibus latis; antheræ introrsum 2-locellatæ. Staminodia ordinis tertii angusta, utrinque basi glandula aucta, ordinis quarti minima v. 0. Ovarium haud immersum, stylo brevi. Bacca perianthio parum aucto segmentis reflexis insidens.—Frutex expansus ramis erectis. Folia alterna. Paniculæ axillares, ramosissimæ. Flores parvi, numerosi. (*Char. ex Thou. et Baill.*)

Species 1, Madagascariensis, a nobis non visa, *Baill. Adans.* ix. 241.

Thouars l. c. radiculam dixit inferam, et verisimiliter hujus causæ auctores recentiores genus ad *Proteaceas* retulerunt. Baillon tamen ex autopsia specimen ad *Laurineas* restoravit, de radiculæ et micropylis situ tamen silet.

12. **Endiandra**, *R. Br. Prod. Fl. Nov. Holl.* 402. (Dictyodaphne, *Blume, Mus. Bot. Lugd. Bat.* i. 270.)—Flores hermaphroditi. Perianthii tubus brevissimus subnullus v. campanulatus; segmenta 6, subæqualia v. exteriora paullo majora. Stamina perfecta 3, ordinis tertii, antheris crassiusculis sessilibus medio v. sub apice extrorsum 2-locellatis; staminodia 0 nisi rarius 3 parva ordinis quarti v. annulus carnosus ad basin segmentorum loco ordinum primi et secundi; glandulæ 6 ad basin staminum perfectorum v. 0. Ovarium sessile, acutum, stigmate parvo sessili, v. in stylum brevem contractum. Bacca oblonga v. subglobosa, pedicello vix v. haud incrassato insidens, perianthio toto deciduo v. rarius disciformi v. immutato subpersistente.—Arbores. Folia alterna pennivenia sæpiusque copiose minuteque reticulata. Paniculæ axillares v. ad basin innovationum pedunculatæ floribundæ v. fere ad cymam unicam reductæ. Flores parvi.

Species gerontogeæ descriptæ 15, Indiæ orientalis, ins. Fiji, Archipelagi Malayani et Australiæ incolæ, nonnullæ tamen e Malayanis adhuc valde dubiæ. *Meissn. in DC. Prod.* xv. i. 78, 79 (*Endiandra et Dictyodaphne*). *Benth. Fl. Austral.* v. 300. His tamen addendæ 2 Brasilianæ, *E. navalium*, Benth. (Silvia, *Allem. Diss. Rio Janeiro* 1845? *cum ic.*, *non R. et Pav. nec Benth.*; Silvæa, *Meissn. in DC. Prod.* xv. i. 84, *et in Mart. Fl. Bras.* v. ii. 171, *non Philippi*) et *E. Ita-uba*, Benth. (*Acrodiclidium Ita-uba*, Meissn. in DC. Prod. xv. i. 86, et in Mart. Fl. Bras. ii. 174, t. 60) qua, ex speciminibus Spruceanis, nec ovarium nec fructum *Acrodiclidii* invenimus. Analysis florum in tabula citata a flore alieno sumpta videtur.

13. **Acrodiclidium**, *Nees, Laur. Expos.* 13; *Syst. Laur.* 266.—Flores hermaphroditi. Perianthii tubus carnosus, ovoideus oblongus v. urceolatus, apice sæpe constrictus; limbi segmenta 6, subæqualia, vix patentia. Stamina perfecta 3, ordinis tertii, basi contracta et utrinque glandula sessile aucta, antheris summo vertice extrorsum v. subintrorsum 2-locellatis; staminodia ordinis primi et secundi sessilia, ovata v. minute squamiformia v. 0, ordinis 4 desunt. Ovarium perianthii tubo inclusum, stylo breviter exserto. Bacca primum perianthii tubo aucto globoso inclusa, demum sæpius semi-exserta, perianthio aucto indurato cupulato margine simplici v. duplici cincta.—Arbores. Folia sparsa v.

subopposita, coriacea, pennivenia. Paniculæ axillares v. ad basin innovationum pedunculatæ, laxæ. Flores parvi, glabri v. tomentelli.

Species ad 12, Americæ tropicæ incolæ. *Meissn. in DC. Prod.* xv. i. 84, *et in Mart. Fl. Bras.* v. ii. 173, *t.* 59, 61 *excl. sp.*

In *A. jamaicensi*, Nees, staminodia omnino desunt; in *A. Camara*, Schomb., antheræ perfectæ apice latæ, locellis parvis in medio apicis contiguis potius introrsum quam extrorsum spectantibus et fructus subsiccus quam in cæteris major, sed species a genere non separanda; in *A. brasiliensi*, Nees, et *A. chrysophyllo*, Meissn., antheræ perfectæ summo vertice truncato nec introrsum nec extrorsum 2-locellatæ. *A. Gardneri*, Meissn., est *Aioueæ* species, *A. Ita-uba*, Meissn., *Endiandræ*, *A. anacardioides*, Meissn., *Misantecæ* species.

14. **Misanteca,** *Cham. et Schl. in Linnæa* vi. 367. (Symphysodaphne, *A. Rich. Fl. Cub.* iii. 190, *t.* 67.)—Flores hermaphroditi. Perianthii tubus carnosus, ovoideus v. obovoideus; limbi segmenta 6, brevissima. Stamina perfecta 3, ordinis tertii, in columnam carnosam circa pistillum connata, e perianthio breviter exserta; singula apice extrorsum 2-locellata, additis interdum locellis 1–2 parvis inferioribus; staminodia ordinis primi et secundi brevia v. obsoleta, ordinis quarti desunt. Ovarium in stylum brevem contractum, columna staminea inclusum. Fructus a nobis non visus, in specie typica (ex auct.) perianthio tubo aucto indurato cupulato truncato insidens.—Arbores fruticesve. Folia sparsa, coriacea, pennivenia. Paniculæ ad basin innovationum pedunculatæ, cymulis in specie typica multifloris in capitula globosa sessilia confertis, in cæteris speciebus laxioribus paucifloris.

Species 4, typica Mexicana, *Meissn. in DC. Prod.* xv. i. 96, altera Cubensis, a nobis non visa, sed bene a Richardio l. c. depicta, *Meissn. l. c.* 175 (*Symphysodaphne*); 2 Brasilienses, *Benth. in Hook. Ic. Pl.* xiii. 46, *t.* 1259.

15. **Eusideroxylon,** *Teijsm. et Binnend. in Batav. Nat. Tijdschr.* xxv. (1863), 292 *cum tabb.* 2. (Bihania, *Meissn. in DC. Prod.* xv. i. 96.)—Flores hermaphroditi. Perianthii tubus brevis; limbi segmenta 6, subæqualia. Stamina perfecta 3, ordinis tertii, columnaria, eglandulosa, juxta apicem truncatam æqualiter 4-locellata, locellis 2 extrorsum 2 introrsum spectantibus; staminodia ordinis primi et secundi squamiformia, ovato-orbicularia, segmentis perianthii breviora, ordinis quarti angusta, staminibus breviora. Ovarium ovoideum, tubo perianthii vix inclusum, in stylum contractum. Fructus a nobis non visus, ex scheda Motleyana et ic. cit. magnitudine ovi cygnei, pedicello vix incrassato insidens, perianthio deciduo.—Arbor procera, ligno durissimo. Folia alterna, coriacea, pennivenia. Paniculæ axillares, fere a basi ramosæ, laxæ, pedicellis longiusculis. Flores parvi, tomentelli.

Species unica, Borneensis, *Motley*, *Beccari*, *n.* 2611.

16. **Cinnamomum,** *Blume, Bijdr.* 568.—Flores hermaphroditi v. abortu polygami. Perianthii tubus brevis, limbi segmenta 6, subæqualia. Stamina perfecta 9 v. abortu pauciora, ordinis primi et secundi eglandulosa, antheris introrsum 4-locellatis, ordinis tertii filamentis utrinque glandula subsessili v. stipitata auctis, antheris extrorsum 4- v. rarius 2-locellatis; staminodia ordinis quarti capitulo cordato v. sagittato breviter stipitato. Ovarium sessile, haud immersum, in stylum attenuatum; stigma discoideum v. obscure 3-lobum. Bacca perianthii tubo explanato parum v. vix aucto truncato v. 6-lobo insidens, segmentis a basi v. a medio deciduis v. rarius subpersistentibus.—Arbores fruticesve, cortice sæpius aromatico. Folia coriacea, opposita v. passim alterna, triplinervia v. rarius pennivenia. Flores in paniculas axillares subterminalesque v. ad basin innovationum laterales dispositi, ♀ sæpe majores quam ♂, interdum numero partium varie reducti.

Species enumeratæ ultra 50, plurimæ tamen ut jam monuerunt Thwaites, Meissner aliique reducendæ, et vix 10 servandæ videntur, Asiæ tropicæ et subtropicæ incolæ, ab Australia tropica usque ad Japoniam extensæ, quarum duæ in aliis regionibus calidis jam diu cultæ.—*Nees de Cinnam. Disput.* 1823, *t.* 1 *ad* 3 (*Laurus*). *Blume, Rumphia* i. 25, *t.* 9 *ad* 21. *Meissn. in DC. Prod.* xv. i. 10. *Miq. in Ann. Mus. Lugd. Bat.* i. 254. *Benth. Fl. Austral.* v. 303.

Species a Neesio, Syst. Laur. aliisque in genera duo distribuuntur quæ tamen Blume et Meissner ll. cc. pro sectionibus sequentibus *Cinnamomi* habent:—

1. *Malabathrum*, Meissn. Gemmæ nudæ v. obsolete squamatæ. Folia sæpius 3- v. tripli-nervia. Perianthii segmenta demum transversim secta, tubum fructiferum campanulatum v. expansum 6-dentatum relinquentia. CINNAMOMUM, *Nees, Syst. Laur.* 31. *Hook. Exot. Fl. t.* 176. *Wight, Ic. t.* 122 *ad* 131, 133 *ad* 141. *Bedd. Fl. Sylv. t.* 262. *Seem. Fl. Vit. t.* 48. *Hayne, Arzneigew.* xii. *t.* 20 *ad* 26. *Bentl. et Trim. Med. Pl. t.* 223, 224.

Nees quo duce Meissner genus *Cinnamomum* Burmanno (Thes. Zeyl. 62) tribuit, cum synonymo *Malabathrum*, Burm. Fl. Ind. 214. Genera tamen in Thesauro Zeylanico haud definiuntur et auctor sub *Cinnamomo* Laurineas plurimas includit quas postea in Fl. Ind. 91 ad *Laurum* retulit. De *Malabathro* in loco citato nil invenimus. Blume primum ut videtur genus distincte constituit.

2. *Camphora*, Meissn. Gemmæ imbricato-squamatæ. Folia penninervia v. plus minus distincte triplinervia. Perianthii-segmenta a basi decidua, tubum fructiferum explanatum v. disciformem integerrimum truncatum relinquentia.—CAMPHORA, *Nees, Syst. Laur.* 87. *Wight, Ic. t.* 1818. *Hayne, Arzneigew.* xii. *t.* 27.

PARTHENOXYLON, *Blume, Mus. Bot. Lugd. Bat.* i. 322, est *Laurus Parthenoxylon*, Jack. in Mal. Misc i. v. 28 (*Sassafras Parthenoxylon*, Nees; Wight, Ic. t. 1832), rite ab auctore a *Sassafras* separatur sed melius a Meissnero ad sectionem *Camphoram* refertur, nec longe a specie typica differt, nisi perianthii tubo fructifero plano nec concavo.

CECICODAPHNE, *Nees, Syst. Laur.* 202, species Silhetensis a nobis non visa, a Meissnero in DC. Prod. xv. i. 25 ad *Cinnamomi* sect. *Camphoram* refertur.

17. **Machilus,** *Nees in Wall. Pl. As. Rar.* ii. 70.—Flores hermaphroditi. Perianthii tubus brevis v. vix ullus; limbi segmenta 6, subæqualia v. exteriora paullo minora. Stamina perfecta 9, ordinis primi et secundi eglandulosa, filamentis longiusculis, antheris introrsum 4-locellatis, ordinis tertii basi utrinque glandula stipitata aucta, antheris extrorsum 4-locellatis; staminodia ordinis quarti capitulo cordato breviter stipitato. Ovarium sessile, in stylum attenuatum, stigmate parvo v. discoideo. Bacca globosa v. rarius oblonga, pedicello haud v. vix incrassato imposita, perianthii segmentis persistentibus sub bacca reflexis.—Arbores. Folia alterna, pennivenia. Gemmæ sæpius imbricato-squamatæ. Paniculæ axillares, nunc densæ subsessiles, nunc laxæ longe pedunculatæ. Flores parvi v. majusculi, glabri v. tomentosi.

Species ad 15, Indiæ orientalis, Archipelagi Malayani, et Asiæ orientalis usque ad Chinam et Japoniam incolæ.—*Meissn. in DC. Prod.* xv. i. 39. *Benth. Fl. Hongk.* 291. *Kurz, For. Fl. Burm.* ii. 291. *Wight, Ic. t.* 1824, 1825. *Bedd. Fl. Sylv. t.* 264.

18. **Persea,** *Gærtn. f. Fruct.* iii. 222, *t.* 221.—Flores hermaphroditi v. rarius abortu polygami. Perianthii tubus brevis; limbi segmenta 6 subæqualia v. 3 exteriora minora rarius minima. Stamina perfecta 9, ordinis primi et secundi eglandulosa, antheris introrsum 4-locellatis, ordinis tertii filamentis utrinque glandula subsessili auctis, antheris extrorsum 4-locellatis; staminodia ordinis quarti capitulo cordato v. sagittato breviter v. longiuscule stipitato. Ovarium sessile, in stylum attenuatum; stigma discoideum. Bacca perianthio toto persistente immutato v. vix aucto appresso v. patente basi stipata, v. perianthio toto deciduo denudata, pedicello fructifero tenui v. sæpius plus minus incrassato.—Arbores fruticesve. Folia alterna v. sparsa, coriacea, pennivenia v. plus minus distincte triplinervia. Flores in paniculas pedunculatas axillares subterminalesque v. ad basin innovationum laterales pauci- v. multi-floras dispositi. Gemmæ (an semper ?) esquamatæ.

Species enumeratæ ad 100, plurimæ tamen fructibus v. floribus ignotis valde dubiæ, Asiæ tropicæ et subtropicæ, Americæ tropicæ v. etiam extratropicæ a Chile usque ad Virginiam incolæ, cum specie unica Canariensi. *Meissn. in DC. Prod.* xv. i. 43, cum generibus cæteris infra citatis.

Genus quale a Neesio et Meissnero constitutum species includit perianthio peristente v. deciduo, segmentis æqualibus v. valde inæqualibus, pedicello fructifero incrassato v. vix mutato et his differentiis neglectis, genera *Alseodaphnem*, *Phœbem* et *Notaphœbem* charactere nullo distinguere possumus. Genus hic definitum *Cinnamomo* et *Machilo* valde affine, satis tamen differre videtur perianthio post

anthesin toto deciduo v. persistente vix mutato, nec transversim rupto nec reflexo et in sectiones sequentes facile dividitur:—

1. *Eupersea.* Perianthium (tomentosum) segmentis subæqualibus a fructu magno obovoideo crasso-carnoso deciduum.—Species unica (*P. gratissima*, Gærtn.), ex America tropica occidentali in terris tropicis late culta. *Sloane, Hist. Jam. t.* 222. *Wight, Ic. t.* 1823. *Bot. Reg. t.* 1258. *Bot. Mag. t.* 4580. *Ruiz et Pav. Fl. Chil. et Per. Ic. ined. t.* 345 (*Laurus*).

2. *Alseodaphne.* Perianthium (parvum, glabrum) segmentis subæqualibus a fructu globoso v. oblongo parvo v. mediocri deciduum.—Species enumeratæ 9, quarum 5 adhuc dubiæ, nunc floribus nunc fructubus ignotis, omnes Asiaticæ. Alseodaphne, *Nees in Wall. Pl. As. Rar.* ii. 71. *Meissn. in DC. Prod.* xv. i. 27. *Benth. Fl. Hongk.* 292. *Wight, Ic. t.* 1826, 1827. *Bedd. Fl. Sylv. t.* 297.

3. *Gnesiopersea*, Nees. Perianthium (tomentosum v. rarius glabrum) segmentis subæqualibus, sub fructu persistens, sæpius patens.—Species ad 20, Americanæ cum una Canariensi. Persea sect. *Gnesiopersea, Meissn. in DC. Prod.* xv. i. 51 (excl. *P. gratissima*), *et in Mart. Fl. Bras.* v. ii. 157, *t.* 51 *ad* 55. *Webb, Phytogr. Canar. t.* 204. Phœbe, *Nees, Syst. Laur.* 98, sect. *Cinnamomoideæ*, *Meissn. in DC. Prod.* xv. i. 29, *et in Mart. Fl. Bras.* v. ii. 149, *t.* 45. *Ruiz et Pav. Fl. Per. et Chil. Ic. ined. t.* 363, 364 (*Laurus*), vix tamen *L. sulcata*. Ruiz et. Pav. ibid. t. 356, cujus flores ignoti.

4. *Phœbe.* Perianthium (glabrum v. tomentosum) segmentis subæqualibus, sub fructu persistens sæpius arcte appressum et interdum cartilagineo-costatum.—Species enumeratæ 26, Indiæ orientalis et Archipelagi Malayani incolæ. Phœbe, *Nees, Syst. Laur.* sect. *Perseoideæ*. *Meissn. in DC. Prod.* xv. i. 33. *Wight, Ic. t.* 1820 *ad* 1822. *Bedd. Fl. Sylv. t.* 292.

5. *Eriodaphne.* Perianthium (sæpissime tomentosum), segmentis 3 exterioribus conspicue minoribus, sub fructu persistens.—Species ad 30, omnes Americanæ tropicæ v. subtropicæ a Chile usque ad Virginiam extensæ. Perseæ sect. *Eriodaphne, Meissn. in DC. Prod.* xv. i. 43, *et in Mart. Fl. Bras.* v. ii. 151, *t.* 46 *ad* 50. *Ruiz et Pav. Fl. Per. et Chil. Ic. ined. t.* 358, 369, 372 (*Laurus*).

6. *Notaphœbe.* Perianthium (parvum, nunc minimum, sæpius glabrum) segmentis 3 exterioribus conspicue minoribus nunc fere obsoletis, a fructu ut in *Alseodaphni* deciduum v. immutatum subpersistens.—Species enumeratæ 9, Archipelagi Malayani incolæ, cum una Assamica. Notaphœbe, *Blume, Mus. Bot. Lugd. Bat.* i. 328. *Meissn. in DC. Prod.* xv. i. 58.

Phœbe insularis, Meissn. ex ins. Cocos (inter ins. Galapagos et Americam centralem, nec Ind. or.) cum speciebus 3 v. 4 ex America centrali et India occidentali adhuc ut videtur ineditis, floribus hermaphroditis cæteris characteribus plerisque *Perseæ*, differunt tamen et *Ocoteæ* accedunt staminodiorum quarti ordinis defectu. Perianthium fructiferum *P. insularis* omnino Perseæ, in cæteris speciebus ignotum.

Menestrata, *Vell. Fl. Flum.* 199; *Ic.* v. *t.* 2, est verisimiliter *Perseæ* species, imperfecte descripta.

19. **Ocotea,** *Aubl. Pl. Gui.* ii. 780, *t.* 310, *char. emend. in Juss. Gen.* 80. (Oreodaphne, *Nees in Linnæa* viii. 39.)—Flores polygamo-dioici v. rarius perfecte hermaphroditi. Perianthii tubus brevis v. campanulatus; limbi segmenta 6, subæqualia. Stamina perfecta 9, ordinis primi et secundi eglandulosa, antheris in filamentum brevissimum v. longius contractis introrsum 4-locellatis, locellis per paria superpositis; ordinis tertii filamentis sæpius longioribus utrinque basi glandula auctis, antheris extrorsum 4-locellatis; staminodia ordinis quarti minuta v. sæpius omnino nulla. Stamina in flore ♀ sæpius ad squamas anantheras v. obscure locellatas reducta. Ovarium tubo perianthii plus minus immersum, in stylum contractum, in flore ♂ angustum effœtum v. parvum v. rarius omnino nullum. Bacca globosa ovoidea v. oblonga, junior interdum perianthii tubo inclusa, matura exserta, perianthii tubo aucto indurato truncato cupuliformi v. expanso insidens v. basi arcte cincta, limbo deciduo.—Arbores v. rarius frutices. Folia alterna v. sparsa rarius subopposita, coriacea, pennivenia. Paniculæ axillares v. subterminales, pedunculatæ, sæpius laxæ v. cymulæ rarius fere in capitula contractæ v. panicula in fasciculum subsessilem contracta. Flores parvi, glabri v. rarius tomentelli.

Species ad 200, pro maxima parte Americæ tropicæ et subtropicæ incolæ, additis paucis ex ins. Canariensibus, Africa australi et ins. Mascarensibus. *Meissn. in DC. Prod.* xv. i. 97 *ad* 143, *et in Mart. Fl. Bras.* v. ii. 187 *ad* 250, *t.* 67 *ad* 89 (*Mespilodaphne, Oreodaphne, Strychnodaphne, Gymno-*

balanus et *Camphoromæa, excl. speciebus nonnullis*). *H. B. et K. Nov. Gen. et Sp. t.* 645 (*Cryptocarya*). *Webb. Phytogr. Canar. t.* 205 (*Oreodaphne*). *Bot. Mag. t.* 3931 (*Oreodaphne*). *Ruiz et Pav. Fl. Per. et Chil. Ic. incd. t.* 346, 353, 354, 357, 359, 365, 368 (*Laurus*, nonnullæ speciminibus fructiferis tantum depictis adhuc dubiæ).

Genus vastum, quoad flores sat constans, *Perseæ* affine, differt floribus sæpius (nec semper) abortu dioicis, staminodiis ordinis quarti raris minutis v. sæpius deficientibus, et perianthii tubo sub fructu aucto indurato truncato cupulato v. rarius ad discum cavum reducto, limbi segmentis sæpissime deciduis. A Neesio et Meissnero in genera plurima dividitur, imprimis ex fructus indole, quorum tria forte pro sectionibus retinenda etsi limitibus valde incertis separata: 1. *Mespilodaphne*, bacca juniore perianthii tubo subinclusa, demum exserta, basi v. ultra medium cupula ndurata arcte cincta. 2. *Oreodaphne*, bacca adhuc paullo aucta jam cupulæ laxiori insidens. Et 3. *Strychnodaphne*, cupula ad discum cavum cum pedicello sæpius incrassato continuum reducta. Species tamen aliter quam in Prodromo distribuendæ, paucas fere æquo jure ad unam vel alteram sectionem referas, et, inter descriptas, ultra 100 fructu adhuc ignoto quoad sectionem dubiæ remanent.

Mespilodaphne, *Nees in Linnæa* viii. 45, genus imprimis ad *M. pretiosam*, Nees, constitutum, quod in sectionem supra definitam retinemus, cum plurimis aliis jam a Meissnero ab *Oreodaphne* translatis v. ab eo adhuc in *Oreodaphne* servatis, e.g. species typica generis, *O. guianensis*, Aubl., cum speciebus *Americanis* arcte affinibus, *O. glomerata*, *O. opifera*, *O. floribunda*, etc., cui bacca junior inclusa, semimatura exserta omnino *Mespilodaphnes*. In *O. bullata*, ex Africa australi et *O. fœtente*, ex ins. Canariensibus, bacca primum subinclusa, matura cupula majore arctius cincta quam in *Mespilodaphne cupulari*, Meissn. ex ins. Mascarensibus. *O. Schomburgkiana*, *O. venulosa*, aliæque plurimæ Americanæ pariter ad sect. *Mespilodaphnem* transferendæ.

Oreodaphne, *Nees in Linnæa* viii. 39, quoad characterem, includit sectiones nostras *Mespilodaphnem* et *Oreodaphnem* et nomen Aubletianum rejicit verisimiliter ob errorem Aubletii in fructus descriptione, emendatione Jussiæi neglecta. Meissner identitatem *Oreodaphnes* cum *Ocotea* recognovit, sed nescimus quare nomen Neesii Aubletiano Jussiæanoque anteposuit.

Teleiandra, *Nees in Linnæa* viii. 46; Petalanthera et Leptodaphne, *Nees, Laur. Expos.* 15, 16; et Evonymodaphne, *Nees, Syst. Laur.* 263, genera omnia ad species unicas proposita a Meissnero rite ad *Ocoteam* (*Oreodaphnem*) reducuntur. His addenda Nemodaphne, *Meissn. in DC. Prod.* xv. i. 109, species unica Cubensis nullo charactere generice separanda. Flores eidem; staminodia ordinis quarti minima linearia v. 0; fructus cupula majuscula, sed bacca ipsa in speciminibus monstruosa deformis.

Strychnodaphne, *Nees in Linnæa* viii. 39; Gymnobalanus, *Nees, l. c.* 38; et Camphoromæa, *Nees, Laur. Expos.* 16, genera a Meissnero servata, omnia tamen ad sectionem nostram tertiam *Ocoteæ* reducenda. Cupula in omnibus fere ad discum cavum reducta; pedicellus in *Strychnodaphni* et *Gymnobalano* crassus; perianthii lobi in priore diutius persistentes quam in *Gymnobalano*, sed in utraque sæpius demum decidui; in *Camphoromæa* pedicellus minus incrassatus, lobi sæpius diu persistentes. Inter species a Meissnero in *Oreodaphni* servatas, *O. commutata*, *O. leucoxylon* et *O. lucida* characteres omnino *Strychnodaphnes* ostendunt.

Oreodaphne fragrans, Meissn., e Jamaica, ex speciminibus ab auctoribus determinatis, est eadem ac *Nectandra staminea*, Griseb., a Meissnero Prod. xv. i. 176 ad *Synandrodaphnem* relata. Nobis videtur potius *Perseæ* species floribus hermaphroditis staminodiis ordinis quarti bene evolutis et inflorescentia *P. densifloræ*, Meissn. (ex Ic. Fl. Bras. t. 55). Fructus nobis ignotus et a Meissnero nonnisi statu monstruoso visus.

Oreodaphne effusa, Meissn., e Mexico, habitu et inflorescentia *Phœbi effusæ*, Meissn., simillima, flores eosdem ostendit nisi minores, staminodiis ordinis quarti bene evolutis. Fructus in utraque specie ignotus, sed melius sub *Persea* quam sub *Oreodaphni* militant.

Oreodaphne crassiramea, Meissn., ex speciminibus Burchellianis quam Pohlianis perfectioribus, characteres præbet *Misanteca*, staminibus ordinis tertii solis perfectis extrorsum 2-locellatis in columnam ovarium obtegentem connatis.

Oreodaphne Mannii, *O. minutiflora* et *O. gabooniensis*, Meissn., ex Africa tropica, antheris 2-locellatis cæterisque characteribus ad *Beilschmiediam* (*Hufelandiam*) pertinent.

Oreodaphne Kawaiensis, H. Mann in Mem. Bost. Soc. Nat. Hist. i. 536, ex ins. Sandwicensibus, ex specimine nostro fructifero est *Cryptocaryæ* species.

Mespilodaphne aurantiodora, Meissn., e Peruvia, cujus flores non nisi ex icone Ruiz et Pav. Fl. Per. et Chil. t. 349 noti sunt, nobis potius *Nectandræ* species videtur.

20? **Dicypellium**, *Nees, Laur. Expos.* 14; *Syst. Laur.* 343.—Flores dioici, ♂ ignoti. Fl. ♀: Perianthii segmenta 6, subæqualia, coriacea, rotata. Staminodia 12, ordinis primi petaliformia, persistentia, demum coriacea, ordinis secundi antheriformia, subspathulata, infra apicem inflexam obsolete 4-locellata; ordinis tertii minora, subtruncata; ordinis quarti squamiformia, oblonga, pistillo appressa. Stigma acutum. Bacca sicca, basi perianthio subcarnoso patente cum staminodiis grandifacto induratoque cincta, disco dilatato plano sexangulari imposita.—Arbor. Folia sparsa, chartaceo-coriacea, penninervia. Racemi laterales, simplices. Flores majusculi. Bacca ovalis. (*Char. ex Meissn.*)

Species 1, Brasiliensis, a nobis non visa. *Meissn. in DC. Prod.* xv. i. 170, *et in Mart. Fl. Bras.* v. ii. 281, *t.* 102. Genus ut videtur *Nectandræ* affine, an forte stirps fœminea cujusdam speciei hujus generis?

21. **Nectandra**, *Roland. in Rottb. Descr. Pl. Surin.* 10. (Porostema, *Schreb. Gen. Pl.* 517, *ex parte.*)—Flores hermaphroditi v. rarius polygamo-dioici. Perianthii tubus brevis, sæpius latus; limbi segmenta 6, subæqualia. Stamina perfecta 9, ordinis primi et secundi eglandulosa, perianthio multo breviora, antheris latis subsessilibus introrsum 4-locellatis, locellis sub margine in arcum dispositis, ordinis tertii basi angustata et utrinque glandula subsessili aucta, antheris extrorsum 4-locellatis; staminodia ordinis quarti 0 v. parva setacea v. clavato-capitata. Ovarium in fundo perianthii tubo inclusum v. exsertum, stylo brevi. Bacca globosa ovoidea v. oblonga, perianthii tubo aucto indurato truncato cupulato v. expanso imposita v. basi cincta, junior rarius tubo subgloboso inclusa, limbo deciduo.—Arbores v. rarius frutices. Folia alterna sparsa v. rarius subopposita, coriacea, penninervia, venis primariis sæpius nec semper magis prominulis quam in *Ocotea*. Paniculæ axillares v. terminales, pedunculatæ, cymulis sæpius laxis. Flores in speciebus typicis majores crassiores et magis patentes quam in *Ocotea*, in speciebus tamen nonnullis perianthium omnino *Ocoteæ*.

Species ad 70, Americæ tropicæ a Brasilia et Peruvia usque ad Mexicum et Indiam occidentalem et Americæ australis subtropicæ incolæ.—*Meissn. in DC. Prod.* xv. i. 146, *et in Mart. Fl. Bras.* v. ii. 250, *t.* 90 *ad* 101. *Miq. Stirp. Surin. t.* 58 *ad* 60. *Ruiz et Pav. Fl. Per. et Chil. Ic. ined. t.* 347 *ad* 349, 351, 361, 362, 366, 367, 370, *et* 371 (*Laurus*).

Genus ab auctoribus dividitur in sectiones duas: (1) *Pomatia*, floribus majoribus, perianthio fructifero sæpius cupulato, et (2) *Porostema*, floribus minoribus, perianthio fructifero minus aucto patentiore, sed distinctio valde incerta, et fructus plurium specierum ignotus. Schreber *Nectandram* cum *Ocotea* junxit sub nomine *Porostematis*.

22. **Pleurothyrium**, *Nees, Syst. Laur.* 349.—Flores hermaphroditi. Perianthii tubus brevis; limbi segmenta 6, subæqualia, patentia. Discus carnosus, ad basin limbi stamina cingens, in lobos seu dentes 6 staminibus alternos divisus. Stamina perfecta 9, antheris crassis filamento subæquilongis 4-locellatis, locellis 2 lateralibus 2 vix altius sitis, staminum ordinis primi et secundi introrsum ordinis tertii extrorsum spectantibus; glandulæ ad basin staminum ordinis tertii utrinque subsessiles; staminodia ordinis quarti triangularia v. cordata. Ovarium intra perianthii tubum sessile, stylo brevi. Fructus ignotus.—Arbores. Folia alterna, ampla, penninervia, subtus ferruginea. Paniculæ amplæ, floribundæ, ferrugineæ, in axillis pedunculatæ.

Species Peruvianas v. Columbianas 8 enumerat *Meissn. in DC. Prod.* xv. i. 168. Inter has una tantum, *P. chrysophyllum*, Nees, nobis nota characteres genericos præbens. In *P. chrysothyrso*, *P. ferrugineo*, et *P. velutino*, Meissn., discus exterior deest et stamina ab iis speciei typicæ valde diversa. Prior ad *Nectandram* hæ duæ ad *Perseam* referendæ videntur. Fructus in omnibus ignotus.

23. **Synandrodaphne**, *Meissn. in DC. Prod.* xv. i. 176.—Flores hermaphroditi. Perianthii tubus turbinato-campanulatus; limbi segmenta 6, subæqualia, tubo breviora. Stamina perfecta 9, ordinis primi et secundi disco annulari prominenti affixa, dorso basi glandula parva squamiformi utrinque aucta, antheris latis subsessilibus introrsum 4-locellatis, ordinis tertii intra discum angustiora, basi utrinque glandula nunc parva v. fere obsoleta aucta, antheris extrorsum 4-locellatis; staminodia ordinis quarti brevia. Ovarium

in stylum brevem contractum. Fructus ignotus.—Arbor v. frutex pubescens. Folia alterna, pennivenia, reticulata. Paniculæ axillares v. laterales, pedunculatæ, paucifloræ, pedicellis longiusculis. Flores mediocres.

Species unica (*S. laxa*, Meissn.), Novæ Granatæ incola. *S. antillana*, Meissn. (*Nectandra staminea*, Griseb.) certe excludenda est, cum characteribus genericis minime conveniens. Est eadem ac *Oreodaphne fragrans*, Meissn., quæ nobis, fructu ignoto, potius *Perseæ* quam *Ocoteæ* species videtur.

TRIBUS II. LITSEACEÆ.

24. **Sassafridium,** *Meissn. in DC. Prod.* xv. i. 171.—Flores hermaphroditi v. polygamo-dioici, paniculati. Perianthii tubus brevis; limbi segmenta 6, subæqualia. Stamina perfecta 9, ordinis primi et secundi eglandulosa, ordinis tertii basi utrinque glandula subsessili aucta; antheræ omnes subsessiles, introrsum 4-locellatæ; staminodia ordinis quarti subsessilia, crassa, capitato-cordata. Ovarium in stylum brevem v. longiusculum attenuatum. Bacca junior cupula truncata inclusa, matura ignota.—Arbores v. frutices. Folia coriacea, pennivenia, glabra. Paniculæ pedunculatæ, axillares v. laterales, folia vix excedentes. Perianthia et stamina tomentella v. glabra.

Species 3? quarum 1 Americæ centralis et Indiæ occidentalis incola, *Meissn. l. c.*; 2, adhuc ineditæ, Brasilienses (*Glaziou*, n. 6714 floribus ☿, et n. 6017 floribus ♂) congeneres videntur. Habitus omnium idem ac specierum nonnullarum *Ocoteæ*, sed antheræ ordinis tertii certe introrsum nec extrorsum locellatæ, et genus *Perseaceas* cum *Litseaceas* arcte connectit.

25. **Sassafras,** *Nees, Laur. Expos.* 17; *Syst. Laur.* 487.—Flores dioici, breviter laxeque racemosi. Perianthii tubus brevissimus; limbi segmenta 6, subæqualia. Stamina in fl. ♂ et staminodia sæpius in fl. ♀ 9, ordinis primi et secundi eglandulosa, ordinis tertii basi utrinque glandula stipitata aucta; filamenta angusta; antheræ omnium introrsum 4-locellatæ. Ovarium e perianthii tubo emersum, stylo longiusculo. Bacca perianthii tubo aucto carnoso breviter cupulato truncato v. sinuato insidens.—Arbores. Folia alterna, membranacea, annua, pennivenia. Racemi breves fere umbelliformes, breviter pedunculati, cum innovationibus e gemma paucisquamata oriundi, foliis præcocioribus integris, serioribus sæpe 3-lobis. Pedunculi fructiferi ad basin ramulorum laterales. Flores interdum varie abnormes segmentis perianthii v. staminibus diminutis v. numero reductis inter perfectos intermixti sunt. Bracteæ sub pedicellis parvæ, angustæ.

Species 1, boreali-Americana. *Meissn. in DC. Prod.* xv. i. 171. *Hayne, Arzneigew.* xii. *t.* 19.

26. **Actinodaphne,** *Nees, Laur. Expos.* 19; *Syst. Laur.* 590. (Iozoste, *Nees, Laur. Expos.* 19.)—Flores dioici, subsessiles, fasciculis sessilibus bracteis paucis caducis stipatis. Perianthii tubus brevis; limbi segmenta 6, subæqualia. Stamina perfecta in fl. ♂, et sæpius staminodia in fl. ♀ 9, ordinis primi et secundi eglandulosa, ordinis tertii basi utrinque glandula sæpe stipitata aucta; filamenta angusta; antheræ omnes introrsum 4-locellatæ. Ovarium haud immersum, in fl. ♂ parvum vacuum v. 0, in fl. ♀ in stylum longiusculum attenuatum, stigmate dilatato. Bacca perianthii tubo aucto indurato patente plano discoideo v. concavo insidens.—Arbores fruticesve. Folia sparsa subopposita v. sæpe per intervalla v. ad apices ramorum conferta fere verticillata, coriacea, pennivenia. Florum fasciculi axillares v. laterales, sæpius densi. Pedicelli fructiferi interdum breviter producti.

Species enumeratæ fere 50, Indiæ orientalis, Archipelagi Malayani et Asiæ orientalis usque ad Japoniam incolæ, sed plurimæ reducendæ. *Meissn. in DC. Prod.* xv. i. 210. *Wight, Ic. t.* 1841 *ad* 1843. *Bedd. Fl. Sylv. t.* 295, 296.

27. **Dodecadenia,** *Nees, Laur. Expos.* 19; *Syst. Laur.* 587.—Flores hermaphroditi (v. polygami?), intra bracteas 4–5 imbricatas solitarii, sessiles. Perianthii tubus brevis; limbi segmenta 6 (v. plura?), subæqualia, patentia. Stamina perfecta 12 (v. plura?) ordinis primi et secundi eglandulosa, ordinis tertii et quarti basi utrinque glandula magna aucta; filamenta angusta; antheræ omnes introrsum 4-locellatæ. Ovarium haud

immersum, in stylum longiusculum attenuatum, stigmate valde dilatato. Bacca perianthii tubo aucto crasso subplano discoideo insidens, pedicello brevissimo crassiusculo.—Arbor. Folia sparsa, coriacea, pennivenia, in ramulis floridis brevibus conferta. Gemmæ imbricato-squamatæ. Involucra sessilia, ad axillas solitaria v. sæpius plura, conferta.

Species 1, Indiæ orientalis incola. *Meissn. in DC. Prod.* xv. i. 210.

28. **Litsea,** *Lam. Dict.* iii. 574. (Tetranthera, *Jacq. Hort. Schœnbr.* i. 59, *t.* 113.)—Flores dioici, umbellati v. capitati, umbellis capitulisve ante anthesin involucro globoso inclusis. Perianthii tubus ovoideus campanulatus v. brevissimus; limbi segmenta 6 v. 4 v. abortu pauciora, subæqualia v. parva, rarius minuta v. 0. Stamina in fl. ♂, staminodia in fl. ♀, sæpius 9 v. 12, v. in flore dimero 6, nunc abortu pauciora v. in speciebus paucis plus quam 12, ordinis primi et secundi sæpissime eglandulosa, ordinis tertii et quarti dum adsint et rarius ordinis secundi basi utrinque glandula sæpe stipitata aucta; filamenta sæpius angusta; antheræ omnium introrsum 4-locellatæ, v. in ordine tertio locelli inferiores rarius laterales. Ovarium perianthii tubo inclusum v. emersum, in fl. ♂ parvum vacuum v. 0, rarissime perfectum ovulo evoluto, in fl. ♀ in stylum brevem v. longiusculum attenuatum, stigmate sæpius dilatato irregulariter sublobato. Bacca tubo perianthii parvo immutato v. aucto cupulato v. discoideo insidens.—Arbores rarius frutices. Folia alterna sparsa v. rarius subopposita, pennivenia v. triplinervia, coriacea et perennantia v. rarius tenuiora et decidua; gemmæ nudæ v. imbricato-squamatæ. Involucra globosa, pedicellata v. sessilia, in fasciculos sessiles v. breviter pedunculatos v. racemos axillares v. laterales disposita. Bracteæ involucri 4, 5 v. rarius 6, latæ, concavæ, sese arcte involventes. Flores in involucro sæpius 4 ad 6 rarius 2 tantum v. plus quam 6, ♂ sessiles v. brevissime raro longius pedicellati, ♀ anthesi peracta sæpe evidentius umbellati.

Species descriptæ ultra 140, Asiæ tropicæ et orientalis, ab Archipelago Malayano usque ad Japoniam, Australiæ tropicæ et subtropicæ, Novæ Zelandiæ et Novæ Caledoniæ incolæ, cum paucis boreali-Americanis. *Meissn. in DC. Prod.* xv. i. 177. *Benth. Fl. Austral.* v. 304. *Kurz, For. Fl. Burm.* ii. 296 (*omnes sub Tetranthera*).

Genus a diversis auctoribus varie divisum, nobis melius in integrum servandum videtur, speciebus numerosis in sectiones quatuor potius quam in genera distribuendis, scil.:—

1. *Eulitsea* (*Glabraria,* Blume). Perianthii segmenta sæpe diminuta v. abortiva. Stamina perfecta sæpius plus quam 12. Bacca perianthio immutato v. vix aucto insidens. Species paucæ Asiaticæ v. Australasicæ. *Jacq. Hort. Schœnbr. t.* 113. *Roxb. Corom. Pl. t.* 147. *Wight, Ic. t.* 1834, 1835, omnes sub *Tetranthera.* Glabraria, *Miq. Fl. Ind. Bat.* i. i. 940, *vix Linn.*

2. *Conodaphne,* Blume. Perianthii segmenta sæpius perfecte evoluta. Stamina sæpius 9. Bacca perianthii tubo parvo immutato v. parum aucto plano disciformi v. concaviusculo insidens. Species Americanæ ad 5, Asiaticæ apud auctores fere 80, sed plurimæ valde incertæ. Americanæ paullulum differre videntur habitu floribus intra involucra minus arcte sessilibus et forte glandulis staminum magis stipitatis. Staminodia ordinis quarti nunquam adsunt sed caracteres parum definiti videntur. Inter Asiaticis a Meissnero enumeratas *Tetranthera læta, T. longifolia,* aliæque ad *Cylicodaphnem* transferendæ. *Roxb. Corom. Pl. t.* 148 (*L. polyantha,* Juss., *T. monopetala,* Roxb.). *Bot. Mag. t.* 1471 (*Laurus*).

T. californica, Hook. et Arn., a Neesio ad *Oreodaphnes* sectionem relata, a Meissnero ad *Tetrantherum* restituta genus format *Umbellularia,* Nees, inter *Litseam* et *Ocoteam* quasi medium.

3. *Neolitsea.* Folia sæpius triplinervia. Flores sæpius 2-meri, perianthii segmentis 4, staminibus perfectis 6. Fructus *Conodaphnes.* Species enumeratæ 29, Asiaticæ v. Australasicæ. Tetradenia, *Nees, Laur. Expos.* 19, *et in Wall. Pl. As. Rar.* ii. 64, *t.* 176, *non Benth.* Litsæa, *Nees Frat. Cinnam. Disp. t.* 5. *Nees, Syst. Laur.* 621, *non Lam. Meissn. in DC. Prod.* xv. i. 220. *Benth. Fl. Austral.* v. 306. *Kurz, For. Fl. Burm.* ii. 304. *Endl. Iconogr. t.* 44. *Wight, Ic. t.* 132, 1844, 1845. *Bedd. Fl. Sylv. t.* 294.

Sectio quoad species plerasque naturalis, sed character haud constans. Folia in *L. ambigua* et *L. khasyana,* Meissn., pennivenia. Flores in speciebus paucis sæpe more generis 3-meri, et in *Cylicodaphnes* speciebus nonnullis 2-meri observantur. Gemmæ in sectione sæpe imbricato-squamatæ, similes tamen adsunt in *L.* (*Cylicodaphne*) *japonica,* paucisque aliis. Genus *Litsæa* quale a Neesio limitatum ab auctore perperam Jussiæo tribuitur. *Litsea,* Juss., est genus Lamarckianum amplius extensum.

4. *Cylicodaphne.* Folia sæpius pennivenia. Flores sæpius 3-meri, perianthii segmentis 6, staminibus perfectis sæpissime 12. Ovarium perianthii tubo inclusum. Bacca junior sæpe inclusa, matura exserta, perianthii tubo aucto truncato cupulato v. laxiusculo insidens v. basi cincta. Species enumeratæ ultra 40, Asiaticæ v. Australasicæ. *Sieb. et Zucc. Fl. Jap. t.* 87 (*Tetranthera*). *Wight, Ic. t.* 1833 (*Cylicodaphne*), *t.* 1837 *ad* 1840, *et t.* 1846 (*Lepidadenia*) et forte *t.* 1836 (*Tetranthera*). *Bedd. Fl. Sylv. t.* 293 (*Tetranthera*). Tomex, *Thunb. Fl. Jap.* 190; *Ic. Pl. Jap.* iii. *t.* 7. Fiwa, *Gmel. Syst. Nat.* ii. 745. Cylicodaphne, *Nees, Laur. Expos.* 18; *Syst. Laur.* 503. *Meissn. in DC. Prod.* xv. i. 200. Lepidadenia, *Nees, Laur. Expos.* 19 (charactere falso); *Syst. Laur.* 582.

Sectio *Tomingodaphne*, Blume, qualis a Meissnero (Prod. xv. i. 181) illustrata, species continet quam maxime dissimiles, nec ullo vinculo connexas, e.g. *L. japonicam* quæ characteres omnes *Cylicodaphnes* exhibet, et *C. Wightianæ*, Nees, valde affinis est, et *L. geniculatam* inter *Conodaphnes* Americanas recensenda.

Dolendum est quod auctores recentiores, Neesium secuti, nomen generis Jacquinianum *Tetrantheram* antiquioribus anteponunt. Ex his prius est Glabraria, *Linn. Mant.* 156 *et* 276, genus ad iconem et notas Rumphii Herb. Amb. iii. 71, t. 44, conditum, sed valde incertum et ob characterem falsum rejiciendum; Blume et Miquel *G. tersam*, Linn., ad *Litseam chinensem*, Lam., referunt, sed icon Rumphii vix convenit et flos a Linnæa descriptus omnino alienus. Sequitur Tomex, *Thunb.*, genus anno 1784 editum nec inepte definitum, sed nomen jam prius a Forskahleo generi Salvadoraceo datum, supra iii. 680 sub nomine *Dobera*, Juss., recensitum ob genus antiquius homonymum Linnæanum. Sed *Tomex*, Linn., ipso fatente, Mant. 331, est *Callicarpæ* species (*C. lanata*, Linn. l. c. non Schau., seu *C. Wallichiana*, Schau.), quod confirmavit *Vahl, Symb.* iii. 13, qui specimen typicum Hermanni vidit. *Tomex*, Forsk., igitur pro *Dobera* substituenda est.

Lamarck, anno 1789, Dict. iii. 574, genus Litseam condidit et bene definivit ad eandem speciem quam Jacquin serius sub nomine Tetrantheræ edidit, et nomen suum omnibus prevalere debet. Genus serius extensum et illustratum fuit a Jussiæo, Ann. Mus. Par. vi. 197, in dissertatione optima a Neesio infauste neglecta.

Gmelin, Syst. Nat. 745, nomen *Tomex*, Thunb. in Fiwam mutavit. Loureiro, Fl. Cochinch. 195 et 637, genera Hexanthus et Sebifera proposuit, quæ ut videtur rite ad species *Litseæ* referenda etsi male definita, et omnia, etsi *Tetranthera* antiquiora, nomini Lamarckiano postponenda sunt.

29. **Umbellularia**, *Nees, Syst. Laur.* 462. (Subgenus Oreodaphnes; genus proprium *Nutt. N. Am. Sylv.* i. 103. Drimophyllum, *Nutt. l. c.* 101, *char. falso*, *t.* 22.)—Flores hermaphroditi, umbellati, umbellis ante anthesin involucre globoso inclusis. Perianthii tubus brevissimus; limbi segmenta 6, subæqualia. Stamina 9, ordinis primi et secundi eglandulosa, antheris introrsum 4-locellatis in filamentum contractis, ordinis tertii basi utrinque glandula sessili aucta, antheris extrorsum 4-locellatis; staminodia ordinis quarti 0. Ovarium e perianthii tubo exsertum, in stylum attenuatum, stigmate peltati-dilatato. Bacca perianthii tubo vix v. parum aucto discoideo insidens.—Arbor procera, glabra, v. in montibus frutex. Folia alterna, perennantia, petiolata, tenuiter coriacea, pennivenia et insigniter reticulata, odoratissima. Involucra pedunculata, in axillis superioribus solitaria v. ad apices ramorum ∞ conferta, caducissima. Flores in umbella sat numerosi, breviter pedicellati.

Species 1, Californica. *Meissn. in DC. Prod.* xv. i. 192 (*Tetranthera*). *Bot. Mag. t.* 5320 (*Oreodaphne*). Genus anomalum, tribus duas *Laurinearum* arcte connectens. Stamina *Ocoteæ*, inflorescentia *Litseæ*.

30. **Iteadaphne**, *Blume, Mus. Bot. Lugd. Bat.* i. 365.—Flores dioici v. polygami, intra involucrum globosum solitarii. Perianthii tubus brevissimus; limbi segmenta 6, subæqualia (v. interdum pauciora inæqualia ?). Stamina 6 (interdum 7–9), ordinis primi eglandulosa, ordinis secundi (et tertii dum adsint) basi utrinque glandula subsessili aucta, antheris omnibus introrsum 2-locellatis. Ovarium haud immersum; stylus brevis, stigmate parum dilatato. Bacca a nobis non visa, ex Blumeo basi perianthii disciformi insidens.—Arbuscula. Folia sparsa, perennantia at vix coriacea, pennivenia. Involucra minima, ♂ breviter pedicellata, in axillis racemosa, rhachi communi bracteata; ♀ et ☿ paullo longius pedicellata, solitaria v. fasciculata.

Species 1, Archipelagi Malayani incola, a Meissnero in DC. Prod. xv. i. 243, ad sectionem *Aperulæ*

reducta, sed habitu involucris 1-floris et inflorescentia satis differre videtur. In floribus 2 a nobis examinatis, altero ♂ altero ☿ ex eodem specimine, perianthii segmenta et stamina 6 invenimus. Involucra vix semilineam diametro.

31. **Lindera,** *Thunb. Fl. Jap.* 9 *et* 145, *t.* 21, *charactere falso.* (Daphnidieæ, *Meissn. in DC. Prod.* xv. i. 228, *excepta Lauro.*)—Flores dioici, umbellati v. capitati, umbellis capitulisve ante anthesin involucro globoso v. rarius ovoideo inclusis. Perianthii tubus brevissimus; limbi segmenta 6, subæqualia, rarius pauciora v. 7–9. Stamina in fl. ♂, staminodia in fl. ♀, sæpissime 9, rarissime pauciora v. plura, ordinis primi et secundi sæpissime eglandulosa, ordinis tertii et rarissime etiam secundi basi v. supra basin utrinque glandula sessili v. stipitata aucta; filamenta angusta; antheræ omnes introrsum 2-locellatæ; stamina v. staminodia ordinis quarti desunt. Ovarium haud immersum, in fl. ♂ parvum vacuum v. 0 rarissime hinc inde perfectum, in fl. ♀ in stylum brevem v. longiusculum attenuatum, stigmate dilatato integro v. sublobato. Bacca globosa v. ovoidea, pedicello nudo v. perianthii basi parum dilatatæ v. disciformi integræ v. 6-dentatæ insidens.—Arbores v. frutices. Folia alterna v. subopposita, pennivenia v. 3–5-nervia, coriacea et perennantia v. sæpius tenuiora et annua. Gemmæ variant nudæ v. imbricato-squamatæ. Involucra sessilia v. pedicellata, in fasciculos sessiles disposita v. rarius breviter racemosa. Bracteæ involucri 4, rarius 5 (rarissime 2) latæ, concavæ, sese arcte involventes. Flores in involucro 4–6 v. rarius ∞, sessiles v. ♀ pedicellati. Perianthii segmenta petaloidea sæpius parva.

Species fere 50, Asiæ tropicæ et orientalis usque ad Japoniam, et Americæ borealis incolæ. *Meissn. l. c.* *Kurz, For. Fl. Burm.* ii. 306 (*Daphnidium*) et 308 (*Lindera*).

Genus ab auctoribus varie divisum, imprimis ad gemmas foliigenas nudas v. imbricato-squamatas, character valde incertus et rarius in speciminibus siccis probandus, si tamen genus in integrum serves facile distinguendum, *Litseæ* sectioni *Conodaphni* fructu compar, differt antheris 2- nec 4-locellatis, in sectiones sequentes imprimis ad folia et quodammodo ad inflorescentiam limitatas dividendum.

1. *Benzoin.* Folia pennivenia, indivisa, sæpius annua. Flores præcoces, involucris sessilibus v. breviter pedicellatis. Gemmæ imbricato-squamatæ v. subnudæ. Species ad 10, Americanæ et Asiaticæ. *Bot. Mag. t.* 1470 (*Laurus*). Benzoin, *Nees, Laur. Expos.* 17, *non Hayne.* Linderæ § 1 et 2, *Meissn. in DC. Prod.* xv. i. 244.

Euosmus, *Nutt. Gen. N. Am. Pl.* i. 258, includit sect. *Benzoin* cum specie *Litseæ.*

2. *Sassafrimorpha.* Folia 3–5-nervia, indivisa v. 2–3-loba, annua et interdum demum coriacea. Flores præcoces v. subcoetanei, involucris sessilibus v. breviter pedicellatis. Gemmæ subnudæ, rarius imbricato-squamatæ. Species 3, Asiaticæ. Linderæ § 3, *Meissn. l. c.* 246.

3. *Daphnidium.* Folia triplinervia, integra, coriacea. Flores coetanei v. rarius in ramis aphyllis, involucris sessilibus glomeratis. Gemmæ paucisquamatæ v. nudæ, rarius imbricato-squamatæ. Species descriptæ 12, Asiaticæ. Daphnidium, *Nees, Laur. Expos.* 19. Daphnidii § 1, *Meissn. l. c.* 228. *D. elongatum*, Nees, ad *Litseæ* sectionem *Eulitseam* transferendum est.

4. *Cephalodaphne*, Blume. Folia pennivenia, integra, coriacea. Flores coetanii, involucris sessilibus glomeratis. Gemmæ imbricato-squamatæ. Species 5, Asiaticæ. Daphnidii § 2, *Meissn. l. c.* 231.

5. *Polyadenia.* Omnia *Cephalodaphnes* nisi folia majora et stamina ordinis secundi (et interdum fide Neesii etiam ordinis primi) prope basin 2-glandulosa. Species 1, Asiatica. Polyadenia, *Nees, Laur. Expos.* 18; *Syst. Laur.* 571, *Meissn. l. c.* 232, genus fuit e variis *Litseæ* et *Linderæ* speciebus compositum, a Meissnero l. c. reducitur ad *P. reticulatam*, Nees. Miquel, Fl. Ind. Bat. i. i. 960, sub *Polyadenia* includit etiam sectionem sequentem.

6. *Aperula.* Folia pennivenia, integra, membranacea v. coriacea, annua v. perennantia. Flores præcoces v. coetanei, umbellis omnibus pedunculatis fasciculatis. Gemmæ nudæ v. paucisquamatæ. Species ad 15, Asiaticæ. Aperula, *Blume, Mus. Bot. Lugd. Bat.* i. 365. Aperulæ § 1, *Meissn. l. c.* 240.

32. **Laurus,** *Linn. Gen. n.* 503.—Flores dioici v. hermaphroditi, umbellati, umbellis ante anthesin involucro globoso inclusis. Perianthii tubus brevis; limbi segmenta 4, subæqualia. Stamina in fl. ♂ perfecta 12 v. plura, rarius 8, filamentis omnibus medio v. prope basin utrinque glandula stipitata auctis v. rarius stamina ordinis primi et secundi eglandulosa; antheræ omnes breves, introrsum 2-locellatæ; staminodia in fl. ♀ sæpius 4,

Ovarium haud immersum, stylo brevi, stigmate parum dilatato. Bacca ovoidea, perianthii tubo immutato v. parum aucto disciformi, integro v. lacero insidens.—Arbores. Folia alterna, perennantia, pennivenia. Florum involucra ad axillas breviter pedunculata, fasciculata v. breviter racemosa.

Species 2, altera regionis Mediterraneæ, altera ins. Canariensium incola. *Meissn. in DC. Prod.* xv. i. 233. *Sibth. Fl. Græc. t.* 365. *Hayne, Arzneigew.* xii. *t.* 18. *Reichb. Ic. Fl. Germ. t.* 673. *Webb, Phyt. Canar. t.* 206.

Tribus III. Cassytheæ.

33. **Cassytha,** *Linn. Gen. n.* 505. (Volutella, *Forsk. Fl. Æg. Arab.* 84. Calodium, *Lour. Fl. Coch.* 247.)—Flores hermaphroditi interdum dimorphi (an subdioici?). Perianthii tubus turbinatus v. ovoideus, post anthesin apice constrictus; limbi segmenta 6, 3 exteriora multo minora. Stamina perfecta 9, ordinis primi et secundi eglandulosa antheris introrsum 2-locellatis, v. rarius ordinis secundi ad staminodia angusta reducta, ordinis tertii basi utrinque glandula subsessili aucta, antheris extrorsum 2-locellatis; staminodia ordinis quarti subsessilia v. stipitata. Ovarium per anthesin perianthii tubo vix immersum, mox tubo aucto apice clauso omnino obtectum. Stigma parvum v. capitatum, subsessile. Fructus perianthii tubo succulento arcte inclusus, limbo persistente sæpius coronatus. Seminum testa membranacea, cotyledones inter sese arcte appressæ non nisi primo juventute distinctæ, maturæ perfecte conferruminatæ.—Caules volubiles, filiformes, mediantibus haustoriis seriatis plantis variis adhærentes; squamæ loco foliorum minimæ. Flores parvi, nunc minuti, spicati capitati v. racemosi, intra bracteam squamiformem sessiles v. breviter pedicellati, bracteolis 2 minutis stipati. Perianthii tubus sæpe in eadem specie in aliis speciminibus brevissimus in aliis globosus limbo æquilongus.

Species ad 15, quarum una per regiones tropicas utriusque orbis late dispersa, 1 v. 2 austro-Africanæ, 1 Borneensis, cæteræ omnes Australienses. *Meissn. in DC. Prod.* xv. i. 252, *et in Mart. Fl. Bras.* v. ii. 295, *t.* 107. *Benth. Fl. Austral.* v. 309. *Gærtn. Fruct.* i. 133, *t.* 27. *Hook. Exot. Fl. t.* 167. *Wight, Ic. t.* 1847. *F. Muell. Pl. Vict.* ii. *t.* 68.

Genus habitu a toto ordine insigniter differt, characteres tamen floris et fructus fere *Cryptocaryæ*.

Tribus IV. Hernandieæ.

34. **Hernandia,** *Linn. Gen. n.* 1049; *Hort. Cliff. t.* 33. (Hertelia, *Neck. Elem.* ii. 345).—Flores monoici. Perianthii segmenta in fl. ♂ 6 v. 8, in fl. ♀ 8 v. 10, in quaque serie subvalvata, herbacea. Stamina in fl. ♂, staminodia in fl. ♀, tot quot perianthii segmenta exteriora iisque opposita; antheræ 2-locellatæ, locellis more ordinis immersis, oblongis magnis lateralibus v. subintrorsum spectantibus, valvis lateraliter dehiscentibus v. cito deciduis; glandulæ ad basin staminum geminæ solitariæ v. rarius 0. Fl. ♀ involucello cupulato v. lobato basi cincti. Ovarium inferum, carnosum; stylus brevis crassus, stigmate dilatato irregulariter dentato v. lobato. Fructus involucello aucto carnoso v. crasse membranaceo inclusus. Semen globosum v. ovoideum, testa crassa dura; embryo cotyledonibus crassis lobatis rugosisve subruminatis.—Arbores. Folia alterna, sæpius ampla, integra, ovata v. peltata, 3–7-nervia. Flores laxe paniculati, paniculæ ramis ultimis involucro 4–5-bracteato terminatis, floribus in involucro 3, centrali ♀ sessili, lateralibus 2 ♂ breviter pedicellatis. Involucella fructifera inflata, sæpe colorata, 1–2-pollicaria, ore contracto integerrima v. alte 2-fida.

Species descriptæ 8, per regiones tropicas utriusque orbis late dispersæ. *Meissn. in DC. Prod.* xv. i. 262. *Benth. Fl. Austral.* v. 314. *Aubl. Pl. Gui. t.* 329. *Gærtn. Fruct. t.* 40. *Wight, Ic. t.* 1855. *Bedd. Fl. Sylv. t.* 300. *Seem. Fl. Vit. t.* 52. *Bot. Mag. t.* 5839.

Hernandiopsis, *Meissn. in DC. Prod.* xv. i. 264, est *H. cordigera*, Vieill., species Novo-Caledonica, *H. Moerenhoutianæ*, Guillem., simillima, sed glandulæ staminum desunt v. rarius 1 v. 2 in toto flore adsunt.

Hernandia, ob habitum distinctum et antherarum valvas lateraliter nec sursum aperiendas, apud plures auctores ordinem distinctum format, nobis tamen bene videtur sub *Laurineis* pro tribu distincto militare.

ORDO CXLIV. **PROTEACEÆ.**

Endl. Gen. 336. Lindl. Veg. Kingd. 532. R. Br. in Trans. Linn. Soc. x. 15. Baill. Hist. Pl. ii. 385.

Flores hermaphroditi v. abortu polygami v. dioici, stylo tamen in fl. ♂ staminodiis in fl. ♀ nunquam deficientibus, regulares obliquæ v. quodammodo irregulares. *Perianthium* inferum, e segmentis 4 primum valvatim cohærentibus, tubo cylindraceo v. basi latiore, limbo globoso ovoideo v. tubo vix latiore, segmentis per anthesin apice v. usque ad basin plus minus solutis recurvisque. *Stamina* 4, segmentis opposita iisque ad basin laminarum v. inferius affixa, perianthio semper breviora, filamentis brevibus v. subnullis, rarius antheræ æquilongis. *Antheræ* erectæ, in flore hermaphrodito omnes perfectæ v. rarius una abortiva, connectivo cum filamento continuo, loculis 2 sæpius introrsum adnatis parallelis. *Squamellæ* v. glandulæ hypogynæ in pluribus generibus 4, staminibus alternæ, liberæ v. plus minus connatæ, in aliis generibus deficientes. *Ovarium* liberum, sessile v. stipitatum, 1-loculare, sæpius obliquum v. excentricum. *Stylus* terminalis, brevis v. elongatus, apice sæpius varie incrassatus, stigmate parvo terminali v. sublaterali. *Ovula* solitaria v. gemina collateralia v. rarius fere superposita, v. ∞ 2-seriatim superposita, nunc apice v. juxta apicem affixa et superposita, nunc lateraliter affixa, amphitropa v. fere anatropa, ascendentia v. descendentia, micropyle semper infera et sæpe prominula. *Fructus* nunc nuceus v. drupaceus et indehiscens, nunc demum margine interiore v. apice dehiscens, follicularis v. capsularis, valvis sæpius crasse coriaceis. *Semina* 1–2 v. pauca, plano-compressa v. crassa, testa membranacea v. coriacea, interdum varie in alam producta. *Albumen* 0. *Embryo* semini conformis, cotyledonibus nunc plano-compressis parallelis æqualibus, nunc crasso-carnosis uno sæpius altero majore; radicula brevis, recta, infera v. lateralis, in sinu basali cotyledonum sæpe retracta.

Frutices arboresve, rarius herbæ duræ perennes. Folia alterna v. sparsa, rarius opposita v. verticillata, integerrima gresse dentata v. interdum in eadem planta pinnatisecta v. decomposita, sæpissime coriacea. Stipulæ 0. Flores capitato-spicati racemosi v. rarius solitarii, secus rhachin sparsi, singuli v. per paria bractea suffulti rarissime 2-bracteolati. Bracteæ nunc minimæ caducissimæ v. fere obsoletæ, nunc imbricatæ persistentes in fructu induratæ strobilum formantes.

Species ad 950, pro maxima parte Australiæ v. Africæ australi propriæ, nonnullæ per Americam australem tropicam v. extratropicam v. Asiam tropicam et insulas maris Pacifici australis dispersæ, perpaucæ inter Africanas usque ad regiones tropicas extensæ, in temperatis hemisphærii borealis omnino desunt.

Ordo optime definitus a nemine cum ullo alio confusus, *Thymelæaceis Laurineisque* plerumque approximatur, sed ab utroque ordine perianthio staminibus fructu habituque abunde distinctus.

Series I. Nucamentaceæ. Flores subquaque bractea sæpissime solitarii. Nux v. drupa indehiscens.

Tribus I. Proteeæ. Antheræ omnes perfectæ v. postica rarissime effœta, ad basin laminarum affixæ. Ovulum 1, lateraliter affixum v. a basi ascendens, amphitropum v. anatropum. Nux sicca.

* *Flores abortu dioici, regulares.*

1. AULAX. Flores ♂ cylindraceo-spicati, ♀ capitati. Bracteæ in capitulo fructifero angustæ. —*Afr. austr.*

2. LEUCADENDRON. Flores utriusque sexus capitati. Capitula fructifera bracteis latis imbricatis strobiliformia.—*Afr. austr.* (*et trop.?*).

** *Flores hermaphroditi, irregulares. Perianthii segmentum posticum per anthesin solutum.*

3. PROTEA. Perianthii segmenta 3 usque ad apicem v. saltem ultra antheras connata. Capitula fructifera strobiliformia, sæpius magna, bracteis involucrantibus latis imbricatis. —*Afr. austr. et trop.*

4. LEUCOSPERMUM. Perianthii segmentorum trium laminæ antheriferæ per anthesin solutæ recurvæ. Capitula fructifera globosa v. rarius ovoidea, bracteis involucrantibus strobiliformia v. bracteis deciduis denudata.—*Afr. austr.*

5. FAUREA. Perianthii segmenta 3 fere ad apicem connata. Spicæ elongatæ, cylindraceæ, fructiferæ post perianthia delapsa ovariis pilosis dense plumosæ.—*Afr. aust. et trop., Madagasc.*

*** *Flores hermaphroditi, regulares v. subregulares.*

† *Flores capitati. Squamæ hypogynæ 4 lineares v. subulatæ. Genera austro-Africana.*

6. SERRURIA. Folia lineari-teretia, sæpissime dissecta. Capitula multiflora, subglobosa, terminalia, sæpius pedunculata v. corymbosa, floribus parvulis. Stigma terminale, truncatum. —*Afr. austr.*

7. MIMETES. Folia indivisa, nunc plana capitulis in axillis superioribus sessilibus floribus majusculis sæpe paucis, nunc ericoidea capitulis multifloris ad apices ramorum sessilibus floribus parvulis. Stigma terminale v. obliquum, parvum.—*Afr. austr.*

8. SOROCEPHALUS. Folia ericoidea v. imbricata. Capitula parva, 1–6-flora, in spicam globosam v. corymbum densum terminalem conferta. Nucis stipes v. basis ipsa indurata, persistens. Stigma parvum, terminale.—*Afr. austr.*

9. NIVENIA. Folia varia. Capitula 4-flora, in spicam densam cylindraceam v. subglobosam terminalem conferta. Nux basi non dilatata. Stigma parvum, terminale.—*Afr. austr.*

10. SPATALLA. Folia tenuia, conferta, indivisa. Capitula 1–4-flora, in spicam laxam terminalem conferta. Stigma valde obliquum v. laterale v. in medio disco terminale.—*Afr. austr.*

†† *Flores dense capitati. Squamæ hypogynæ 0. Genera Australiana.*

11. PETROPHILA. Capitula fructifera strobiliformia, bracteis induratis post nuces delapsas persistentibus. Nuces compressæ.—*Australia.*

12. ISOPOGON. Capitula fructifera bracteis deciduis denudata, v. bracteæ membranaceæ arcte appressæ cum nucibus deciduæ. Nuces haud compressæ.—*Australia.*

††† *Genera anomala Australiana.*

13. ADENANTHOS. Flores intra involucrum 4–8-bracteatum solitarii. Glandulæ hypogynæ 4. —*Australia occid. extratrop.*

14. STIRLINGIA. Capitula ∞-flora. Antheræ in cylindrum circa stylum cohærentes. Squamæ hypogynæ 0.—*Australia occid. extratrop.*

Tribus II. Conospermeæ. Anthera 1 perfecta 2-locularis, 2 laterales loculo 1 perfecto primum cum loculo contiguo antheræ perfectæ in unum connato, antheræ quartæ loculo utroque effœto. Ovulum 1. Nux sicca. Flores parvuli, spicati.

15. SYNAPHEA. Anthera postica abortiva membraniformis, cum stigmate cohærens. Nux ovoidea v. oblonga. Folia sæpius divisa.—*Australia occid. extratrop.*

16. CONOSPERMUM. Anthera antica abortiva. Stigma stamina superans. Nux apice truncata et carnosa. Folia indivisa.—*Australia extratrop.*

Tribus III. Franklandieæ. Antheræ omnes perfectæ, intra tubum longum inclusæ. Ovulum 1, pendulum. Nux sicca.

17. FRANKLANDIA. Folia dichotoma. Flores longi, racemosi.—*Australia occid. extratrop.*

Tribus IV. Persoonieæ. Stamina infra laminas v. prope basin segmentorum affixa, antheris omnibus perfectis. Ovula 2 v. 1, rarius ∞, ab apice pendula, orthotropa, v. rarius lateraliter affixa amphitropa ascendentia v. descendentia. Fructus nuceus v. drupaceus indehiscens. Seminum cotyledones sæpius crassæ, inæquales.

* *Squamæ hypogynæ 0. Genera Australiana.*

18. Symphyonema. Filamenta *infra antheras liberas circa stylum cohærentia.* Ovula 2, pendula. Nux oblonga. Folia dissecta. Flores laxe spicati.—*Australia.*

19. Bellendena. Ovula 2, pendula. Fructus membranaceus, planus, ala angusta cinctus. Folia integra v. apice dentata. Racemus terminalis, pedunculatus, densus.—*Tasmania.*

20. Agastachys. Ovulum 1, lateraliter affixum, descendens. Nux 3-alata. Folia integra. Spicæ axillares, elongatæ.—*Tasmania.*

** *Squamæ v. glandulæ hypogynæ 4, distinctæ. Genera Australasica (et Mascarense?).*

21. Beauprea. Ovulum 1, lateraliter affixum, ascendens. Drupa ellipsoidea v. globosa, styli cicatrice fere basali. Folia indivisa v. pinnata. Spicæ paniculatæ.—*Nov. Caled.*

22?. Dilobeia. Folia ampla, 2-loba. Spicæ paniculatæ *Beaupreæ.* Flores dioici?—*Madagascaria.*

23. Cenarrhenes. Ovulum 1, pendulum. Drupa compresso-globosa, styli cicatrice terminali. Folia integra v. dentata. Spicæ axillares.—*Tasmania.*

24. Garnieria. Ovula ∞, horizontalia v. descendentia. Drupa compressa, endocarpio crasso lignoso. Folia integra v. dentata. Spicæ axillares.—*Nov. Caled.*

25. Persoonia. Ovula 2 v. 1, pendula. Fructus drupaceus. Folia integra. Flores axillares, solitarii v. fasciculati, rarius in racemum terminalem conferti.—*Australia, Nov. Zel.*

*** *Discus hypogynus breviter cupulatus. Genus Africanum.*

26. Brabeium. Ovula 2 v. 1, pendula. Drupa velutina, endocarpio lignoso. Folia verticillata, indivisa. Racemi axillares, densi.—*Afr. austr.*

(31, Macadamia a *Brabeio* parum differt inflorescentia. In 39, Carnarvonia, flores fere *Persooniearum* cum fructu *Grevilleearum.*)

Series II. Folliculares. Flores sæpissime secus rhachin geminati, bractea dum adsit sub quaque pari unica. Fructus follicularis capsularis v. rarius vix dehiscens subdrupaceus.

Tribus V. Grevilleeæ. Ovula 2 rarius 4, collateralia. Flores racemosi v. fasciculati, involucro 0 v. inconspicuo, bracteis deciduis.

* *Ovula 2, pendula, orthotropa. Fructus vix v. tardius dehiscens, pericarpio crasso carnoso v. duro. Seminum cotyledones crassæ, sæpe inæquales.*

27. Panopsis. Perianthium rectum. Stamina infra medium segmentorum affixa, filamentis complanatis. Discus cupulatus, 4-lobus. Folia indivisa, alterna, rarius subverticillata.—*Amer. trop.*

28. Euplassa. Perianthium obliquum, limbo recurvo. Antheræ in laminis sessiles. Glandulæ hypogynæ 4, stipiti ovarii adnatæ. Folia indivisa.—*Guiana, Brasilia.*

29. Guevina. Perianthii limbus recurvus. Antheræ in laminis subsessiles. Discus semiannulatus, 2-lobus. Folia pinnata.—*Chile.*

30. Kermadecia. Perianthium fere rectum. Antheræ in laminis subsessiles. Discus semiannulatus. Receptaculum valde obliquum. Folia indivisa v. pinnata.—*Nov. Caled.*

31. Macadamia. Perianthium fere rectum. Stamina paullo infra laminas affixa filamentis brevibus. Discus annulatus 4-lobus v. 4-partitus. Folia verticillata, indivisa.—*Australia or.*

** *Ovula 2, pendula, orthotropa. Fructus follicularis v. oblique 2-valvis. Semina compressa, marginata v. ala cincta.*

32. Roupala. Perianthium fere rectum. Antheræ in laminis fere sessiles. Squamæ hypogynæ 4 v. discus annularis. Folia sparsa, sæpius indivisa. Flores racemosi.—*Amer. trop., Nov. Caledonia.*

33. Lambertia. Perianthium fere rectum. Antheræ in laminis subsessiles. Squamæ hypogynæ 4 v. discus annularis. Folia verticillata, indivisa. Flores solitarii v. septeni, involucrati.—*Australia extratrop.*

*** *Ovula 2, lateraliter affixa v. ascendentia. Fructus globosus v. ovoideus, durus, vix dehiscens.*

34. Xylomelum. Perianthium fere rectum. Glandulæ hypogynæ 4. Semen samaroideum in alam productum. Folia opposita. Spicæ densæ.—*Australia.*

35. Helicia. Perianthium fere rectum. Glandulæ hypogynæ 4. Semen v. semina 2 crassa exalata. Folia alterna. Racemi laxiusculi.—*Asia trop., Australia.*

**** *Ovula 2, lateraliter affixa v. ascendentia. Fructus follicularis.*

36. Orites. Perianthium rectum, parvulum. Glandulæ hypogynæ 4. Semina samaroidea, ala terminali. Flores dense racemosi v. spicati—*Australia, mont. Chile.*

37. Grevillea. Perianthii tubus per anthesin sæpius hinc fissus, limbo obliquo v. recurvo. Discus sæpius semi-annularis. Semina anguste alata v. exalata. Inflorescentia sæpius terminalis.—*Australia, Nov. Caled.*

38. Hakea. Perianthii tubus per anthesin sæpius hinc fissus, limbo obliquo v. recurvo. Discus semi-annularis. Semina samaroidea, ala oblonga terminali. Inflorescentia axillaris.—*Australia.*

39. Carnarvonia. Perianthium rectum, parvulum. Glandulæ hypogynæ 0. Semina samaroidea, ala oblonga terminali. Racemi axillares.—*Australia.*

***** *Ovula 4, lateraliter affixa. Fructus follicularis.*

40. Buckinghamia. Perianthium sub limbo globoso revolutum. Discus semiannularis. Semina plana, ala angusta cincta. Flores parvuli, racemis terminalibus.—*Australia trop.*

41. Darlingia. Perianthium rectum. Glandulæ hypogynæ 4. Semina plana, ala angusta cincta. Spicæ paniculatæ, terminales.—*Australia trop.*

Tribus VI. Embothrieæ. Ovula 4 v. sæpius ∞, 2-seriatim imbricata. Flores racemosi umbellati v. capitati, sæpe involucrati. Semina sæpius lamina tenui v. substantia farinosa separata.

* *Ovula ∞, deorsum imbricata.*

42. Cardwellia. Flores racemosi. Squamæ hypogynæ distinctæ. Semina ala cincta.—*Austral. trop.*

43. Stenocarpus. Flores umbellati. Discus hypogynus cupulatus v. obsoletus. Semina deorsum in alam producta.—*Australia, Nov. Caled.*

** *Ovula sursum imbricata. Semina samaroidea, ala terminali oblonga.*

44. Lomatia. Glandulæ hypogynæ 3. Styli apex in discum lateralem expansus. Ovula ∞. Racemi exinvolucrati.—*Australia, Chile.*

45. Embothrium. Discus semiannulatus. Styli apex oblongo-fusiformis v. oblique subdisciformis. Ovula ∞. Racemi densi, terminales, exinvolucrati v. bracteis paucis cincti.—*Amer. austr. extrop. v. andina.*

46. Telopea. Discus subinteger, obliquus. Styli apex clavatus. Ovula ∞. Racemi densi, terminales, bracteis coloratis imbricatis involucrati.—*Australia.*

47. Knightia. Glandulæ hypogynæ 4, distinctæ. Styli apex lineari-clavatus. Ovula 4. Racemi densi, bracteis imbricatis involucrati v. nudi.—*Nov. Zel., Nov. Caled.*

Tribus VII. Banksieæ. Ovula 2, collateralia. Flores dense capitati v. spicati, capitulis spicisve strobilinis v. involucratis. Semina lamina simplici v. duplici sæpissime separata.

48. Banksia. Spicæ v. strobili a basi florentes, rhachi v. receptaculo sæpius elevato v. elongato.—*Australia.*

49. Dryandra. Spicæ v. strobili bracteis vacuis imbricatis involucrati, receptaculo sæpius plano v. leviter convexo.—*Australia occid. extratrop.*

GENERA EXCLUSA V. DUBIA.

Cylindria, Lour. Fl. Cochinch. 69, arbor Cochinchinensis a botanicis recentioribus ignota, ad *Proteaceas* a pluribus approximatur, quia auctoris descriptio corollæ et staminum satis cum perianthio et staminibus *Proteacearum* conveniunt, sed calyx, stylus, bacca, semen et habitus omnino abhorrent, et genus valde dubium remanet.

Potameia, Thou., a Baillonio ad **Laurineas** refertur.

Tribus I. Proteeæ.

1. **Aulax,** *Berg. Descr. Pl. Cap.* 33.—Flores abortu dioici, regulares. Fl. ♂: Perianthium lineare, rectum, limbo vix latiore, segmentis per anthesin solutis angustis erectis. Antheræ lineares, in medio segmento filamentis brevissimis affixæ, connectivo haud producto. Squamæ hypogynæ 0. Ovarii rudimentum parvum, stylo tamen subulato

elongato apicem versus sæpius incrassato. Fl. ♀: Perianthium urceolatum, tubo anguste pyramidato angulato, lobis linearibus recurvo-patentibus. Staminodia linearia, effœta. Squamæ hypogynæ 0. Ovarium longe densissimeque pilosum; styli apex leviter clavatus, stigmate oblongo obliquo; ovulum 1, prope basin loculi ascendens, anatropum. Nux densissime pilosa.—Frutices glabri, dense foliati. Folia sparsa, angusta, coriacea, indivisa. Ramuli floriferi breves, inter folia sessiles, subumbellati, ♂ racemiformes, cylindracei, dense multiflori, ♀ dense capitati, foliis caulinis summis dense involucrati, capitulo etiam intra involucrum ramulis brevibus acerosa-multifidis cincto. Bracteæ inter flores lineares. Flores ♂ breviter pedicellati, ♀ sessiles.

Species 2, austro-Africanæ. *Meissn. in DC. Prod.* xiv. 212. *Trattin. Thes. Bot. t.* 9. *Bot. Reg. t.* 1015 (♂). *Andr. Bot. Rep. t.* 76 (♂), 248 (♀) (*Protea*). Ramuli multifidi seu bracteæ plumosæ capitula ♀ intra involucrum cingentes sunt verisimiliter racemi ♂ abortivi.

2. **Leucadendron,** *R. Br. in Trans. Linn. Soc.* x. 50, *non Linn.* (Protea, *Linn. Gen. n.* 111, *non ejusd. Gen. ed.* I. Conocarpus *Adans. Fam.* ii. 284, *non Linn.*)—Flores abortu dioici, regulares. Fl. ♂: Perianthium lineare, rectum v. subincurvum, limbo parum incrassato; segmentis demum supra medium v. usque ad basin solutis recurvo-patentibus. Antheræ ad basin laminarum subsessiles, oblongæ v. lineares, connectivo ultra loculos brevissime v. haud producto. Squamæ hypogynæ 4 lineares v. 0. Ovarii rudimentum stylo elongato superne oblongo papilloso superatum. Fl. ♀: Perianthium masculo subsimile v. segmentis diutius connatis. Antheræ effœtæ. Ovarium angustum, stylo apice oblongo v. lineari-fusiformi, stigmate terminali emarginato v. rarius descendente; ovulum 1, lateraliter affixum, amphitropum. Nux sæpius lata, plus minus compressa, margine obtusa acuta v. alata.—Frutices v. arbores, incani puberuli v. glabri. Folia sparsa, coriacea, indivisa, integerrima. Flores intra bracteas solitarii, sessiles, ad apices ramorum capitati, capitulis sæpius foliis floralibus caulinis similibus v. latioribus coloratisque cinctis; capitula fructifera sæpius late strobiliformia, squamis involucri bracteisque latis coriaceis v. induratis imbricatis. Bracteæ sub floribus per anthesin parvæ, demum auctæ, exterioribus sæpius vacuis involucrum intra folia floralia formantibus.

Species descriptæ fere 70, Africæ australis incolæ, nonnullæ tamen reducendæ.—*Meissn. in DC. Prod.* xiv. 213. *Salisb. Parad. Lond. t.* 75, 105 (*Euryspermum*). *Breyn. Cent. t.* 9. *Jacq. Hort. Schœnbr. t.* 26, 27, 401. *Andr. Bot. Rep. t.* 307, 429, 461, 495, 541, 572. *Bot. Mag. t.* 878, 881, 1650. *Bot. Reg. t.* 402, 826, 979 (ic. aliæ sub *Protea*, aliæ sub *Leucadendro*).

Nomina plurima præter *Leucadendron* ante Linnæum a Plukenetio aliisque *L. argenteo*, Br., imposita fuerunt, nulla tamen nec a Plukenetio nec ab aliis generice definita. *Leucadendron*, Linn., ad *Proteam* ipsam reductum est, et Brown primus genus nostrum sub hoc nomine constituit. Salisbury, Parad. Lond. sub t. 67, species typicas pericarpio exalato tumido sub *Protea* retinuit, et species pericarpio alato generice separavit, sub nominibus, Euryspermum, *Salisb. in Knight, Prot.* 18, et Chasme, *Salisb. in Knight, Prot.* 16. Brown tamen species dioicas omnes sub *Leucadendro* conjunxit, quem secuti sunt botanici posteriores.

Gissonia, *Salisb. in Knight, Prot.* 32, includit *L. plumosum*, Br., speciesque v. varietates affines habitu peculiari, capitulis ♂ ovoideis, squamis arcte imbricatis insignes.

Leucandrum, *Neck. Elem.* i. 106, et Vionæa, *Neck. l.c.* 107, ex charactere valde imperfecto verisimiliter ad *Leucadendrum* referendæ sunt.

3. **Protea,** *Linn. Gen. ed.* i. 22, *et auct. recent.*, *non Linn. Gen. ed. seq.* (Leucadendron, *Linn. Gen. n.* 110. Erodendron, *Salisb. Parad. Lond. t.* 67, 70, 76, 108, *et in Knight, Prot.* 34. Pleuranthe, *Salisb. in Knight, Prot.* 49.)—Flores hermaphroditi, irregulares. Perianthium lineare, basi latius, a dorso sæpe compressus, plerumque incurvus, limbo obliquo parum latiore, segmento postico angusto per anthesin a basi soluto, 3 inferioribus in labium recurvum integrum v. summo apice breviter 2–3-fidum connatis. Antheræ in limbo subsessiles, liberæ, lineares, connectivo ultra loculos producto appendiculatæ. Squamæ hypogynæ 4, lineares, tenues v. obsoletæ. Ovarium longe denseque pilosum; styli rigidi apex subulatus compressus angulatus v. anguste 2-alatus, stigmate parvo

terminali v. obliquo; ovulum 1, lateraliter affixum v. ascendens, plus minus amphitropum. Nux dense barbata, stylo persistente glabro caudata.—Frutices v. arbusculæ. Folia alterna v. sparsa, coriacea, rigida, integerrima. Flores sub quaque bractea sessiles, solitarii, dense capitati, capitulis sæpius magnis globosis v. rarius oblongis strobiliformibus, receptaculo crasso plano v. convexo. Squamæ involucrantes numerosæ, imbricatæ, coriaceæ, v. interiores interdum elongatæ membranaceæ nigricantes v. coloratæ.

Species ad 60, fere omnes Africæ australis extratropicæ incolæ, 1 v. 2 in Africa tropica usque ad Abyssiniam extensæ. *Meissn. in DC. Prod.* xiv. 230. *Sm. Exot. Bot. t.* 44, 81. *Bonpl. Jard. Malm. t.* 59. *Trattin. Thes. Bot. t.* 11, 12. *Link, Kl. et Otto, Ic. Pl. Rar. t.* 22. *Grant in Trans. Linn. Soc.* xxix. *t.* 92. *Bot. Mag. t.* 346, 649, 674, 698, 770, 933, 1183, 1713, 1717, 2065, 2439, 2447. *Bot. Reg. t.* 20, 47, 208, 351, 569. *Andr. Bot. Rep. t.* 103, 110, 132, 133, 144, 270, 277, 288, 289, 301, 409, 437, 438, 442, 453, 469, 500, 526, 532, 543, 577, 582, 646.

4. **Leucospermum,** *R. Br. in Trans. Linn. Soc.* x. 95. (Leucadendron, *Salisb. Parad. Lond. sub t.* 67, *et in Knight, Prot.* 52. Diastella, *Salisb. in Knight Prot.* 61.)—Flores hermaphroditi, irregulares. Perianthium lineare, incurvum, basi parum latius, limbo oblongo, segmento postico angusto per anthesin a basi soluto, 3 inferioribus basi connatis laminis liberis recurvis. Antheræ in laminis subsessiles, oblongæ v. ovatæ, connectivo brevissime producto apiculatæ. Squamulæ hypogynæ 4, lineares. Ovarium subsessile, parce pilosum; styli apex ovato-conicus v. linearis, sæpe angulatus v. sulcatus, stigmate parvo terminali v. obliquo; ovulum 1, lateraliter medium versus v. prope basin affixum, plus minus amphitropum. Fructus siccus, ovoideus v. globosus, perianthio styloque deciduis sæpius nudus, epicarpio membranaceo, endocarpio crustaceo.—Frutices v. arbusculæ. Folia alterna, sæpius crebra, coriacea, integerrima v. apicem versus paucidentata. Flores sub quaque bractea solitarii, sessiles, majusculi v. mediocres, capitati, capitulis terminalibus dense globosis v. rarius oblongis, receptaculo plano v. longiuscule elevato. Bracteæ exteriores vacuæ, squamiformes, imbricatæ, post anthesin deciduæ v. in fructu persistentes strobilinæ, interiores inter flores angustæ. Perianthia sæpius villosa.

Species ad 24, Africæ australis incolæ. *Meissn. in DC. Prod.* xiv. 253. *Andr. Bot. Rep. t.* 17, 294 (*Protea*). *Trattin. Thes. Bot. t.* 10, quibus addenda forte species Abyssinica non satis nota, *L. Rochetianum*, A. Rich. in Ann. Sc. Nat. ser. 3. xv. 369, pluribus notis ex descr. *Proteæ* affinior.

5. **Faurea,** *Harv. in Hook. Lond. Journ.* vi. 373, *t.* 15.—Flores hermaphroditi, irregulares. Perianthium lineari-clavatum v. incurvum, basi latius, limbo oblongo obliquo, segmento postico per anthesin fere a basi soluto, 3 inferioribus fere ad apicem in labium demum revolutum connatis. Antheræ in limbo subsessiles, lineares, connectivo obtuso breviter apiculatæ. Squamulæ hypogynæ 4, lanceolato-subulatæ, erectæ, sub fructu induratæ stellato-patentes. Ovarium longe denseque pilosum; stylus a basi angulato-sulcatus, apice vix incrassatus, stigmate parvo terminali; ovulum 1, medio lateraliter affixum. Nux compressiuscula, dense barbata. Semen orbiculatum.—Arbores parvæ v. mediocres, speciosæ. Folia alterna, petiolata, integerrima, nitida, glabra v. subtus tomentosa. Flores sub quaque bractea solitarii, sessiles, dense spicati, spica terminali cylindracea post perianthia delapsa ovariis pilosis dense plumosa. Rhachis cum receptaculis elevato-disciformibus post fructus delapsus diu persistens. Bracteæ caducissimæ v. 0.

Species adsunt 7, Africæ australis tropicæ et extratropicæ et Madagascariæ incolæ. *Meissn. in DC. Prod.* xiv. 344. *Welw. in Trans. Linn. Soc.* xxvii. 63, *t.* 20. Flores et fructus omnino *Proteæ* a qua *Faurea* differt imprimis spicis elongatis ebracteatis.

6. **Serruria,** *Salisb. Parad. Lond. sub t.* 67, *et in Knight, Prot.* 78.—Flores hermaphroditi, subregulares. Perianthium angustum, sæpius incurvum, limbo ovoideo v. oblongo, segmentis per anthesin alte solutis ima basi cohærentibus. Antheræ in laminis subsessiles, oblongæ v. lineares, connectivo brevissime producto apiculatæ v. muticæ. Squamæ

hypogynæ 4, lineares v. filiformes. Ovarium subsessile, villosum v. setoso-hispidum; styli apex cylindraceus vix dilatatus, stigmate terminali truncato; ovulum 1, lateraliter medio v. supra medium affixum. Nux ovoidea v. ovoideo-globosa, styli basi rostrata v. stylo deciduo nuda.—Frutices dense foliati. Folia sparsa, angustissime 3-fida pinnatifida v. magis dissecta, rarius hinc inde indivisa. Flores sub quaque bractea solitarii, sessiles, dense capitati, bracteis vacuis imbricatis involucrati, capitulis ad apices ramorum nunc solitariis sessilibus v. pedunculatis, nunc ∞ corymbosis v. in capitulum compositum congestis.

Species enumeratæ 52, Africæ australis incolæ, plurimæ tamen inter se nimis affines. *Meissn. in DC. Prod.* xiv. 284. *Andr. Bot. Rep. t.* 264, 337, 349, 447, 507, 512, 522, 536, 545 (*Protea*).

7. **Mimetes,** *Salisb. Parad. Lond. sub n.* 67, *et in Knight, Prot.* 64.—Flores hermaphroditi, regulares. Perianthium tenue, rectum v. curvulum, limbo recto oblongo v. vix tubo latiore, segmentis per anthesin solutis v. ima basi breviter connatis. Antheræ in laminis subsessiles, oblongæ v. lineares, connectivo breviter appendiculatæ v. nudæ. Squamulæ hypogynæ 4, lineares. Ovarium glabrum v. parce pilosum; styli apex vix incrassatus, stigmate parvo terminali v. obliquo; ovulum 1, lateraliter v. fere ad apicem affixum, plus minus amphitropum. Nux sessilis, ovoidea, glabra, pericarpio membranaceo v. leviter indurato.—Frutices. Folia sparsa, sub quaque bractea solitarii, sessiles, integerrima v. rarius apice dentata. Flores capitati, capitulis sessilibus bracteis membranaceis involucratis.

Species 14, Africæ australis incolæ. *Meissn. in DC. Prod.* xiv. 262. Genus in sectiones 2 ad inflorescentiam dividitur:—

1. *Eumimetes*, Endl. Capitula sæpe pauciflora, in axillis superioribus sessilia. Involucri squamæ membranaceæ, sæpius appressæ. Folia plana, coriacea.—*Reichb. Iconogr. Exot. t.* 92, 93. Orothamnus, *Pappe ex Hook. Bot. Mag. t.* 4357 (ic. in *Fl. des Serres t.* 338 repetita) ab *Eumimete* non differt nisi capitulis paucioribus nec vere terminalibus, involucri bracteis magis patentibus amplis coloratis.

2. *Pseudomimetes*, Endl. Capitula terminalia, multiflora, parvula, subglobosa, inter folia summa sessilia. Fruticuli diffusi v. divaricato-ramosi, ericoidei, foliis parvulis. Huc pertinent *Diastellæ* species nonnullæ, *Salisb. in Knight, Prot.* 69.

8. **Sorocephalus,** *R. Br. in Trans. Linn. Soc.* x. 139. (Soranthe, *Salisb. in Knight, Prot.* 71.)—Flores hermaphroditi, regulares. Perianthium tenue, ima basi latius, limbo parvo recto globoso v. oblongo, segmentis per anthesin alte solutis cum laminis revolutis, ima basi cohærentibus. Antheræ in laminis subsessiles, oblongæ. Squamulæ hypogynæ 4, lineari-filiformes. Styli apex parum incrassatus, breviter oblongus, rectus v. obliquus, stigmate parvo terminali v. obliquo; ovulum 1, lateraliter affixum, amphitropum. Nux ovoidea v. oblonga, pericarpio basin versus indurato a stipite brevi crasso v. a basi pericarpii brevissime persistente deciduo.—Frutices erecti v. rarius diffusi, ericoidei, dense foliati. Folia sparsa, conferta v. fere imbricata, lanceolata v. angusta, interdum subulata, integra v. inferiora dissecta. Florum capitula parva, pauci- (1–6-)flora, bracteis totidem parvis involucrata, in spicas breves densas capitatas v. dense corymbosas conferta. Bracteæ capitula subtendentia breves, membranaceæ v. demum auctæ latæ imbricatæque, capitulo composito subgloboso strobilum *Leucadendri* simulante.

Species ad 10, Africæ australis incolæ. *Meissn. in DC. Prod.* xiv. 303. *Andr. Bot. Rep. t.* 517 (*Protea*).

Genus in sectiones 2 dividitur: *Mischocaryon*, Endl., nuce basi integra, pericarpio toto a stipite deciduo; et *Cardiocaryon*, Endl., nuce delapsa basi emarginata, pericarpii basin brevissime persistentem relinquente.

9. **Nivenia,** *R. Br. in Trans. Linn. Soc.* x. 133. (Paranomus, *Salisb. Parad. Lond. sub n.* 67, *et in Knight, Prot.* 67.)—Flores hermaphroditi, regulares. Perianthium tenue, ima basi latius, limbo parvulo globoso v. oblongo nunc vix tubo latiore, segmentis per anthesin alte solutis revolutis ima basi cohærentibus. Antheræ in laminis subsessiles, lineares v. oblongæ, connectivo brevissime apiculatæ v. nudæ. Squamæ hypogynæ 4, lineares. Ovarium subsessile, glabrum v. pilosum; styli apex sæpius parum incrassatus,

cylindraceus v. oblongus, sulcatus, stigmate parvo terminali ; ovulum 1, lateraliter affixum, plus minus amphitropum. Nux ovoidea v. oblonga, subteres, basi non dilatata, styli basi appendiculata v. nuda.—Frutices erecti, foliosi. Folia conferta, sparsa, coriacea, nunc parvula lata et integerrima, nunc etiam in eodem ramulo angusta, more *Serruriæ* divisa v. dissecta. Flores sub quaque bractea solitarii, sessiles, capitati, capitulis 4-floris bracteis totidem involucratis, intra bracteam subtendentem sessilibus, in spicam terminalem oblongam cylindraceam v. subglobosam confertis. In spica fructifera sæpius rufo-pilosa, bracteæ persistentes interdum auctæ fructum includentes.

Species 12, Africæ australis incolæ. *Meissn. in DC. Prod.* xiv. 299. *Andr. Bot. Rep. t.* 234, 243 (*Protea*).

N. parvifolia, Br., ab omnibus differt styli apice breviter conico, nec anguste oblongo.

10. **Spatalla**, *Salisb. Parad. Lond. sub n.* 67, *et in Knight, Prot.* 73.—Flores hermaphroditi, parum irregulares. Perianthium tenue, ima basi parum dilatatum, limbo recto v. incurvo ovoideo v. oblongo, segmentis per anthesin alte solutis recurvis basi breviter cohærentibus, superiore sæpe cæteris paullo latiore. Antheræ in lamina subsessiles, ovatæ v. oblongæ, superiore cæteris sæpe majore et interdum sola pollinifera. Squamæ hypogynæ 4, subulatæ. Ovarium sessile v. brevissime stipitatum ; styli apex brevis nunc brevissimus, oblique oblongus clavatus v. subdisciformis, stigmate valde obliquo v. laterali v. in medio disco ; ovulum 1, lateraliter affixum, plus minus amphitropum. Nux brevissime stipitata, ovoidea.—Frutices ericoidei. Folia sparsa, filiformia v. subulata, indivisa. Flores parvuli, sub quaque bractea solitarii, capitati, capitulis 1–4-floris bracteis totidem parvulis involucratis, in spicam laxiusculam v. racemum terminalem dispositis, sessilibus v. breviter pedicellatis. Nuces sæpius pubescentes v. villosæ, involucrum superantes v. breviores, bracteis involucri sub fructu interdum varie connatis.

Species descriptæ 17, Africæ australis incolæ. *Meissn. in DC. Prod.* xiv. 306. Species plures quoad folia et habitus vix distinguendæ, sed styli apicis forma characteres certiores præbere videtur.

11. **Petrophila**, *R. Br. in Trans. Linn. Soc.* x. 67.—Flores hermaphroditi, regulares. Perianthium tenue, rectum v. curvulum, limbo angusto, segmentis per anthesin ad medium v. usque ad basin solutis superne recurvis. Antheræ in laminis sessiles, lineares v. oblongæ, connectivo breviter producto appendiculatæ. Squamæ hypogynæ 0. Ovarium sessile ; stylus superne sæpe dilatatus v. truncatus, sub apice fusiformi hispido v. papilloso glaber, stigmate terminali parvo ; ovulum 1, prope apicem lateraliter affixum, plus minus amphitropum, addito rarius ovulo secundo abortivo. Nux sæpius compressa, interdum margine alata, pilis longis ad margines v. basin connata.—Frutices. Folia sparsa, coriacea, integerrima v. divisa, sæpius teretia v. angusta. Flores sub quaque bractea solitarii, sessiles, dense capitati v. spicati, capitulis terminalibus v. rarius axillaribus strobilinis globosis ovoideis v. rarius cylindraceis, receptaculo seu rhachi lanato sæpius cylindraceo, squamis imbricatis post anthesin induratis persistentibus ; bracteæ sub capitulo sæpius ∞, membranaceæ, coloratæ, involucrum persistens v. deciduum formantes.

Species 35, omnes Australianæ. *Benth. Fl. Austral.* v. 319. *F. Muell. Fragm. Phyt. Austral.* x. 47, 61. *Cav. Ic. t.* 550, 551 (*Protea*). *Guillem. Ic. Pl. Austral. t.* 18. *Bot. Mag. t.* 796 (*Protea*), 3469.

Genus in Fl. Austral. l. c. in sectiones 6 dividitur, ad characteres imprimis e foliorum et styli apicis formas deductas, quæ tamen haud magni valoris apparent.

Atylus, *Salisb. Parad. Lond.* sub t. 67, includit *Petrophilam* et *Isopogonem*, R. Br.

12. **Isopogon**, *R. Br. in Trans. Linn. Soc.* x. 71.—Flores hermaphroditi, regulares. Perianthium tenue, nunc tenuissimum, post anthesin circumscissum, parte superiore decidua 4-fida, segmentis linearibus, laminis linearibus v. oblongis ; pars inferior diu persistens, in fructu fissa v. demum rejecta. Antheræ in laminis sessiles, connectivo brevi apiculatæ. Squamæ hypogynæ 0. Ovarium sessile ; stylus superne sæpius dilatatus v. clavatus, ab apice scopiformi reflexo-hispido strictura sæpius separatus, v. rarius stylus

usque ad apicem continuus tenuisque; stigma parvum, terminale; ovulum 1, juxta apicem lateraliter affixum. Nux undique hirsuta v. longe comosa, ovoideo-conica, vix compressa, nec alata.—Frutices habitu *Petrophilæ*. Folia sparsa, rigide coriacea, integra v. divisa, teretia v. plana interdumque latiuscula. Flores sub quaque bractea solitarii, sessiles, dense capitati v. spicati, capitulis terminalibus v. rarius axillaribus strobilinis globosis v. ovoideis, receptaculo v. rhachi brevi v. elongato lanato; squamæ imbricatæ, post anthesin v. cum seminibus deciduæ; bracteæ sub capitulo involucrantes diutius persistentes, et foliis caulinis summis arcte cinctæ.

Species 29, omnes Australianæ. *Benth. Fl. Austral.* v. 336.

Genus in sectiones 2 dividitur:—

1. *Hypsanthus*, strobili squamis acuminatis laxe imbricatis, interioribus angustis. Receptaculum planum convexum v. rarius oblongum. *Guillem. Ic. Pl. Austral. t.* 19. *Hook. Ic. Pl. t.* 438. *Bot. Mag. t.* 3539, 4037, 4332, 4372.

2. *Eustrobus*, strobili squamis apice dilatatis v. truncatis, post anthesin arcte imbricatis. Receptaculum convexum conicum v. cylindraceum. *Cav. Ic. t.* 548, 549. *Andr. Bot. Rep. t.* 332, 465. *Bot. Mag. t.* 697 (*omnes sub Protea*). *Bot. Reg. t.* 900, 1288. *Lodd. Bot. Cab. t.* 1337, 1883.

13. **Adenanthos,** *Labill. Pl. Nov. Holl.* i. 28, *t.* 36 *ad* 38.—Flores hermaphroditi, regulares v. parum irregulares. Perianthii curvuli tubus tenuis v. basin versus amplior, antice sæpius fissus, fere totus deciduus, limbo parum latiore, laminis æqualibus; pars inferior persistens, brevissime annularis. Antheræ in laminis sessiles, æquales v. antica effœta longior, connectivo brevi apiculatæ. Squamæ hypogynæ 4, glanduliformes, perianthii basi annulatæ adnatæ eamque superantes. Ovarium sessile; stylus elongatus, diu arcuatus et e fissura perianthii protrusus, demum erectus et perianthio longior, superne sub apice clavato v. dilatato attenuatus, stigmate in sulco antico descendente; ovulum 1, lateraliter affixum, amphitropum. Nux (rarius drupa?) parva, glabra v. parce pilosa, indehiscens.—Frutices v. arbusculæ. Folia sparsa integra v. divisa, plana v. teretia, rarius rigide pungentia. Flores in involucro e bracteis 4–8 sæpius 6 imbricatis sessiles, solitarii, involucris axillaribus v. terminalibus sessilibus v. breviter pedunculatis solitariis v. fasciculatis. Perianthium extus pubescens v. villosum, laminis sæpius intus pone antheram barbatis. Ovarium annulo pilorum cinctum.

Species 15. Australiæ occidentalis extratropicæ incolæ. *Benth. Fl. Austral.* v. 350. *Endl. Iconogr. t.* 110. *F. Muell. Fragm. Phyt. Austral.* viii. 149.

14. **Stirlingia,** *Endl. Gen.* 339 *et Suppl.* iv. ii. 81; *Iconogr. t.* 23. (Simsia, *R. Br. in Trans. Linn. Soc.* x. 152, *non Pers.*)—Flores hermaphroditi v. abortu masculi, subregulares. Perianthii curvuli tubus oblongo-cylindraceus, superne angustior, limbo recto paullo latiore; segmenta per anthesin soluta, superne recurva. Stamina sub basi laminarum affixa, filamentis brevibus crassis; antheræ primum in cylindrum circa stylum cohærentes, loculis cujusve antheræ connectivo lato separatis, cum loculo antheræ contiguæ in unum confluentibus, demum solutæ cum segmento recurvæ. Squamæ hypogynæ 0. Ovarium sessile; stylus filiformis, stigmate terminali obtuso v. peltato-dilatato; ovulum 1, anatropum, a basi erectum. Nux parva, indehiscens, obovoidea v. obconica, apice truncata v. convexa, undique hirsuta, pilis superioribus in comam elongatis.—Suffrutices fruticesve sæpius glabri. Folia sparsa dissecta segmentis trichotomis, v. rarius trifida. Flores parvi, in spicas globosas conferti, sub quaque bractea solitarii, sessiles, spicis in pedunculo longo solitariis paniculatisve.

Species 5, Australiæ occidentalis extratropicæ incolæ. *Benth. Fl. Austral.* v. 356.

Tribus II. Conospermeæ.

15. **Synaphea,** *R. Br. in Trans. Linn. Soc.* x. 155; *App. Flind. Voy. t.* 7.—Flores hermaphroditi, irregulares. Perianthium obliquum v. incurvum subclavatum, tubo brevi; limbus latior obovoideus; segmenta per anthesin soluta, postici lamina erecta ovata v. oblonga, cæteræ 3 sæpius breviora magisque patentia. Stamina ad basin laminarum

affixa, filamentis brevibus; anthera antica distincte 2-locularis, laterales dimidiatim 1-loculares, loculo cum contiguo antheræ anticæ in loculum unicum confluente, per anthesin tamen soluto; anthera postica abortiva v. in membranam filamentum cum stigmate connectentem mutata. Squamæ hypogynæ 0. Ovarium stipitatum v. subsessile, fasciculo pilorum coronatum; stylus filiformis, apice in discum obliquum stigmatiferum perianthii laminam posticam spectantem dilatatus, margine antico sæpe 2-lobo v. 2-cornuto; ovulum 1, lateraliter affixum, amphitropum. Nux parva, indehiscens.—Frutices suffruticesve. Folia sparsa, omnia v. saltem inferiora longe petiolata, petiolo basi dilatata squamiformi, lamina coriacea integra v. divisa, minute reticulata. Flores parvi, sub quaque bractea solitarii, sessiles, spicati, spicis primum densis demum elongatis, pedunculo communi simplici v. ramoso, ad axillam squamæ vaginantis oriundo.

Species 8, Australiæ occidentalis extratropicæ incolæ. *Benth. Fl. Austral.* v. 359. *Endl. Iconogr. t.* 32.

16. **Conospermum,** *Sm. in Trans. Linn. Soc.* iv. 213; *Exot. Bot. t.* 82.—Flores hermaphroditi, plus minus irregulares. Perianthii tubus rectus v. leviter incurvus, indivisus, limbo nunc angusto, lobis 4 subæqualibus patentibus, nunc ovoideo v. oblongo bilabiato, labio postico lato concavo, antico anguste 3-lobo. Stamina ad apicem gibbosum tubi v. ad basin laminæ concavæ affixa, filamentis brevibus crassis; anthera postica 2-locularis, laterales loculo 1 perfecto 1 effœto, antica loculis 2 effœtis, loculi fertiles lateralium cum loculo contiguo posticæ ante anthesin in unum cohærentes, per anthesin soluti. Squamæ hypogynæ 0. Ovarium sessile, obconicum, apice pilis longis coronatum; stylus basi filiformis, juxta basin antherarum incrassatus et incurvus, rostro oblongo v. angusto terminatus, stigmate ad apicem laterali per anthesin elastice in labium anticum perianthii recurvo; ovulum 1, ab apice pendulum, orthotropum. Nux parva, obconica v. turbinata, vertice plano v. concavo coma pilorum coronato.—Frutices suffruticesve. Folia sparsa, integerrima. Flores spicati, ad axillas bractearum vaginantium solitarii, sessiles, spicis brevibus densis in capitula sessilia congestis v. in axillis solitariis sessilibus, v. varie paniculatis, rhachi post anthesin interdum elongata. Bracteæ latæ, persistentes.

Species 34, omnes Australianæ extratropicæ, pleræque occidentales. *Benth. Fl. Austral.* v. 363. *F. Muell. Fragm.* x. 20. In sectiones 2 distribuuntur:—

1. *Isomerum*, R. Br. Perianthii lobi tubo æquilongi v. longiores, subæquales, patentes. Antheræ intra gibbum ad apicem tubi collocatæ.—*Endl. Iconogr. t.* 46.

2. *Euconospermum*, Endl. Perianthii limbus 2-labiatus, tubo æquilongus v. brevior, labio postico latissimo concavo antheras fovente, antico anguste 3-lobo.—*Rudge in Trans. Linn. Soc.* x. *t.* 17. *Endl. Iconogr. t.* 31. *F. Muell. Pl. Vict. t.* 70. *Bot. Mag. t.* 2724, 2850.

TRIBUS III. FRANKLANDIEÆ.

17. **Franklandia,** *R. Br. in Trans. Linn. Soc.* x. 157; *App. Flind. Voy. t.* 6.—Flores hermaphroditi, regulares. Perianthii tubus longus, indivisus, angustus, rectus, limbo vix latiore, lobis æqualibus per anthesin patentibus. Antheræ lineares, inclusæ, tubo adnatæ. Squamæ perigynæ 4, lineares, infra medium tubi affixæ, in annulum circa stylum cohærentes, demum solutæ erectæ. Ovarium sessile, annulo pilorum longorum v. setis 3 plumosis coronatum; stylus filiformis, stigmate terminali dilatato; ovulum 1, ab apice pendulum, orthotropum. Nux angusta, coma pappiformi v. setis 3 plumosis coronata. Embryonis cotyledones radicula multo breviores.—Frutices. Folia sparsa, dichotome divisa, segmentis teretibus. Flores longi, flavi, racemosi, sub quaque bractea solitarii, racemis terminalibus v. in axillis superioribus. Bracteæ parvæ.

Species 2, Australiæ occidentalis extratropicæ incolæ. *Benth. Fl. Austral.* v. 376. *Endl. Iconogr. t.* 52.

TRIBUS IV. PERSOONIEÆ.

18. **Symphyonema,** *R. Br. in Trans. Linn. Soc.* x. 157.—Flores hermaphroditi, regulares. Perianthium cylindraceum, rectum, limbo vix latiore, segmentis per anthesin

superne solutis. Stamina prope basin segmentorum affixa, filamentis basi liberis incurvis sub antheris circa stylum cohærentibus; antheræ liberæ, erectæ, connectivo brevissime apiculatæ. Squamæ hypogynæ 0. Ovarium breviter stipitatum; stylus filiformis, stigmate terminali capitato v. leviter dilatato; ovula 2, pendula, orthotropa. Nux oblonga, indehiscens, sæpius 1-sperma.—Suffrutices v. herbæ perennes. Folia sparsa v. inferiora opposita, dissecta, segmentis trichotomis angustis. Flores parvi, flavescentes, tenuiter spicati, sub quaque bractea solitarii, sessiles.

Species 2, Australiæ orientalis extratropicæ incolæ. *Benth. Fl. Austral.* v. 377. *Endl. Iconogr. t.* 12. *Reichb. Iconogr. Exot. t.* 107.

19. **Bellendena,** *R. Br. in Trans. Linn. Soc.* x. 166.—Flores hermaphroditi, regulares. Perianthium cylindraceo-clavatum, rectum, segmentis basi contractis per anthesin solutis patentibus. Stamina ad basin segmentorum subhypogyna, filamentis erectis; antheræ oblongæ, muticæ. Squamæ hypogynæ 0. Ovarium breviter stipitatum, in stylum brevem crassum attenuatum, stigmate terminali; ovula 2, pendula, orthotropa. Fructus membranaceus, plano-compressus, indehiscens, ala angustissima cinctus, stylo in marginem reflexo. Semen sæpius abortu unicum, plano-compressum.—Frutex. Folia sparsa, integra v. apice dentata. Flores parvi, dense racemosi, secus rhachin sparsi, racemo terminali pedunculato. Bracteæ 0.

Species 1, Tasmanica. *Benth. Fl. Austral.* v. 378. *Guillem. Ic. Pl. Austral. t.* 7.

20. **Agastachys,** *R. Br. in Trans. Linn. Soc.* x. 158.—Flores hermaphroditi, regulares. Perianthium cylindraceo-clavatum, curvulum, segmentis basi contractis per anthesin solutis recurvis. Stamina infra medium segmentorum affixa, filamentis brevibus; antheræ oblongæ, connectivo breviter acuminatæ. Squamæ hypogynæ 0. Ovarium sessile, trigonum; stylus brevis, stigmate oblongo crasso obliquo sublaterali; ovulum 1, lateraliter sub apice affixum, amphitropum, descendens. Fructus (adhuc immaturus) siccus, indehiscens, 3-alatus, alis 2 lateralibus latis, antica angusta.—Frutex. Folia sparsa, integra, conferta. Flores albi, spicati, sub quaque bractea solitarii, sessiles, spicis elongatis axillaribus.

Species 1, Tasmanica. *Benth. Fl. Austral.* v. 379, *et in Hook. Ic. Pl. t.* 1266. Fructum perfecte maturum non vidimus.

21. **Beauprea,** *Brongn. et Gris in Bull. Soc. Bot. Fr.* xviii. 243, *in Ann. Sc. Nat. ser.* 5, xiii. 365, *et in Nouv. Arch. Mus. Par.* vii. *t.* 17.—Flores hermaphroditi, regulares. Perianthium oblongo-cylindraceum, rectum, limbo vix latiore, segmentis per anthesin solutis, recurvis. Stamina prope basin segmentorum affixa, filamentis planis; antheræ oblongæ, connectivo breviter mucronatæ v. muticæ. Squamæ hypogynæ 4, liberæ, breves. Ovarium sessile, postice plus minus gibbosum; stylus elongatus, filiformis, stigmate terminali; ovulum 1, semianatropum, ascendens. Drupa ellipsoidea obovata v. orbicularis, basi styli prope fructus insertionem apiculata. Semen lateraliter affixum.—Frutices. Folia alterna, petiolata, indivisa v. imparipinnata. Flores parvi, spicati v. subracemosi sub quaque bractea solitarii, spicis racemisve ad apices ramorum paniculatis.

Species 5, Novo-Caledonicæ. Genus *Cenarrheni* valde affine, differt ovulo ascendente, ovario post anthesin postice tantum accreto, stylo primum terminali demum fere basilari.

22? **Dilobeia,** *Thou. Nov. Gen. Madag.* 7.—Flores dioici? regulares. Perianthium oblongo-cylindraceum, limbo vix latiore, segmentis demum solutis. Stamina prope basin segmentorum affixa, filamentis planis; antheræ oblongæ, connectivo breviter mucronatæ. Ovarium in fl. ♂ effœtum; stylus lineari-compressus. Fl. ♀ . . . Fructus . . . —Arbor. Folia alterna, petiolata, ampla, alte 2-loba, costa inter lobos in glandulam producta. Flores parvi, spicati, in quaque bractea solitarii, spicis in axillis superioribus ample paniculatis.

Species 1, Madagascariensis. *Baill. Adansonia* ix. 243. Ex exemplare in herb. Mus. Par. servato

a Baillono examinato affinis videtur *Beaupreæ*, sed flores fere omnes jam delapsi, et ovario fructuque ignotis locus in systemate valde incertus.

23. **Cenarrhenes,** *Labill. Pl. Nov. Holl.* i. 36, *t.* 50.—Flores hermaphroditi, regulares. Perianthium in alabastro ovoideum v. oblongo-cylindraceum, rectum, obtusum v. acuminatum, limbo vix latiore, segmentis per anthesin solutis patentibus. Stamina prope basin segmentorum affixa, filamentis tenuibus v. latis; antheræ oblongæ, connectivo acuminatæ v. muticæ. Squamæ hypogynæ 4, glanduliformes v. obovatæ. Ovarium sessile; stylus filiformis, apice vix incrassatus, stigmate terminali parvo v. stylo latiore; ovulum 1, pendulum, orthotropum. Drupa oblique ovoidea v. globosa, sæpius compressa styli cicatrice terminata, exocarpio succoso, endocarpio duro indehiscente.—Frutices v. arbores. Folia alterna, coriacea, siccitate nigricantia, integerrima grosse dentata v. pinnatifida. Flores spicati, parvuli, sub quaque bractea solitarii, spicis laxis sæpe elongatis axillaribus simplicibusque.

Species 1, Tasmanica, *Benth. Fl. Austral.* v. 380. Species Novo-Caledonicæ a Brongn. et Gris in Ann. Sc. Nat. ser. 5, iii. 203 descriptæ ab auctoribus ipsis serius rite exclusæ, *C. spathulæfolia* ad *Garnieriam*, *C. paniculata* ad *Beaupream* relatis.

24. **Garnieria,** *Brongn. et Gris in Bull. Soc. Bot. Fr.* xviii. 189, *in Ann. Sc. Nat. ser.* 5, xiii. 370, *et in Nouv. Arch. Mus. Par.* vii. *t.* 18.—Flores hermaphroditi, regulares? Perianthium . . . Stamina . . . Squamæ hypogynæ 4, parvæ, lineares, distantes. Ovarium subsessile, carnosum, in stylum brevem attenuatum, stigmate terminali truncato; ovula ∞, apice affixa, orthotropa, 2-seriatim horizontalia v. pendula. Fructus sessilis, durissimus, indehiscens, oblique orbicularis, compressus, endocarpio intus inter semina producto in locellos plures divisus. Semina in loculis solitaria, abortu pauca, deorsum producta in alam membranaceam.—Frutex ramulis novellis inflorescentiaque ferrugineo-pubescentibus, cæterum glaber. Folia sparsa, anguste spathulata, integerrima, coriacea. Flores laxe spicati, sub quaque bractea solitarii, sessiles, spicis axillaribus brevibus simplicibus v. subramosis.

Species 1, Novo-Caledonica, inter *Persoonieas* ovulis ∞ insignis.

25. **Persoonia,** *Sm. in Trans. Linn. Soc.* iv. 215; *Exot. Bot. t.* 83. (Linkia, *Cav. Ic.* iv. 61, *t.* 389. Pentadactylon, *Gærtn. f. Fruct.* iii. 219, *t.* 220.)—Flores hermaphroditi, regulares. Perianthium cylindraceum v. supra basin constrictum, rectum, segmentis per anthesin a basi solutis v. ima basi cohærentibus superne revolutis, laminis vix latioribus. Stamina infra medium segmentorum affixa, filamentis brevibus; antheræ oblongæ v. lineares, connectivo ultra loculos producto apiculatæ v. nudæ, una rarissime effœta. Squamulæ v. glandulæ hypogynæ 4, sæpius parvæ. Ovarium breviter v. longiuscule stipitatum; stylus brevis crassusque v. elongatus et tenuis, stigmate terminali; ovula 2 v. rarius 1, ab apice loculi pendula, orthotropa, funiculis inæqualibus vix collateralia. Drupa 1-locularis 1-sperma, v. oblique 2-locularis 2-sperma, exocarpio succoso, endocarpio crasso durissimo.—Frutices v. arbusculæ. Folia integerrima, alterna v. hinc inde subverticillata. Flores parvuli v. mediocres, flavi v. albi, ad axillas solitarii v. foliis floralibus abortivis ad apices ramorum breviter racemosi, rarius in racemos terminales secundos dispositi.

Species 60, una Novo-Zelandica, cæteræ omnes Australianæ. *Benth. Fl. Austral.* v. 380. *Hook. f. Handb. N. Zeal. Fl.* 241. *F. Muell. Fragm. Phytogr. Austral.* x. 46.

Genus in sectiones sequentes dividitur:—

1. *Pycnostylis*, Meissn. Stylus brevis, sæpe ovario non tenuior, incurvus v. apice hamatus, stigmate in cavernula segmenti superioris infra antheram immerso.

2. *Acranthera.* Stylus ultra antheras productus, stigmate terminali recto. Antheræ connectivo appendiculatæ.—*Hook. Ic. Pl. t.* 425.

3. *Amblyanthera.* Stylus ultra antheras productus, stigmate terminali recto. Antherarum connectivum ultra loculos non productum. *Rudge in Trans. Linn. Soc.* x. *t.* 16. *Labill. Pl. Nov. Holl. t.*

45. *Vent. Jard. Malm. t.* 32. *Hook. Ic. Pl. t.* 426. *F. Muell. Pl. Vict. t.* 69. *Andr. Bot. Rep. t.* 74, 280. *Bot. Mag. t.* 760. *Lodd. Bot. Cab. t.* 25, 327, 922, 1199, 1509.

26. **Brabeium,** *Linn. Gen. n.* 160. (Brabyla, *Linn. Mant.* 137.)—Flores abortu polygami, regulares. Perianthium angustum, rectum, segmentis per anthesin a basi solutis laminis vix dilatatis. Stamina basi segmentorum affixa, iis parum breviora, filamentis filiformibus; antheræ oblongæ, connectivo obtuso vix apiculatæ. Discus hypogynus membranaceus, breviter cupulatus. Ovarium sessile, villosum; stylus superne etiam in fl. ♂ leviter incrassatus sulcatusque, stigmate in fl. ☿ parvo terminali; ovula 2 v. 1, ab apice loculi pendula, orthotropa. Drupa ovoidea, subcompressa, dense velutina, exocarpio suberoso, endocarpio lignoso. Semen abortu solitarium; cotyledones crassissimæ, duræ.—Arbor. Folia verticillata, coriacea, indivisa, dentata. Flores parvi, racemosi, secus rhachin fasciculati, breviter pedicellati, racemis axillaribus densis spiciformibus. Bracteæ ante anthesin pluriseriatim imbricatæ, per anthesin deciduæ.

Species 1, Africæ australis incola. *Meissn. in DC. Prod.* xiv. 344. *Lam. Illustr. t.* 847. *Gærtn. f. Fruct.* iii. *t.* 217.

TRIBUS V. GREVILLEEÆ.

27. **Panopsis,** *Salisb. in Knight, Prot.* 104. (Andriapetalum, *Pohl, Pl. Bras. Ic.* i. 113, *t.* 91, 92.)—Flores hermaphroditi, regulares. Perianthium cylindraceum, tenue, rectum, limbo parvo subgloboso, segmentis per anthesin solutis superne revolutis. Stamina infra medium segmentorum affixa, filamentis sæpius complanatis; antheræ oblongæ, connectivo apiculatæ. Squamulæ hypogynæ 4, tenuissime membranaceæ, basi v. fere ad apicem in cupulam connatæ. Ovarium subsessile, hirtum; styli apex sæpius incrassatus, oblongus, sulcatus, stigmate parvo terminali v. majore obliquo; ovula 2, collateralia, ab apice loculi pendula, orthotropa. Fructus ovoideus v. subglobosus, indehiscens (v. tardius bipartibilis?), pericarpio crasso suberoso sæpius exsucco. Semen abortu solitarium, globosum v. oblongum, exalatum.—Arbores. Folia alterna v. subverticillata, integerrima, coriacea, venosa. Flores geminatim v. fasciculatim pedicellati, in racemos axillares terminalesve dispositi. Bracteæ minutæ v. 0.

Species editæ 8, Americæ australis tropicæ incolæ. *Meissn. in DC. Prod.* xiv. 345 (*Andriapetalum*). *H. B. et K. Nov. Gen. et Sp. t.* 121 (*Rhopala*). *Rudge, Pl. Gui t.* 31 (*Ropala*). Genus characteribus *Persoonieis* accedit, habitu et inflorescentia *Roupalæ* propinquius.

28. **Euplassa,** *Salisb. in Knight, Prot.* 101. (Adenostephanus, *Klotzsch in Linnæa,* xv. 51. Dicneckeria, *Vell. Fl. Flum.* 41; *Ic.* i. t. 105.)—Flores hermaphroditi, parum irregulares. Perianthii tubus obliquus, basi parum dilatatus; limbus parvus, subglobosus, rectus v. recurvus, segmentis per anthesin solutis, laminis concavis. Antheræ in laminis subsessiles, ovatæ v. oblongæ, connectivo latiusculo ultra loculos distinctos breviter producto. Glandulæ hypogynæ 4, stipiti brevi ovarii adnatæ, æquales v. posticæ paullo majores. Ovarium villosulum; styli apex incurvo-clavatus, stigmate terminali obliquo; ovula 2, collateralia, pendula, summo vertice v. juxta apicem affixa; orthotropa. Fructus (ubi notus) oblique subglobosus, compressiusculus, indehiscens (v. tardius hinc fissus?), pericarpio carnoso. Semina 2, suborbicularia, compressa, exalata, pendula.—Arbores. Folia alterna, ampla, pinnata, foliolis petiolulatis coriaceis integerrimis v. dentatis. Flores geminatim pedicellati, in racemos axillares v. ad apices ramorum paniculatos dispositi. Bracteæ minutæ v. 0.

Species editæ 8, Guianæ et Brasiliæ incolæ. *Meissn. in DC. Prod.* xiv. 436, *et in Mart. Fl. Bras* v. i. 92, *t.* 34 *ad* 36 (*Adenostephanus*). *Rudge, Pl. Gui. t.* 38 (*Ropala*). *Pohl, Fl. Bras. Ic. t.* 89 (*Rhopala*).

29. **Guevina,** *Molina ex Juss. Gen.* 424. (Quadria, *Ruiz et Pav. Fl. Per. et Chil. Prod.* 16, *t.* 33; *et Fl.* i. 63, *t.* 99.)—Flores hermaphroditi, subregulares. Perianthii tubus cylindraceus; limbus ovoideus, recurvus, segmentis per anthesin a basi solutis. Antheræ

in laminis concavis subsessiles, ovato-oblongæ, connectivo obtuso brevissime apiculatæ. Discus hypogynus unilateralis, semiannulatus, carnosus, breviter 2-lobus. Ovarium subsessile, angustum ; styli apex ovoideus subclavatus, stigmate terminali obliquo lato; ovula 2, ab apice loculi pendula, collateralia, orthotropa. Fructus ovoideo-globosus, indehiscens, pericarpio duro suberoso subcarnoso. Semen abortu sæpius unicum, subglobosum, testa subcrustacea.—Arbor. Folia alterna, imparipinnata, foliolis dentatis. Flores geminatim pedicellati, in racemos longiusculos axillares dispositi. Bracteæ minutæ caducæ v. 0.

Species 1, Chilensis. *Meissn. in DC. Prod.* xiv. 347. *Gærtn. f. Fruct.* iii. *t.* 220 (*Quadria*).

30. **Kermadecia,** *Brongn. et Gris in Ann. Sc. Nat. ser.* 5, i. 344, *et in Nouv. Arch. Mus. Par.* iv. *t.* 4.—Flores hermaphroditi, parum irregulares. Perianthii tubus obliquus, basi parum dilatatus ; limbus oblongus v. subglobosus, rectus v. leviter incurvus, segmentis per anthesin solutis, laminis concavis. Antheræ in laminis subsessiles, oblongæ, connectivo latiusculo breviter apiculatæ. Discus hypogynus unilateralis, semiannulatus, carnosus, integer v. breviter 2-lobus. Ovarium in receptaculo obliquo subsessile ; styli apex incrassatus v. subclavatus, stigmate terminali obliquo ; ovula 2, collateralia, ab apice loculi pendula, orthotropa. Fructus oblongus v. subglobosus, indehiscens, pericarpio crasso carnoso. Semina . . . .—Arbores. Folia alterna, coriacea, integerrima et indivisa v. in eadem arbore pinnata. Flores mediocres v. longiusculi, geminatim pedicellati, in racemos longos ad ramos vetustos solitarios v. plures paniculatos dispositi. Bracteæ minutæ caducissimæ v. 0.

Species l. c. enumeratæ 3, omnes Novo-Caledonicæ, quibus tamen nobis addendæ videntur *Adenostephanus austro-caledonicus*, Brongn. et Gris l. c., et *A. Bleasdali*, Benth. Fl. Austral. v. 417, ex Australia tropica orientali. Genus *Guevinæ* et *Euplassæ* (*Adenostephano*) valde affine, et forte melius pro sectione prioris habendum, differt floribus apice minus incurvis et receptaculo magis obliquo.

31. **Macadamia,** *F. Muell. in Trans. Phil. Inst. Vict.* ii. 72, *cum ic.*— Flores hermaphroditi, regulares v. subregulares. Perianthium rectum v. vix incurvum, tubo tenui hinc fisso, segmentis per anthesin solutis recurvis. Stamina paullo infra laminas affixa, filamentis brevibus ; antheræ oblongæ, connectivo in glandulam v. appendiculam brevem producto. Squamæ v. glandulæ hypogynæ 4, distinctæ v. in cupulam connatæ. Ovarium sessile ; stylus elongatus, rectus, apice ovoideus v. clavatus, stigmate terminali parvo ; ovula 2, sub apice lateraliter affixa, pendula. Drupa subglobosa, indehiscens, exocarpio carnoso, endocarpio crasso duro. Semen unicum globosum, v. 2 hemisphærica, cotyledonibus crassis inæqualibus.—Arbores v. frutices elatiores. Folia 3–4-natim verticillata, integra v. serrata. Flores parvi v. mediocres, geminatim pedicellati, in racemos simplices axillares v. terminales dispositi. Bracteæ parvæ, caducissimæ.

Species 2, Australiæ orientalis incolæ. *Benth. Fl. Austral.* v. 406, *excl. sp. n.* 3. Genus a Baillonio Adans. ix. 258 ad *Panopsin* (*Andriapetalum*) relatum cui certe characteribus pluribus accedit sed nobis satis distinctum videtur tam habitu et patria quam staminum insertione. *M. verticillata*, F. Muell., est, ex auctore in litt., verisimiliter *Brabejum stellatifolium*, stirps austro-Africana in horto Sydneyano culta; specimina nobis desunt et character in Flora Australiensi imprimis e schedis Muellerianis excerpta fuit, ovario non examinato.

32. **Roupala,** *Aubl. Pl. Gui.* i. 83, *t.* 32.—Flores hermaphroditi, regulares. Perianthium cylindraceum, rectiusculum, basi parum dilatatum, limbo vix latiore subgloboso oblongo v. elongato, segmentis per anthesin solutis revolutis. Stamina ad basin laminarum affixa, filamentis brevibus nunc brevissimis ; antheræ oblongo-lineares, loculis septo imperfecto separatis, connectivo angusto apice brevissime producto. Squamæ hypogynæ 4, æquales, distinctæ, planæ, obtusæ v. acutæ, rarius glanduliformes. Ovarium sessile ; styli apex clavatus, sulcatus, stigmate parvo terminali ; ovula 2, collateralia, ab apice loculi pendula, orthotropa. Capsula dura, oblique 2-valvis, breviter stipitata. Semina ubi nota compressa, ala lata undique cincta.—Arbores glabræ v. ferrugineo-tomentosæ. Folia alterna, coriacea, rigida, integerrima v. dentata, indivisa v. ramorum sterilium (arboris

junioris ?) pinnata. Flores geminatim pedicellati, in racemos axillares v. laterales dispositi. Bracteæ 0 (v. minutæ caducæ ?).

Species editæ ad 30, Americæ tropicæ incolæ, quoad distinctiones difficillimæ, foliis interdum in eadem arbore integerrimis dentatis pinnatisque. *Meissn. in DC. Prod.* xiv. 425, *et in Mart. Fl. Bras.* v. i. *t.* 31 *ad* 33 (ovulis errore erectis depictis). *Ruiz et Pav. Fl. Per. et Chil. t.* 98, 99 (*Embothrium*). *H. B. et K. Nov. Gen. et Sp. t.* 118 *ad* 120. *Rudge, Pl. Gui. t.* 39. *Moric. Pl. Nouv. Amer. t.* 100. *Pohl, Pl. Bras. Ic. t.* 86 *ad* 88, 90. *Bot. Mag. t.* 6095. His addiderunt *Brongn. et Gris in Ann. Sc. Nat. ser.* 5, i. 345 speciem Novo-Caledonicam, a nobis non visam, characteribus ex auct. omnino *Roupalæ*, alteramque (*l. c. ser.* 5, xiii. 373) ex specimine nostro ab Americanis paullo diversam, foliis maximis integris 3-lobisve et squamis hypogynis in cupulam vix lobatam connatis.

Auctores recentiores nomen Aubletianum varie scripserunt ROPALA, RUPALA et RHOPALA, sed derivatio valde incerta verisimiliter more Aubletiano ex nomine quodam vernaculo potius quam a ῥόπαλον, et orthographiam suam maluimus retinere.

33. **Lambertia,** *Sm. in Trans. Linn. Soc.* iv. 214, *t.* 20.—Flores hermaphroditi, regulares v. vix irregulares. Perianthii tubus elongatus, superne sæpe dilatatus et leviter incurvus, lobis angustis revolutis, 2 anticis sæpius altius solutis. Antheræ ad basin laminarum subsessiles, connectivo breviter apiculatæ. Squamæ hypogynæ 4, planæ, liberæ v. connatæ, rarius deficientes. Ovarium dense pilosum; stylus filiformis, superne interdum leviter incrassatus sulcatusque, stigmate parvo terminali v. postice breviter decurrente; ovula 2, pendula. Follicula sessilis, brevis, truncata, dura, margine inferiore sæpe in cornu producta, et valvulæ interdum angulo superiore cornutæ. Semina plana, anguste marginata.—Frutices. Folia 3–4-natim verticillata v. sub ramis vegetioribus sparsa, integra v. spinoso-dentata, venulis sæpe transversis. Flores longiusculi, rubri v. flavi, sessiles, solitarii v. septeni, bracteis coloratis imbricatis involucrati, involucris sessilibus terminalibus v. axillaribus.

Species 8, Australiæ extratropicæ imprimis occidentalis incolæ. *Benth. Fl. Austral.* v. 413. *Cav. Ic. t.* 547. *Andr. Bot. Rep. t.* 69. *Wendl. Sert. Hannov. t.* 21. *Field. Sert. Pl. t.* 22, 23. *Hook. Ic. Pl. t.* 553. *Bot. Reg. t.* 528. *Lodd. Bot. Cab. t.* 80.

34. **Xylomelum,** *Sm. in Trans. Linn. Soc.* iv. 214.—Flores hermaphroditi v. polygami, regulares. Perianthium tenuiter cylindraceum, limbo ovoideo recto, segmentis per anthesin solutis superne revolutis. Stamina paullo infra laminas affixa, filamentis brevibus; antheræ ovatæ, connectivo ultra loculos in appendiculam obtusam v. glanduliformem producto. Glandulæ hypogynæ 4, parvæ. Ovarium in floribus perfectis subsessile v. breviter stipitatum; stylus filiformis, apice clavatus, stigmate nunc terminali parvo nunc magno pulviniformi; in floribus sterilibus stylus apice clavatus stigmate non evoluto; ovula 2, collateralia, infra medium lateraliter affixa, amphitropa. Fructus magnus, ovoideus v. apice attenuatus, crassus, lignosus, diu indehiscens, demum (an semper ?) uno latere v. in valvas 2 dehiscens. Semen abortu sæpius unicum, erectum, samaroideum, nucleo compresso oblique ovato superne in alam membranaceam oblongam producto, raphe tenui nunc alam undique marginante nunc inconspicua.—Arbores v. frutices elatiores. Folia opposita, indivisa, integerrima v. spinoso-dentata. Flores mediocres, sub quaque bractea per paria sessiles, dense spicati, inferiores sæpius perfecti, superiores steriles, spicis oppositis axillaribus v. in fasciculo terminali demum laterali congestis. Bracteæ parvæ, in spica juniore imbricatæ, per anthesin deciduæ.

Species 4, omnes Australianæ. *Benth. Fl. Austral.* v. 407. *Gærtn. Fruct. t.* 47 (*Banksia*). *Wils. in White Voy. t.* 21 (*Banksia*). *Cav. Ic. t.* 536 (*Hakea*). *Endl. Iconogr. t.* 47, 48. *Reichb. Iconogr. Exot. t.* 90. *Hook. Ic. Pl. t.* 446.

35. **Helicia,** *Lour. Fl. Cochinch.* 83. (Helittophyllum, *Bl. Bijdr.* 652. Castronia, *Noronh. ex Miq.*)—Flores hermaphroditi, regulares. Perianthii tubus tenuis, limbo vix latiore recto ovato v. oblongo, segmentis per anthesin solutis revolutis. Antheræ filamentis brevibus paullo infra laminam affixæ, oblongæ, connectivo breviter appendiculatæ. Glandulæ hypogynæ 4, distinctæ v. in discum annularem v. cupulatum connatæ. Ovarium sessile; stylus elongatus, rectus, apice parum incrassatus, stigmate terminali;

ovula 2, basi v. lateraliter infra medium affixa, ascendentia. Fructus subglobosus, durus, indehiscens. Semina solitaria subglobosa v. 2 hemisphærica, testa rugosa v. venosa.—Arbores v. frutices elatiores. Folia alterna, integerrima v. dentata. Flores mediocres v. longiusculi, geminatim pedicellati, racemosi, racemis simplicibus terminalibus axillaribusve. Bracteæ parvæ, caducissimæ v. 0.

Species ad 25, Asiæ tropicæ et Australiæ incolæ. *Meissn. in DC. Prod.* xiv. 438. *Miq. in Ann. Mus. Lugd. Bat.* i. 204. *Benn. Pl. Jav. Rar. t.* 18. *Wight, Ic. t.* 190, 191 (*Rhopala*). *Bedd. Fl. Sylv. t.* 301.

36. **Orites**, *R. Br. in Trans. Linn. Soc.* x. 189.—Flores hermaphroditi, regulares. Perianthium cylindraceum, rectum, limbo parum incrassato, segmentis per anthesin sæpius a basi solutis. Antheræ filamentis brevibus infra laminas affixæ, oblongæ, connectivo angusto v. inconspicuo ultra loculos haud producto. Glandulæ hypogynæ 4, lineares, obtusæ. Ovarium sessile; stylus rectus, apice obtuso parum mucronato hinc sulcato, stigmate parvo terminali; ovula 2, lateraliter medium versus affixa, amphitropa. Fructus follicularis, obliquus, coriaceus, margine dorsali curvo dehiscens. Semina 1 v. 2, samaroidea, compressa, ala terminali obliqua v. falcata ad margines sæpe anguste decurrente.—Frutices v. arbores. Folia sparsa, integra dentata v. rarius hinc inde lobata. Flores parvuli, geminatim pedicellati v. subsessiles, dense racemosi, racemis axillaribus terminalibusve. Bracteæ concavæ, in inflorescentia juniore imbricatæ, longe ante anthesin caducæ.

Species 7, quarum 6 Australianæ montanæ. *Benth. Fl. Austral.* v. 410. *A. Rich. Sert. Astrol. t.* 25. *F. Muell. Pl. Vict. t.* 72 (*ined.* ?). His addenda *Rhopala myrtoidea*, Pœpp. et Endl. Nov. Gen. et Sp. ii. 35, t. 149 (*Lomatia chilensis*, C. Gay, Fl. Chil. v. 310; PATAGUA, Pœpp. ex Baill. Adans. x. 49) species e montibus Chilensibus formis integrifoliis *P. diversifoliæ*, Br. simillima, et characteres exhibens omnino *Oritis*.

ORITINA, *R. Br. in Trans. Linn. Soc.* x. 224, ab auctore ipso *Prot. Nov.* 32 ad *Oritem* reducta fuit.

37. **Grevillea**, *R. Br. in Trans. Linn. Soc.* x. 167.—Flores hermaphroditi, regulares v. irregulares. Perianthii tubus tenuis rectusque, v. basi dilatatus et sub limbo recurvus v. revolutus, per anthesin latere inferiore sæpissime fissus; limbus obliquus, laminis per anthesin diu cohærentibus. Antheræ in laminis cavis sessiles, ovatæ v. oblongæ, connectivo ultra loculos non producto. Discus hypogynus carnosus, unilateralis, semiannularis v. rarius perfecte annularis v. deficiens. Ovarium stipitatum v. subsessile; stylus sæpius elongatus et e fissura tubi protrusus, superne diu intra laminas cohærentes retentus, demum liberatus et sæpius correctus, interdum ab initio rectus brevis fusiformis; apex stigmatifer sæpissime incrassatus, nunc obliquus in discum lateralem dilatatus stigmate in medio disco parvo, nunc rectior conoideus stigmate terminali; ovula 2, collateralia, lateraliter affixa, amphitropa. Fructus sæpius follicularis, latere exteriore valde curvo dehiscens, rarius lignosus sub-2-valvis. Semina 2 v. abortu 1, plano-compressa, orbicularia v. oblonga, in alam membranaceam circumcirca v. apice solo v. latere exteriore tantum expansa, v. rarius exalata.—Arbores fruticesve. Folia alterna v. sparsa, heteromorpha. Flores geminatim pedicellati, racemosi, racemis terminalibus v. simul axillaribus, sæpius sessilibus elongatis, v. rarius paucifloris fere in umbellam contractis. Pubes dum adsit sæpius e pilis appressis medifixisque v. si erectis basi furcatis.

Species ultra 160, quarum 7 Novo-Caledonicæ. *Brongn. et Gris in Ann. Sc. Nat. ser.* 5, iii. 199. *J. D. Hook. in Hook. Kew Journ.* vii. *t.* 1. Cæteræ omnes Australianæ. *Benth. Fl. Austral.* v. 418. *F. Muell. Fragm. Phyt. Austral.* iv. *t.* 32, ix. 3, 123, x. 44. *Sm. Specim. Bot. N. Holl. t.* 9, 10 (*Embothrium*). *Cav. Ic. t.* 386, 387 (*Embothrium*). *Andr. Bot. Rep. t.* 100, 218, 272 (*Embothrium*). *Bauer, Illustr. t.* 9. *Sweet, Fl. Austral. t.* 7, 30, 38, 55. *Guillem. Ic. Pl. Austral. t.* 8, 11, 16. *Gaudich. in Freyc. Voy. Bot. t.* 46. *Endl. Iconogr. t.* 33. *F. Muell. Pl. Vict. t.* 71. *Hook. Exot. Fl. t.* 216. *Reichb. Iconogr. Exot. t.* 104, 105; *Ic. et Descr. Pl. t.* 76. *Bot. Mag. t.* 2661, 2807, 3133, 3184, 3185, 3285, 3798, 5007, 5837, 5870, 5915, 5919, 5971, 5979, 6105. *Bot. Reg. t.* 443, 1039, 1319, 1383. *Paxt. Fl. Gard. t.* 56. *Lemaire, Illustr. Hortic. t.* 61. *Lodd. Bot. Cab. t.* 50, 857, 858, 880, 1003, 1153, 1229, 1357, 1479, 1562, 1723. *Maund, Botanist, t.* 153.

Genus vastum pulcherrimum et polymorphum, in sectiones distinctas tamen difficillime dividendum. Primo aspectu formæ tres distinctæ observantur, a Meissnero in DC. Prod. xiv. 349 et seqq. pro subgeneribus definitæ: 1. *Eugrevillea*, perianthio valde incurvo, styli apice stigmatifero in discum obliquum v. lateralem dilatato; 2. *Conogyne*, perianthio recto, styli apice conoideo vertice stigmatifero; et 3. *Manglesia*, stylo brevi recto infra conum stigmatiferum fusiformi, sed species sæpe intermediæ et varie commixtæ occurrunt; in Fl. Austral. species in sectiones 11 distribuuntur, imprimis ad inflorescentiam et perianthii formam. Genera sequentia a variis auctoribus proposita a Meissnero v. in Fl. Austral. rite ad *Grevilleam* revocata sunt.

Stylurus et Lysanthe, *Salisb. in Knight, Prot.* 115, 116, vix nisi foliis parvis integerrimis a *Grevilleis* typicis disco stigmatifero laterali differunt. Molloya, *Meissn. in DC. Prod.* xiv. 348, et Strangea, *Meissn. in Hook. Kew Journ.* vii. 66, genera monotypica inter se valde affinia, et in unum sub nomine *Strangeæ* juncta a F. Muell. Fragm. Phyt. Austr. vii. 131, insignia sunt seminum integumento exteriore (testa) membranaceo a nucleo magis soluto quam in cæteris speciebus hucusque observatis, sed characteres cæteri omnino *Grevilleæ*. Anadenia, *R. Br. in Trans. Linn. Soc.* x. 166, includit species plures disco hypogyno vix conspicuo v. obsoleto, nunc in diversas sectiones distributas. Manglesia, *Endl. Nov. Stirp. Dec.* 25; *Hook. Ic. Pl. t.* 337 (*Anadenia*), includit species plures stylo infra conum stigmatiferum brevi fusiformi, sed mediante *G. acrobotrya*, Meissn., arcte cum cæteris sectionibus connectitur.

38. **Hakea**, *Schrad. Sert. Hannov.* 27, *t.* 17. (Conchium, *Sm. in Trans. Linn. Soc.* iv. 215.)—Flores hermaphroditi, irregulares v. rarius regulares. Perianthii tubus revolutus v. sub limbo recurvus, rarius rectus, per anthesin hinc sæpius fissus; limbus globosus v. ovoideus sæpe obliquus, segmentis mox basi solutis, laminis diutius cohærentibus. Antheræ in laminis cavis sessiles, ovatæ v. oblongæ, connectivo ultra loculos non producto. Discus hypogynus carnosus, unilateralis, semiannularis, interdum minimus. Ovarium stipitatum, stipite tamen sæpius brevi; stylus nunc ut in *Grevillea* elongatus e fissura tubi protrusus superneque intra laminas cohærentes retentus, nunc rectus perianthio brevior; apex stigmatifer incrassatus, nunc obliquus in discum lateralem dilatatus stigmate in medio disco parvo, nunc rectus conoideus stigmate terminali; ovula 2, collateralia, lateraliter affixa, amphitropa. Fructus capsularis, durus, sæpius lignosus, apice 2-valvatim dehiscens. Semina 2 v. abortu solitaria, collateralia, compressa, facie interiore plana, exteriore sæpius rugosa v. muricata, apice in alam oblongam membranaceam nucleo longiorem et ad margines sæpe decurrentem producta, raphe alam sæpius cingente v. hinc inde leviter intrusa.—Frutices v. rarius arbusculæ. Folia alterna, heteromorpha, coriacea, rigida, teretia v. plana, integra dentata v. varie dissecta. Flores geminatim pedicellati, breviter racemosi v. fasciculati, rarius longius racemosi, racemis fasciculisve in axillis sessilibus v. rarius terminalibus. Pubes dum adsit sæpius e pilis appressis medifixis ut in *Grevillea*.

Species enumeratæ 95, omnes Australienses. *Benth. Fl. Austral.* v. 490. *Gærtn. f. Fruct. t.* 219 (*Conchium*). *F. Muell. Fragm. Phyt. Austral.* x. 90.

Genus naturale, *Grevilleæ* valde affine et charactere nullo definito constanter diversum, etsi species utriusque generis pro maxima parte habitu inflorescentia fructu et seminibus facillime distinguuntur. In sectiones sequentes dividitur:—

1. *Grevilleoides.* Racemi sæpe longiusculi, exinvolucrati. Perianthium revolutum. Discus stigmatifer ad apicem styli obliquus v. lateralis.

2. *Euhakea.* Florum fasciculi sessiles, ante anthesin squamis imbricatis involucrati. Perianthium saltem sub limbo revolutum. Discus stigmatifer ad apicem styli obliquus v. lateralis. *Sm. in White Voy. t.* 22, *f.* 2 (*Banksia ex fructu solo*). *Labill. Pl. Nov. Holl. t.* 39 *ad* 41. *Cav. Ic. t.* 533, 534. *Sweet, Fl. Austral. t.* 27, 43. *Vent. Jard. Malm. t.* 111 (*Conchium*); *Jard. Cels. t.* 8 (*Embothrium*). *Ten. Fl. Nap. t.* 6. *Endl. Iconogr. t.* 24. *Reichb. Ic. et Descr. Pl. t.* 23, 24. *Hook. Ic. Pl. t.* 433, 434, 439, 442, 443. *Andr. Bot. Rep. t.* 215 (*Embothrium*). *Bot. Reg. t.* 475, 1489. *Lodd. Bot. Cab. t.* 219, 353, 1682.

3. *Conogynoides.* Florum fasciculi, rarius racemi, ante anthesin squamis imbricatis involucrati. Perianthium sub limbo revolutum. Stylus cono erecto v. vix obliquo vertice stigmatifero terminatus. *Sweet, Fl. Austral. t.* 45. *Vent. Jard. Malm. t.* 110 (*Conchium*). *Cav. Ic. t.* 535. *Hook. Ic. Pl. t*

432, 435, 437, 441, 444, 445, 447. Bot. Mag. t. 2579, 3424, 3760, 4528, 4643, 4644, *ultimæ in Lem. Jard. Fleur. t.* 45, 272, 376 *repetitæ. Lodd. Bot. Cab. t.* 1501, 1750.

4. *Manglesioides.* Florum fasciculi v. racemi breves, ante anthesin squamis imbricatis involucrati. Perianthium rectum. Stylus cono erecto vertice stigmatifero terminatum. *Colla, Hort. Ripul. App.* ii. *t.* 11. *Bot. Mag. t.* 2246. MERCKLINIA, *Regel, Gartenzeit.* 1857, 155.

39. **Carnarvonia,** *F. Muell. Fragm. Phytogr. Austral.* vi. 80, *t.* 55, 56.—Flores hermaphroditi, regulares. Perianthii tubus cylindraceus, limbo vix latiore, segmentis per anthesin fere a basi solutis apice recurvis. Antheræ lineares, infra medium perianthii sessiles, connectivo breviter apiculatæ. Squamæ hypogynæ 0. Ovarium sessile v. subsessile, in stylum erectum attenuatum, stigmate parvo terminali ; ovula 2, infra medium lateraliter affixa. Follicula dura, incurva. Semina compressa, samaroidea, superne in alam membranaceam producta, raphe hinc marginali sub apice refracta in media ala oblique usque ad hilum descendente.—Arbor. Folia alterna, coriacea, varie composita, foliolis latis. Flores parvi, racemosi, secus rhachin irregulariter sparsi, racemis axillaribus simplicibus ramosisve. Bracteæ angustæ, parvæ.

Species 1, Australiæ tropicæ orientalis incola. *Benth. Fl. Austral.* v. 410.

40. **Buckinghamia,** *F. Muell. Fragm. Phytogr. Austral.* vi. 248.—Flores hermaphroditi, irregulares. Perianthii tubus tenuis, sub limbo globoso revolutus, segmentis per anthesin solutis. Antheræ in laminis cavis sessiles, connectivo ultra loculos haud producto. Squamæ hypogynæ in glandulam unilateralem semiannulatam truncatam crenulatam connatæ. Ovarium breviter stipitatum ; stylus filiformis, apice in discum obliquum fere lateralem dilatatus, stigmate in medio disco parvo ; ovula 4, collateralia, amphitropa, medio lateraliter affixa. Follicula compressa. Semina plano-compressa, tenuia, margine angusto aliformi cincta.—Arbor. Folia alterna, integra, pennivenia. Flores parvi, geminatim pedicellati, racemosi, racemis terminalibus. Bracteæ 0 v. caducissimæ.

Species 1, Australiæ tropicæ orientalis incola. *Benth. Fl. Austral.* v. 532.

41. **Darlingia,** *F. Muell. Fragm. Phytogr. Austral.* v. 152.—Flores hermaphroditi, regulares. Perianthii tubus tenuis, limbus globosus, erectus. Antheræ in laminis concavis sessiles, connectivo ultra loculos in glandulam minutam producto. Squamæ v. glandulæ hypogynæ 4, globosæ, distinctæ. Ovarium sessile ; stylus filiformis, apice ovoideo-fusiformis, stigmate parvo terminali ; ovula 4, collateralia, amphitropa, medio lateraliter affixa. Follicula compressa. Semina plano-compressa, tenuia, margine aliformi cincta. —Arbor. Folia alterna, integra v. pinnatifida, pennivenia. Flores per paria sessiles, interrupte spicati, spicis ad apices ramorum paniculatis. Bracteæ 0 v. minutæ caducissimæ.

Species 1, Australiæ tropicæ occidentalis incola. *Benth. Fl. Austral.* v. 533. Genus vix magis a *Buckinghamia* differt quam sectiones *Grevilleæ* inter se.

TRIBUS VI. EMBOTHRIEÆ.

42. **Cardwellia,** *F. Muell. Fragm. Phytogr. Austral.* v. 23.—Flores hermaphroditi, subirregulares. Perianthii tubus hinc fissus, sub limbo oblique globoso attenuatus recurvusque. Antheræ in laminis concavis sessiles, ovatæ. Squamæ v. glandulæ hypogynæ 4, distinctæ. Ovarium in stipitem brevem contractum ; stylus elongatus, apice in discum lateralem dilatatus, stigmate in medio disco ; ovula ∞, juxta apicem lateraliter affixa, 2-seriatim deorsum imbricata. Fructus crassus, lignosus, demum late folliculatim dehiscens. Semina plano-compressa, oblonga, margine aliformi cincta, seriebus basi transversim continuis.—Arbor. Folia alterna, abrupte pinnata. Flores brevissime per paria pedicellati, racemosi, racemis ad apices ramorum paniculatis. Bracteæ 0 v. caducissimæ.

Species 1, Australiæ tropicæ orientalis incola. *Benth. Fl. Austral.* v. 538, *et in Hook. Ic. Pl. t.* 1275.

43. **Stenocarpus,** *R. Br. in Trans. Linn. Soc.* x. 201. (Cybele, *Salisb. in Knight, Prot.* 123. Agnostus, *A. Cunn. in Loud. Hort. Brit.* 580.)—Flores hermaphroditi, parum

irregulares. Perianthii tubus elongatus, per anthesin hinc fissus, limbo subgloboso recurvo, segmentis demum a basi solutis. Antheræ in laminis concavis sessiles, late ovatæ, connectivo ultra loculos non producto. Discus hypogynus breviter cupulatus v. fere obsoletus. Ovarium stipitatum ; stylus elongatus, apice in discum obliquum medio stigmatiferum dilatatus ; ovula ∞, sub apice lateraliter affixa, deorsum 2-seriatim imbricata. Folliculus stipitatus, coriaceus, sæpius angustus. Semina deorsum producta in alam membranaceam.—Arbores. Folia alterna v. sparsa, integra v. alte pinnatifida, segmentis paucis. Flores flavi v. rubri, umbellati, umbellis ad apices ramorum v. in summis axillis pedunculatis solitariis v. pluribus breviter racemosis v. umbellatis. Bracteæ parvæ caducissimæ v. 0.

Species 14, quarum 11 Novo-Caledonicæ, 3 Australianæ. *Brongn. et Gris in Ann. Sc. Nat. ser.* 5, iii. 204. *Benth. Fl. Austral.* v. 539. *Labill. Sert. Austr. Caled. t.* 26. *Hook. Kew Journ.* vii. *t.* 2 (*Lomatia*). *Colla, Hort. Ripul. App.* i. *t.* 3 (*Hakea*). *Bot. Mag. t.* 4263, *ic. in Fl. des Serres, t.* 189 *repetita. Bot. Reg. t.* 441.

44. **Lomatia,** *R. Br. in Trans. Linn. Soc.* x. 199. (Tricondylus, *Salisb. in Knight, Prot.* 121.)—Flores hermaphroditi, parum irregulares. Perianthii tubus obliquus, postice fissus, superne angustior ; limbus ovoideo-globosus, recurvus, segmentis demum solutis, laminis tamen diu cohærentibus. Antheræ in laminis concavis sessiles, ovatæ. Glandulæ hypogynæ 3, latæ, truncatæ, ovarium semicingentes, quarto postico deficiente. Ovarium longe stipitatum ; styli apex obliquus, in discum sublateralem dilatatus, stigmate in medio disco parvo ; ovula ∞, ascendentia, 2-seriatim imbricata. Folliculus stipitatus, coriaceus, demum expansus subplanus. Semina sursum imbricata, samaroidea, ala terminali oblonga truncata undique raphe marginali rarius hinc inde intrusa cincta, et rarius ala angusta ad latera v. basin seminis.—Arbores fruticesve. Folia alterna v. rarius opposita, indivisa v. dissecta. Flores geminatim pedicellati, racemosi, racemis brevissimis v. elongatis axillaribus terminalibusve. Bracteæ parvæ caducissimæ v. 0. Cotyledones in seminibus examinatis profunde cordatæ, radicula in sinu retracta.

Species 9, quarum 3 Chilenses, 6 Australianæ. *Meissn. in DC. Prod.* xiv. 447. *Benth. Fl. Austral.* v. 536. *Ruiz et Pav. Fl. Per. et Chil. t.* 94, 97. *Cav. Ic. t.* 384, 385. *Labill. Pl. Nov. Holl. t.* 42, 43. *Sm. Specim. Bot. N. Holl. t.* 8. *Gærtn. f. Fruct. t.* 218 (*ic. præcedentes omnes sub Embothrio*). *Bot. Mag. t.* 1272, 4023, 4110. *Bot. Reg. t.* 442.

Endlicher, Gen. 342, species Chilenses distinxit seminibus utrinque alatis, sed nucleus etiam in his basi sæpe exalatus est. Cæterum *L. dentata* Br. et *L. obliqua* Br. e Chile distinguuntur racemis brevissime paucifloris. *L. ferruginea* Br., species pariter Chilensis, a Meissnero tamen cum Australianis associata, insignis est foliis plerisque oppositis verticillatisve bipinnatifidis, et perianthio brevi basi valde dilatata. Seminis nucleus basi interdum ut in speciebus cæteris Chilensibus anguste alatus, interdum ut in Australianis exalatus.

45. **Embothrium,** *Forst. Char. Gen.* 15, *t.* 8 *pro parte.*—Flores hermaphroditi, parum irregulares. Perianthii tubus cylindraceus, hinc fissus ; limbus ovoideus v. globosus, obliquus v. recurvus, segmentis per anthesin solutis. Antheræ in laminis concavis sessiles, ovatæ, connectivo ultra loculos non producto. Discus hypogynus unilateralis, semiannulatus, carnosus, integer v. obscure 2–3-lobus. Ovarium longe stipitatum, angustum ; styli apex oblongo-fusiformis v. oblique subdisciformis, stigmate parvo terminali v. in medio disco ; ovula ∞, ascendentia, 2-seriatim imbricata. Folliculus stipitatus, oblongus, coriaceus, sublignosus. Semina 2-seriatim sursum imbricata, plano-compressa, samaroidea, ala terminali oblonga, raphe hinc marginali sub apice refracta in media ala cum margine parallela v. obliqua usque ad hilum descendente.—Frutices v. arbusculæ. Folia sparsa, coriacea, integerrima. Flores geminatim pedicellati, dense racemosi, speciosi, racemis ad apices ramorum sessilibus brevibus v. demum elongatis. Bracteæ minutæ caducissimæ v. 0, rarius paucæ sub racemo majores, membranaceæ, coloratæ, subinvolucrantes, multo tamen minus conspicuæ quam in *Telopea*.

Species 4, Americæ australis extratropicæ v. Andinæ incolæ. In speciebus 2 typicis, *R. Br. in Trans. Linn. Soc.* x. 195 ; *Meissn. in DC. Prod.* xiv. 443 ; *Ruiz et Pav. Fl. Per. et Chil. t.* 96 ; *Cav.*

Ic. t. 65; *Bot. Mag. t.* 4856, receptaculum floris fere rectum, styli apex parum obliquus, oblongo-fusiformis, stigmate parvo terminali parum obliquo. Species 2, prioribus habitu simillimæ nisi inflorescentia laxiore, pro genere proprio a pluribus receptæ sunt: OREOCALLIS, *R. Br. in Trans. Linn. Soc.* x. 196; *Meissn. in DC. Prod.* xiv. 445, receptaculo valde obliquo, styli apice oblique ovali-oblongo fere in discum lateralem dilatato, stigmate in medio disco, sed cum Baillonio pro sectione tantum *Embothrii* habemus. *Ruiz et Pav. Fl. Per. et Chil. t.* 95. *Humb. et Bonpl. Pl. Æquinoct. t.* 139. His addidit F. Muell. Fragm. Phyt. Austral. viii. 164, speciem in montibus Australiæ tropicæ orientalis a W. Hill lectam, nobis ignotam.

46. **Telopea,** *R. Br. in Trans. Linn. Soc.* x. 197. (Hylogyne, *Salisb. in Knight, Prot.* 126.)—Flores hermaphroditi, parum irregulares. Perianthii tubus elongatus, basi latior, hinc fissus, superne cum limbo ovoideo recurvus, segmentis demum plus minus solutis. Antheræ in laminis concavis sessiles, ovatæ, connectivo ultra loculos non producto. Discus hypogynus carnosus, integer, valde obliquus sed fere perfecte annularis. Ovarium longe stipitatum, angustum; stylus elongatus, apice clavatus, stigmate obliquo; ovula ∞, ascendentia, 2-seriatim imbricata. Folliculus stipitatus, obliquus, coriaceus, recurvus. Semina 2-seriatim sursum imbricata, samaroidea, ala terminali oblonga recta v. obliqua, raphe hinc marginali, sub apice refracta, in media ala oblique usque ad hilum descendente.—Frutices elatiores. Folia alterna, integerrima v. dentata. Flores speciosi, rubri, geminatim pedicellati, dense racemosi, racemis terminalibus subglobosis v. ovoideis. Bracteæ exteriores vacuæ membranaceæ coloratæ inflorescentiam involucrantes, interiores sub florum paribus parvæ.

Species 2, Australienses. *Benth. Fl. Austral.* v. 534. *Labill. Pl. Nov. Holl. t.* 44. *Cav. Ic. t.* 388. *Sm. Specim. Bot. N. Holl. t.* 7. *Salisb. Parad. Lond. t.* 111. *Bot. Mag. t.* 1128 (*ic. omnes sub Embothrio*). Genus vix nisi involucro ab *Embothrio* distinctum, et forte melius (mediante *E. Wickhami*, F. Muell.?) illi adnexum.

47. **Knightia,** *R. Br. in Trans. Linn. Soc.* x. 193, *t.* 2. (Rymandra, *Salisb. in Knight, Prot.* 124.)—Flores hermaphroditi, regulares. Perianthium cylindraceum, limbo vix latiore, segmentis per anthesin solutis ultra medium revolutis. Antheræ in laminis sessiles, lineares, connectivo angusto ultra loculos haud producto. Glandulæ hypogynæ 4, æquales, distinctæ. Ovarium subsessile; styli apex lineari-clavatus, rectus v. basi obliquus, stigmate terminali parvo; ovula 4, a basi loculi collateraliter ascendentia, anatropa. Folliculi duri, sessiles, recti v. subfalcati. Semina samaroidea, ala terminali oblonga, raphe sub apice refracta in media ala obliqua usque ad hilum descendente.—Arbores et frutices. Folia sparsa, coriacea, integerrima v. grosse dentata. Flores geminatim pedicellati, in racemos densos sessiles axillares laterales v. terminales dispositi.

Species 3, quarum typica Novo-Zelandica racemis densis lateralibus ebracteatis, 2 Novo-Caledonicæ (sect. *Eucarpha*, Br.) racemis terminalibus axillaribusque, ante anthesin bracteis imbricatis coloratisque involucratis strobiliformibus; bracteæ tamen per anthesin deciduæ. Glandulæ hypogynæ in his multo majores quam in specie typica. *Hook. f. Handb. N. Zeal. Fl.* 241. *Brongn. et Gris in Ann. Sc. Nat. ser.* 5, iii. 208. *Labill. Pl. Nov. Holl.* ii. 116, *t.* 265, ubi stirps Novo-Caledonica errore etiam in Australia austro-occidentali crescere dicitur.

TRIBUS VII. BANKSIEÆ.

48. **Banksia,** *Linn. f. Suppl.* 15.—Flores hermaphroditi, regulares v. subregulares. Perianthii tubus tenuis, per anthesin hinc fissus v. segmentis omnibus solutis; limbus ovoideus oblongus v. linearis, laminis diu cohærentibus v. rarius cum tubi segmentis solvendis. Antheræ angustæ, in laminis cavis sessiles, connectivo crasso ultra loculos breviter producto. Squamæ hypogynæ 4, membranaceæ (v. rarius 0?). Ovarium parvum, sessile; stylus sæpius elongatus, e fissura tubi protrusus, superne diu intra laminas cohærentes retentus, demum liberatus et sæpius correctus, rarius perianthio brevior et ab initio rectus, apice stigmatifero striato v. sulcato continuo v. basi annulato, stigmate parvo terminali; ovula 2, amphitropa, medio collateraliter affixa. Capsula compressa, obliqua, superne latior, in valvas 2 lignosas dehiscens, styli cicatrice valde excentrico v.

laterali. Semina sæpius 2, compressa, in alam brevem latam rotundatam superne producta, et lamina ejusdem formæ simplici v. duplici separata.—Arbores v. frutices. Folia alterna v. rarius subverticillata, sæpius angusta, integra dentata v. pinnatifida, dentibus segmentisve numerosis brevibus, transversim venosa. Flores per paria sessiles, in spicas densas oblongas v. rarius globosas, terminales v. axillares, intra folia floralia sessiles conferti. Bracteæ cum bracteolis 2 minoribus margine dense lanato-villosæ, in seriebus parallelis spiralibus v. rarius rectis imbricatæ. Spica fructifera cum bracteis in strobilum crassum lignosum mutata, perianthiis marcescentibus capsulas obtegentibus, v. deciduis capsulis si perfectis e bracteis apice prominulis.

Species descriptæ 46, omnes Australianæ, pleræque extratropicæ. *Benth. Fl. Austral.* v. 542. In sectiones sequentes distribuuntur:—

1. *Oncostylis.* Stylus a perianthio demum solutus sed apice recurvo-hamatus nec incrassatus. Folia angusta, margine revoluta, subtus alba. *Sm. Specim. Bot. N. Holl. t.* 4. *Sweet, Fl. Austral. t.* 56. *Cav. Ic. t.* 537, 538. *Trattin. Thes. Bot. t.* 23, 24. *Reichb. Iconogr. Exot. t.* 81. *Hook. Exot. Fl. t.* 96. *Andr. Bot. Rep. t.* 156, 457. *Bot. Mag. t.* 738, 3060, 3535. *Bot. Reg. t.* 1363. *Paxt. Fl. Gard.* i. *t.* 35, *ic. in Fl. des Serres t.* 636, *et in Lem. Jard. Fleur. t.* 119 *repetita.*

2. *Cyrtostylis.* Stylus a perianthio demum solutus, arcuatus v. subrectus, apice incurvus nec hamatus nec incrassatus nec striatus. Folia plana v. undulata. *Labill. Voy. t.* 23. *Bot. Mag. t.* 3120. *Bot. Reg. t.* 1430, 1572.

3. *Eubanksia.* Stylus a perianthio demum solutus, rectus patens v. reflexus, apice tenuis nec striatus. Folia margine recurva v. revoluta, subtus alba. *Cav. Ic. t.* 541, 542, 544 *ad* 546. *Bot. Mag. t.* 1947, 2770. *Bot. Reg. t.* 697, 787. *Lodd. Bot. Cab. t.* 61, 241, 392.

4. *Orthostylis.* Stylus basi incurvus, superne rectus, erectus, apice stigmatifero conspicue angulato sulcato v. striato. Folia plana v. undulata. *Gærtn. Fruct. t.* 48. *Sm. in White Voy. t.* 18 *ad* 20. *Sweet, Fl. Austral. t.* 14. *Bauer, Illustr. t.* 3. *Cav. Ic. t.* 540, 543. *Bonpl. Jard. Malm. t.* 48. *Trattin. Thes. Bot. t.* 21, 22. *Wendl. Hort. Herrenh. t.* 8. *Andr. Bot. Rep. t.* 82, 258. *Bot. Mag. t.* 2406, 2671, 2803, 3052, 4906. *Bot. Reg. t.* 688, 1316, 1728.

5. *Isostylis.* Stylus cum perianthio ab initio rectus, apice tenui nec striato. Folia lata, undulata. Strobilus fructifer depresso-globosus.

Lamina membranacea simplex v. duplex inter semina in hoc genere et in *Dryandra* observata, constare videtur ex integumentis exterioribus seminum maturitate a semine solutis et inter se in laminam simplicem connatis v. omnino liberis.

49. **Dryandra,** *R. Br. in Trans. Linn. Soc.* x. 211, *t.* 3. (Josephia, *Salisb. in Knight, Prot.* 110.)—Flores hermaphroditi, regulares v. subregulares. Perianthii tubus tenuis, rectus; limbus oblongus v. linearis, segmentis per anthesin ad medium solutis apice revolutis v. rarius laminis diu cohærentibus. Antheræ in laminis cavis sessiles, connectivo crasso ultra loculos brevissime producto. Squamæ hypogynæ 4, angustæ, membranaceæ (v. rarius 0 ?). Ovarium parvum, sessile; stylus erectus, perianthio brevior v. rarius longior, primum arcuatus, demum laminis solutis correctus, apice stigmatifero lævi v. sulcato, stigmate parvo terminali; ovula 2, apice v. juxta apicem lateraliter affixa. Capsula compressa, apice rotundato in valvas 2 coriaceas v. lignosas dehiscens. Semina 2 v. abortu solitaria, compressa, apice in alam membranaceam late rotundatam producta, lamina membranacea simplici v. duplici separata, v. integumento exteriore haud soluto distincta.—Frutices sæpe humiles et prope basin florentes. Folia alterna, sæpius sinuata spinoso-dentata v. pinnatifida, dentibus segmentisve numerosis brevibus, subtus sæpe alba et transversim venosa. Flores per paria sub quaque bractea sessiles, dense capitati, capitulis terminalibus v. lateralibus squamis numerosis imbricatis involucratis et intra folia floralia sessilibus, receptaculo plano v. convexo villoso v. lanato. Bracteæ sub floribus anguste lineares v. paleaceæ, villosæ v. lanatæ, in medio capitulo interdum parvæ v. obsoletæ. Perianthia sæpius basi glabra, superne villosa. Ovarium semper villosum. Capsulæ superne sæpe glabratæ.

Species descriptæ 47, omnes ad Australiam occidentalem extratropicam limitatæ. *Benth. Fl. Austral.* v. 563. In sectiones sequentes distribuuntur:—

1. *Eudryandra.* Integumenta exteriora inter semina in laminam bifidam a seminibus liberam plus minus connata Involucri squamæ angustæ v. rarius latiusculæ. *Labill. Voy. t.* 24 (*Banksia*).

Sweet, Fl. Austral. t. 3, 53. *Planch. Hort. Donat. t.* 2. *Bot. Mag. t.* 1581, 1582, 3236, 4035, 4102, 4317, 4683 (*ic. in Lem. Jard. Fleur. t.* 226, *et Fl. des Serres t.* 728 *repetita*). *Bot. Reg. t.* 1455. HEMICLIDIA, *R. Br. Prot. Nov.* 46 est *D. falcata*, Br., ovulo altero abortivo demum in appendicem aliformem laminæ interseminalis mutato.

2. *Aphragmia.* Integumenta exteriora inter semina inter se libera v. facile solubilia, seminibus adhærentia v. soluta (lamina inter semina duplici v. 0). Involucra magna, squamis numerosis latis. *Bot. Mag. t.* 3063, 3500, 3513.

ORDO CXLV. **THYMELÆACEÆ.**

Lindl. Veg. Kingd. 530. Baill. Hist. Pl. vi. 100. DAPHNOIDEÆ, Endl. Gen. 329. AQUILARINEÆ, Endl. Gen. 332. Lindl. Veg. Kingd. 579.

Flores hermaphroditi v. abortu polygami v. dioici, regulares. *Perianthium* inferum, tubo cylindraceo basi sæpe circa ovarium latiore rarius urceolato ; lobi (v. limbi segmenta) 4 v. 5 imbricata per anthesin patentia, æqualia v. rarius 2 interiora paullo minora. *Squamæ* numero loborum æquales v. sæpius duplæ rarissime triplæ, intra tubum uniseriatim affixa ad faucem v. in medio tubo v. prope basin tubi v. in pluribus generibus 0. *Stamina* numero loborum æqualia v. dupla, in uno genere dimidio pauciora supra medium tubum v. ad faucem affixa, quæ lobis opposita sæpius altius quam quæ lobis alterna ; filamenta filiformia brevia sæpius brevissima, in paucis generibus antheris longiora. *Antheræ* erectæ v. dorso prope basin affixæ, 2-loculares, loculis parallelis in facie interiore connectivi latiusculi v. connectivo angustissimo v. inconspicuo contiguis, rima longitudinali dehiscentibus. *Discus* hypogynus annularis, cupularis, 4–5-squamatus v. 0. *Ovarium* sessile v. breviter stipitatum, integrum, 1-loculare v. (in trib. 2 et 3) 2-loculare. *Stylus* nunc brevis v. brevissimus, nunc filiformis elongatus, in ovario 1-loculari sæpius excentricus mox sublateralis, in ovario 2-loculari centralis ; stigma terminale, capitatum v. subdiscoideum. *Ovulum* in ovario v. in quoque loculo 1, apicem juxta lateraliter affixum, anatropum, pendulum, raphe ventrali. *Fructus* exceptis *Aquilarieis* indehiscens, nuceus baccatus v. drupaceus. *Semen* in fructu v. in loculis solitarium, pendulum v. lateraliter affixum, testa crustacea v. rarius membranacea, endopleura membranacea bena distincta. *Albumen* carnosum sat copiosum v. sæpius parcum v. 0. *Embryo* rectus ; cotyledones carnosæ, sæpius crassæ, radicula brevi supera.

Arbores fruticesve, rarissime herbæ annuæ tenuesque, libro tenaci filamentoso v. reticulato. Folia opposita v. sæpius alterna v. sparsa, integerrima, nunc numerosa parva uninervia venis sæpius parum conspicuis, nunc majora v. ampla, pennivenia. Stipulæ 0. Flores capitati v. breviter racemosi v. spicati, rarius solitarii, capitulis spicisve ad apices ramorum v. in axillis sessilibus v. rarius pedunculatis. Bracteæ variæ, haud raro paucæ, exteriores capitulum involucrantes.

Species ad 360, in temperatis orbis veteris imprimis Africæ australis regionis Mediterraneæ et Australiæ numerosæ, inter tropicos pauciores, in America tam boreali quam australi plurimæ, haud tamen numerosæ.

Ordo facile distinctus, ab auctoribus bene inter *Daphnales* inclusus, etsi intermediis nullis cum ordinibus cæteris connexus. Affinitatem cum *Celastrineis* et *Rhamnaceis* a Baillonio indicatam non sentimus.

FORMÆ ABNORMES.

Perianthium truncatum limbo nullo distincto in *Dirca*, fere ad basin partitum in *Octolepide*.
Stamina ad 2 reducta in *Pimelea*, ∞ in *Gonystylo*.
Ovarium 4-loculare in *Octolepide*, 4–5-loculare in *Gonystylo*.

CONSPECTUS GENERUM.

Tribus I. Euthymelæeæ. Ovarium 1-loculare, ovulo unico. Fructus indehiscens.

Series 1. *Squamæ perianthii* 0. *Stamina numero loborum dupla v. si æqualia v. pauciora iis opposita.*

* *Stamina numero loborum æqualia v. pauciora.*

1. Pimelea. Stamina 2.—*Australia, Nov. Zelandia.*

2. Schœnobiblos. Stamina 4. Folia ampla.—*Amer. trop.*

** *Stamina numero loborum dupla. Discus hypogynus 0 v. brevissime annularis. Perianthium in fructu persistens v. deciduum nec circumscissum. Flores 4-meri, hermaphroditi.*

3. Daphne. Flores hermaphroditi. Perianthii tubus cylindraceus, limbus patens. Stylus brevissimus v. 0, stigmate magno. Pericarpium carnosum v. succosum.—*Europa, Asia temp. et subtrop.*

4. Ovidia. Flores hermaphroditi, Perianthii tubus tenuis, limbus patens. Stylus elongatus, filiformis. Pericarpium carnosum v. succosum.—*Chile et Andes Popayan.*

5. Dirca. Flores hermaphroditi. Perianthium superne latius, oblique truncatum v. dentatum, limbo nullo patente. Pericarpium carnosum v. succosum.—*Amer. bor.*

6. Thymelæa. Flores hermaphroditi. Perianthii tubus sæpius urceolatus, limbus patens. Stylus brevis, stigmate sæpius parvo. Pericarpium membranaceum.—*Reg. Mediterr., Europa, Asia media, ins. Canar.*

*** *Stamina numero loborum dupla. Discus hypogynus plus minus lobatus v. obliquus. Perianthium in fructu persistens v. totum deciduum nec circumscissum. Flores 4–5-meri, hermaphroditi v. abortu dioici.*

7. Daphnopsis. Flores 4-meri, abortu dioici. Discus e lobis v. squamis 2–4, saltem sub ovario imperfecto floris ♂. Stylus fl. ♀ brevis.—*Amer. trop.*

8. Lasiadenia. Flores 5-meri, sæpius polygami. Discus e squamis lobisve longe ciliatis. Stylus filiformis.—*Guiana, Cuba.*

9. Dais. Flores 5-meri. Discus cupulatus, glaber. Stylus filiformis, stigmate ovoideo-capitato.—*Afr. austr., Madagasc.*

10. Edgeworthia. Flores 4-meri. Discus annularis lobis brevissimis. Stylus cylindraceus, stigmate longo lineari.—*Ind. or., China, Japonia.*

11. Wikstrœmia. Flores 4-meri, hermaphroditi. Discus 4- v. 2-fidus. Stylus brevis nunc brevissimus, stigmate magno.—*Asia trop. et austr., Australia, ins. maris Pacifici.*

**** *Stamina numero loborum dupla. Perianthium supra ovarium sæpissime demum circumscissum, basi persistente fructum includente.*

12. Stellera. Perianthii tubus tenuis. Discus unilateralis. Folia alterna, plana.—*Asia centr. et occid.*

13. Arthrosolen. Perianthii tubus tenuis v. cylindraceus. Discus 0. Stylus filiformis, stigmate parvo. Fruticuli v. suffrutices foliis sparsis planis.—*Africa austr. et trop.*

14. Diarthron. Perianthii tubus brevis v. tenuis. Discus 0. Stylus brevis, stigmate sub-clavato. Herbæ annuæ, tenues, foliis alternis linearibus.—*Asia temperata.*

15. Passerina. Perianthium urceolatum, lobis tubo æquilongis. Stamina exserta. Discus 0. Stylus filiformis, stigmate globoso. Frutices ericoidei, foliis decussatim oppositis parvis.—*Afr. austr.*

16. Chymococca. Perianthium fructiferum carnosum. Cætera *Passerinæ.*—*Afr. austr.*

Series 2. *Squamæ perianthii numero loborum duplæ v. æquales, intra tubum infra stamina simplici serie affixæ, lineares oblongæ v. breves. Stamina numero loborum dupla.*

17. Goodallia. Flores dioici, 5-meri, pedicellati, perianthio continuo persistente. Squamæ 10, lineares, prope basin tubi.—*Guiana.*

18. Funifera. Flores dioici, 4-meri, sessiles, perianthio continuo persistente. Squamæ 8, lineares, prope basin tubi.—*Brasilia.*

19. Lagetta. Flores hermaphroditi, 4-meri, laxe spicati v. racemosi, perianthio urceolato persistente. Squamæ 4, latæ, sub stamina conniventes.—*Ind. occid.*

20. Cryptadenia. Flores hermaphroditi, 4-meri, in axillis solitarii, perianthio supra ovarium demum circumscisso. Squamæ 8, in medio tubo adnatæ.—*Afr. austr.*

21. Lachnæa. Flores hermaphroditi, 4-meri, sæpius capitati, perianthio supra ovarium demum circumscisso, lobis sæpe inæqualibus. Squamæ 8, sub fauce staminibus alternæ.—*Afr. austr.*

Series 3. *Squamæ perianthii numero loborum æquales duplæ v. triplæ, ad faucem supra stamina affixæ, in una specie deficientes. Flores hermaphroditi. Stamina numero loborum æqualia v. dupla.*

* *Stamina numero loborum æqualia, iis alterna.*

22. Drapetes. Filamenta filiformia. Squamæ 4 v. 8, breves, lobis oppositæ, v. 0. Fruticuli prostrati, ramosissimi, capitulis terminalibus paucifloris.—*Amer. antarct., N. Zel., Australia, Borneo.*

23. Struthiola. Antheræ intra tubum sessiles. Squamæ faucis 4 8 v. 12, glanduliformes, ciliis cinctæ. Fruticuli virgati, floribus axillaribus.—*Afr. austr.*

** *Stamina numero loborum dupla. Pericarpium membranaceum, perianthii circumscissi basi persistente inclusum.*

24. Gnidia. Flores hermaphroditi, 4-meri.—*Afr. austr. et trop.*

25. Lasiosiphon. Flores hermaphroditi, 5-meri.—*Afr. austr. et trop., Madagasc., Asia trop.*

*** *Stamina numero loborum dupla. Pericarpium durum, perianthio continuo inflato v. appresso inclusum, v. perianthio fisso stipatum, v. perianthio deciduo denudatum.*

26. Linostoma. Discus hypogynus 0. Squamæ ad faucem distinctæ. Flores paniculati. Bracteæ in pedunculo 2, demum auctæ, coloratæ.—*Ind. or., Brasilia bor.*

27. Dicranolepis. Discus hypogynus cupularis. Squamæ ad faucem petaloideæ lobos subæquantes. Flores ad axillas sessiles.—*Afr. trop.*

28. Synaptolepis. Discus hypogynus cupularis. Squamæ ad faucem breves, truncatæ, in annulum subconnatæ. Flores breviter cymulosi.—*Afr. trop.*

29. Stephanodaphne. Discus hypogynus 0. Squamæ ad faucem breves, in annulum fimbriatum connatæ. Flores capitati v. spicati.—*Madagasc., Comores.*

Tribus II. Phalerieæ. Ovarium 2-loculare, loculis 1-ovulatis. Drupa 2-pyrena v. abortu 1-pyrena. Discus hypogynus cupularis.

30. Peddiea. Flores pedicellati. Perianthii faux nuda. Stamina tubo inclusa.—*Afr. austr. et trop.*

31. Leucosmia. Flores sessiles. Perianthii faux intus squamata. Stamina subexserta, filamentis anthera brevioribus.—*Ins. maris Pacifici.*

32. Phaleria. Flores sessiles. Perianthii faux intus nuda, lobi patentes. Stamina exserta, filamentis filiformibus, antheris parvis.—*Ceylon, Archip. Malay., Australia.*

33. Pseudais. Flores sessiles. Perianthii faux intus nuda, dentibus brevibus erectis. Stamina subexserta, filamentis filiformibus, antheris parvis.—*Molucca.*

Tribus III. Aquilarieæ. Ovarium 2-loculare, loculis 1-ovulatis. Capsula compressa, loculicide 2-valvis. Discus hypogynus 0. Squamæ faucis in annulum connatæ.

34. Gyrinops. Perianthii tubus tenuiter cylindraceus. Stamina 5.—*Ind. or., Archip. Malay.*

35. Gyrinopsis. Perianthii tubus cylindraceus. Stamina 10.—*Ind. or., Archip. Malay.*

36. Aquilaria. Perianthium campanulatum. Stamina 10.—*Archip. Malay., Asia or.*

GENERA ANOMALA.

37? Octolepis. Perianthium parvum, fere ad basin 4-fidum. Stamina 8. Ovarium 4-loculare, loculis 1-ovulatis.—*Afr. trop.*

38? Gonystylus. Perianthium 5-fidum. Stamina ∞. Ovarium 4–5-loculare, loculis 1-ovulatis.—*Java.*

GENERA EXCLUSA V. DUBIA.

Hornera, Jungh. in Hœv. et Vriese, Tijdschr. vii. 314, genus ad species 2 Japonicas inter se evidenter dissimiles propositum valde dubium est. Species ex Maximowiczio in litt. certe non

Japonicæ et characteres plantæ nulli nobis notæ conveniunt. Flores descripti fere *Struthiolæ*, inflorescentia tamen aliena.

CANSJERA, Juss., inter **Olacineas** recensetur, supra, i. 349.

LEPTONIUM, Griff., est *Lepionurus*, Blum., inter **Olacineas**, supra, i. 349.

JENKINSIA, Griff., est *Miquelia*, Meissn., inter **Olacineas**, supra, i. 354.

INOCARPUS, Forst., est **Leguminosa**, supra, i. 552.

HERNANDIA, Linn., est **Laurinea** anomala, supra, 164.

CHAMPEREIA, Griff., quærenda est sub **Santalaceis**, infra.

TRIBUS I. EUTHYMELÆEÆ.

1. **Pimelea**, *Banks in Gærtn. Fruct.* i. 186, *t.* 39. (Banksia, *Forst. Char. Gen.* 7, *t.* 4, *non Linn. f.* Cookia, *Gmel. Syst.* ii. 24, *non Sonn.*)—Flores hermaphroditi v. rarius dioici. Perianthii tubus cylindraceus; lobi 4, patentes v. rarius erecti, fauce intus nuda v. leviter transversim incrassata v. subplicata. Stamina 2, fauci affixa, lobis exterioribus opposita, filamentis breviter v. longiuscule filiformibus; antheræ ovatæ v. oblongæ, connectivo angusto v. late dorsali. Discus hypogynus 0. Ovarium 1-loculare, stylo elongato, stigmate capitato. Fructus parvus, perianthii basi inclusus, pericarpio membranaceo v. rarius succoso. Seminis testa crustacea; albumen copiosum parcum v. 0; cotyledones carnosæ.—Frutices suffrutices v. rarius herbæ. Folia opposita v. sparsa, sæpius parvula. Flores capitato-spicati v. fasciculati, terminales v. axillares, rarissime solitarii.

Species editæ 76, Australiæ et Novæ Zelandiæ incolæ. *Meissn. in DC. Prod.* xiv. 496. *Hook. f. Handb. N. Zeal. Fl.* 242. *Benth. Fl. Austral.* vi. 1, ubi seminum testa errore endocarpium dicta.

Genus naturalissimum, floribus diandris in ordine facillime distinctum et in integrum servandum, etsi nonnullæ e sectionibus sequentibus characteribus aliunde genericis æstimatis separentur:—

1. *Thecanthes.* Florum capitula involucro 4-lobo cincta. Herbæ annuæ, glabræ, Australiæ tropicæ et subtropicæ incolæ. Cætera *Eupimeleæ*. *Endl. Iconogr. t.* 11. THECANTHES, *Wikstr. in K. Vetensk. Akad. Stockh. Handl.* 1818, 271.

2. *Eupimelea.* Bracteæ liberæ, vix foliis caulinis latiores. Perianthii fructiferi tubus continuus. Albumen parcum. Fruticuli prostrati v. ramosissimi, Australiæ orientalis et Novæ Zelandiæ incolæ, foliis sæpius oppositis planis v. concavis. *Bot. Mag. t.* 3270.

3. *Heterolæna.* Bracteæ liberæ, foliis caulinis multo latiores. Perianthium continuum. Albumen copiosum. Frutices Australiæ occidentalis, foliis oppositis planis v. margine recurvis. *Labill. Pl. Nov. Holl. t.* 5. *Sweet, Fl. Austral. t.* 8. *Bot. Mag. t.* 1458, 3459, 3721, 3950. *Bot. Reg. t.* 1578 *et* 1841, *t.* 33. *Lodd. Bot. Cab. t.* 88, 1283, 1708, 1966. *Maund, Botanist, t.* 136. HETEROLÆNA, *Fisch. et Mey. Ind.* x. *Sem. Hort. Petrop.* 47.

4. *Calyptrostegia.* Bracteæ liberæ, variæ. Perianthium post anthesin supra ovarium circumscissum, basi persistente fructum includente. Frutices Australienses, habitu vario, v. rarius herbæ annuæ tenues. Albumen varium. *Labill. Pl. Nov. Holl. t.* 3, 4, 6, 7. *Sweet, Fl. Austral. t.* 52. *Sm. Bot. Nov. Holl. t.* 11. *Rudge in Trans. Linn. Soc.* x. *t.* 13, *f.* 2, *t.* 14. *Bonpl. Jard. Malm. t.* 31. *Hook. Ic. t.* 865. *Hook. f. Fl. Tasm. t.* 95. *Bot. Mag. t.* 891, 3276, 3288, 3833, 4543. *Bot. Reg. t.* 1268, 1439, 1582, 1827 *et* 1838, *t.* 24. *Lodd. Bot. Cab. t.* 1611, 1668, 1965. *Maund, Botanist, t.* 61, 147, 243. CALYPTROSTEGIA, *C. A. Mey. in Bull. Acad. Imp. Petersb.* iv. (1845) 72, pro parte. GYMNOCOCCA, *Fisch. et Mey. Ind.* x *Sem. Hort. Petrop.* 46. MACROSTEGIA, *Turcz. in Bull. Soc. Imp. Nat. Mosc.* 1852, ii. 177 (*species bracteis magnis coloratis insignis*).

5. *Malistachys.* Frutices Australiæ occidentalis, floribus parvis stricte dioicis. Cætera *Calyptrostegiæ*.

6. *Dithalamia.* Frutices Australienses, floribus parvis stricte dioicis. Cætera *Eupimeleæ*. *F. Muell. Pl. Vict. t.* 76. *Lodd. Bot. Cab. t.* 179.

7. *Epallage.* Antherarum connectivum dorsale latum, loculis in facie interiore parallelis, nec ut in cæteris sectionibus in connectivo angustiore lateralibus demum dorso contiguis. Cætera fere *Calyptrostegiæ*. *Rudge in Trans. Linn. Soc.* x. *t.* 13, *f.* 1. *F. Muell. Fragm. Phyt. Austral.* vi. *t.* 59. *Bot. Mag. t.* 3281. CALYPTROSTEGIA, *C. A. Mey. l. c. pro parte.*

2. **Schœnobiblos**, *Mart. et Zucc. Nov. Gen. et Sp.* i. 65.—Flores hermaphroditi v. abortu dioici. Perianthii tubus brevissimus, fauce intus nuda; segmenta 4, angusta,

patentia. Stamina 4, segmentis opposita iisque basi adnata; filamenta filiformia, segmentis breviora; antheræ oblongæ, connectivo angusto subnullo. Discus hypogynus 0. Ovarium ovoideum, sessile v. breviter stipitatum, 1-loculare; stigma didymum, sessile. Drupa perianthio deciduo nuda, ovoidea, exocarpio filamentoso, endocarpio duro. Seminis testa crassiuscule membranacea; albumen (v. cotyledones?) crasso-carnosum.—Arbores fruticesve. Folia alterna, ampla, membranacea. Flores umbellati, umbellis ad apices ramorum longe pedunculatis solitariis v. paucis paniculatis, pedicellis basi subarticulatis. Bracteæ 0.

Species 2, Brasiliæ borealis, Guianæ et Venezuelæ incolæ. *Meissn. in DC. Prod.* xiv. 519, *et in Mart. Fl. Bras.* v. i. 65, *t.* 28.

De seminis structura, in unico tantum examinato vix maturo, haud certi sumus.

3. **Daphne,** *Linn. Gen. n.* 485.—Flores hermaphroditi. Perianthii tubus cylindraceus, basi sæpe latior; lobi 4, patentes, fauce intus nuda. Stamina 8, tubo 2-seriatim inclusa v. superiora vix exserta, filamentis brevissimis; antheræ subsessiles, oblongæ, connectivo angusto v. inconspicuo. Discus hypogynus 0. Ovarium sessile v. subsessile, 1-loculare; stylus brevis nunc brevissimus v. subnullus, stigmate magno capitato. Bacca perianthio deciduo nuda v. perianthio persistente inclusa, carnosa v. subsicca, globosa ovoidea v. oblonga. Seminis testa crustacea; albumen parcum v. sæpius 0; cotyledones carnosæ, crassæ v. rarius subplanæ.—Frutices erecti v. prostrati. Folia sparsa conferta v. dissita, perennantia v. decidua. Flores sæpius colorati, capitati v. brevissime racemosi, capitulis racemisve ad nodos vetustos in axillis foliorum v. ad basin innovationum sessilibus paucifloris v. plurifloris subpaniculatis.

Species ad 36, per Europam et Asiam temperatam v. subtropicam dispersæ. *Meissn. in DC. Prod.* xiv. 530, in sectiones sequentes distribuendæ:—

1. *Eudaphne* (*Laureola, Gnidium* et *Mezereum,* Meissn.). Frutices sæpius erecti. Flores brevissime racemosi, axillares v. ad apices ramorum conferti. Perianthium a fructu carnoso sæpissime deciduum. *Jacq. Fl. Austr. t.* 183; *Hort. Schœnbr. t.* 351. *Reichb. Ic. Fl. Germ. t.* 553 (*f.* 1173), 555, 556. *Sibth. Fl. Græc. t.* 356. *Jaub. et Spach, Ill. Pl. Or. t.* 303. *Hayne, Arzneigew.* iii. *t.* 43 *ad* 45. *Bot. Mag. t.* 1282, 1587. *Andr. Bot. Rep. t.* 73. *Sweet, Brit. Fl. Gard. t.* 200, *ser.* 2, *t.* 320.

Mezereum, *C. A. Mey. in Bull. Acad. Petersb.* i. (1843) 358, a *Daphne* generice separatum fuit ob semen exalbuminosum. Albumen tamen nullum v. rarius parcum in toto genere hucusque observato.

2. *Daphnanthes,* Meissn. Frutices humiles, ramosissimi v. diffusi. Flores in capitulis terminalibus sessiles. Perianthium sæpius plus minus sericeo-pubescens, diu persistens, fructum minus carnosum v. siccum includens. *Reichb. Ic. Fl. Germ. t.* 553 (*f.* 1174, 1175), 554. *Sibth. Fl. Græc. t.* 357 *ad* 359. *Desf. in Ann. Mus. Par.* x. *t.* 20. *Jaub. et Spach. Ill. Pl. Or. t.* 304 *ad* 306. *Pall. Fl. Ross. t.* 35. *Royle. Ill. Pl. Himal. t.* 81. *Sm. Spicileg. t.* 18. *Bot. Mag. t.* 313, 428, 1875. *Bot. Reg.* 1838, *t.* 56.

D. altaica, Pall., et *D. alpina,* Linn., a Meissnero sub *Mezereo* enumeratæ, melius ad *Daphnanthem* referendæ. *D. Blagayana,* Fresen. in Prodromo sub *Daphnanthe* inclusa, est potius *Eudaphnes* species *D. glomeratæ,* Lam., valde affinis.

In *D. odora,* Sm. Exot. Bot. t. 47, *D. cannabina,* Wall. in Asiat. Res. xiii. t. 7, affinibusque paucis, flores ad apices ramorum congesti sed bracteis intermixti nec stricte capitati, et ramulo sæpe demum excurrente sublaterales evadunt, et hæ species facile pro sectione distincta habendæ.

3. *Genkwa.* Frutices. Flores 2–6 in capitulis lateralibus sessilibus v. breviter pedunculatis ebracteatis sessiles, perianthio dense sericeo circa fructum siccum persistente. Species 2 Chinenses: *D. Genkwa,* Sieb. et Zucc. Fl. Jap. t. 75 (*D. Fortunei,* Lindl. in Journ. Hort. Soc. ii. t. 1), et *D. Championi,* Benth. Fl. Hongk. 296.

4. *Eriosolena,* Meissn. Frutices. Flores in capitulis lateralibus pedunculatis primum bracteis 2–4 inclusis sessiles, perianthio sericeo deciduo baccam nudante. Species 2, Indiæ orientalis et Archipelagi Malayani incolæ. *Sm. Ic. Ined. t.* 34. Scopolia, *Linn. f. Suppl.* 60, *non Jacq.* Eriosolenia, *Bl. Bijdr.* 651.

4. **Ovidia,** *Meissn. in DC. Prod.* xiv. 524.—Flores hermaphroditi (rarius abortu uni-

sexuales?). Perianthii tubus tenuis, in faucem ampliatus; lobi 4, patentes, fauce intus nuda. Stamina 8, 4 ad basin loborum, 4 intra tubum affixa, filamentis filiformibus; antheræ ovatæ, filamento multo breviores, connectivo inconspicuo. Discus hypogynus 0. Ovarium sessile, glabrum, stylo longe filiformi exserto; stigmate parvo subcapitato. Bacca ovoidea, perianthio deciduo nuda. Seminis testa crustacea, endopleura membranacea; albumen parcum; cotyledones magnæ, carnosæ.—Frutices erecti, ramosi, foliosi. Folia sparsa, sessilia v. subsessilia, obovato-oblonga elliptica v. lanceolata. Flores ad apices ramorum umbellati, umbellis sessilibus v. pedunculatis demum sæpe ramulo excurrente lateralibus. Bracteæ sub umbella 1 v. 2, foliaceæ caducissimæ v. 0.

Species editæ 4, quarum 3 ex Chile australi forte unius varietates, quarta ex Andibus Popayanensibus nobis ignota. *Meissn. l.c.* *Pœpp. et Endl. Nov. Gen. et Sp. t.* 191 (*Daphne*).

5. **Dirca,** *Linn. Gen. n.* 486.—Flores hermaphroditi. Perianthium corollinum, basi tubulosum, supra ovarium contractum, superne in faucem subobliquam intus nudam ampliatum, margine truncato sinuato v. brevissime 4-fido non patente. Stamina 8, medio tubo affixa, exserta, filamentis filiformibus; antheræ parvæ, oblongæ, connectivo angusto. Annulus hypogynus brevissimus v. obsoletus. Ovarium sessile, glabrum, 1-loculare; stylus filiformis, exsertus, stigmate parvo obtuso. Bacca perianthio deciduo nuda. Seminis testa crustacea; albumen 0; cotyledones crassiusculæ.—Frutices virgato-ramosi. Folia alterna, membranacea, decidua. Flores præcoces, e gemmis foliaceo-bracteatis 2–3-ni, in pedunculo communi brevi nunc brevissimo sessiles, ebracteati.

Species 2, boreali-Americanæ. *Meissn. in DC. Prod.* xiv. 527. *Bot. Reg. t.* 292. *A. Gray in Proc. Amer. Acad.* viii. 631.

6. **Thymelæa,** *Endl. Gen. Pl. Suppl.* iv. ii. 65.—Flores hermaphroditi v. abortu polygami. Perianthium urceolatum v. rarius præsertim in fl. ♂ tubo tenuiter cylindraceo; lobi 4, patentes, fauce intus nuda. Stamina 8, tubo 2-seriatim inclusa, filamentis brevissimis; antheræ breves v. oblongæ, connectivo inconspicuo. Discus hypogynus 0 v. minute annulatus. Ovarium subsessile, 1-loculare; stylus brevis nunc brevissimus, stigmate capitato sæpius parvo. Fructus siccus, perianthio persistente inclusus v. rarius perianthio toto deciduo nudus; pericarpium membranaceum. Seminis testa crustacea; albumen parcum v. 0; cotyledones crasso-carnosæ.—Herbæ perennes rarius annuæ suffrutices v. fruticuli ramosissimi. Folia sparsa, sæpius parva v. angusta. Flores parvi, ad axillas sessiles, fasciculati v. solitarii. Bracteæ parvæ.

Species ad 20, regionis Mediterraneæ imprimis orientalis incolæ, sed ab ins. Canariensibus usque ad Persiam dispersæ, paucæ in Europa v. Asia media magis extensæ. *Meissn. in DC. Prod.* xiv. 551.

Genus in sectiones sequentes dividitur:—

1. *Lygia.* Species 3, annuæ v. basi perennes, caulibus tenuibus virgatis, floribus minimis. *Jacq. Ic. Rar. t.* 68. *Reichb. Ic. Fl. Germ. t.* 550 (*utraque sub Stellera*). *Griff. Ic. Pl. As. t.* 534 (*Passerina*). LYGIA, *Pasano ex Meissn. l. c.*

2. *Chlamydanthus.* Suffrutices dense foliati. Perianthium persistens, basi fructum includens. *Reichb. Ic. Fl. Germ. t.* 551, 522. *Sibth. Fl. Græc. t.* 354, 355 (*Daphne*). *Desf. Fl. Atl. t.* 94, 95 (*Passerina*). *Boiss. Voy. Esp. t.* 157, 158 (*Passerina*). CHLAMYDANTHUS, *C. A. Mey. in Bull. Acad. Sc. Petersb.* i. (1843) 358.

In icone Fl. Gr. t. 354, *T. tartonrairæ*, stigma depictum est *Daphnes*, magnum, discoideum, sessile, quod tamen in speciminibus nostris non invenimus.

3. *Piptochlamys.* Fruticulus ramosissimus, dense foliatus, foliis brevibus crassis obtusis. Fructus perianthio deciduo nudus. *Reichb. Ic. Fl. Germ. t.* 550. *Sibth. Fl. Græc. t.* 360. *Bot. Mag. t.* 1949 (*omnes sub Passerina*). PIPTOCHLAMYS, *C. A. Mey. in Bull. Acad. Sc. Petersb.* i. (1843), 358.

Nomen *Thymelæa* ab auctoribus pluribus perperam Tournefortio tribuitur, nam *Thymelæa*, Tournef., est *Daphne*, Linn., limitibus indefinitis extensa, et *Thymelæaceas* fere omnes Tournefortio notas includens. *Thymelææ* nostræ a Linnæo sub *Passerina* et *Stellera* enumeratæ sunt.

7. **Daphnopsis,** *Mart. et Zucc. Nov. Gen. et Sp.* i. 65. (Nordmannia, *Fisch. et Mey. et*

Hargasseria, *C. A. Mey. in Bull. Acad. Sc. Petersb.* i. 1843, 355.)—Flores abortu dioici. Fl. ♂: Perianthii tubus tenuis; lobi 4, patentes, fauce intus nuda. Stamina 8, 4 superiora in mediis lobis, 4 inferiora ad faucem lobis alterna; antheræ sessiles, connectivo inconspicuo. Squamæ sub ovario 2 v. 4, parvæ, rarius lineares. Ovarium plus minus stipitatum, prima facie perfectum etsi parvum sed abortivum, ovuli rudimento sæpius minimo. Fl. ♀: Perianthium quam in ♂ multo minus, nunc tubo latiusculo suburceolatum v. anguste turbinatum, demum circumscissum, lobis parvis, nunc tubo brevissimo alte 4-fidum, sub fructu persistens. Staminodia minuta v. 0. Ovarium oblongum, sessile, 1-loculare, in stylum brevem crassum attenuatum, stigmate capitato. Fructus ovoideus v. subglobosus, pericarpio carnoso fibroso v. tenui. Seminis testa crustacea, endopleura membranacea; albumen 0; cotyledones crassæ, carnosæ, radicula brevissima.—Arbores fruticesve. Folia sparsa, plana, membranacea v. subcoriacea, glabra v. subtus sericeo-pubescentia. Flores umbellulati capitati v. subracemosi, inflorescentiis nunc ad apices ramorum paniculatis, nunc axillaribus v. in trunco lateralibus.

Species ad 20, Americæ calidioris a Brasilia et Peruvia usque ad Mexicum incolæ.—*Meissn. in DC. Prod.* xiv. 520, *et in Mart. Fl. Bras.* v. i. 66, *t.* 28.-*Griseb. Cat. Pl. Cub.* 110.

Genus forte in sectiones 2 dividendum:—

1. *Nordmannia.* Species Andinæ Mexicanæ v. Indiæ occidentalis cum una Brasiliana (*D. brasiliensi*, Mart.); floribus umbellatis subcapitatis v. umbellulis longe pedunculatis v. ad apices ramorum paniculatis, perianthio tomentoso. 2. *Neivira*, Griseb. Symb. Fl. Argent. 133, species Brasilianæ, nonnullæ adhuc ineditæ, floribus parvis ad axillas v. ad nodos vetustos breviter subracemosis, perianthio glabro v. leviter piloso. Fructus tamen specierum plurimarum adhuc ignotus. *D. cubensis*, Meissn., ad *Lasiadeniam* transfertur. Coleophora, *Miers in Ann. Nat. Hist. ser.* 2, vii. 197; *Illustr.* ii *t.* 74, ex ic. et descr. nobis videtur ead. ac *Daphnopsis* (*Neivira*) *Martii*, Meissn., floribus masculis (ovario evoluto etsi abortivo) pro hermaphroditis descriptis. *Lagetta alpestris*, Gardn. in Hook. Lond. Journ. iv. 135, in Prodromo omissa, pariter ad *Daphnopsin* (*Neiviram*) referenda est.

8. **Lasiadenia,** *Benth. in Hook. Lond. Journ.* iv. 632. (Linodendron, *Griseb. in Mem. Amer. Acad. ser.* 2, viii. 187; *Cat. Pl. Cub.* 109.)—Flores sæpius abortu polygami. Perianthii tubus elongatus, basi leviter incrassatus, intus pilosus; lobi 5, patentes, fauce intus nuda. Stamina 10, ad faucem 2-seriata, filamentis breviter filiformibus quam lobi brevioribus; antheræ ovatæ v. oblongæ, connectivo angusto. Squamæ hypogynæ (sæpius 5) brevissimæ, pilis longis dense ciliatæ. Ovarium pilis longissimis dense barbatum, 1-loculare; stylus tenuis, plus minus elongatus, stigmate obtuso oblongo v. capitato. Fructus siccus, perianthio persistente integro v. fisso inclusus, pericarpio rigidulo haud crasso. Seminis testa crustacea, nitida; albumen parcum v. 0; cotyledones carnosæ.—Arbores libro reticulato. Folia sparsa, membranacea v. subcoriacea, venosa. Flores capitati, capitulis in pedunculo simplici solitariis v. pedunculo ramoso paucis ebracteatis. Perianthium dense cano-tomentosum.

Species 5, una Guianensis, *Meissn. in DC. Prod.* xiv. 528, *et in Mart. Fl. Bras.* v. i. 69, *t.* 29, cæteræ Cubenses, *Griseb. ll. cc.*

9. **Dais,** *Linn. Gen. n.* 540.—Flores hermaphroditi. Perianthii tubus cylindraceus, sæpe incurvus; lobi 5, patentes, fauce intus nuda. Stamina 10, tubo 2-seriatim inclusa v. superiora breviter exserta, filamentis brevibus; antheræ oblongæ, connectivo inconspicuo. Discus hypogynus cupulatus, membranaceus, truncatus v. dentatus, ovarium basi cingens. Ovarium villosum, 1-loculare; stylus longe filiformis, stigmate ovoideo v. globoso-capitato. Fructus siccus, perianthii basi inclusus, pericarpio membranaceo. Seminis testa crustacea; albumen 0; cotyledones latæ, carnosulæ.—Frutices. Folia opposita v. sparsa, ad apices ramorum sæpe conferta. Flores dense capitati, capitulis ad apices ramorum pedunculatis. Bracteæ 2–6, sæpius 4, breves, latæ, rigidulæ, capitulum involucrantes. Perianthia sericeo-villosa.

Species 2, altera Africæ australis, altera Madagascariæ incola. *Meissn. in DC. Prod.* xiv. 529. *Lam. Ill. t.* 368 *f.* 1. *Gærtn. Fruct. t.* 39. *Jacq. Ic. Rar. t.* 77. *Bot. Mag. t.* 147.

10. **Edgeworthia,** *Meissn. in Denkschr. Regensb. Bot. Gesellsch.* iii. 280, *t.* 6.—Flores hermaphroditi. Perianthii tubus cylindraceus, sæpe incurvus; lobi 4, patentes, fauce intus nuda. Stamina 8, tubo 2-seriatim inclusa, filamentis brevissimis; antheræ oblongæ, connectivo inconspicuo. Discus hypogynus annularis, brevissimus, breviter lobatus. Ovarium sessile, villosissimum, 1-loculare, in stylum desinens, stigmate longe lineari-cylindraceo undique papilloso. Fructus perianthii basi inclusus, pericarpio vix carnoso. Seminis testa crustacea.—Frutices. Folia membranacea, sparsa, ad apices ramorum sæpius conferta. Flores dense capitati, capitulis in axillis inferioribus v. infra folia pedunculatis, v. ante foliorum evolutionem sessilibus. Bracteæ capitulum involucrantes plurimæ, nunc parvæ (v. 0 ?). Perianthia sericeo-villosa.

Species 2, altera Indiæ orientalis, altera Chinæ et Japoniæ incola. *Meissn. in DC. Prod.* xiv. 543 *Wall. in Asiat. Res.* xiii. *t.* 9 (*Daphne*). *Bot. Reg.* 1847, *t.* 48.

11. **Wikstrœmia,** *Endl. Prod. Fl. Norf.* 47; *Iconogr. t.* 22.—Flores hermaphroditi. Perianthii tubus elongatus; lobi 4, patentes, fauce intus nuda. Stamina 8, tubo 2-seriatim inclusa v. superiora breviter exserta, filamentis brevissimis; antheræ oblongæ, connectivo inconspicuo. Discus hypogynus e squamellis angustis 4 v. 2, rarius 1. Ovarium sessile v. subsessile, villosum, 1-loculare; stylus brevis nunc brevissimus, stigmate magno globoso-capitato. Fructus baccatus, perianthio deciduo nudus, v. subsiccus perianthii basi inclusus, pericarpio carnoso v. membranaceo. Seminis testa crustacea; albumen parcum v. 0; cotyledones carnosæ.—Frutices v. rarius arbores. Folia opposita v. rarius alterna. Flores ad apices ramorum breviter racemosi v. spicati. Bracteæ 0.

Species ad 20, Asiæ tropicæ et orientalis, Australiæ, et ins. Maris Pacifici incolæ. *Meissn. in DC. Prod.* xiv. 543 (speciebus nonnullis reducendis). *Benth. Fl. Austral.* vi. 37.

Genus *Daphni* valde affine, differt squamis hypogynis et quodammodo habitu, in sectiones sequentes dividitur:—

1. *Euwikstrœmia,* Meissn. Perianthium sæpius glabrum v. vix pilosulum, a fructu sæpius baccato deciduum. *Hook. et Arn. Bot. Beech. t.* 15 (*Daphne*).

2. *Diplomorpha,* Meissn. Perianthium tenuius, sæpissime sericeum, spicis sæpe laxe ∞-floris. Fructus subsiccus, pericarpio tenui perianthio diu persistente incluso. *Dcne. in Jacquem. Voy. Bot. t.* 149. Diplomorpha, *Meissn. in Denkschr. Regensb. Gesellsch.* iii. 289. *C. A. Mey. in Bull. Acad. Petersb.* i. (1843), 357.

W. subspicata, Meissn., disco nullo, verisimiliter ad *Arthrosolenem* referenda est. Capura, *Linn. Mant.* 149, ex specimine manco in herb. Linn. servato videtur *W. indica,* genus tamen e charactere falso nequaquam recognoscendum.

12. **Stellera,** *Linn. Amœn. Acad.* i. 399, *pro parte.*—Flores hermaphroditi. Perianthii tubus cylindraceus, demum supra ovarium circumscissus; lobi 4, rarius 5, patentes, fauce intus nuda. Stamina 8, rarius 10, tubo 2-seriatim inclusa, filamentis brevissimis; antheræ oblongo-lineares, connectivo angusto. Discus hypogynus in laminam linearem v. lanceolatam rarius 2-fidam uno latere productus. Ovarium subsessile, 1-loculare; stylus brevis, stigmate capitato. Fructus siccus, basi perianthii persistente inclusus, pericarpio membranaceo. Seminis testa crustacea; albumen parcum v. 0; cotyledones carnosæ.—Herbæ perennes suffrutices v. frutices. Folia alterna, plana. Flores ad apices ramorum sessiles, capitati v. demum spicati.

Species editæ 8, verisimiliter ad 6 reducendæ, Asiæ centralis et occidentalis incolæ. *C. A. Mey. in Bull. Acad. Petersb.* i. (1843), 359. *Meissn. in DC. Prod.* xiv. 548.

Genus in sectiones 2 dividitur:—1. *Chamæstellera,* C. A. Mey. Species glabræ, caulibus e basi lignosa simplicibus, capitulo terminali rarius in spicam accrescente, perianthio glabro.—*Ledeb. Ic. Fl. Ross. t.* 374 (*Passerina*). 2. *Dendrostellera,* C. A. Mey. Caule sæpius fruticuloso ramoso, perianthio extus basi præsertim dense villoso-lanato. *Endl. et Fenzl, Sert. Cabul. t.* 3 (*Dais*). *Jaub. et Spach, Ill. Pl. Or. t.* 301, 302.

Linnæus l. c. *Thymelæam arvensem* et *Stelleram Chamæjasmen* sub *Stellera* includit, charactere imprimis a priore deducto, auctores recentiores nomen genericum posteriori tribuunt.

13. **Arthrosolen,** *C. A. Mey. in Bull. Acad. Imp. Petersb.* i. (1843) 359.—Flores her-

maphroditi. Perianthii tubus cylindraceus, tenuis, demum supra ovarium sæpissime circumscissus; lobi 4, rarius 5, patentes, fauce intus nuda. Stamina 8, rarius 10, 2-seriatim tubo inclusa, filamentis brevibus; antheræ oblongæ v. lineares, connectivo inconspicuo. Discus hypogynus 0. Ovarium subsessile, 1-loculare; stylus filiformis sæpius elongatus, stigmate parvo capitato. Fructus siccus, calycis basi persistente inclusus, pericarpio membranaceo. Seminis testa crustacea; albumen parcum v. 0; cotyledones carnosæ.—Fruticuli v. frutices ramosi, habitu nunc *Wikstrœmiæ* nunc *Gnidiæ*. Folia sparsa, plana. Flores nunc spicati, spicis terminalibus ebracteatis v. basi tantum bracteatis v. bracteis foliaceis quasi axillares, nunc capitati, capitulis terminalibus bracteis paucis foliaceis involucratis.

Species 10, Africæ australis incolæ, quarum una usque ad regiones tropicas extensa. *Meissn. in DC. Prod.* xiv. 559. *Lodd. Bot. Cab. t.* 311, 755 (*Passerina*).

Genus a *Wikstrœmia* differt imprimis stylo elongato tenui, a *Gnidia* et *Lasiosiphone* fauce intus nuda. In una specie (inedita?), *A. gymnostachyo*, C. A. Mey., cæterum valde affini, perianthium totum ut in *Wikstrœmia* persistit, sed stylus *Arthrosolenis*.

14. **Diarthron,** *Turcz. in Bull. Soc. Imp. Nat. Mosc.* 1832, 204 *et* 1852, ii. 464, *t.* 11. —Flores hermaphroditi. Perianthii tubus urceolatus v. tenuis, supra ovarium constrictus demum circumscissus; lobi 4, patentes, fauce intus nuda. Stamina 8, 2-seriatim tubo inclusa v. rarius superiora breviter exserta, filamentis brevissimis; antheræ oblongæ, connectivo inconspicuo. Discus hypogynus 0. Ovarium subsessile, glabrum, 1-loculare; stylus brevis, stigmate ovoideo subclavato. Fructus siccus, basi perianthii persistente inclusus, pericarpio membranaceo. Seminis testa crustacea; albumen parcum v. 0.—Herbæ annuæ, habitu *Thymelææ* sect. *Lygiæ*, graciliores tamen, glabræ et ramosiores. Folia sparsa, linearia. Flores minimi, in spicas laxas terminales v. ramulo excurrente laterales dispositi. Bracteæ 0.

Species 2, Asiæ temperatæ a Persia usque ad Mantschuriam incolæ. *Meissn. in DC. Prod.* xiv. 558. *Jaub. et Spach, Ill. Pl. Or. t.* 105. *Griff. Ic. Pl. Ind. Or. t.* 535.

15. **Passerina,** *Linn. Gen. n.* 489; *Hort. Cliff. t.* 11.—Flores hermaphroditi. Perianthii tubus e basi ovoidea breviter tenuis, supra ovarium demum circumscissus; lobi 4, patentes, tubo sæpe æquilongi, fauce intus nuda. Stamina 8, fauci affixa, exserta, filamentis lobis paullo brevioribus; antheræ ovatæ v. oblongæ, connectivo angusto. Discus hypogynus 0. Ovarium subsessile, glabrum, 1-loculare; stylus tenuiter filiformis, stigmate globoso papilloso-hirto. Fructus siccus, perianthii basi persistente sæpius inclusus, pericarpio membranaceo. Seminis testa crustacea; albumen carnosum, crassiusculum; cotyledones carnosæ, plano-convexæ.—Frutices ericoidei. Folia parva, decussatim opposita. Flores ad axillas bractearum foliis caulinis sæpius latiorum sessiles, in spicas ramulos terminantes dispositi.

Species 4, Africæ australis incolæ. *Meissn. in DC. Prod.* xiv. 562.

16. **Chymococca,** *Meissn. in DC. Prod.* xiv. 565.—Flores hermaphroditi. Perianthii urceolati tubus supra ovarium constrictus vix tamen circumscissus; lobi 4, patentes, tubo vix breviores, fauce intus nuda. Stamina 8, fauci affixa, exserta, filamentis lobis paullo brevioribus; antheræ ovato-oblongæ, connectivo angusto. Discus hypogynus 0. Ovarium subsessile, glabrum, 1-loculare; stylus filiformis, stigmate globoso. Fructus baccatus, perianthii basi inclusus, v. perianthio demum deciduo denudatus, striatus, pericarpio crassiusculo carnoso. Semen albuminosum, testa crassiuscula demum subcrustacea; cotyledones carnosæ, crassiusculæ.—Frutex ericoideus, habitu foliis et inflorescentia *Passerinæ*, a qua fructu solo differt. Folia floralia seu bracteæ a foliis caulinis non diversa.

Species 1, Africæ australis incola. *Benth. in Hook. Ic. Pl. t.* 1264.

17. **Goodallia,** *Benth. in Hook. Lond. Journ.* iv. 633.—Flores dioici. Fl. ♂: Perianthii tubus ovoideus, lobi 5, patentes, fauce intus nuda. Stamina 10, superiora subexserta, inferiora tubo inclusa, filamentis brevibus; antheræ ovatæ, connectivo inconspicuo. Squamæ

10, lineares, tubo prope basin intus affixæ. Pistilli rudimentum minimum v. 0. Fl. ♀: Perianthium quam in mare magis urceolatum, lobis suberectis. Staminodia 0. Squamæ tubi ut in fl. ♂ lineares, glabræ. Discus hypogynus 0. Ovarium sessile, dense pilosum, 1-loculare; stylus tenuis, demum exsertus, stigmate capitato. Fructus perianthio aucto inclusus, pericarpio vix carnoso. Seminis testa crustacea; albumen parcum v. 0; cotyledones carnosæ.—Frutex arborescens, ramosissimus, glaber v. innovationibus leviter sericeis. Folia alterna, brevissime petiolata, ex oblongo orbiculata. Flores ad apices ramulorum pauci, fasciculati, brevissime pedicellati.

Species 1, Guianensis. *Meissn. in DC. Prod.* xiv. 527. *Benth. in Hook. Ic. Pl. t.* 1265.

18. **Funifera,** *Leandr. ex C. A. Mey. in Bull. Acad. Imp. Petersb.* i. (1843) 357.—Flores dioici. Fl. ♂: Perianthii tubus oblongus; lobi 4, patentes, fauce intus nuda. Stamina 8, tubo 2-seriatim inclusa v. superiora breviter exserta; antheræ ovatæ, connectivo inconspicuo. Squamæ 8, lineares, glabræ, tubo prope basin inter pilos longos affixæ. Pistilli rudimentum minimum v. 0. Fl. ♀: Perianthium maris v. basi latius. Staminodia 0. Squamæ tubi ut in fl. ♂. Discus hypogynus 0. Ovarium sessile, dense pilosum, 1-loculare; stylus filiformis, stigmate capitato. Fructus perianthio parum aucto inclusus, pericarpio vix carnoso. Seminum testa crustacea; albumen parcum v. 0; cotyledones carnosæ.—Frutices, libro tenui. Folia sparsa, per intervalla sæpius conferta quasi verticillata, lanceolata, coriacea. Flores dense breviterque racemosi v. ♀ capitati, racemis capitulisve ad apices ramorum v. in axillis superioribus sessilibus. Bracteæ paucæ, caducæ. Perianthia sericea.

Species 2, Brasilienses. *Meissn. in DC. Prod.* xiv. 525. *Mart. et Zucc. Nov. Gen. et Sp.* i. *t.* 39 (*Lagetta*).

BOSCA, *Vell. Fl. Flum.* 150, *Ic.* iv. *t.* 11 ad *Funiferam* dubie refertur, descriptio nimis brevis vix convenit; icon pessima speciei cuidam *Daphnopseos* similior est.

19. **Lagetta,** *Juss. Gen. Pl.* 77.—Flores hermaphroditi v. abortu unisexuales. Perianthii tubus urceolatus, sub fauce constrictus; lobi 4, breves, patentes, fauce intus supra stamina nuda. Stamina 8, 4 superiora ad basin loborum, 4 inferiora sub fauce affixa, filamentis brevissimis; antheræ subsessiles, ovatæ, connectivo inconspicuo. Squamæ 4, breves, subconnatæ, ad stricturam tubi infra stamina circa stigma conniventes, tubum subclaudentes. Discus hypogynus 0. Ovarium sericeo-villosum, 1-loculare; stylus brevis, stigmate magno capitato-clavato, ex ore squamarum demum prominente. Fructus siccus, perianthio persistente inclusus; pericarpio rigidule membranaceo. Seminis testa tenuiter crustacea; albumen (ex Gærtn.) parcum; cotyledones crasso-carnosæ.—Arbores libro eleganter reticulato. Folia alterna, oblonga v. lata. Flores in spicis racemisve terminalibus laxis pauci, sessiles v. breviter pedicellati. Bracteæ 0. Perianthia extus glabra.

Species 2, Indiæ occidentalis incolæ. *Meissn. in DC. Prod.* xiv. 526. *A. Rich. Fl. Cub.* iii. 192. *Gærtn. f. Fruct.* iii. *t.* 215. *Hook. Kew Journ.* ii. *t.* 4. *Bot. Mag. t.* 4502, *ic. in Lem. Jard. Fleur. t.* 19 *repetita*, utraque quoad stamina erronea.

L. alpestris, Gardn. in Hook. Lond. Journ. iv. 135, in Prodromo prætermissa, videtur potius *Daphnopseos* species. Specimina ♀ tantum nobis adsunt.

De seminis structura *Lagettæ* incerti sumus, in seminibus 2 a nobis examinatis, intra endopleuram more generis tenuiter membranaceam massam carnosam invenimus extus rugoso-plicatam, radicula nuda prominente nec cotyledones distinctas exhibentia, sed forte imperfecte matura.

20. **Cryptadenia,** *Meissn. in Linnæa*, xiv. 404, *et in DC. Prod.* xiv. 573.—Flores hermaphroditi. Perianthii tubus cylindraceus, supra ovarium constrictus, demum circumscissus, ad faucem ampliatus; lobi 4, patentes, tubo sæpius longiores, fauce intus supra stamina nuda. Stamina 8, omnia v. superiora e tubo breviter exserta, filamentis filiformibus; antheræ ablongæ, connectivo angusto. Squamæ v. glandulæ ∞, ovoideæ v. oblongæ, in medio tubo infra stamina 1-seriatim adnatæ, staminibus alternæ. Discus hypogynus 0. Ovarium sessile, 1-loculare; stylus tenuiter filiformis, stigmate globoso v. ovoideo. Fructus siccus, perianthii basi persistente inclusus, pericarpio tenuiter membranaceo.

Seminis testa crustacea, nitida; albumen carnosum; embryo subteres, cotyledonibus parum dilatatis.—Fruticuli ericoidei, ramosissimi. Folia decussatim opposita, parva, coriacea, obtusa v. acerosa. Flores ad apices ramulorum v. in summis axillis solitarii, 2-bracteolati, rosei violacei v. albidi, perianthio sericeo.

Species 4 v. 5, Africæ australis incolæ. *Bot. Mag. t.* 292 (*Passerina*) *et t.* 4143.

21. **Lachnæa,** *Linn. Gen. n.* 490.—Flores hermaphroditi. Perianthii tubus undique tenuis v. supra ovarium constrictus, demum circumscissus; lobi 4, patentes, exteriore sæpe cæteris majore, fauce intus supra stamina nuda. Stamina 8, summo tubo affixa, sæpius breviter exserta, filamentis filiformibus; antheræ sæpius parvæ, connectivo angusto. Squamæ v. glandulæ 8, lineares v. clavatæ, intra tubum staminibus alternæ v. paullo inferius affixæ. Discus hypogynus 0. Ovarium sessile, 1-loculare; stylus filiformis, stigmate globoso v. ovoideo. Fructus siccus, parvus, perianthii basi persistente inclusus, pericarpio tenuiter membranaceo. Seminis testa crustacea, nitida; albumen carnosum; embryo subteres v. cotyledonibus leviter applanatis.—Fruticuli ericoidei, ramosissimi. Folia opposita v. sparsa, sæpius parva, coriacea. Flores ad apices ramorum capitati v. rarius solitarii, capitulis bracteis paucis involucratis v. nudis. Perianthium extus sericeum, intus pilosum v. rarissime glabrum.

Species ad 18, Africæ australis incolæ. *Meissn. in DC. Prod.* xiv, 574, ubi genus in sectiones 3 sequentes dividitur:—

1. *Sphærolinium.* Capitula terminalia, floribus in receptaculo communi globoso sessilibus. *Salisb. Parad. Lond. t.* 109. *Bot. Mag. t.* 1295, 1594, 1657, 1658. *Andr. Bot. Rep. t.* 104, 293, 524. *Lodd. Bot. Cab. t.* 273.

2. *Conoclinium.* Capitula terminalia, receptaculo conico v. demum cylindraceo. Flores quam in *Sphærolinio* minores, pubescentes v. sericei.

3. *Microclinium.* Flores solitarii v. pauci, ad apices ramorum subcapitati, receptaculo obsoleto.

Radojitskya, *Turcz. in Bull. Soc. Imp. Nat. Mosc.* 1852, ii. 176 (*L. axillaris,* Meissn.), a cæteris speciebus differt floribus parvis, in summis axillis solitariis brevissime pedicellatis fere glabris. Characteres cæteri omnino *Lachnææ.*

22. **Drapetes,** *Banks, ex Lam. in Journ. Hist. Nat.* i. 188, *t.* 10, *et Illustr. t.* 915.—Flores hermaphroditi. Perianthii tubus breviter cylindraceus v. campanulatus; lobi 4, sæpius patentes, fauce intus nuda, v. squamis 4 v. 8 lobis sigillatim v. geminatim oppositis coronata. Stamina 4, fauci affixa, lobis alterna, filamentis breviter filiformibus; antheræ oblongæ, connectivo angusto. Discus hypogynus 0. Ovarium sessile, 1-loculare; stylus elongatus, stigmate capitato, juniore sæpe piloso. Fructus subbaccatus, pericarpio carnosulo. Seminis testa crustacea; albumen carnosum (v. 0?); cotyledones ovatæ, crassæ.—Fruticuli diffusi prostrati v. dense cæspitosi. Folia alterna, parva, coriacea, concava, imbricata. Flores ad apices ramorum capitulati, capitulis inter folia caulinis conformia sessilibus, interdum ramulo florifero excrescente foliis deciduis quasi pendunculatis, receptaculo inter flores piloso.

Species 5, una ex America antarctica, 2 Novo Zelandicæ, 1 Australiensis, quinta Borneensis. *Hook. f. in Hook. Lond. Journ.* ii. *t.* 17, *in Hook. Kew Journ.* v. *t.* 7. *Hook. Ic. Pl. t.* 895.

Genus in integrum servatum naturalissimum, ab omnibus facillime distinctum et habitu et staminibus lobis perianthii isomeris iisque ad faucem alternis, ab auctoribus tamen recentioribus in genera 3 ad squamas faucis dividitur, nempe: 1. Drapetes, species unica typica, austro-Americana, fauce esquamata. 2. Kelleria, *Endl. Gen. Pl. Suppl.* iv. ii. 61, species Novo Zelandica, squamis ad quemque lobum solitariis. Et 3. Daphnobryon, *Meissn. in DC. Prod.* xiv. 566, species Novo-Zelandicæ et Tasmanicæ, squamis ad quemque lobum geminis.

23. **Struthiola,** *Linn. Mant.* 4. (Belvala, *Adans. Fam.* ii. 285.)—Flores hermaphroditi. Perianthii tubus gracilis; lobi 4, patentes. Squamæ v. glandulæ ad faucem 4, 8 v. 12, angustæ, erectæ, crasso-carnosæ, æquales et subæquidistantes, singulæ annulo pilorum cinctæ. Stamina 4, tubo inclusa, lobis alterna, filamentis brevissimis; antheræ subsessiles, lineares, connectivo dorsali subplano ultra loculos breviter producto, loculis in

facie interiore contiguis. Discus hypogynus 0. Ovarium sessile, 1-loculare; stylus filiformis, stigmate capitato. Fructus parvus, siccus, perianthii basi persistente inclusus v. perianthio demum deciduo intra bracteolas nudus, pericarpio tenuiter membranaceo. Semen compressiusculum, testa crustacea nitida; albumen parcum; cotyledones crassiusculæ.—Frutices suffruticesve ericoidei, ramis sæpius strictis. Folia opposita v. rarius sparsa, parvula, coriacea, sæpius laxe imbricata. Flores albi rubri v. flavi, in axillis superioribus subsessiles, solitarii v. rarius gemini, bracteolis 2 brevibus angustis stipati.

Species ad 20, Africæ australis incolæ. *Meissn. in DC. Prod.* xiv. 567. *Bot. Mag. t.* 222, 1212, 2138. *Andr. Bot. Rep. t.* 113, 119, 139, 149, 334. *Lodd. Bot. Cab. t.* 11, 74, 75, 141. Genus et habitu et characteribus ab omnibus facillime distinctum.

24. **Gnidia,** *Linn. Gen. n.* 487.—Flores hermaphroditi. Perianthii tubus cylindraceus, supra ovarium demum circumscissus; lobi 4, patentes. Squamæ ad faucem 4 v. 8, lobis alternæ. Stamina 8, ad faucem infra squamas affixa, superiora v. omnia breviter exserta, filamentis brevissimis; antheræ oblongæ v. lineares, connectivo angusto. Discus hypogynus 0 v. brevissime annulatus. Ovarium sessile, 1-loculare; stylus filiformis, stigmate capitato. Fructus siccus, parvus, basi perianthii persistente inclusus, pericarpio membranaceo. Seminis testa crustacea; albumen sæpius parcum rarius crassius carnosum; cotyledones crassiusculæ.—Frutices virgati v. ericoidei, ramosi. Folia sæpius parva v. angusta, opposita v. sparsa. Flores albi flavi rubelli v. violacei, ad apices ramorum capitati, rarius ad axillas solitarii, capitulis bracteis latiusculis involucratis v. nudis.

Species editæ ultra 40, quarum 2 v. 3 Africæ tropicæ, cæteræ Africæ australis incolæ. *Meissn. in DC. Prod.* xiv. 580. *Grant in Trans. Linn. Soc.* xxix. *t.* 91. *Bot. Mag. t.* 1463, 1902, 2016, 2761. *Bot. Reg. t.* 2, 19, 624, 757. *Andr. Bot. Rep. t.* 52, 70, 89, 225. *Lodd. Bot. Cab. t.* 7, 29, 1958.

Genus a Meissnero in sectiones 2 ad inflorescentiam dividitur: 1. *Eugnidia*, capitulis terminalibus rarius 1-floris. 2. *Phidia*, floribus in summis axillis solitariis in spicam brevem v. elongatam foliatam v. demum nudam dispositis. Icones supra citatæ omnes ad *Eugnidiam* pertinent.

Thymelina, *Hoffmans. Verz.* ab Endlichero Gen. Pl. 331 a *Gnidia* distincta fuit squamis faucis 8 liberis nec per paria connatis, sed postea Suppl. iv. ii. 64, iterum cum *Gnidia* junxit.

Canalia, *F. V. Schmidt, Neue Pfl.* 1793 *n.* 5 (opus a nobis non visum) a Meissnero ad *Gnidiam* refertur.

25. **Lasiosiphon,** *Fresen. in Flora* 1838, 602.—Flores hermaphroditi. Perianthii tubus cylindraceus, supra ovarium demum circumscissus; lobi 5, patentes. Squamæ ad faucem 5 v. 10, lobis alternæ. Stamina 10, ad faucem infra squamas affixa, superiora v. omnia breviter exserta, filamentis brevissimis; antheræ oblongæ v. lineares, connectivo angusto. Discus hypogynus 0 v. brevissime annulatus. Ovarium sessile, 1-loculare; stylus filiformis, stigmate capitato. Fructus siccus, parvus, basi perianthii persistente inclusus, pericarpio membranaceo. Seminis testa crustacea; albumen parcum v. 0 (rarius crasse carnosum ?); cotyledones crassiusculæ.—Frutices habitu *Gnidiæ* v. sæpe majores magisque sericei. Folia opposita v. sparsa. Flores ad apices ramorum dense capitati, capitulis sessilibus v. pedunculatis, bracteis latiusculis sæpe involucratis. Perianthia sæpissime sericeo-pubescentia.

Species ad 25, Africæ australis et tropicæ, Madagascariæ et Asiæ tropicæ incolæ.—*Meissn. in DC. Prod.* xiv. 593. *Wight, Ic. t.* 1859, 1860 (*Gnidia*). *Dcne. in Jacquem. Voy. Bot. t.* 150. *Miq. Anal. Bot. Ind.* ii. *t.* 1. *Kotschy, Pl. Tinn. t.* 19 B.

Genus a *Gnidia* imprimis floribus 5-meris distinctum. *L. scandens*, Meissn., ad *Linostoma* transfertur.

26. **Linostoma,** *Wall. Cat. Herb. Ind. n.* 4203. (Nectandra, *Roxb. Fl. Ind.* ii. 425, *non Roth.*)—Flores hermaphroditi. Perianthii tubus cylindraceus, mox basi ampliatus, supra ovarium continuus; lobi 5, patentes. Squamulæ v. glandulæ ad faucem 10, liberæ v. per paria basi connatæ. Stamina 10, ad faucem infra squamulas affixa, filamentis filiformibus exsertis lobos tamen rarius excedentibus; antheræ ovatæ v. oblongæ, con-

nectivo angusto. Discus hypogynus 0. Ovarium sessile, sæpius villosum, 1-loculare; stylus filiformis, stigmate capitato penicillato. Fructus ovoideus, siccus, durus, perianthio persistente basi aucto v. inflato inclusus v. perianthio fisso stipatus, rarius perianthio deciduo nudatus, pericarpio crustaceo v. fere suberoso. Seminis testa membranacea, pericarpio sæpe adnata; albumen 0; cotyledones crasso-carnosæ.—Frutices laxe ramosi v. scandentes. Folia opposita v. subopposita, plana, membranacea v. coriacea, pennivenia. Flores cymulosi, cymulis nunc fere umbelliformibus in paniculam terminalem dispositis. Bracteæ in pedunculo sæpius 2 suboppositæ, demum valde auctæ membranaceæ v. subscariosæ coloratæ.

Species 5 v. 6, quarum 3 v. 4 Indiæ orientalis, 2 Brasiliæ borealis incolæ. *Meissn. in Denkschr. Bot. Gesellsch. Regensb.* iii. *t.* 7, *et in Mart. Fl. Bras.* v. i. *t.* 30.

Characteres essentiales et habitus in speciebus Asiaticis et Americanis eidem, etsi fructus de specie in speciem paullo diversus. Perianthium fructiferum in *L. decandro*, Wall., quam in cæteris minus auctum, a latere fissum sed persistens; in *L. paucifloro*, Griff. (Psilæa *dalbergioide*, Miq. Fl. Ind. Bat. Suppl. 355) et *L. scandente*, Kurz (Enkleia, *Griff. Notul.* iv. 363, *Lasiosiphon scandens*, Meissn.) integrum remanet, fructu appressum; in *L. calophylloide*, Meissn., (Lophostoma, Meissn. in DC. Prod. xiv. 600) simile, sed circa fructum laxius. Seminis testa in *L. decandro* tenuis, a pericarpio subsolubilis, in *L. paucifloro*, *L. scandente* et *L. calophylloide* arcte adnata, in *L. ovato*, Meissn., ignota, nec adhuc descripta in *L. Siamense*, Kurz in Flora 1870, 371, specie a nobis non visa.

27. **Dicranolepis**, *Planch. in Hook. Ic. Pl. t.* 798.—Flores hermaphroditi. Perianthii tubus cylindraceus, elongatus, basi demum ampliatus, supra ovarium continuus; lobi 5, patentes. Squamæ ad faucem 10, petaloideæ, basi in annulum subconnatæ, per paria lobis oppositæ iis parum breviores et cum illis patentes. Stamina 10, fauci infra squamas affixæ, filamentis breviter filiformibus; antheræ oblongæ, connectivo dorsali lato, loculis in facie interiore parallelis. Discus hypogynus cupularis, membranaceus v. carnosulus. Ovarium breviter stipitatum, glabrum v. villosum, 1-loculare; stylus elongatus, stigmate oblongo v. clavato. Fructus globosus v. obovoideus, perianthii basi arcte inclusus, parte superiore perianthii emarcida v. decidua; pericarpium indurato-crustaceum. Seminis testa tenuis, pericarpio appressa v. adnata; albumen 0; cotyledones crasso-carnosæ, radicula minima intra basin cotyledonum retracta.—Frutices laxe ramosi. Folia alterna, membranacea, pennivenia. Flores ad axillas sessiles, solitarii v. per 2–4 fasciculati.

Species 2, Africæ tropicæ incolæ. *Meissn. in DC. Prod.* xiv. 599.

Genus inflorescentia antherisque fere *Struthiolæ*, habitus cæterum uti characteribus ab ea longe distat. In specie typica flores tenues fere glabri, ad axillas sæpissime solitarii. *D. Mannii*, Baill., Adans. xi. 302, videtur ejusdem varietas, floribus sæpissime fasciculatis nec aliter differt. Species tamen altera in herb. Kew adest, a Mannio lecta, foliis longius acuminatis, floribus multo majoribus dense cano-tomentosis.

28. **Synaptolepis**, *Oliv. in Hook. Ic. Pl. t.* 1074 *et* 1194.—Flores hermaphroditi. Perianthii tubus cylindraceus, elongatus, basi demum ampliatus, supra ovarium continuus; lobi 5, patentes. Squamæ faucis in annulum brevem erectum integerrimum v. brevissime in lobos truncatos fissum connatæ. Stamina 10, fauci infra annulum affixa, filamentis breviter filiformibus; antheræ oblongæ, connectivo dorsali lato, loculis in facie interiore parallelis. Discus hypogynus breviter cupularis, tenuissime membranaceus. Ovarium breviter stipitatum, 1-loculare; stylus filiformis, elongatus, stigmate oblongo. Fructus ovoideus v. oblongus, perianthii basi persistente carnosulo (nisi exocarpio ?) inclusus, pericarpio (potius quam endocarpio ?) crustaceo. Seminis testa membranacea, laxa (endopleura ad normam ordinis distincta); albumen 0; cotyledones crassiusculæ.—Frutices divaricato-ramosi v. scandentes. Folia alterna, ovata, membranacea v. subcoriacea, pennivenia. Flores pauci, in cymulas terminales v. in summis axillis breviter pedunculatas v. subsessiles dispositi.

Species 2, Africæ tropicæ incolæ.

29. **Stephanodaphne**, *Baill. Adans.* xi. 302.—Flores hermaphroditi. Perianthii tubus

cylindraceus, elongatus, lobi 5, patentes. Squamæ faucis in annulum continuum apice patenti-recurvum fimbriato-lobatum connati. Stamina 10, tubo 2-seriatim affixa, inclusa, filamentis brevissimis; antheræ subsessiles, ovatæ, obtusæ. Discus hypogynus 0. Ovarium sessile, hirsutum, 1-loculare. Fructus . . .—Frutices. Folia alterna, ampla. Flores spicati, spicis capitatis v. longe filiformibus. (*Char. ex Baill.*)

Species 2, una ins. Comoro, altera Madagascariæ incola, a nobis non visæ.

TRIBUS II. PHALERIEÆ.

30. **Peddiea,** *Harv. in Hook. Journ. Bot.* ii. 265, *t.* 10. (Cyathodiscus, *Hochst. in Flora* 1842, 240. Psilosolena, *Presl, Bot. Bemerk.* 102.)—Flores hermaphroditi. Perianthii tubus cylindraceus; lobi 4 (rarius 5?) breves, patentes, fauce intus nuda. Stamina 8 (rarius 10?), tubo inclusa, 2-seriata, filamentis brevissimis; antheræ oblongæ, connectivo inconspicuo. Discus hypogynus cupulatus, integer v. dentatus, ovarium basi cingens. Ovarium glabrum v. apice dense villosum, 2-loculare; stylus breviter filiformis, stigmate depresso-capitato fere disciformi; ovula in loculis solitaria (addito rarius altero abortivo?). Drupa perianthio deciduo denudata, exocarpio succoso; pyrenæ 2 v. abortu solitariæ, indurato-crustaceæ. Semina in pyrenis solitaria, testa membranacea; albumen parcum v. 0; cotyledones latæ, crassiusculæ, radicula brevi supera.—Frutices glabri. Folia sparsa, subcoriacea v. membranacea. Flores flavo-virentes, in umbellis ad apices ramorum pedunculatis pedicellati. Bracteæ 0.

Species 3 Africanæ, quarum 2 Natalenses, *Meissn. in DC. Prod.* xiv. 528, tertia tropica, *Hook. f. in Journ. Linn. Soc.* vi. 20.

Genus *Phaleriæ* valde affine. Ovarium a Meissnero 1-loculare dicitur, sed in speciminibus pluribus repetiter examinatis ovaria constanter 2-locularia invenimus.

31. **Leucosmia,** *Benth. Bot. Sulph.* 179, *t.* 57.—Flores hermaphroditi. Perianthii tubus cylindraceus elongatus; lobi 5, patentes. Squamæ faucis 5, breves, lobis alternæ. Stamina 5, fauci infra squamas 2-seriatim affixa, vix exserta, filamentis antheris sæpius brevioribus. Discus hypogynus breviter cupulatus, truncatus. Ovarium 2-loculare; stylus filiformis, stigmate capitato. Fructus drupaceus, perianthio deciduo nudus, exocarpio tenuiter carnoso, endocarpio duro sæpe crasso 2-loculari v. abortu 1-loculari. Semina in loculis solitaria, testa tenui: albumen 0; cotyledones crasso-carnosæ.—Arbores fruticesve. Folia opposita. Flores pauci v. rarius numerosi, capitati, capitulis ad nodos vetustos v. in axillis sessilibus v. breviter pedunculatis. Bracteæ ovatæ v. orbiculatæ, capitulum involucrantes, caducissimæ, in speciminibus siccis rarissime adsunt.

Species ad 5, ins. maris Pacifici australis incolæ. *Meissn. in DC. Prod.* xiv. 603. *A. Gray, in Seem. Journ. Bot.* 1865, 305. *Seem. Fl. Vit. t.* 53, 54 (*Drimyspermum*).

32. **Phaleria,** *Jack. in Mal. Misc.* ii. vii. 59. (Drimyspermum, *Reinw. in Syll. Pl. Soc. Ratisb.* ii. 15.)—Flores hermaphroditi. Perianthii tubus cylindraceus, elongatus; lobi 4–5, rarius 6, patentes, fauce intus nuda v. linea transversali obscura notata. Stamina 8–10, rarius 12, 2-seriatim fauci affixa, exserta, filamentis filiformibus; antheræ parvæ, connectivo angusto. Discus hypogynus brevis, cupulatus v. annulatus, sinuatus v. breviter lobatus. Ovarium 2-loculare; stylus filiformis, stigmate capitato. Fructus drupaceus, perianthio deciduo nudus, exocarpio succulento v. carnoso, endocarpio coriaceo v. indurato 2-loculari v. abortu 1-loculari. Semina in loculis solitaria, testa tenui; albumen 0; cotyledones crasso-carnosæ.—Arbores. Folia opposita. Flores in capitulis terminalibus v. rarius lateralibus plurimi sæpe numerosi, sessiles. Bracteæ foliaceæ, capitulum involucrantes, deciduæ.

Species ad 8, Zeylaniæ Archipelagi Malayani et Australiæ incolæ. *Meissn. in DC. Prod.* xiv. 603. *Thw. Enum. Pl. Zeyl.* 251. *Dcne. in Ann. Sc. Nat. ser.* 2, xix. *t.* 1. *A. Gray in Seem. Journ. Bot.* 1865, 304 (*omnes sub Drimyspermo*). *Benth. Fl. Austral.* vi. 38. *Bot. Mag. t.* 5787.

33. **Pseudais,** *Dcne. in Ann. Sc. Nat. ser.* 2, xix. 40.—Flores hermaphroditi. Perianthium tubulosum, lobis 5 minimis dentiformibus erectis, fauce intus nuda. Stamina 10, tubo 2-seriatim affixa, lobis breviora, filamentis filiformibus ; antheræ parvæ, connectivo angusto. Discus . . . . Ovarium 2-loculare ; stylus filiformis, stigmate subpeltato. Fructus drupaceus, 2-locularis. Semina in loculis solitaria.—Frutex. Folia opposita, ampla. Flores in capitulo terminali pedunculato numerosi, coccinei. (*Char. ex Gaudich. et Dcne.*)

Species 1, Moluccana, a nobis non visa. *Gaud. in Freyc. Voy. Bot. t.* 44 (*Dais*). Genus *Phaleriæ* evidenter valde affine, nec nisi perianthii lobis minimis erectis differre videtur.

Tribus III. Aquilarieæ.

34. **Gyrinops,** *Gærtn. Fruct.* ii. 276, *t.* 140. (Lachnolepis, *Miq. in Ann. Mus. Lugd. Bat.* i. 132.)—Flores hermaphroditi. Perianthii tubus cylindraceus, tenuis ; lobi 5, breves, patentes. Squamæ faucis in annulum glabrum v. pubescentem connatæ. Stamina 5, fauci infra squamas affixa, lobis opposita, filamentis brevissimis ; antheræ oblongæ, connectivo dorsali lato, loculis in facie interiore parallelis. Discus hypogynus 0. Ovarium longe stipitatum, 2-loculare, in stylum breviter subulatum desinens, stigmate ovoideo. Capsula stipitata, compressa, loculicide 2-valvis. Semina (ex ic. Gærtneri) omnino *Aquilariæ.*—Arbores. Folia alterna, nitidula, coriacea, crebre pennivenia. Flores in umbellis ad apices ramorum breviter subpaniculatis pauci, breviter pedicellati. Bracteæ 0.

Species 2, altera Peninsulæ Indiæ orientalis et Zeylaniæ incola, altera Moluccana. *Meissn. in DC. Prod.* xiv. 602. *Wight, Ic. t.* 1850. *Bedd. Fl. Sylv. t.* 303.

35. **Gyrinopsis,** *Dcne. in Ann. Sc. Nat. ser.* 2, xix. 41, *t.* 1.—Flores hermaphroditi. Perianthii tubus cylindraceus, crassiusculus ; lobi 5, breves, patentes. Squamæ faucis in annulum villosum connatæ. Stamina 10, ad faucem infra squamas affixa, filamentis brevissimis ; antheræ oblongæ, connectivo dorsali latiusculo. Discus hypogynus 0. Ovarium breviter stipitatum, villosum, 2-loculare, in stylum brevem desinens, stigmate ovoideo v. subgloboso. Capsula compressa, obovata, loculicide dehiscens, pericarpio coriaceo. Semina *Aquilariæ.*—Arbores. Folia alterna, ampla, coriacea, nitida, crebre pennivenia. Flores in fasciculis axillaribus lateralibusve subsessilibus breviter pedicellati. Bracteæ 0. Perianthium sub fructu sæpius persistens, hinc fissum.

Species 2, altera ins. Philippinarum, altera Assamiæ incola. *Meissn. in DC. Prod.* xiv. 602.
Genus *Gyrinopsem* cum *Aquilariæ* arcte connectens. Perianthium prioris, stamina 10 *Aquilariæ.*

36. **Aquilaria,** *Lam. Dict.* ii. 610. (Agallochum, *Lam. Dict.* i. 47, *pro parte.* Ophispermum, *Lour. Fl. Coch.* 280.)—Flores hermaphroditi. Perianthium campanulatum ; lobi 5, lati, patentes, tubo æquilongi. Squamæ faucis 5, dense pilosæ, basi in annulum brevissime connatæ. Stamina 10, ad faucem infra squamas affixa, filamentis brevissimis ; antheræ oblongæ, connectivo dorsali latiusculo. Discus hypogynus 0. Ovarium subsessile, villosum, perfecte v. imperfecte 2-loculare ; stylus subnullus, stigmate magno sessili v. subsessili. Capsula dissepimento contrarie compressa, obovata, loculicide dehiscens, pericarpio duriusculo filamentoso, 2-locularis v. placentis in mediis valvis vix prominulis 1-locularis. Semina in quoque loculo v. quaque placenta solitaria, apicem versus lateraliter affixa, ovoidea, raphe ventrali in appendicem subsuberosam longe caudiformem sub semen compresso-dilatatam dein attenuatam usque ad basin capsulæ descendentem producta, testa crustacea, endopleura crassiuscula, haud tamen albuminosa ; cotyledones crassæ, carnosæ.—Arbores. Folia alterna, tenuiter parallele pennivenia. Flores pedicellati, umbellulis subsessilibus axillaribus terminalibusque. Bracteæ 0.

Species 2 v. 3, Archipelagi Malayani et Asiæ orientalis usque ad Chinam incolæ. *Meissn. in DC. Prod.* xiv. 601. *Benth. Fl. Hongk.* 297. *Lam. Illustr. t.* 356 (ab icone pessima *Cav. Monad. t.* 224 mutuata). *Colebr. in Trans. Linn. Soc.* xxi. *t.* 21. *Hook. Ic. Pl. t.* 6. *Royle, Ill. Pl. Himal. t.* 36.
In speciminibus pluribus examinatis *A. Agallochæ,* Lam., ovarium placentis parum prominulis

1-loculare v. imperfecte divisum invenimus; in *A. grandiflora*, Benth., ovarium uti fructus semper perfecte 2-loculare.

GENERA ANOMALA.

37? **Octolepis,** *Oliv. in Journ. Linn. Soc.* viii. 161, t. 12.—Flores hermaphroditi. Perianthii segmenta 4, fere a basi distincta, imbricata, patentia. Squamæ subperigynæ 8, ovatæ, intus dense pilosæ, perianthio breviores. Stamina 8, squamis alterna et longiora, filamentis subulatis; antheræ parvæ, ovatæ, subcordatæ, connectivo angusto. Discus hypogynus 0. Ovarium sessile, ovoideum, dense pilosum, 4-loculare; stylus brevis, stigmate dilatato; ovula in loculis solitaria, pendula. Fructus . . .—Frutex v. arbor parva, libro filamentoso. Folia alterna, ampla, integerrima. Flores parvi, pauci ad axillas fasciculati, brevissime pedicellati. Bracteæ minutæ v. 0.

Species 1, Africæ tropicæ occidentalis incola, quoad affinitates adhuc valde incerta.

38? **Gonystylus,** *Teijsm. et Binn. in Bot. Zeit.* 1862, 265.—Flores hermaphroditi. Perianthium breve, intus strigoso-hirsutum, coriaceum, persistens, laciniis 5 patentibus lanceolatis obtusiusculis. Squamæ 1-seriatæ basi affixæ, setaceæ, filamentiformes, apicibus curvatis. Stamina plurima in fundo calycis circa ovarium seriata, filamentis brevibus; antheræ basifixæ, 2-loculares, longitudinaliter dehiscentes. Ovarium 5–4-loculare; stylus filiformis, geniculato-flexuosus, stigmate clavato 2-lobo; ovula in loculis solitaria, anatropa. Drupa 4-gono-subglobosa, sarcocarpio fibroso, 5–4-locularis. Semina columnæ centralis apice inserta, pendula, oblonga, curvata, exalbuminosa.—Arbor excelsa, ramis glabris, gemmis sericeo-tomentosis. Folia alterna, coriacea, rigida, pennivenia, glabra. Spicæ axillares terminalesque, floribus umbellulatis longe pedicellatis. Alabastrum globosum, *Piso* fere majus. (*Char. ex Teijsm. et Binn.*)

Species 1, Javana, a nobis non visa. *Miq. in Ann. Mus. Ludg. Bat.* i. 132, *t.* 4.

ORDO CXLVI. PENÆACEÆ.

Endl. Gen. 334. Lindl. Veg. Kingd. 577. A. Juss. in Ann. Sc. Nat. ser. 3, vi. 15. Baill. Hist. Pl. vi. 98.

Flores hermaphroditi, regulares. *Perianthium* inferum, tubo ovoideo v. cylindraceo; lobi 4, valvati v. margine reduplicati. *Stamina* 4, fauci affixa, lobis alterna, filamentis brevibus. *Antheræ* cum filamento continuæ, erectæ, 2-loculares, loculis connectivo crasso-carnoso introrsum adnatis, rima longitudinali dehiscentibus. *Discus* hypogynus 0. *Ovarium* sessile, 4-loculare; stylus terminalis, teres v. 4-gonus, apice truncatus, stigmate terminali adnato cruciatim 4-lobo. *Ovula* in loculis 2 v. 4, anatropa, ascendentia v. pendula. *Capsula* perianthio persistente inclusa, loculicide 4-valvis. *Semina* in loculis sæpius abortu solitaria, testa crustacea. *Albumen* 0. *Embryo* crasso-carnosus, apice breviter 2-lobus, cæterum integerrimus, cotyledonibus versimiliter fere ad apicem conferruminatis; radicula brevissima, infera v. in semine pendulo supera; plumulam in speciminibus examinatis haud deteximus.

Frutices ramosissimi. Folia opposita, numerosa, parvula, integerrima, coriacea. Stipulæ 0. Flores in axillis superioribus solitarii, subsessiles, bracteis 2 v. 4 per paria oppositis stipati.

Species ad 20, Africæ australis incolæ. Ordo nulli arcte affinis. Ob habitum characteresque nonnullos *Thymelæaceis* approximatur, sed æstivatione perianthii, antheris, ovario et fructu recedit. A Lindleyo cum *Rhamneis* comparatur, ob staminum situ, sed stamina lobis perianthii isomera et alterna etiam in *Thymelæaceis* (*Drapete* et *Struthiola*) observantur. *Geissoloma* a charactere supra dato pluribus notis recedit, sed species unica habitu *Penæaceis* simillima, vix pro ordine proprio habenda.

CONSPECTUS GENERUM.

1. PENÆA. Perianthii lobi plani v. margine parum recurvi. Stylus 4-alatus v. 4-angulatus. Ovula 2, a basi loculorum erecta.

2. SARCOCOLLA. Perianthii lobi margine valde recurvi. Stylus teres. Ovula 2 v. 4, a basi loculorum erecta.

3. ENDONEMA. Perianthii lobi subplani. Stylus teres. Ovula 4, medio loculo affixa, 2 ascendentia, 2 pendula.

GENUS ANOMALUM.

4. GEISSOLOMA. Perianthium 4-partitum, segmentis imbricatis. Stamina 8. Ovarium 4-lobum, ovulis in loculis 2 pendulis. Capsula subdrupacea.

1. **Penæa**, *Linn. Gen. n.* 138.—Perianthii tubus oblongo-cylindraceus v. ovoideus; lobi valvati, margine plani v. leviter recurvi. Antherarum loculi ad basin connectivi crassi carnosi breves, obliqui. Ovarium 4-angulatum v. 4-sulcum; stylus 4-gonus v. 4-alatus, angulis alisve loculis alternis ramis stigmatis coronatis; ovula in loculis gemina, a basi loculi erecta.—Fruticuli ramosissimi, glabri, dense foliati. Folia opposita, sessilia, integerrima, coriacea. Flores flavescentes v. rubicundi, ad apices ramorum in axillis solitarii, sessiles, spicam foliatam formantes, foliis floralibus caulinis conformibus v. latioribus brevioribusque. Bracteæ sub flore 2 v. 4 per paria oppositæ.

Species 9, Africæ australis incolæ. *A. Juss. in Ann. Sc. Nat. ser.* 3, vi. 22, 23, *t.* 1. *A. DC. Prod.* xiv. 484, 486 (*Penæa et Stylaptera*). *Vent. Jard. Malm. t.* 87. *Lodd. Bot. Cab. t.* 1770.

STYLAPTERA, *A. Juss. l.c.*, vix pro sectione distincta habenda videtur, stylo 4-angulato nec 4-alato.

2. **Sarcocolla**, *Kunth in Linnæa*, v. 677.—Perianthii tubus cylindraceus, sæpius elongatus; lobi valvati, marginibus recurvis fere reduplicatis. Antherarum loculi in facie interiori connectivi crassi, ei æquilongi v. parum breviores. Ovarium extus læve, in stylum teretem desinens, stigmate terminali parvo cruciatim 4-lobo; ovula in loculis 2 v. rarius 4, omnia a basi loculi erecta.—Fruticuli habitu et inflorescentia *Penææ*. Flores sæpius majores, et in specie typica folia floralia majora colorata verniciflua.

Species 9 v. 10, Africæ australis incolæ. *A. DC. Prod.* xiv. 487 *ad* 489 (*Brachysiphon et Sarcocolla*). *Bot. Reg. t.* 106 (*Penæa*).

BRACHYSIPHON, *A. Juss. in Ann. Sc. Nat. ser.* 3, vi. 24, *t.* 2, generice distinctus fuit a *Penæa* perianthii lobis margine valde recurvis et stylo terete, a *Sarcocolla* perianthii tubo brevi, staminibus inclusis. Inter species in Prodromo enumeratas *B. imbricatus*, Juss. (*Penæa*, Bot. Mag. t. 2809) antheras exhibet *Penææ*, ovarium et stylum *Sarcocollæ*. In *B. acuto*, A. Juss., perianthii tubus elongatus et antheræ *Sarcocollæ* etsi habitus diversus. *B. speciosus*, Sond., omnino ad *Sarcocollam* referendus videtur. In specie typica *Sarcocollæ*, *S. squamosâ*, Endl., saltem in speciminibus Burchellianis n. 8188, ovula 4 invenimus in quoque loculo, omnia tamen e basi erecta nec medio loculo affixa ut in *Endonemate*.

3. **Endonema**, *A. Juss. in Ann. Sc. Nat. ser.* 3, vi. 26, *t.* 3.—Perianthii tubus elongatus, latiuscule cylindraceus, subangulatus; lobi valvati, subplani. Staminum filamenta antheris vix breviora; antherarum loculi connectivo crasso vix breviores. Ovarium extus læve, in stylum teretem desinens, stigmate terminali parvo cruciatim 4-lobo; ovula in loculis 4, medio loculo affixa, 2 collateralia ascendentia, 2 descendentia.—Frutices habitu *Penææ*, flores tamen secus ramos ad axillas foliorum caulinorum solitarii v. gemini brevissime pedicellati. Bracteæ sub quoque flore 4, per paria oppositæ, diu persistentes v. caducissimæ.

Species normales 2, Africæ australis incolæ. *A. DC. Prod.* xiv. 491.

GLISCHROCOLLA, *A. DC. Prod.* xiv. 490, species a nobis non visa, a Jussieuo ad *Sarcocollam* relata, pluribus notis medium tenet inter *Sarcocollam* et *Endonema*; inflorescentia et flores prioris, ovarii structura *Endonematis*, quocum junxit Baillon Hist. Pl. vi. 99. Cæterum genera tria limitibus valde incertis separantur, characteribus fere de specie in speciem discedentibus.

GENUS ANOMALUM.

4. **Geissoloma,** *Lindl. ex Kunth in Linnæa,* v. 678.—Perianthium tubo brevissimo sub-4-partitum, segmentis latis 2-seriatim oppositis, 2 exterioribus vix basi connatis. Stamina 8, segmentis breviora, filamentis tenuibus leviter complanatis basi in annulum brevissimum ad basin perianthii connatis; antheræ ovato-cordatæ, versatiles, connectivo inconspicuo, loculis dorso contiguis. Ovarium 4-lobum, 4-loculare, lobis in stylos distinctos apice cohærentes desinentibus, stigmatibus minimis terminalibus; ovula in quoque loculo 2, ab apice pendula. Fructus subdrupaceus, 4-locularis, endocarpio cruciatim 4-lobo, exocarpio tenuiter carnoso, lobis compressis, (indehiscentibus?). Semina abortu sæpe in toto fructu solitaria, oblonga, compressiuscula, testa nitida crustacea albida; albumen 0; cotyledones carnosæ.—Frutex, habitus folia et flores axillares brevissime pedicellati *Endonematis.* Bracteæ 4, per paria oppositæ, diu persistentes.

Species 1, austro-Africana. *Juss. in Ann. Sc. Nat. ser.* 3, vi. 27, *t.* 4. *A. DC. Prod.* xiv. 492. *Baill. Hist. Pl.* vi. 49. *Schnitzl. Iconogr. t.* 112*.

Affinitas generis cum *Celastraceis* a Baillonio indicata nobis effugit.

Ordo CXLVII. **ELÆAGNACEÆ.**

Endl. Gen. 333. Lindl. Veg. Kingd. 257. A. Rich. Monogr. Elæagn. in Mem. Soc. Hist. Nat. Par. i. 375, t. 24. Baill. Hist. Pl. ii. 487.

Flores hermaphroditi v. unisexuales sæpiusque dioici. *Perianthium* in flore ☿ v. ♀ tubulosum, supra ovarium constrictum persistensque, superne deciduum, 2- v. 4-lobum v. rarius truncatum, in flore ♂ pars inferior deest. *Stamina* ad faucem perianthii v. in flore ♂ ad basin affixa, 4 lobis alterna v. 8 lobis alterna et opposita; filamenta libera, sæpius brevia. *Antheræ* dorsifixæ, oblongæ, 2-loculares, loculis parallelis contiguis rima longitudinali 2-valvatim dehiscentibus. *Staminodia* in flore ♀ 0. *Ovarium* in fundo perianthii sessile, 1-loculare. *Stylus* terminalis, linearis v. superne dilatatus, obliquus, uno latere stigmatosus. *Ovulum* 1 a basi ovarii erectum, anatropum. *Nux* intra perianthii basin persistentem incrassatam baccatamque arcte inclusa. *Pericarpium* tenuiter membranaceum. *Semen* erectum, testa crustacea v. indurata. *Albumen* perparcum membranaceum v. 0. *Embryo* rectus, cotyledonibus crassis carnosis, radicula infera brevissima.

Arbores fruticesve, indumento lepidoto v. rarius stellato. Folia alterna v. opposita, integerrima, tenuiter penninervia. Flores ad axillas v. rarius ad nodos defoliatos solitarii fasciculato-spicati v. racemosi. Bracteæ parvæ, deciduæ.

Species 16, regionum temperatarum hemisphærii borealis utriusque orbis incolæ, etiam in Asia tropica usque ad Australiam extensæ.

Ordo pluribus notis *Thymelæaceis* affinis, facillime tamen ovulo erecto, sæpiusque indumento distinguitur.

CONSPECTUS GENERUM.

1. Elæagnus. Flores hermaphroditi. Stamina 4. Folia alterna.—*Eur., Asia, Austral., Amer. bor.*
2. Hippophaë. Flores unisexuales, sæpissime dioici. Stamina 4. Folia alterna.—*Amer., Asia temper. et media.*
3. Shepherdia. Flores dioici. Stamina 8. Folia opposita.—*Amer. bor.*

GENERA EXCLUSA.

Conuleum, Rich., est **Monimiacea,** supra, 143.

Ǽxtoxicon, Ruiz et Pav., a nonnullis ob indumentum lepidotum ad **Elæagnaceas** relata, infra sub **Euphorbiaceis** recensetur.

1. **Elæagnus,** *Linn. Gen. n.* 159. (Lepargyræa, *Rafin. ex Steud.*)—Flores hermaphroditi. Perianthium basi persistente oblongum v. globosum, supra constrictionem campanulatum v. infundibulare, apice valvatim 4-fidum deciduum, intus sæpius supra constrictionem annulo prominente notatum. Stamina 4, ad faucem inserta, filamentis brevibus interdum basi annulo prominulo connexis. Stylus linearis, perianthio brevior, superne longe unilateraliter stigmatosus, parum dilatatus. Perianthii fructiferi basis persistens baccata v. rarius subsicca, strato interiore tenacissimo; pericarpium tenuiter membranaceum. Semen (pyrena, *Nees, Schlecht.*) conforme, testa nitida crustacea v. indurata; albumen in seminibus examinatis 0, ex auctoribus interdum tenue.—Arbores fruticesve indumento lepidoto v. stellato sæpe argenteo. Folia alterna, petiolata, integerrima. Flores ad axillas breviter pedicellati, ad normam solitarii v. 2–3-ni, ebracteati, interdum fasciculati v. fasciculi in ramulos breves plus minus foliatos producti. Perianthium intus sæpius flavum v. album.

Species a Schlechtendalio enumeratæ 27, a Maximoviczio ad 12 reductæ, Europæ australis, Asiæ temperatæ et tropicæ, Australiæ et Americæ borealis incolæ. *Schlecht. in DC. Prod.* xiv. 609. *Maxim. in Bull. Acad. Imp. Sc. Petersb.* xv. 377; *Mel. Biol.* vii. 558. *A. Rich. Monogr. t.* 24. *Nees, Gen. Fl. Germ. Monochlam. n.* 43; *Reichb. Ic. Fl. Germ. t.* 549. *Sibth. Fl. Græc. t.* 152. *Lindb. in Act. Soc. Sc. Fenn.* x. *t.* 3. *Pall. Fl. Ross. t.* 4, 5. *Royle, Illustr. Bot. Himal. t.* 81. *Wight, Ic. t.* 1856. *Brand. For. Fl. t.* 46. *Bot. Reg. t.* 1156 *et* 1843, *t.* 51.

Octarillum, *Lour. Fl. Cochinch.* 90, ex charactere dato videtur *Elæagnus* pericarpio membranaceo pro arillo descripto.

2. **Hippophaë,** *Linn. Gen. n.* 1106.—Flores unisexuales, sæpissime dioici. Fl. ♂: Perianthium tubo subnullo membranaceum, in alabastro globosum, fere ad basin valvatim 2-partitum. Stamina 4 v. rarius abortu pauciora, filamentis brevissimis. Ovarii rudimentum 0. Fl. ♀: Perianthium oblongum, supra ovarium breviter contractum, brevissime v. obscure 2-lobum. Ovarium inclusum; stylus basi breviter tenuis inclususque, superne incrassatus, longiuscule exsertus, uno latere v. fere undique stigmatosus. Perianthium fructiferum baccatum, globosum, clausum; pericarpium tenuiter membranaceum. Semen (pyrena, *Nees, Schlecht.*) conforme, testa nitida crassa dura sublignosa; albumen tenue v. prope basin leviter incrassatum.—Frutex saliciformis, undique usque ad perianthium squamis lepidotis v. pilis stellatis dense obtectus. Folia alterna, angusta. Flores utriusque sexus ad axillas bractearum deciduarum solitarii, in spicas v. racemos breves conferti, ♂ sessiles, spica amentiformi post anthesin decidua rarius in ramulum foliatum v. spinescentem excurrente; ♀ pedicellati, racemi rhachi mox excrescente in ramum foliatum v. spinescentem, fructibus ad basin rami glomeratis.

Species 1, in Europa et Asia temperata et media præsertim montana, ad littora maris v. ripas fluviorum late dispersa. *Schlecht. in DC. Prod.* xiv. 607. *A. Rich. Monogr. t.* 24. *Gærtn. Fruct.* i. *t.* 42. *Nees, Gen. Fl. Germ. Monochl. n.* 44. *Reichb. Ic. Fl. Germ. f.* 549. *Pall. Fl. Ross. t.* 68.

3. **Shepherdia,** *Nutt. Gen. Pl. N. Amer.* ii. 240; *N. Amer. Sylv. t.* 35. (Leptargyreia, *Rafin. ex Schlecht.*)—Flores dioici. Fl. ♂: Perianthium tubo subnullo in alabastro globosum, valvatim 4-partitum. Stamina 8, filamentis antheris æquilongis, glandulis globosis totidem alternis. Ovarii rudimentum 0. Fl. ♀: Perianthium ovoideo-oblongum, supra ovarium contractum, limbo valvatim 4-lobo deciduo. Glandulæ 8 ad faucem tubi. Ovarium perianthii basi inclusum; stylus e tubo vix exsertus, limbo brevior, stigmate oblique ovato v. orbiculato patente. Perianthii fructiferi basis persistens baccata; pericarpium tenuiter membranaceum. Semen conforme, testa nitida crustacea; albumen perparcum membranaceum v. 0.—Frutices v. arbusculæ lepidotæ. Folia opposita, petiolata, oblonga, integerrima. Flores parvi, brevissime spicati v. racemosi, secus rhachin ad axillas bractearum parvarum oppositi, spicis ♂ sæpius ∞-floris ♀ 2-floris ad axillas foliorum v. sæpius ad nodos defoliatos sessilibus, rhachi gemma foliacea terminata rarius in ramulum excrescente.

Species 3, Americæ borealis incolæ. *Schlecht. in DC. Prod.* xiv. 608. *Parry in Amer. Naturalist,* ix. 350. *A. Rich. Monogr. t.* 24. *Hook. Fl. Bor. Amer. t.* 178.

ORDO CXLVIII. **LORANTHACEÆ.**

Endl. Gen. 799. Lindl. Veg. Kingd. 789.

Flores regulares, hermaphroditi v. unisexuales. *Perianthium* duplex v. simplex. *Calycis* v. perianthii simplicis tubus ovario adnatus, in flore ♂ brevis solidus v. vix ullus; calycis limbus annularis v. cupulatus, integerrimus v. breviter dentatus. *Petala* v. perianthii simplicis limbi segmenta 3–6, rarius 2, valvata, libera v. breviter v. alte in tubum perfectum v. postice fissum coalita. *Stamina* tot quot petala v. segmenta, eorum basi v. centro affixa iisque breviora v. rarius æquilonga; filamenta filiformia v. varie incrassata v. abbreviata v. 0. *Antheræ* basi v. dorso affixæ, ad normam 2-loculares loculis parallelis v. divergentibus rima longitudinali 2-valvatim dehiscentibus, interdum vero loculis varie confluentibus 1-loculares poro v. rima transversa dehiscentes, v. jam in alabastro explanatæ facie ∞-porosæ v. ∞-locellatæ. *Discus* epigynus v. in flore ♂ intrastaminalis, carnosus, parum prominulus v. 0. *Staminodia* in flore ♀, ovarii rudimentum in flore ♂ rarissime adsunt. *Ovarium* floris ☿ v. ♀ inferum, ante fecundationem solidum apparet v. in centro textura tenuiore plus minus distincte (in speciminibus siccis) cavum, ovulo sæpissime a substantia ovarii non rite distinguendum, etsi a variis auctoribus nunc erectum nunc pendulum v. lateraliter affixum dicitur. *Stylus* simplex, filiformis v. abbreviatus nunc brevissimus v. subnullus, centralis, stigmate terminali indiviso obtuso v. capitato interdum in ovario sessili. *Fructus* baccatus v. drupaceus rarius subsiccus; pericarpium sæpius crassum, visco tenacissimo repletum, mesocarpio carnoso v. succulento, endocarpio tenui v. crustaceo rarius indurato, indehiscens v. rarissime prope basin circumscissus. *Semen* unicum, sæpius ovoideum v. globosum, plus minus uno latere v. undique endocarpio adhærens, testa nulla. *Albumen* sæpius copiosum, crassum, rarius 0 v. tenue et ab endocarpio non distinguendum. *Embryo* in centro albuminis teres v. rarius 4-gonus, nunc albumine inclusus, nunc radicula supera breviter exserta, et interdum embryones ad 3 in eodem albumine observantur.

Frutices in arboribus parasitici v. rarissime arbores v. frutices erecti terrestres. Folia opposita v. rarius alterna, integerrima, plana sæpiusque crassiuscula, in nonnullis generibus v. speciebus ad squamas parvas v. dentes parum prominentes reducta. Stipulæ 0. Gemmæ foliiferæ interdum squamis imbricatis obtectæ, quæ cito deciduæ v. ad basin innovationum persistentes. Inflorescentia varia, racemosa spicata v. fasciculata nec paniculata. Flores singuli v. florum ternationes bractea sæpius squamiformi et interdum bracteolis 2 stipati, rarius omnino ebracteati, perianthio nunc elongato specioso pulchreque colorato, nunc parvo virescenteque v. in generibus nonnullis minuto.

Species ad 500, per regiones tropicas utriusque orbis latissime dispersæ, in temperatis tam borealibus quam australibus rariores.

Ordo *Santalaceis* valde affinis et a Baillono, Adansonia ii. et iii. cum iis in unum conjunctus, ovario tamen ante fecundationem ovulum nullum distinctum ostendente ab omnibus Dicotyledoneis Angiospermis differt. Cæterum de ovarii structura confer Decaisne in Nouv. Mem. Acad. Sc. Brux. xiii. 1, t. 1 ad 3; Griffith in Trans. Linn. Soc. xviii. 71, t. 4 ad 11, et xix. 171, t. 19 ad 21; Hofmeister in Abhandl. K. Sächs. Ges. Wissensch. Leipzig, vi. 539, t. 1 ad 8.

FORMÆ ABNORMES.

Arbores fruticesve terrestres in *Nuytsia*, in *Loranthi* sect. *Gaiadendro*, et interdum in speciebus aliis perpaucis *Loranthi*.

Perianthium floris ♂ deest in *Antidaphne*.

Fructus prope basin circumscissus in *Arceuthobio*.

Albumen deest v. a pericarpio non distinguendum in *Loranthi* sect. *Aetantho* et *Psittacantho* et in *Lepidocerate*.

CONSPECTUS GENERUM.

Tribus I. Eulorantheæ. Flores hermaphroditi v. abortu dioici. Perianthium duplex, calycis tubo adnato, limbo plus minus distincto annulari v. breviter cupulato.

1. NUYTSIA. Fructus subsiccus, late 3-alatus.—*Australia austro-occid.*

2. LORANTHUS. Fructus non alatus sæpius baccatus v. drupaceus.—*Area tota ordinis Amer. bor. excepta.*

Tribus II. Visceæ. Flores omnes unisexuales. Perianthium simplex, calycis margine nullo conspicuo.

* *Antheræ in medio segmento sessiles, adnatæ v. medifixæ et demum explanatæ.*

3. VISCUM. Flores ad axillas v. ad apices ramorum fasciculati, rarius solitarii. Antheræ latæ, adnatæ, facie interiore ∞-porosæ.—*Europa, Asia, Africa, Australasia.*

4. ARCEUTHOBIUM. Flores in axillis squamarum oppositarum connatarum utrinque solitarii. Antheræ medifixæ, rima transversa dehiscentes, demum orbiculatæ. Fructus demum basi circumscissus.—*Europa, Asia occid., Amer. bor., Mexico.*

5. DENDROPHTHORA. Flores inter articulationes spicæ ad utrumque latus rhacheos 1-seriatim (rarius brevissime 2-seriatim) superpositi. Antheræ medifixæ, rima transversa dehiscentes, demum orbiculatæ.—*Ind. occid., Amer. centr., Columbia.*

** *Antheræ ad basin segmentorum filamento brevissimo fultæ v. subsessiles, erectæ.*

6. PHORADENDRON. Flores inter articulationes spicæ ad utrumque latus rhacheos 2-∞-seriatim superpositæ, rarius in spica brevissima 3–4. Antheræ vertice 2-loculares, loculis longitudinaliter dehiscentibus.—*Amer. bor. et austr.*

7. NOTOTHIXOS. Capitula 3–7-flora, in racemo v. spica opposita v. in pedunculo solitaria, inflorescentia in dichotomiis terminali. Antheræ vertice transversim dehiscentes, obscure ∞-locellati. Fruticuli aureo-tomentosi v. canescentes, foliis oppositis.—*Zeylania, Australia.*

8. GINALLOA. Verticillastri 2–10-flori, in spicis axillaribus terminalibusve dissiti. Antheræ distincte 2-loculares. Frutices glabri, foliis oppositis.—*Asia trop.*

9. EREMOLEPIS. Spiculæ parvæ, unisexuales, ad axillas sessiles. Antherarum loculi distincti paralleli. Folia alterna.—*Amer. austr., Ind. occid.*

10. EUBRACHION. Spiculæ androgynæ, in ramis aphyllis alternæ. Antherarum loculi distincti paralleli. Ramuli novelli squamis alternis peltatis instructi.—*Brasilia, Uruguay.*

*** *Filamenta filiformia, antheris 2-locularibus multo longiora.*

11. TUPEIA. Perianthium fl. ♂ 4–5-partitum. Discus 0. Stylus columnaris. Albumen copiosum. Folia opposita.—*Nov. Zel.*

12. LEPIDOCERAS. Perianthium fl. ♂ 4–5-partitum. Discus carnosus. Stylus abbreviatus. Albumen 0. Folia opposita.—*Peruvia, Chile.*

13. ANTIDAPHNE. Perianthium in fl. ♂ 0. Discus carnosus. Stylus brevissimus. Albumen copiosum. Folia alterna.—*Columbia, Peruvia.*

GENERA EXCLUSA.

HENSLOWIA, Blume, et MYZODENDRON, Banks, frutices parasitici olim sub *Loranthaceis* inclusi, ob ovarii structuram nunc ad **Santalaceas** referentur.

TRIBUS I. EULORANTHEÆ.

1. **Nuytsia,** *R. Br. in Journ. Geogr. Soc.* i. 17; *Bot. Works,* i. 308.—Flores hermaphroditi. Perianthium duplex. Calycis tubus ovario adnatus; limbus parvus, inæqualiter 6-dentatus. Petala 6, linearia, libera, erecta, apice breviter patentia. Stamina basi petalorum affixa, filamentis filiformibus; antheræ ovato-oblongæ, dorsifixæ, versatiles, loculis parallelis distinctis longitudinaliter dehiscentibus. Discus 0. Ovarium inferum ad normam ordinis; stylus elongatus, stigmate parvo terminali. Fructus subdrupaceus, extus alis 3 longitudinalibus latiusculis coriaceis instructus, endocarpio intus lævi. Embryo in albumine copioso carnoso tenuis, rectus, cotyledonibus 2–4 inæqualibus radicula supera longioribus.—Arbor terrestris, glaberrima. Folia alterna, linearia, crassa. Flores ternatim intra bracteam bracteolasque sessiles, ternationibus pedicellatis racemosis, racemis dense floribundis, in axillis summis v. ad apices ramorum confertis.

Species 1, Australiæ austro-occidentalis incola. *Benth. Fl. Austral.* iii. 387. *Labill. Pl. Nov.*

Holl. t. 113 (*Loranthus*). *Lindl. Swan Riv. App. t.* 4. Genus a *Loranthi* sect. *Gaiadendro* vix nisi fructu differt.

2. **Loranthus**, *Linn. Gen. n.* 443.—Flores hermaphroditi v. abortu dioici. Perianthium duplex. Calycis tubus ovario adnatus; limbus brevis, truncatus v. 4–6-dentatus, interdum ad marginem angustum reductus v. vix prominulus. Petala 4–6, valvata, nunc breviter v. alte in tubum rectum v. incurvum æqualem v. dorso altius fissum coalita, nunc a basi libera v. per anthesin soluta, tubo intus nudo v. rarius prope basin squamis 5 supra ovarium conniventibus staminibus oppositis v. altius costis longitudinalibus inter filamenta prominentibus crispisque (e marginibus induplicatis petalorum) instructo; lobi v. petalorum apices sæpius patentes v. recurvi, plani v. apice concavi. Stamina ad basin loborum corollæ v. partis patentis petalorum affixa, corollam non excedentia, filamentis filiformibus v. crassiusculis sæpius usque ad basin corollæ distincte decurrentibus, interdum usque ad apicem adnatis v. per anthesin elastice involutis; antheræ ovatæ oblongæ v. lineares, basi v. dorso affixæ, erectæ immobilesque v. versatiles, loculis parallelis discretis v. arcte contiguis, interdum vix distinctis et mox confluentibus, rima v. valvis longitudinalibus lateraliter v. introrsum dehiscentibus. Discus 0. Ovarium inferum ad normam ordinis; stylus columnaris filiformis v. rarius contortus, stigmate terminali obtuso v. capitato indiviso. Fructus baccatus v. drupaceus, globosus ovoideus v. rarius oblongus, calycis limbo dum adsit, rarissime corollæ reliquiis coronatus; pericarpium nunc vix in stratus distinctos separandus, undique carnosus intusque viscifluus, nunc epicarpio (calycis tubo?) membranaceo v. herbaceo, mesocarpio crasso succulento carnoso v. lacunoso copioseque viscifluo, endocarpio carnoso membranaceo crustaceo v. rarius indurato, intus lævi v. processubus laminisve in sulcos seminis intrusis instructo. Semen lateraliter affixum v. undique pericarpio adhærens, testa 0; albumen copiosum carnosum v. (in *Aetantho* et *Psittacantho*) 0, nisi ad pelliculum a pericarpio non separandum reductum; embryo teres v. (in *Eupsittacantho*) tetraqueter, sæpissime carnosus, crassus v. tenuis, in centro albuminis rectus, radicula supera interdum ex albumine leviter prominula, cotyledonibus 2 rarius 4 æqualibus radicula sæpius longioribus.—Frutices in arboribus parasitici v. rarius (in *Gaiodendro*) arbores fruticesve terrestres. Folia opposita v. nonnulla rarius omnia alterna v. verticillata, integerrima, sæpe crassa v. carnosa, pennivenia v. rarius 3–5-nervia, venis tamen præter costam sæpe inconspicuis. Flores parvi v. longi, sæpius pulchre colorati, flavescentes aurantiaci v. rubri, rarius albi v. virescentes, singulatim v. ternatim spicati racemosi v. cymosi, inflorescentiis axillaribus v. ad nodos vetustos rarius terminalibus. Bractea sub flore solitario v. sub ternatione sæpissime adest squamiformis, concava v. oblique cupulata; bracteolæ 2 intra bracteam, sub flore solitario oppositæ, v. in ternatione sub floribus lateralibus, in pluribus sectionibus adsunt liberæ v. cum bractea coalitæ, in aliis omnino desunt; flos centralis ternationis sæpius ebracteatus, interdum vero omnes bracteola concava stipati.

Species ad 330, per regiones calidiores utriusque orbis late dispersæ, extra tropicos perpaucæ, in Europa australi, Asia temperata, Africa boreali et australi, Australia, Nova Zelandia, ins. maris Pacifici et America australi; in America boreali desunt. *DC. Prod.* iv. 286, 671. *Walp. Rep.* ii. 439, 940 v. 937; *Ann.* i. 362, ii. 730, v. 92. *Blume Fl. Jav. Lor.* 11, *cum tabb.* 23. *Harv. Fl. Cap.* ii. 574. *Oliv. in Journ. Linn. Soc.* vii. 97. *Kurz, For. Fl. Brit. Burm.* ii. 314. *Benth. Fl. Austral.* iii. 388. Confer etiam *Griff. in Trans. Linn. Soc.* xviii. *t.* 4 *ad* 9 *et* xix. *t.* 19 *ad* 21.

Genus polymorphum, a Martio, Blumeo nuperque ab Eichlero in plura divisum, quæ tamen iterum a plerisque botanicis in unum juncta sunt, et genus in integrum servatum (uti *Ficus, Euphorbia*, etc.) facile dignoscitur. Catervæ insigniores sectiones sequentes formant, quarum aliæ characteribus sat definitis sed non semper naturalibus et sæpe observatu difficilibus distinguuntur, aliæ potius habitu v. inflorescentia separatæ, vix limitibus certis definiuntur:—

A. *Loranthi gerontogei, antheris non versatilibus, erectis basifixisque* (*excepta* Loxanthera).

* *Petala per anthesin a basi soluta.*

1. *Euloranthus.* Flores parvi (sæpius 1–3 lin.). Bractea squamiformis v. cava; bracteolæ 0.

Antheræ ovatæ v. breviter oblongæ, basi obtusæ, loculorum valva interiore minore v. obsoleta, interdum iis *Struthanthorum* nonnullorum quodammodo accedentes. Subsectiones 3 distinguuntur:—

a. Europæcola. Spica terminalis, floribus secus rhachin per paria dissitis dioicis. Sp. 1 (*L. europæus*, Linn.), *Jacq. Fl. Austr. t.* 30.

b. Baratranthus, Korth. Inflorescentia axillaris v. lateralis, floribus sparsis fasciculatisve sessilibus. Sp. 5 v. 6 Asiaticæ. *L. odoratus*, Wall., *L. Grevinkii*, Buhse, Transk. und Pers. Pfl. 106, et forte *L. Lambertianus*, Schult., floribus 6-meris spicatis hermaphroditis, et *L. nodiflorus*, Thw., cum specie e Moulmeyn (an *L. axanthus*, Korth?) floribus fasciculatis sessilibus 4-meris hermaphroditis v. dioicis. BARATRANTHUS, *Miq. Fl. Ind. Bat.* i. i. 834.

c. Heterostylis. Flores ad axillas laxe cymulosi, hermaphroditi. Stylus crassus, flexuosus. *L. micranthus*, Hook. f., e Nova Zelandia.

2. *Phœnicanthemum.* Flores parvuli (2–6 lin., in una specie 8–9 lin.), hermaphroditi, 5-meri v. rarius 4-meri, in spicis racemisve axillaribus v. lateralibus secus rhachin sparsi, pedicellati v. subsessiles. Bractea squamiformis; bracteolæ 0. Corolla in alabastro sæpius medio attenuata, apice clavata, petalorum marginibus sæpe inter filamenta induplicatis. Antheræ oblongæ, erectæ, cum filamento continuæ, loculis distinctis. Species ad 16, omnes Asiaticæ, nonnullæ inter se ulterius comparandæ. Hic includuntur: *L. coccineus*, Jack., Hook. Bot. Misc. i. t. 58; *L. erythrostachys*, Wall.; *L. Wallichianus*, DC., Wight, Ic. t. 143; *L. pentapetalus*, Wall. Pl. As. Rar. t. 225, Blum. Lor. t. 14; *L. Hookerianus*, W. et Arn.; *L. Arnottianus*, Wight; *L. Bennettianus*, Miq. (*L. siamensis*, Kurz); *L. pulcher*, DC. (a quo *L. Lijndenianus*, Zoll., vix differt specifice racemis in summis axillis longis sæpe pseudoterminalibus); *L. obtusatus*, Wall., Wight, Illustr. t. 119 (species floribus 6–8 lin. longis insignis); specimina Cumingiana ex ins. Philippinis n. 1949 (LANTHORUS, *Presl, Epimel. Bot.* 256), et n, 1975. PHŒNICANTHEMUM, *Miq. Fl. Ind. Bat.* i. i. 823. HELIXANTHERA, *Lour. Fl. Coch.* 142 *ex char.*

L. ligustrinus, Wall., quoad corollam et antheras *Phœnicanthemo* convenit, sed flores vix racemosi, pedunculis ad axillas brevibus v. parum elongatis laxe 3–5-floris.

3. *Acrostachys.* Flores parvuli (ad 4 lin.), hermaphroditi, 4-meri, in racemo terminali simplici numerosissimi, pedicellati. Bractea squamiformis; bracteolæ 0. Corolla tenuis, petalis intus infra medium plicis elevatis obliquis a filamento adnato utrinque divergentibus instructis. Antheræ longe lineares, filamento vix latiores, loculis arcte contiguis. Species 1 v. 2. Africæ orientalis, *L. Kirkii*, Oliv. in Journ. Linn. Soc. vii. 101, et in Hook. Ic. Pl. t. 1309, e Zambesi, et *L. Sandersoni*, Harv. (ined.?), e Natal, ei valde affinis, ex speciminibus nostris vix perfectis.

4. *Plicopetalus.* Flores mediocres (1–1½-poll.) hermaphroditi, incurvi, ad axillas umbellati v. laxe subcymosi. Petala basi dilatata ibidemque intus plicis elevatis obliquis a filamento adnato utrinque divergentibus instructa. Antheræ longe lineares, filamento vix latiores, loculis inter se vix distinctis. Species 1 v. 2, Africæ tropicæ orientalis incolæ, cum *L. undulato*, E. Mey., ex Africa australi.

5. *Heteranthus.* Flores mediocres (¾–1½-poll.), hermaphroditi, 4–6-meri, ad axillas v. nodos cymosi v. breviter racemosi, rarius solitarii. Bractea squamiformis; bracteolæ 0. Corolla recta v. incurva, apice in alabastro non clavata, petalis intus præter filamentum adnatum planis. Antheræ lineares v. subulatæ, filamento non v. vix latiores, loculis parum distinctis v. confluentibus interdum plus minus distincte 2-seriatim ∞-locellatis. Folia in speciebus nonnullis verticillata, in aliis ad normam opposita. Species ad 24, ex ins. Archipelagi Malayani et maris Pacifici, Australia et Nova Zelandia, cum una Africana. Hic includuntur: (*a*) floribus ad axillis solitariis, *L. tetrapetalus*, Forst., e Nova Zelandia; (*b*) floribus ad nodos sessilibus fasciculatis v. subcymosis, *Dendrophthoë verticillata*, Scheff. Ann. Jard. Buitenz. i. 37, et specimina Cumingiana n. 1952 (1958), 1966, et Beccariana n. 688; (*c*) cymis pedunculatis sæpius densis, *L. luzonensis*, Presl (Cuming, n. 1964), et specimina Cumingiana n. 1947, 1956, et 1957, ex ins. Philippinis; *L. sanguineus*, F. Muell., *L. bifurcatus*, Benth., *L. maytenifolius*, A. Gray, Bot. Amer. Expl. Exped. t. 99 (cymis subterminalibus), *L. linophyllus*, Presl, *L. pendulus*, Sieb., DC. Mem. Lor. t. 1 (*L. congener*, DC. l. c. t. 2, *L. longifolius*, Hook. Ic. Pl. t. 880), *L. Quandang*, Mitch., et *L. grandibracteatus*, F. Muell. (cyma dense pauciflora bractea magna foliacea stipata) ex Australia; (*d*) racemis densis breviter v. brevissime pedunculatis: *L. indicus*, Desv., e Timor, *L. insularum*, A. Gray, Bot. Amer. Expl. Exped. 738, t. 98, et *L. vitiensis*, Seem. Fl. Vit. 120, t. 23, ex ins. maris Pacifici, *L. Colensoi*, Hook. f., Hook. Ic. Pl. t. 633, e Nova Zelandia, et *L. signatus*, F. Muell., ex Australia; (*e*) racemis axillaribus laxis floribus in pedicellis solitariis v. ternatis dissitis antheris insigniter biseriatim ∞-locellatis, ovario cylindraceo: *L. heteranthus*, Wall. (*L. eleutheropetalus*, Kurz, *L. macrocalyx*, Miq.) ex Archipelago Malayano, et *L. Mannii*, Oliv. in Journ. Linn. Soc. vii. 101, et in Hook. Ic. Pl. t. 1303, ex Africa tropica.

Antheræ in hac præsertim sectione ut in *Elytrantho* valvis loculorum subevanidis et superficie plus minus distincte ∞-locellatis iis *Visci* quodammodo accedunt.

** *Petala breviter v. alte in tubum integrum v. dorso fissum coalita. Flores mediocres v. longiusculi, hermaphroditi,* 1-*bracteati absque bracteolis.*

6. *Tapinostemma.* Flores 5-meri, ad axillas 3-ni, singuli bracteæ cyathiformi insidentes. Calycis limbus prominens. Corollæ tubus æqualis, basi intus squamellis 5 staminibus oppositis supra ovarium conniventibus instructus; lobi lineares, infra medium intus plicis elevatis obliquis a filamento adnato utrinque divergentibus instructi. Species 1 v. 2, Orientales v. Africanæ tropicæ orientales, corollæ reliquiis in fructu persistentibus insignes. *L. acaciæ,* Zucc. in Abhandl. Akad. Wiss. Münch. iii. 249, t. 2, cum specie ei valde affini.

7. *Cichlanthus,* Endl. Flores sæpius 4-meri, pedunculis ad axillas v. nodos solitariis v. fasciculatis brevibus paucifloris rarius distincte racemiferis. Bractea squamiformis. Calycis margo supra ovarium non v. vix prominulus. Corolla sæpius tenuis, tomentosa v. farinosa, recta v. incurva, intus nuda, tubo sæpe dorso fisso. Antheræ anguste lineares, loculis sæpius parum distinctis. Species ad 24, omnes Asiaticæ. Hic includuntur: *L. buddleoides,* Desv., *L. vestitus,* Wall. Pl. As. Rar. t. 230, *L. cinnamomeus,* Wall., DC. Mem. Lor. t. 6, *L. cordifolius,* Wall., *L. ferrugineus,* Roxb., Hook. Bot. Misc. i. t. 59 (Cuming, n. 2257 e Malacca), *L. lævigatus,* Wall., *L. obtectus,* Wall., *L. rhopalocarpus,* Kurz., *L. philippinensis,* Cham. (Cuming, n. 491, 1977), *L. atropurpureus, L. Schultesii, L. repandus, L. sphenoideus* (Cuming, n. 490, 1970), *L. chrysanthus, L. fasciculatus* (*ex ic.*), *L. fuscus* (Cuming, n. 1959?) et *L. lepidotus,* Blum. Fl. Jav. Lor. t. 1 ad 8, *L. igneus,* Scheff., *L. Jadoriki,* Sieb. (e Japonia), *L. Chinensis,* DC. Mem. Lor. t. 7. Species duæ, *L. leptanthus,* Wall., DC. Mem. Lor. t. 5, et *L. pulverulentus,* Wall., a cæteris parum differunt floribus distincte racemosis, cætera tamen omnino *Cichlanthi.* Hæc sectio cum tribus sequentibus facile pro unius subsectionibus haberes, quarum *Cichlanthus* imprimis calyce non producto et floribus sæpius 4-meris, *Tapinanthus* filamentis in dentem productis, *Tolypanthus* bracteis involucrantibus, a *Dendrophthois* typicis distinguuntur.

8. *Dendrophthoë.* Flores sæpius 5-meri, ad axillas v. nodos fasciculati cymosi v. breviter racemosi. Bracteæ concavæ, sæpius quam in *Cichlantho* majores. Calycis limbus prominulus, truncatus v. 5-dentatus. Corolla tomentosa v. sæpius glabra, recta v. incurva, intus nuda, tubo basin versus sæpe ampliato rarius ut in *Tapinantho* ima basi globoso. Antheræ anguste oblongæ v. lineares, in summo filamento erectæ cum eoque continuæ, loculis plus minus distinctis. Species ultra 60, per regiones tropicas orbis veteris late dispersæ. Hic includuntur: (*a*) florum fasciculis v. cymulis sessilibus v. subsessilibus, corollis tomentosis villosisve: *L. bracteatus,* Roxb., *L. tomentosus,* Hayne, Wight, Ic. t. 378, et *L. Candolleanus,* W. et Arn., Wight, Ic. t. 305, ex India orientali, *L. nigritanus,* Benth., *L. rufescens,* DC., *L. regularis,* Steud., *L. polycryptus,* Desv., et *L. usuiensis,* Oliv., ex Africa tropica, cum *L. hirsutiflora,* Kl., et *L. oblongifolia,* E. Mey., speciebus pariter Africanis florum ternationibus breviter pedunculatis: *L. ovalis,* E. Mey., et *L. glaucus,* Thunb. (MOQUINIA, *Spreng. f. Syst. Suppl.* 9) ex Africa australi bractea parva angusta et floribus 4-meris *Cichlantho* accedunt, sed calycis limbus prominens sinuato-dentatus *Dendrophthois.*—(*b*) florum fasciculis v. cymulis sessilibus v. subsessilibus, corollis glabris v. subglabris basi non ampliatis: *L. memecylifolius,* W. et Arn., Wight, Ic. t. 142, *L. elasticus,* Desv., Wight, Ic. t. 343, *L. nilgherrensis,* Wight, Ic. t. 1020, *L. euphorbiæ,* Wight, Ic. t. 1063, et *L. cuneatus,* Wall., ex India orientali, *L. dictyophlebus,* F. Muell., *L. alyxifolius,* F. Muell., *L. odontocalyx,* F. Muell., *L. linearifolius,* Mitch., *L. exocarpi,* Behr., et *L. acacioides,* A. Cunn. ex Australia, species 3 v. 4 e Nova Caledonia, *L. clavatus,* Desv., *L. filifolius,* Boj. (ined.?), *L. Bojeri,* Bak., et *L. seychellensis,* Bak., ex ins. Mascarensibus, et *L. leptolobus,* Benth., cum speciebus 8 (novis?) ex Africa tropica.—(*c*) cymis pedunculatis, corollis glabris v. subglabris basi non ampliatis: *L. platyphyllus,* Hochst., cum speciebus 3 affinibus ex Africa tropica, *L. Zeyheri,* Harv., *L. Natalitia,* Meissn., et *L. oleæfolius,* Cham. et Schl. (LICHTENSTEINIA, Wendl. Coll. ii. 4, t. 39), ex Africa australi.—(*d*) florum racemis ad axillas brevissimis v. longiusculis, corollis glabris v. subglabris a basi tenuibus rectis v. incurvis: *L. longiflorus,* Desv., Wight, Ic. t. 302 (cum pluribus affinibus v. varietatibus, *L. bicolor,* Roxb., *L. amplexifolius,* DC., Wight, Ic. t. 301, *L. elatus, L. imbricatus,* et *L. lineatus,* Edgew., etc.), *L. umbellifer,* Schult., *L. suborbicularis* et *L. ligulatus,* Thw., *L. elegans,* Wall., *L. prælongus, L. curvatus,* et *L. maculatus,* Blum. Lor. t. 12, 13, et specimina Cumingiana n. 1946, 1955, 1965, 1967, et 1973, et forte Beccariana n. 18, omnes ex India orientali v. Archipelagi Malayani, *L. longifloro* solo usque ad Australiam extenso.—(*e*) floribus ad axillas racemosis, corollis farinosis v. glabris rectiusculis basi v. usque ad medium plus minus ampliatis: *L. pentandrus,* Linn. Blum. Fl. Jav. Lor. t. 10, 11 (*L. rigidus,* Wall., *L. farinosus,* Desv., DC. Mem. Lor. t. 4), *L. stenopetalus,* Oliv., Hook.

Ic. t. 1223, et Cumingii n. 1953 et 1962, omnes ex Archipelago v. Peninsula Malayana.—(*f*) florum umbellis pedunculatis, corollis glabris supra basin subglobosam contractis cæterisque characteribus *Tapinanthi*, exceptis filamentis sub antheris obtusis v. cum connectivo continuis nec in dentem productis; *L. oreophilus*, Oliv. in Journ. Linn. Soc. vii. 196, cum speciebus 3 ei affinibus ex Africa tropica.

Dendrophthoë, *Mart. in Flora* 1830, 109, *Miq. Fl. Ind. Bat.* i. i. 810, sectiones includit *Cichlanthum* et *Dendrophthoem*, quas Blume pro subsectionibus indicavit, et Endlicher, Gen. 802, nominibus salutavit. Miquel tamen l. c. species nonnullas v. petalis liberis v. aliis characteribus alienas includit. Scurrula, *G. Don. Gen. Syst.* iii. 421, species plurimas *Cichlanthi* et *Dendrophthois* includit.

9. *Tapinanthus* (Blum.). Flores sæpius 5-meri, ad axillas v. nodos fasciculati v. cymosi, singuli bractea concava v. oblique cyathiformi stipati. Calycis limbus prominulus, sæpe cupulatus. Corolla glabra v. subglabra, supra basin globosam ovoideam v. rarius oblongam sæpissime contracta. Antheræ oblongæ v. oblongo-lineares, filamento ante antheram in dentem v. appendiculam parvam erectam producto, loculis distinctis. Species ad 24, omnes Africanæ: *L. pentagonia* et *L. dodonææfolius*, DC. Mem. Lor. t. 8, 9, *L. sessilifolius*, Beauv., et *L. Belvisii*, DC.; Beauv. Fl. Ow. et Ben. t. 63, 64, *L. globiferus*, A. Rich., *L. Schimperi*, Hochst., aliæque plures ex Africa tropica, *L. namaquensis*, Harv., *L. Kraussianus*, Meissn., *L. prunifolius*, E. Mey., et *L. quinquenervius*, Hochst., ex Africa australi. Filamenti appendix variat valde prominens v. minima et species nonnullæ inter *Dendrophthoem* et *Tapinanthum* fere ambiguæ.

10. *Tolypanthus* (Blum.). Flores sæpius 5-meri, per 4–6 sæpius 5 in capitulo sessili v. breviter pedunculato sessiles, bracteis totidem amplis foliaceis v. coloratis in involucrum basi v. alte coalitis. Corollæ antheræque fere *Dendrophthois*, sæpius tamen breviores. Species nobis notæ 4, Asiaticæ: *L. involucratus*, Roxb., cum specie nova Malaccensi bracteis vix basi connatis, *L. Gardneri*, Thw., bracteis coloratis basi breviter connatis, et *L. lageniflorus*, W. et Arn., Hook. Ic. Pl. t. 229, Wight, Ic. t. 306, bracteis in cupulam magnam coloratam margine breviter sinuato-lobatam coalitis.

11. *Loxanthera*. Flores 5-meri, longi (4–5 poll.), cymis ad axillas sessilibus, bracteis parvis. Antheræ lineares, in filamento summo apice dilatato dorsifixæ. Species 2, Archipelagi Malayani incolæ. Loxanthera, *Blum. Fl. Jav. Lor. t.* 20, *et t.* 23 c. Specimina Beccariana, n. 1357, plantæ Blumeanæ adsocianda videntur sed specifice distincta.

*** *Petala breviter v. alte in tubum integrum v. dorso fissum coalita. Flores longi v. parvuli, hermaphroditi, singuli bractea bracteolisque 2 stipati.* (Sectiones 3 sequentes facile pro unius subsectionibus haberes).

12. *Macrosolen* (Blum.). Bracteæ ovario breviores. Species fere 30, Asiaticæ cum una Novo-Zelandica. Macrosolen, *Miq. Fl. Ind. Bat.* i. i. 827. Hic includuntur: *a. Longifloræ.* Pedunculi breves ad axillas fasciculati 1–3-flori. Corollæ 1–3-pollicares, basi tenues. Antheræ lineari-subulatæ, loculis parum distinctis. *L. formosus*, Blum. Lor. t. 15 (*Beccari*, n. 1643), *L. evenius*, Blume, Lor. t. 16 (Beccari, n. 2026), cum sp. nov. 3 (Lobb, Beccari, n. 310, 610) ex Archipelago Malayano.

b. Densifloræ. Pedunculi breves, sæpius fasciculati, racemoso-3-∞-flori. Corolla (sæpius ¾–1, poll.) fere a basi gradatim ampliata. Antheræ breviter lineares. *L. retusus*, Jack., *L. Brandesianus*, Kurz, et sp. novæ? e Borneo Lobb, ins. Philippinis Cuming n. 1969 (petalis in hac nonnisi ad basin connatis), omnes ex Archipelago Malayano.

c. Racemulosæ. Flores racemulosi. Corolla (rarius ½ poll. excedens) fere a basi latiuscula v. ampullacea, sub limbo sæpe contracta. Antheræ oblongæ. *L. ampullaceus* et *L. globosus*, Roxb., *L. oleæfolius*, *L. viridiflorus*, *L. subglobosus*, *L. pallens*, et *L. trigonus*, Wall., et *L. carinatulus*, Wall., DC. Mem. Lor. t. 3, species Indicæ nonnullæ inter se nimis affines, *L. sphærocarpus*, *L. subumbellatus* et *L. tetragonus*, Blum. Lor. t. 17 ad 19, et specimina Cumingiana n. 1951, 1953, 1963 (ins. Philippinis) et 2343 (Malacca) et Beccariana n. 553, omnes ex Archipelagi Malayani. *L. flavidus*, Hook. f. Fl. N. Zel. i. 100, t. 27, e Nova Zelandia, etiam ad *Macrosolenem* referendus videtur etsi bracteæ minutæ vix conspicuæ v. obsoletæ.

13. *Elytranthe* (Blume). Bracteæ ovario longiores, imbricatæ, omnes flores foventes. Flores (1–1½ poll.) sæpius 6-meri, in capitulis sessilibus v. breviter pedunculatis 3–5-ni. Corolla sæpius basi attenuata, curvula. Antheræ lineari-subulatæ, loculis vix distinctis sæpe ∞-locellatis. Species nobis notæ 4, Asiaticæ: *L. albidus*, Blum. Lor. t. 22 et 23 d (*L. leucosiphon*, Griff. Ic. Pl. Asiat. t. 619), *L. loniceroides*, Linn., Wight, Ic. t. 303, *L. capitellatus*, Wight, Ic. t. 304 (vix a *L. loniceroide* distinctus), et species ut videtur nova ex Assam et Khasia. Elytranthe, *Miq. Fl. Ind. Bat.* i. i. 832.

14. *Lepiostegeres* (Blume). Bracteæ ovario longiores, exteriores vacuæ, omnes imbricatæ, capitulum

strobiliformem sessilem v. breviter pedicellatum involucrantes. Cætera *Elytranthis*. Species nobis notæ 7, ex Peninsula v. Archipelago Malayano: *L. gemmiflorus*, Blum. Lor. 18, t. 21, et species 1 Philippinensis, Cuming n. 1971 et 1974, 1 Malaccensis, Maingay, et 4 Borneenses, Lowe, et Beccari n. 1171, 1248, et 2579. Inter has una flores in capitulo valde numerosos exhibet, involucrum 3-pollicarem pollicibus 2 excedentes. LEPIOSTEGERES, *Miq. Fl. Ind. Bat.* i. i. 833.

B. *Loranthi Americani cum paucis Australianis, antheris (excepto* Aëtantho) *versatilibus.*

15. *Aëtanthus (Psittacanthi* subgenus, Eichl.). Flores longi (2–4-pollicares v. in una specie subpedales), tenues, petalis alte in tubum connatis, ad apices ramorum corymboso-cymosi. Antheræ lineares, adnatæ, loculis ima basi breviter liberis patentibusque, uno altero demissiore. Semen (in *L. nodoso*) exalbuminosum, cotyledonibus 2 crasso-carnosis plano-convexis semiteretibus. Frutices parasitici. Species 4, Columbianæ v. Ecuadorenses. *Hook. Ic. Pl. t.* 743.

16. *Psittacanthus* (subgenus *Eupsittacanthus*, Eichl.). Flores longi v. longiusculi ($1\frac{1}{2}$–6-pollicares), singuli cupula e bractea bracteolisque conflatis stipati, petalis per anthesin usque ad basin solutis. Antheræ oblongæ v. lineares, in filamento filiformi versatiles. Semen ubi notum exalbuminosum, cotyledonibus crasso-carnosis. Frutices parasitici. Species ultra 40, per Americam tropicam late dispersæ, perpaucæ in America australi ultra tropicos extensæ (*P. divaricatus*, Eichl., a Cumingio prope Limam nec in Chile lectus fuit). In subsectiones 2 sequentes distribuuntur:—

a. Eupsittacanthus. Flores ad apices ramorum corymboso-cymosi. Cotyledones ubi notæ 4 (rarius ex Eichl. 5–6), dorso connexæ, intus costa prominente bifaciales. *Jacq. Stirp. Amer. t.* 67. *Lam. in Journ. Nat. Hist.* i. *t.* 23. *Ruiz et Pav. Fl. Per. et Chil. t.* 274*a*. *Vell. Fl. Flum. Ic.* iii. *t.* 147, 148. *DC. Mem. Lor. t.* 10. *Wawra, Pr. Max. Reise, Bot. t.* 58. *Eichl. in Mart. Fl. Bras.* v. ii. *t.* 2 *ad* 4, 6 *ad* 8.

b. Maschalanthus. Flores omnes axillares, solitarii terni v. cymosi. Cotyledones ubi notæ 2, dorso-convexæ, semiteretes, facie interiore plana appressæ. Huc pertinent *L. biternatus*, Hoffm., *L. dichrous*, Mart., Eichl. in Mart. Fl. Bras. v. ii. t. 5, *L. glaucocoma*, Eichl., et *L. cuneifolius*, Ruiz et Pav. Fl. Per. et Chil. t. 276. Hæc ultima species ab Eichlero in Mart. Fl. Bras. v. ii. 49, t. 11, semine ignoto, sub *Phrygilantho* collocatur, non obstante cupula sub floribus omnino *Psittacanthi*. Griseb. (Pl. Lorentz. 109) in semine immaturo embryonem vidit in centro albuminis (an potius pericarpii strato interiore pro albumine habito?), nos tamen in seminibus 2 pæne maturis examinatis albumen nullum invenimus, cotyledonibus omnino *L. biternati* et *L. dichroi*. Flores superiores fere semper in axillis solitarii, inferiores tamen sæpe 2–3-ni.

PSITTACANTHUS, *Mart. in Flora* 1830, 106, a variis auctoribus varie extenditur, ab Eichlero in Mart. Fl. Bras. v. ii. 23 ad sectiones duas præcedentes semine exalbuminoso accurate limitatur, nobis tamen vix pro genere proprio retinenda videtur. In speciebus nonnullis gerontogeis præsertim Africanis embryo crasso-carnosus est, et albumen, etsi copiosum, solito tenuius, in pluribusque speciebus pericarpio arcte adnatum, et forte in *Psittacantho* non omnino deest. Cæterum semina paucarum tantum specierum *Loranthi* adhuc examinata sunt.

17. *Phrygilanthus.* Flores mediocres v. longi (rarius infra $\frac{1}{2}$ poll. in una specie 6-pollicares), hermaphroditi, bracteolis liberis v. 0, petalis ad basin solutis. Antheræ versatiles. Fructus ubi notus normalis, semine æquali, embryone subtereti in centro albuminis copiosi. Frutices parasitici. Species ad 20, pleræque austro-Americanæ, paucæ Australianæ in subsectiones 3 distribuendæ:—

a. Metastachys. Flores longiusculi v. longi, in una specie semipedales, in racemis terminalibus simplicibus secundi, singuli bractea obliqua stipati, bracteolis 0. Species 3, Columbianæ v. Peruvianæ. *Ruiz et Pav. Fl. Per. et Chil. t.* 273*a*, 275*b*.

b. Quintralia (Eichl. pro parte). Flores mediocres, in racemis terminalibus abbreviatis subumbelliformibus v. cymoso-ramosis non secundis, bractea sæpius persistente, bracteolis 0. Species 3, Americæ australis extratropicæ, imprimis Chilenses v. Andinæ. *Ruiz et Pav. Fl. Per. et Chil. t.* 275*a*. *Pœpp. et Endl. Nov. Gen. et Sp. t.* 184.

c. Euphrygilanthus. Flores mediocres, ternati, ternationibus in axillis superioribus racemosis more *Struthanthi*, a quo hæc subsectio differt floribus majoribus hermaphroditis. Bracteolæ sæpius parvæ, caducissimæ. Species Americæ australis ad 10, quarum 3 Chilenses ab Eichlero sub *Taguana* inclusæ ob florem centralem ternationis sessilem ut in *Gaiadendro*, sed parasiticæ sunt et bracteolæ minutæ v. caducæ; semina adhuc ignota. *Ruiz et Pav. Fl. Per. et Chil. t.* 273*b*. *Pœpp. et Endl. Nov. Gen. et Sp. t.* 183. Cæteræ species Andinæ v. Brasilianæ, flore centrali ternationum plus minus pedicellato, subsectionem *Tripodanthum*, Eichl., formant. *Ruiz et Pav. Fl. Per. et Chil. t.* 274*b*. *Hook. Ic. Pl. t.* 683.

Huic subsectioni etiam referendæ sunt species 3 Australianæ et una Novo-Zelandica (*L. tenuiflorus*, Hook. f.), a cæteris Australianis diversæ antheris versatilibus. Inter *Euphrygilanthos* distinguuntur et quodammodo *Quintraliæ* approximantur inflorescentiis laxe paucifloris, floribus lateralibus ternationis longiuscule pedicellatis, centrali subsessili, v. interdum ternatione ad florem unicum reducta. *Benth. Fl. Austral.* iii. 388 (*species* 3 *priores*). *A. Gray, Bot. Amer. Expl. Exped. t.* 100. *F. Muell. Pl. Vict. t.* 30.

L. eugenioides, H. B. et K. Nov. Gen. et Sp. iii. 435, Eichl. in Mart. Fl. Bras. v. ii. t. 12, 13 (*E. odoriferus*, Vell. Fl. Flum. 138, Ic. iii. t. 146), ab auctoribus prius citatis arboreus dicitur, et idcirco a G. Don in genere suo *Gaiadendro* includitur. Species, qualem ut videtur rite intelligit Eichler, in Peruvia et Brasilia late diffusa est, et a collectoribus plerisque (Burchell, Tweedie, Pearce, Velloso) parasitica dicitur in variis arboribus, ex Gardnero aliisque nonnullis ab Eichlero citatis frutex est terrestris, super frutices alios scandens iisque demum adhærens. Grisebach, Pl. Lorentz 109, specimina parasitica ad *L. ligustrinam*, Willd., refert, nullo tamen alio charactere a terrestribus distinguenda sunt. Fructus in speciminibus solis Claussenianis vidimus, ubi certe normales sunt nec *Gaiadendri*.

L. lanceolatus, Ruiz et Pav. Fl. Per. et Chil. t. 278*b*, et *L. ellipticus*, Ruiz et Pav. l. c. t. 276*a*, frutices parasitici bracteis bracteolisque ut in *Gaiadendro* persistentibus, a nobis non visi, seminibus ignotis adhuc affinitatis dubiæ sunt, sed verisimiliter ad *Phrygilanthum* referendi juxta *L. eugenioidem*.

Genus Phrygilanthus, *Eichl. in Mart. Fl. Bras.* v. ii. 45, includit sectiones nostras *Phrygilanthum* et *Gaiadendrum*. Tristerix, *Mart. in Flora* 1830, 108, ad *L.* (*Quintraliam*) *tetrandrum*, Ruiz et Pav, cum speciebus 2 gerontogeis ei parum affinibus constitutum est. Notanthera, *G. Don, Gen. Syst.* iii. 428, includit species plerasque sectionis *Phrygilanthi* cum nonnullis sectionis *Struthanthi*.

18. *Gaiadendron.* Flores mediocres v. minores, hermaphroditi, bracteolis liberis, petalis ad basin solutis. Antheræ versatiles. Fructus endocarpium intus (more *Henslowiæ*) in laminas duras intra sulcos albuminis intrusas productus. Arbores v. frutices terrestres, erecti. Florum ternationes in racemos axillares dispositæ. Species 3 v. 4, quarum 2 v. 3 Andium Columbiæ et Peruviæ incolæ, inter se parum distinctæ, racemis in axillis superioribus floribundis floribus mediocribus. *Ruiz et Pav. Fl. Per. et Chil. t.* 277*a*. Gaiadendron, *G. Don, Gen. Syst.* iii. 431 (*excl. L. eugenioide*). Phrygilanthi *sect.* Taguana *pro parte, Eichl.*; una Australiana, floribus minoribus, characteribus tamen inflorescentiæ floribus et seminibus iisdem. Atkinsonia, *F. Muell.*; *Benth. Fl. Austral.* iii. 388.

19. *Struthanthus.* Flores inter minores, rarius 4 lin. longi, nunc minuti, sæpissime abortu dioici, bracteis bracteolisque liberis v. basi coalitis sæpe parvis rarius 0, petalis ad basin solutis. Antheræ versatiles. Fructus ubi notus normalis, semine æquabili, embryone subtereti in centro albuminis copiosi. Frutices parasitici. Species ad 75, omnes Americanæ, in subsectiones 5 distribuendæ:—

a. Eustruthanthus. Flores ternati, ternationibus secus rhachin racemi axillaris pedicellatis v. sessilibus. Alabastra sæpius clavata; basin versus attenuata. Filamenta filiformia, rarius fere ad apicem adnata. Species ad 40, Americanæ tropicæ. *Eichl. in Mart. Fl. Bras.* v. ii. 67, *t.* 20 *ad* 26 *et* 28, *f.* 1 *ad* 7 (*Struthanthus*). *Vell. Fl. Flum. Ic.* iii. *t.* 145. *Miq. Stirp. Surin. t.* 61. *Wawra, Pr. Max. Reise, Bot. t.* 59. Huc etiam verisimiliter pertinet Spirostylis, *Presl, in Roem. et Schult. Syst.* vii. 163.

b. Cymularia. Pedunculi in axillis plures, breves, laxe cymulosi, floribus paucis omnibus pedicellatis. Species 2 Brasilienses. *Eichl. in Mart. Fl. Bras.* v. ii. 85, *t.* 27 *et t.* 28, *f.* 8, 9 (*Struthanthus*).

Genus Struthanthus, *Mart. in Flora* 1830, 102, includit subsectiones 2 præcedentes cum *Passowia* paucisque aliis speciebus; ab Eichlero ad subsectiones 2 præcedentes limitatur.

c. Dendropemon. Flores singuli secus rhachin racemuli axillaris dissiti nec ternati, sessiles v. pedicellati. Filamenta subsectionis *Passowiæ*. Species ad 10, omnes Indiæ occidentali propriæ. *Eichl. in Mart. Fl. Bras.* v. ii. 56 (*Phthirusæ sect.*). *Griseb. Fl. Brit. W. Ind.* 312; *Cat. Pl. Cub.* 119. *Jacq. Stirp. Amer. t.* 69. Dendropemon, *Blum. Fl. Jav. Loranth.* 13.

Lipotactes, *Blum. Fl. Jav. Loranth.* 13, est *Loranthus pauciflorus*, Sw., a cæteris *Dendropemonibus* distinctus antheris sessilibus. Specimina nostra omnia ♀. Eichler speciem in *Dendropemone* includit.

d. Passowia. Flores ternati, ternationibus secus rhachin racemi axillaribus pedicellatis v. sæpius sessilibus ut in *Eustruthantho*, sed alabastra magis æqualia et filamenta incrassata, alterna longiora latere utroque pressione antherarum breviorum excavata. Species ad 16, Americanæ tropicæ, a Martio in Flora 1830, 105, in *Struthantho* inclusæ, ab Eichlero in Mart. Fl. Bras. v. ii. 55 ad 64, t. 14 ad 17 et t. 19, ad *Phthirusam* translatæ. Passowia, *Karst. in Bot. Zeit.* 1852, 305.

e. Phthirusa. Flores minimi, crassiusculi, secus rhachin elongatam axillarem ternatim sessiles v. ternatione unica in axilla arcte sessiles. Filamenta petalis adnata, anthera sola libera versatili. Species ad 9, Americanæ tropicæ. *Eichl. in Mart. Fl. Bras.* v. ii. 65, *t.* 18, *et t.* 19, *f.* 8 *ad* 10 (*Phthi-

rusa Euphthirusa iii.). PHTHIRUSA, *Mart. in Flora* 1830, 110, genus ab Eichlero ad *Passowiam* et *Dendropemonem* extensum.

20. *Oryctanthes.* Flores minimi, crassiusculi, secus rhachin crassiusculam spicæ singulatim sessiles, et sæpius plus minus immersæ. Filamenta brevissima, sub anthera attenuata. Species ad 5, Americanæ tropicæ imprimis Antillanæ centralis v. Andinæ. *Jacq. Stirp. Amer. t.* 68. *Pœpp. et Endl. Nov. Gen. et Sp. t.* 185. ORYCTANTHES, *Eichl. in Mart. Fl. Bras.* v. ii. 87, *t.* 29, 30.

TRIBUS II. VISCEÆ.

3. **Viscum,** *Linn. Gen. n.* 1105.—Flores dioici v. monoici. Perianthii tubus in fl. ♂ brevissimus solidus, in fl. ♀ ovario adnatus; limbus 3–4-partitus. Antheræ in fl. ♂ ovatæ v. oblongæ, explanatæ, lobis perianthii undique v. rarius medio dorso tantum adnatæ, loculis non distinctis sed facie interiore multiporosæ. Ovarium in fl. ♀ inferum, ad normam ordinis; stigma crassum, pulvinatum, in vertice ovarii sessile v. stylo brevi fultum. Bacca perianthii lobis coronata v. nuda, mesocarpio succulento viscifluo. Embryo albumine copioso carnoso inclusus v. interdum embryones 2, teretes.—Frutices in arbores parasitici, ramis oppositis v. dichotomis. Folia opposita, nunc plana crassiuscula, nunc ad squamas v. dentes minutos reducta. Flores ad axillas v. nodos v. ad apices ramorum 3–5-natim fasciculati v. rarius solitarii, fasciculis sessilibus v. rarius breviter pedunculatis. Bractea sæpius parva, bracteolis 2 liberis v. in unam coalitis v. rarius deficientibus.

Species fere 30, per regiones calidiores et temperatas orbis veteris late dispersæ, nonnullæ imprimis *V. album* et *V. orientale* super aream latissimam distributæ, a botanicis sub nominibus diversis repetitæ. *DC. Prod.* iv. 278, § 1 *et* 3. *Walp. Rep.* ii. 437; *Ann.* i. 361, ii. 727, v. 91 (*excl. sp. Americanis*). *Dcne. in Mem. Acad. Brux.* xiii. *cum t.* 3. *Griff. in. Trans. Linn. Soc.* xviii. *t.* 10, 11 *et* xix. *t.* 21.

Genus a Korthalsio, Mem. Lor. 58, in Verh. Batav. Genootsch. xvii., in sectiones 3 sequentes dividitur:—

1. *Viscum verum,* ramis foliatis dichotomis v. inferioribus stellato-subverticillatis, florum fasciculis terminalibus v. in dichotomiis ramorum. Huc pertinet *V. album,* Linn., Hayne, Arzneigew. iv. t. 24, cui referenda videntur et vix pro varietatibus distinguenda *V. stellatum,* Ham., et *V. laxum,* Boiss. et Reut.

2. *Ploionuxia,* ramis foliatis oppositis, florum fasciculis axillaribus. Species 14 v. 15, Asiaticæ, Australianæ et Africanæ, cum una Novo-Zelandica. *Blum. Fl. Jav. Lor. t.* 24, 25 A. *Griff. Ic. Pl. As. t.* 631. *Wight, Ic. t.* 1016. *Linds. Contr. N. Zeal. Bot. t.* 2.

3. *Aspiduxia,* ramis aphyllis articulatis v. rarius continuis, florum fasciculis ad nodos v. articulationes oppositis. Species ad 15, Asiaticæ, Australianæ et Africanæ, cum una Novo-Zelandica, altera ex ins. maris Pacifici. *Blum. Fl. Jav. Lor. t.* 25 B, 26. *Griff. Ic. Pl. As. t.* 630, 632. *Wight, Ic. t.* 1017 *ad* 1019.

4. **Arceuthobium,** *Bieb. Fl. Taur. Cauc. Suppl.* 629. (Razoumowskia, *Hoffm. ex Bieb. l. c.*)—Flores dioici, in axillis solitarii. Perianthii tubus in fl. ♂ vix ullus, in fl. ♀ ovario adnatus; limbus in fl. ♂ 2–5-partitus, in fl. ♀ minimus, 2-partitus. Antheræ fl. ♂ in medio segmentorum sessiles, transversæ, loculis confluentibus rima unica dehiscentibus, demum apertæ fere orbiculares. Discus utriusque sexus carnosus. Ovarium fl. ♀ ovoideum, ad normam ordinis (v. ex Baillon ovulo distincto v. basi erecto); stylus brevis, crassus, subconicus, stigmate obtuso. Bacca ovoidea, breviter stipitata, perianthii lobis minutis coronata, basi lata ad apicem dilatatam stipitis adnata, pericarpio carnoso viscifluo, endocarpio sæpe distincto, maturitate basi circumscissa et elastice dehiscens, semen longe ejiciens. Semen ovoideo-oblongum; embryo albumine carnoso copioso inclusus.—Fruticuli in arboribus imprimis Coniferis parasitici, subaphylli, foliis nempe omnibus ad squamas parvas oppositas in vaginam apertam coalitas reductis. Flores in vagina utrinque solitarii, parvi, sessiles v. subsessiles, ebracteolati.

Species 5 v. 6, quarum una per Europam australem Asiam occidentalem et Americam boreali-occidentalem late dispersa, cæteræ Americæ borealis imprimis occidentalis v. Mexici incolæ. *Eichl.*

in Mart. Fl. Bras. v. ii. 105, *t.* 31. *Engelm. Cat. Pl. Wheel.* 252. *Hook. Fl. Bor. Amer.* *t.* 99. *Oliv. in Hook. Ic. Pl. t.* 1037. *Baill. in Assoc. Franc. Clerm.* 1876, 495, *t.* 6. De fructus dehiscentia confer *Rein. in Ann. Sc. Nat. ser.* 3, vi. 130.

5. **Dendrophthora,** *Eichl. in Mart. Fl. Bras.* v. ii. 102, *t.* 31. (Arceuthobium, *Griseb. Fl. Brit. W. Ind.* 314, *et Cat. Pl. Cub.* 121, *non Bieb.*)—Flores dioici v. rarius monoici, in rhachi spicæ sessiles v. sæpius immersi. Perianthii tubus in fl. ♂ brevis solidus, in fl. ♀ ovario adnatus; limbus in utroque 3-partitus v. rarius 4- v. 2-partitus; antheræ fl. ♂ in medio segmento sessiles, transversæ, loculis confluentibus rima unica dehiscentibus, demum apertæ fere orbiculatæ. Discus utriusque sexus carnosus. Ovarium fl. ♀ ovoideum, inferum, ad normam ordinis; stylus brevis v. brevissimus, crassus, subconicus, stigmate obtuso. Bacca ovoidea v. globosa, perianthii segmentis minutis coronata, pericarpio viscifluo, endocarpio sæpe distincto. Semen ovoideo-oblongum; embryo parvus, albumine copioso carnoso inclusus, v. radicula brevissime exserta.—Fruticuli in arboribus parasitici, ramis teretibus angulatis v. compressis sæpius articulatis. Folia ad articulationes opposita, sæpissime ad squamas minutas distinctas reducta, in paucis speciebus evoluta, plana. Spicæ terminales v. axillares, sæpius ∞-articulatæ, ad articulationes 2-bracteatæ. Flores inter articulationes ad utrumque latus spicæ solitarii v. plures, simplici serie superpositi, v. rarius utrinque gemini collaterales v. pauci 2–3-seriatim superpositi.

Species ad 25, pro maxima parte Indiæ occidentalis incolæ, una in America centrali, altera in Columbia vigente, quarum 19 ab Eichlero l.c. enumeratæ. *Jacq. Collect.* ii. *t.* 5, *f.* 3 (*Viscum*). His addendæ videntur species 3 Cubenses Wrightianæ in Sauv. Fl. Cub. 141 (*D. gracilis*, Wr., a *D. gracili*, Eichl., diversa videtur) et *Viscum squamigerum*, Benth. Pl. Hartw. 190, e Popayan, inflorescentia normali *Dendrophthoræ*, sed floribus ♂ adhuc ignotis, et verisimiliter, quod suspicatur Eichler, *Phoradendron sessilifolium* et *P. tetrastrachyum*, Griseb., quibus flores ♀ ut in *D. epivisco*, Eichl., in quoque articulo gemini collaterales, floribus ♂ in omnibus adhuc ignotis. Genus inflorescentia et fructu *Phoradendro*, antheris *Arceuthobio* accedit.

6. **Phoradendron,** *Nutt. in Journ. Acad. Philad. ser.* 2, i. 185. (Allobium, *Miers in Ann. Nat. Hist. ser.* 2, viii. 179, *char. falso.* Spiciviscum, *Engelm. MS.*; *Karst. Fl. Columb.* i. 73, *t.* 36.)—Flores dioici v. rarius monoici, in rhachi spicæ sessiles v. leviter immersi. Perianthii tubus in fl. ♂ brevis, solidus, in fl. ♀ ovario adnatus; limbus in utroque 3-partitus v. rarissime 4- v. 2-partitus. Stamina fl. ♂ ad basin segmentorum affixa, erecta, filamentis brevissimis v. vix ullis; antheræ latiusculæ, vertice 2-loculares, loculis longitudinaliter dehiscentibus. Discus utriusque sexus carnosus. Ovarium fl. ♀ inferum, ad normam ordinis; stylus brevissimus, crassus, subconicus, stigmate obtuso v. subcapitato. Bacca sessilis, globosa v. rarius ovoidea, perianthii segmentis minutis sæpius coronata, pericarpio viscifluo sæpius succulento, endocarpio sæpe distincto. Semen ovoideum v. oblongum; embryo parvus, albumine copioso carnoso inclusus, v. radicula breviter exserta.—Frutices in arboribus parasitici, ramis teretibus angulatis v. rarius compressis, sæpius articulatis. Folia opposita, plana, crassa, v. rarissime ad squamas parvas distinctas reducta. Spicæ terminales v. axillares, solitariæ v. 2–∞-fasciculatæ, sæpius ∞-articulatæ, ad articulationes minute 2-bracteatæ. Flores inter articulationes ad utrumque latus rhacheos 2–∞-seriatim superpositi, v. rarius in articulo abbreviato pauci conferti.

Species ad 80, per Americam calidiorem latissime dispersæ, etiam extra tropicos tam in America boreali imprimis occidentali quam in Americæ australis republica Argentina extensæ. *Eichl. in Mart. Fl. Bras.* v. ii. 106, *t.* 32 *ad* 43. *Seem. Bot. Her. t.* 62, 63 (*Viscum*). *Hook. Ic. Pl. t.* 368.

Castrea, *A. de St. Hil. Morphol.* 451, est verisimiliter *Phoradendri* cujusdam specimen fœmineum imperfecte observatum. In herbario auctoris nunc deesse dicitur.

P. juniperinum, Engelm., ramificatione et foliis ad squamas reductis, primo aspectu *Arceuthobium* simulat, spicæ etiam brevissimæ 3–4-floræ, sed antheræ 2-loculares ad basin perianthii et bacca globosa sessilis *Phoradendri*. Spicæ ad flores paucas reductæ in speciebus aliis perpaucis *Phoradendri*.

7. **Notothixos,** *Oliv. in Journ. Linn. Soc.* vii. 103.—Flores monoici in capitulis uni-

sexualibus. Perianthii tubus in fl. ♂ brevissimus solidus, in fl. ♀ ovario adnatus, ovoideus v. oblongus; limbus 3–5-partitus. Stamina in fl. ♂ basi loborum affixa, filamentis subnullis; antheræ subsessiles, latæ, erectæ, apice linea transversa dehiscentes, obscure ∞-locellatæ. Ovarium in fl. ♀ inferum, ad normam ordinis, disco carnosulo coronatum; stigma subsessile, pulvinatum v. capitatum. Bacca ovoidea, perianthii lobis persistentibus coronata, pericarpio parce viscifluo. Semen ovoideum; embryo albumine carnoso inclusus.—Frutices parasitici, tomento nunc tenuissimo incano demum obliterato, nunc aureo subflocccoso densius vestiti, dichotome ramosi. Folia opposita, plana, coriacea; squamarum par infimum ad basin gemmarum axillarium interdum dentiformes, stipulas simulantes. Flores minimi, per 3–7 capitati, ad margines receptaculi compresso-conici uniseriatim sessiles, capitulis nunc in pedunculo 1–3, nunc ∞ secus rhachin spicæ v. racemi opposite sessilibus v. pedicellatis, pedunculo communi in dichotomiis ramorum solitario. Capitula ♂ in speciminibus rara apicem versus racemi v. spicæ; capitula inferiora omnia ♀ videntur.

Species 4, quarum una Zeylanica, *Thw. Enum. Pl. Zeyl.* 418 (*Viscum*), 3 Australianæ, *Benth. Fl. Austral.* iii. 397. *Hook. Ic. Pl. t.* 73 (*Viscum*).

Genus certe *Ginalloæ* valde affine, et character in floribus ♂ minutis raris haud facile observatur, sed indumento et inflorescentia statim dignoscendum.

8. **Ginalloa,** *Korth. Loranth.* 64, *in Verh. Batav. Genootsch.* xvii.—Flores monoici in verticillastris unisexualibus. Perianthii tubus in fl. ♂ brevissimus solidus, in fl. ♀ ovario adnatus, ovoideus; limbus 3- rarius 4-partitus. Stamina fl. ♂ basi loborum affixa, filamentis brevissimis latis erectis; antheræ parvæ, loculis distinctis subparallelis v. divergentibus lateraliter dehiscentibus. Discus parvus. Ovarium fl. ♀ inferum, ad normam ordinis; stylus brevis, stigmate capitato. Bacca ovoidea, perianthii lobis minutis coronata, pericarpio viscifluo. Semen ovoideum; embryo albumine carnoso inclusus.—Frutices in arboribus parasitici, glabri, ramis oppositis v. dichotomis. Folia opposita, plana, coriacea, sæpe angusta. Flores minuti, in spicis axillaribus v. terminalibus subsessiles, pseudoverticillati, verticillastris secus rhachin dissitis, bracteis oppositis squamiformibus in unam aperte vaginatam coalitis, floribus in verticillastro ♀ 2–6, in ♂ 6–10, ebracteolatis.

Species 4, Asiaticæ, *Oliv. in Journ. Linn. Soc.* vii. 103. Huc pertinent præter *G. Arnottianam*, Korth., *Viscum spathulifolium*, Thw., e Zeylania, *V. Helferi*, Presl, e Birma, et *V. Cumingianum*, Presl, ex ins. Philippinis, Walp. Ann. ii. 729.

9. **Eremolepis,** *Griseb. Pfl. Phil. und Lechl.* 36.—Flores in spiculis unisexualibus monoici v. dioici. Perianthii tubus in fl. ♂ brevissimus, in fl. ♀ ovario adnatus, limbus 3–4- (rarius 5- ?) partitus. Stamina in fl. ♂ basi segmentorum affixa, filamentis brevissimis; antheræ ovatæ, erectæ, loculis parallelis longitudinaliter dehiscentibus. Ovarium in fl. ♀ inferum, ad normam ordinis, disco epigyno haud crasso; stylus brevis v. brevissimus, stigmate obtuso v. capitato. Bacca ovoidea, pericarpio viscifluo, endocarpio parum distincto. Embryo in albumine carnoso copioso subteres.—Frutices in arboribus parasitici, ramosi. Folia alterna, plana, crassiuscula. Spiculæ minimæ, ad axillas sessiles, globosæ v. oblongæ, juniores utriusque sexus bracteis squamiformibus imbricatis obtectæ, sub anthesi tamen bracteæ sæpe desunt.

Species 5, Americæ tropicæ v. australis extratropicæ incolæ. *Walp. Ann.* v. 90. In *E. punctulata*, specie typica Chilense, quæ *Lepidoceras punctulata*, Clos in C. Gay Fl. Chil. iii. 165, t. 32, f. 1 (*Eremolepis verrucosa*, Griseb. l. c.) flores dioici sunt 3-4-meri, bacca apice nuda. *E. angustifolia* (quam Grisebach l. c. incaute pro plantam Closianam habuit et nomine *E. punctulatæ* signavit) floribus masculis solis nota est; hi 5-meri sunt floribus singulis intra bracteam bracteolis 2 late cymbiformibus carinatis stipatis.

Ixidium, *Eichl. in Mart. Fl. Bras.* v. ii. 130, *t.* 31, species 3 includit, una Cubensis, *E. Wrightii*, Griseb. Cat. Pl. Cub. 121, altera Brasiliana *I. Schottii*, Eichl. l. c., cujus specimina certa non vidimus, nuper tamen specimina a Glaziovio accepimus cum descriptione convenientia nisi floribus dioicis, ♂ sub n. 8242, ♀ sub n. 7665, tertia Peruviana, *Matthews*, adhuc inedita, floribus in spiculis distinctis

monoicis, fructu ut in specie Brasiliana perianthii lobis persistentibus coronata, cætera tamen cum habitu omnino *Eremolepidis* et genus Eichlerianum nobis melius pro sectione habendum videtur. Perianthii lobi in fructu persistentia v. decidua observantur etiam in diversis speciebus *Visci.*

10. **Eubrachion,** *Hook. f. Fl. Ant.* ii. 291.—Flores unisexuales in spiculis androgynis. Perianthii tubus in fl. ♂ turbinatus, solidus, in fl. ♀ ovario adnatus, ovoideus; limbus 3-partitus. Stamina basi loborum affixa; filamentis brevissimis; antheræ breves, erectæ, loculis discretis parallelis rima laterali dehiscentibus. Discus carnosus. Ovarium in fl. ♀ inferum, ad normam ordinis, cavo interiore in speciminibus examinatis solito evidentiore; stylus brevissimus, crassus, stigmate obtuso. Bacca obovoideo-globosa, perianthii lobis persistentibus coronata, mesocarpio viscifluo parco, endocarpio subcrustaceo. Semen globosum, maturum non vidimus; embryo (ex Eichl.) subteres, radicula longe exserta, cotyledonibus albumine inclusis semiteretibus.—Frutices in arboribus parasitici, præter squamas aphylli; rami teretes, novelli in parte inferiore squamis alternis appressis peltatim affixis instructi, superne esquamati, spiculas alternas sessiles v. foveolis leviter immersas ferentes. Spiculæ cylindraceæ ($\frac{1}{4}$–$\frac{1}{2}$ poll. longæ), squamellis latis concavis rigidis imbricatis obtectæ, quarum infimæ vacuæ, intermediæ flores ♂, superiores flores ♀ foventes. Flores omnes minimi, intra bracteas solitarii, sessiles, ebracteolati.

Species 2, altera Uruguayensis, altera Brasiliana. *Eichl. in Mart. Fl. Bras.* v. ii. 133, *t.* 44.

11. **Tupeia,** *Cham. et Schl. in Linnæa* iii. 203.—Flores dioici, racemulosi. Perianthii tubus in fl. ♂ minimus, in fl. ♀ ovario adnatus; limbus 4- rarius 5-partitus. Stamina in fl. ♂ basi segmentorum affixa, filamentis filiformibus elongatis; antheræ ovato-oblongæ, loculis distinctis parallelis rimis lateralibus dehiscentibus. Discus 0. Ovarium in fl. ♀ inferum, ad normam ordinis; stylus columnaris, stigmate capitato. Bacca subglobosa, apice perianthii lobis caducissimis nuda; pericarpium succulentum viscifluum, endocarpio parum distincto. Semen subglobosum; embryo subteres, albumine copioso carnoso inclusus, cotyledonibus radicula longioribus.—Frutex in arboribus parasiticus, glaber v. minute puberulus. Folia opposita v. subopposita, plana, lata v. angusta. Florum racemuli laxi, axillares v. ramulos breves axillares terminantes, interdum ante folia nascentes, primo juventute e gemma imbricato-squamata oriundi, squamis tamen bracteisque caducissimis, simpliciter floribundi v. abbreviati 3–5-flori. Flores ♂ quam in generibus affinibus paullo majores, staminibus conspicuis non tamen perianthium excedentibus.

Species 1, Novo-Zelandica. *Hook. f. Fl. Nov. Zel.* i. 101, *t.* 26; *Handb. N. Zeal. Fl.* 108.

12. **Lepidoceras,** *Hook. f. Fl. Antarct.* ii. 293. (Myrtobium, *Miq. in Linnæa*, xxv. 652.)—Flores dioici, racemulosi. Perianthii tubus in fl. ♂ subnullus, in fl. ♀ ovario adnatus, limbus 4-partitus. Stamina in fl. ♂ basi segmentorum affixa, filamentis filiformibus longiusculis; antheræ parvæ, ovatæ, loculis parallelis longitudinaliter dehiscentibus. Discus carnosulus. Ovarium in fl. ♀ inferum, ad normam ordinis; stylus brevis, stigmate obtuso subcapitato. Bacca ovoidea v. globosa, perianthii limbo deciduo denudata, pericarpio viscifluo. Seminis albumen nullum a pericarpio distinguendum; embryo ovoideo-globosus, cotyledonibus crasso-carnosis, radicula brevi supera.—Fruticuli in arboribus parasitici, ramosissimi. Folia opposita, parvula, plana, coriacea, mucrone v. squamula apicali sæpius instructa. Florum racemuli axillares, ante anthesin squamis imbricatis obtecti strobiliformes, per anthesin racemi ♂ graciles, folio longiores, bracteis delapsis denudati, floribus oppositis pedicellatis, rhachi filiformi demum caduca; racemi ♀ in ramum foliatum excrescentes; squamæ infimæ deciduæ, superiores seu bracteæ flores singulos foventes, demum in folium apice tantum squamiforme excrescentes, fructus excedentes, ita ut baccæ ad axillas inferiores ramuli foliati appareant.

Species 3, Peruviæ et Chile incolæ. *Walp. Ann.* i. 362, 982. *C. Gay, Fl. Chil. t.* 32, *f.* 2.

13. **Antidaphne,** *Pœpp. et Endl. Nov. Gen. et Sp.* ii. 70, *t.* 199.—Flores monoici v. dioici, in spiculis unisexualibus. Perianthium in fl. ♂ 0, in fl. ♀ ovario adnatum, margine

minute remoteque 3-4-dentatum. Stamina in fl. ♂ 3-5, circa discum parvum carnosulum affixa, filamentis elongatis valde inæqualibus; antheræ ovatæ v. oblongæ, erectæ, loculis parallelis longitudinaliter dehiscentibus. Ovarium in fl. ♀ inferum, ad normam ordinis. Discus pulvinatus supra marginem perianthii prominens, in stylum brevissimum contractus, stigmate late capitato. Bacca ovoidea, pericarpio carnoso viscifluo. Semen albuminosum, embryonem perfectum non vidimus.—Fruticuli in arboribus parasitici. Folia alterna, plana, crassiuscula. Spiculæ ad axillas sessiles, ♂ subglobosæ v. ovoideæ, strobiliformes, bracteis squamiformibus latis imbricatis flores pedicellatos 1-3 foventibus per anthesin caducis; spiculæ ♀ novellæ basi squamis paucis imbricatis stipatæ, parte florida elonganda, per anthesin ebracteata, dentibus alternis flores 3-5 sessiles foventibus notata, rhachi demum apice in ramulum foliatum excrescente, fructibus in ramulo annotino infra folia sæpe persistentibus.

Species 2, Columbiæ et Peruviæ incolæ. *Walp. Rep.* v. 935.

In floribus ♂ filamenta ad apicem pedicelli semper inæqualia, uno centrali longiore crassioreque disco quasi imposito, 1 v. sæpius 2 ad utrumque latus brevioribus ad latera disci affixis. An revera flores 3, centrali 1 andro lateralibus 1-2-andris? Setulæ interdum minutissimæ perpaucæ sub staminibus apparent, an perianthii an bracteolarum rudimenta? haud patet.

Ordo CXLIX. **SANTALACEÆ.**

Endl. Gen. 324. Lindl. Veg. Kingd. 787.

Flores hermaphroditi v. abortu dioici rarius monoici, regulares. *Perianthium* simplex, virens v. corollinum, interdum carnosulum, basi ovario v. disco adnatum, apice v. sæpius usque ad discum divisum, lobis 4, 5 v. rarius 3 v. 6 valvatis v. rarius leviter imbricatis, intus prope basin pone antheras sæpissime fasciculo pilorum instructis, apice concavis inflexis v. planis. *Stamina* (*Grubbia* excepta) tot quot perianthii lobi iisque prope basin affixa, rarius altius adnata, v. sub lobis intra tubum affixa, lobis breviora v. rarius subæquilonga; filamenta filiformia v. latiuscula nunc brevissima. *Antheræ* basifixæ v. prope basin dorsifixæ, nunc erectæ ovatæ oblongæ v. oblongo-lineares, loculis 2 distinctis parallelis rimis longitudinalibus introrsum v. demum lateraliter dehiscentibus, nunc terminales loculis adnatis divergentibus distinctis v. confluentibus 4- v. 2-valves v. demum explanatæ. *Discus* epigynus v. perigynus, nunc annularis pulviniformis v. planus margine parum distincto v. obscuro v. vix ullus, nunc planus concavus v. subcampanulatus perianthii tubi partem liberam vestiens, margine plus minus prominulo integro sinuato v. inter stamina in angulos v. lobos squamiformes producto. *Ovarium* ab initio v. saltem anthesi peracta inferum, v. in *Anthoboleis* basi disco immersum, 1-loculare. *Stylus* cylindraceus, conicus v. abbreviatus, stigmate terminali capitellato truncato v. brevissime 2-3-lobo, interdum in vertice ovarii subsessili. *Ovula* 2-3 ab apice v. sub apice placentæ centralis filiformis v. crassiusculæ pendula, v. in *Anthoboleis* ovulum unicum erectum centrale (an forte a placenta erecta arcte adnata pendulum ?). *Fructus* indehiscens, nuceus v. sæpius drupaceus; exocarpium (in fructu infero e pericarpii strato exteriore cum perianthii tubo conflatum) nunc tenue, siccum, nunc carnosum v. succulentum, interdum crassum; endocarpium crustaceum induratum v. osseum. *Semen* globosum v. ovoideum, extus læve rugosum v. profunde ∞-sulcatum; testa 0 (v. tenuissima nec facile solvenda ?). *Albumen* copiosum, carnosum, sæpius album. *Embryo* inclusus, sæpe tamen obliquus nec stricte centralis, linearis v. abbreviatus, sæpissime teres, rectus v. vix incurvus; cotyledones semiteretes v. rarius leviter dilatatæ, radicula supera longiores v. breviores, interdum minutæ v. vix distinguendæ.

Arbores frutices v. herbæ humiles sæpissime glabræ, paucæ in arboribus v. in radicibus

parasiticæ. Folia alterna v. opposita, integerrima, venatione præter costam sæpius parum conspicua, interdum ad squamas parvas reducta v. plane nulla. Stipulæ 0. Inflorescentia simplex centripeta v. si composita ultima cymulosa, pedunculi nempe ad axillas foliorum v. bractearum solitarii sæpius breves, interdum brevissimi v. sub flore sessili subnulli, 1-flori v. cymulam v. fasciculum 3-∞-florum ferentes, nunc omnes ad axillas foliorum v. squamularum dissiti, nunc in spicam v. racemum simplicem terminalem v. axillarem dispositi. Bractea (interdum foliacea) sub pedunculo ei haud raro plus minus adnata et in pedunculo ipso sita videtur; bracteolæ in pedunculo sub flore solitario v. sub cymula sæpissime 2 oppositæ, liberæ v. cum bractea in cupulam connatæ, v. rarius una v. utraque deficiens. Flores virides flavo-virentes v. rarius aurantiaci, in paucis speciebus conspicui, in plerisque parvi, interdum minuti.

Species vix 220, per regiones tropicas temperatasque utriusque orbis latissime dispersæ. Genera plurima hic recepta, præsertim e tribu *Osyridearum*, oligotypica, sæpe inter se characteribus parvæ valoris separata, a botanicis tamen libenter admissa, sæpeque patria bene limitata.

Ordo *Loranthaceis* valde affinis iisque a Baillono jungitur, sed bene distinctus videtur, imprimis ovarii structura. Etiam *Olacineis* pluribus notis accedit, sed perianthium constanter simplex. Tribus *Anthobolearum*, fere medium tenet inter *Osyrideas* et *Opilieas Olacinearum*, et e sententia botanicorum nonnullorum his adsociandus.

FORMÆ ABNORMES.

Frutices suffruticesve in arboribus parasitici in *Henslowia* et *Myzodendro*. Herbæ in radicibus parasiticæ in *Thesii* speciebus nonnullis et forte in aliis paucis.

Perianthii lobi leviter imbricati v. unus exterior in *Buckleya* et *Scleropyro*, ima basi abrupte contracti quasi stipitati in *Nanodea*. Perianthium 0 v. in fl. ♀ margine integrum in *Myzodendro*.

Stamina numero loborum perianthii duplo plura in *Grubbia*.

Ovarium junius intra perianthii tubum liberum, mox immersum in *Cervantesia* et *Santalo*.

Endocarpii plicæ seu processus interiores in sulcos seminis intrusæ in *Henslowia*.

CONSPECTUS GENERUM.

Tribus I. Thesieæ. Perianthii tubus basi ovario adnatus, supra ovarium infra lobos plus minus productus, disco tamen nullo prominente vestitus. Fructus parvus, nuceus, exocarpio tenui v. vix carnosulo (excepto *Osyridicarpo*).

1. Quinchamalium. Flores in spicam terminalem conferti, singuli basi urceola membranacea e bractea bracteolisque conflata stipati. Antheræ oblongo-lineares. Placenta brevis, recta, crassiuscula. Herbæ humiles, foliis linearibus.—*Amer. austr. extratrop.*

2. Arjona. Flores in spicam terminalem conferti, singuli basi bractea bracteolisque liberis stipati. Antheræ oblongo-lineares. Placenta brevis, recta, crassiuscula. Herbæ humiles, foliis linearibus v. sublanceolatis rigidulis.—*Amer. austr. extratrop.*

3. Thesium. Flores in spicam terminalem v. racemum laxum dispositi v. pedunculi axillares 1-flori v. cymuliferi. Bractea sæpe foliis subsimilis, bracteolæ liberæ v. 0. Antheræ parvæ, ovatæ v. oblongæ. Placenta filiformis, flexuosa v. contortuplicata. Herbæ suffruticesve, foliis linearibus v. parvis squamiformibus.—*Orbis vet. reg. temp. et trop.*, *Brasilia.*

4. Thesidium. Flores dioici, minimi. Folia parva, squamiformia. Cætera *Thesii*.—*Afr. austr.*

5? Osyridicarpos. Habitus folia et fructus fere *Osyridis*, sed flores hermaphroditi, perianthii tubo supra ovarium cylindraceo carnosulo, summo apice cum lobis petaloideo. Suffrutices foliis planis, floribus ad axillas 1-3-nis.—*Afr. austr.*, *Abyssinia.*

Tribus II. Osyrideæ. Perianthii tubus ovario adnatus, ultra ovarium haud productus, v. intus disco vestitus, lobis usque ad discum v. ovarium solutis v. rarius deficientibus. Fructus plus minus drupaceus, exocarpio carnoso v. succulento, rarius minor subsiccus.

* *Antherarum loculi distincti, paralleli, longitudinaliter dehiscentes.*

† *Discus margine inter stamina in lobos squamiformes productus.*

a. *Perianthii tubus adnatus, carnosus, post anthesin facile in segmenta solvendus.*

6. Cervantesia. Florum fasciculi ad axillas spicati v. in paniculam terminalem dispositi. Arbor foliis integerrimis subtus inflorescentiaque ferrugineo-tomentosis.—*Columbia, Peruvia.*

7. IODINA. Florum fasciculi ad axillas sessiles. Frutex foliis angulato-rhombeis, angulis spinescentibus glaberrimis.—*Amer. austr. extratrop.*

b. *Perianthii tubus arcte adnatus, æqualis.*

8. PYRULARIA. Flores subdioici. Cymulæ ♂ ad apices ramorum racemosæ. Fructus majusculi, terminales, solitarii. Arbores fruticesve inermes, foliis alternis.—*Amer. bor., Himalaya.*

9. ACANTHOSYRIS. Flores hermaphroditi. Pedunculi 1–3-flori in axillis inferioribus v. ad nodos vetustos. Arbor spinis brevibus axillaribus armata; foliis alternis.—*Amer. austr. extratrop.*

10. COMANDRA. Flores hermaphroditi. Cymulæ subterminales umbelliformes, v. pedunculi axillares 1–3-flori. Herbæ suffruticesve inermes, foliis alternis.—*Amer. bor., Europa.*

11. SANTALUM. Flores hermaphroditi. Paniculæ breves laxæ v. subracemosæ, axillares terminalesque. Ovarium junius liberum; placenta longe acuminata. Arbores fruticesve inermes, foliis sæpius oppositis.—*Reg. Indo-Austral., ins. Pacif.*

‡† *Discus margine integer v. breviter lateque sinuato-sublobatus nec in lobos distinctos productus.*

12. FUSANUS. Flores plerique hermaphroditi. Paniculæ subcymosæ, breves. Discus supra ovarium crateriformis v. late campanulatus. Arbores fruticesve (1) foliis alternis inflorescentia axillari; (2) foliis oppositis inflorescentia terminali.—*Nov. Zel., Australia.*

13. COLPOON. Flores plerique hermaphroditi. Paniculæ abbreviatæ v. cymæ densæ, terminales, sessiles. Discus concavus. Frutices foliis plerisque oppositis.—*Afr. austr.*

14. NANODEA. Flores plerique hermaphroditi, terminales, 1–3-ni, inter folia summa subsessiles. Discus concavus. Herba humilis, foliis alternis anguste linearibus. — *Terr. Magellan.*

15. MYOSCHILOS. Flores hermaphroditi in spicis bracteatis amentiformibus ad nodos defoliatos sessilibus. Discus planus. Frutex foliis alternis parvulis planis.—*Chile.*

16. BUCKLEYA. Flores dioici, ♂ umbellati, ♀ terminales solitarii. Discus late campanulatus. Drupa bracteis 4 foliaceis coronata. Frutices foliis oppositis.—*Amer. bor., Japonia.*

17. OSYRIS. Flores dioici, solitarii v. cymulosi. Discus subplanus. Drupa nuda v. foliis summis stipata. Frutices foliis alternis.—*Europa, Africa, Ind. or.*

18. OMPHACOMERIA. Flores dioici, minuti, ad nodos sessiles v. ♂ glomerati. Discus subplanus. Frutices aphylli, ramis teretibus.—*Australia.*

** *Antherarum loculi divergentes v. terminales, discreti 2-valvesque v. in unum 2-valvem confluentes.*

19. HENSLOWIA. Flores dioici v. monoici, ad axillas cymulosi fasciculati v. ♀ solitarii. *Endocarpium intus processibus duris in sulcis albuminis intrusum.* Frutices interdum parasitici, foliis alternis crassiusculis planis.—*Ind. or., China, Archip. Malay.*

20. SCLEROPYRON. Flores subdioici, ad nodos defoliatos breviter spicati. *Filamenta 2-fida.* Drupa majuscula, pyriformis. Arbores ad nodos sæpe spiniferæ, foliis alternis coriaceis.—*Ind. or.*

21. CHORETRUM. Flores hermaphroditi, minuti, secus ramos fasciculati v. solitarii, bracteis orbiculato-squamiformibus involucrati. Drupa parva. Frutices aphylli.—*Australia.*

22. LEPTOMERIA. Flores hermaphroditi, minuti, in racemulos spiculasve terminales v. laterales conferti. Drupa parva. Frutices foliis bracteisque minute squamiformibus v. rarius lineari-teretibus.—*Australia.*

23. PHACELLARIA. Flores monoici, minuti, secus ramos sparsi, sessiles. Drupa parva. Fruticuli parasitici caulibus fasciculatis aphyllis.—*Birma.*

24. MYZODENDRON. Flores dioici, parvi, axillares v. in spiculas amentiformes conferti. Perianthium 0 in fl. ♂, adnatum margine brevissimo in fl. ♀. Filamenta filiformia, anthera terminali 1-loculari. Fructus parvus, setis lateralibus demum longis plumosis instructus. Suffrutices parvi, ramosissimi, in arboribus parasitici.—*Chile, Terr. Magell.*

Tribus III. Anthoboleæ. Perianthium usque ad discum 3–4-partitum. Ovarium superum, basi disco semi-immersum. Stigma sessile. Ovulum 1, centrale, erectum. Fructus plus minus drupaceus, omnino superus. Flores minimi.

25. ANTHOBOLUS. Flores dioici, ad axillas pedicellati, ♂ 2–5-ni, ♀ solitarii v. 2-ni. Drupa

pedicello incrassato carnoso insidens. Folia lineari-teretia v. ad squamas minutas reducta.—*Australia.*

26. Exocarpus. Flores hermaphroditi v. abortu masculi, in spiculis v. fasciculis ad axillas sessilibus. Drupa pedicello incrassato insidens. Folia lineari-teretia, plana, v. ad squamas minutas reducta.—*Australia, Nov. Zel., ins. Norfolk, Mascar., Archip. Malay. et Sandw.*

27. Champereia. Flores hermaphroditi (v. abortu ♂ ?) in paniculas axillares graciles dispositi. Folia alterna, plana. Pedicelli fructiferi non incrassati.—*Penins. et Archip. Malay.*

Tribus IV. (v. genus anomalum). **Grubbieæ.** Perianthii tubus ovario adnatus, lobis usque ad ovarium solutis. Stamina numero loborum duplo plura. Fructus (minimus) drupaceus.

28. Grubbia. Flores hermaphroditi, parvi, in axillis foliorum v. bractearum strobili pisiformis axillaris ternatim sessiles. Frutices ericoidei foliis oppositis angustis margine revolutis.—*Afr. austr.*

GENERA AFFINIA V. EXCLUSA AUT DUBIA.

Opilieæ, tribus **Olacinearum**, supra i. 349, *Anthobolcis* caute comparandæ, differunt calycis margine ad apicem ovarii plus minus distincto.

Pyrenacantha, Hook. (Adelanthus, Endl., Moldenhauera, Spreng.) quam supra i. 345 e tribu *Phytocrenearum* **Olacinearum** rejecimus, rite a Baillono in DC. Prod. xvii. 9, ad illas revocatur, etsi calycis margo obsoletus sit. A *Santalaceis* recedit habitu, staminum situ, ovulorum insertione, embryone aliisque notis.

Modeccopsis, Griff., est *Erythropalum*, Blume, inter **Olacineas**, supra i. 347.

Decastrophis, Griff. Notul. iv. 737, t. 613, est *Erythropalum*, Bl., inter **Olacineas**, synonymon supra i. 347 casu omissum.

Cevallia, Lag., a Lindleyo olim *Santalaceis* adscripta, est **Loasea**, supra i. 803.

Octarillum, Lour. Fl. Cochinch. 90, videtur *Elæagni* species inter **Elæagnaceas**, supra, 204.

Tribus I. Thesieæ.

1. **Quinchamalium,** *Juss. Gen. Pl.* 75.—Flores hermaphroditi, in spica terminali conferti, urceolo truncato-dentato (bractea cum bracteolis connata) stipati. Perianthii tubus basi ovario adnatus, supra discum cylindraceus; lobi 5, valvati, recurvo-patentes. Stamina 5, ad basin loborum affixa iisque breviora, filamentis brevibus; antheræ lineari-oblongæ, basifixæ, loculis parallelis longitudinaliter dehiscentibus. Discus carnosulus, annularis v. cupularis, a perianthio distinctus. Ovarium inferum; stylus filiformis, stigmate subcapitato; ovula 3, ex apice placentæ brevis crassæ pendula, subimmersa. Fructus parvus, nuceus, subcarnosus, urceolo bracteino arcte inclusus, perianthio toto sæpe usque ad maturitatem persistente, v. demum parte libera circa discum circumscissa decidua. Semen conforme; embryo in centro albuminis carnosi parvus, linearis, radicula vix cotyledonibus longiore.—Herbæ humiles, glabræ, basi pluricaules v. decumbentes. Folia alterna, linearia v. subulata, integerrima. Flores in spica densa arcte sessiles v. foveolis rhacheos leviter immersi. Urceolus ovario subæquilongus, membranaceus, dente exteriore lateralibus majore, quarto postico minuto v. 0.

Species evidenter plurimæ, vix tamen limitibus certis distinguendæ, apud Miersio 7, ex Philippi 13, Americæ australis imprimis Chilensis et Andinæ australis incolæ. *A. DC. Prod.* xiv. 625. *Philippi in Bot. Zeit.* 1857, 745, *t.* 11. *Miers in Journ. Linn. Soc.* xvii. 134, *t.* 7. *Ruiz et Pav. Fl. Per. et Chil. t.* 107. *Lam. Illustr. t.* 142. *Brongn. in Duperr. Voy. Bot. t.* 51, 52.

Genus ab auctoribus Molinio tribuitur, sed genus Molinianum, calyce 5-fido corolla 5-fida stylis 3 capsula 3-loculari polysperma, plantam quamdam diversissimam refert hodie non determinandam. Jussieu primus genus nostrum constituit.

2. **Arjona,** *Cav. Ic.* iv. 57, *t.* 383.—Flores hermaphroditi, in spica terminali conferti, bractea bracteolisque liberis stipati. Perianthii tubus basi ovario adnatus, supra discum cylindraceus; lobi 5, valvati, recurvo-patentes. Stamina 5, apicem versus tubi infra faucem affixa, inclusa, filamentis brevibus; antheræ lineari-oblongæ, prope basin dorsifixæ, loculis parallelis longitudinaliter dehiscentibus. Discus pulvinatus v. crassiuscule annu-

laris, a perianthio distinctus. Ovarium inferum; stylus filiformis, stigmate capitato v. breviter 3-lobo; ovula 3, ab apice placentæ brevis crassæ pendula, subimmersa. Fructus parvus, nuceus, vix carnosulus, bractea convoluta bracteolisque arcte inclusus, glaber, nitidus, perianthio persistente coronatus v. demum denudatus. Semen conforme; embryo in centro albuminis carnosi parvus, linearis, radicula vix cotyledonibus longiore. —Herbæ humiles, sæpius ramosæ, quam in *Quinchamalio* rigidiores, præter inflorescentiam glabræ, radicibus sæpe hinc inde tuberiferis. Folia alterna, linearia v. lanceolata, rigidula, acuta, integerrima, sæpe recurva. Flores in spica brevi arcte sessiles, perianthio, basi adnata excepta, inflorescentiaque tota pubescentibus v. rarius glabris; perianthium intus ad faucem pilosulum.

Species 3 v. 4, apud Miersium 8, Americæ australis extratropicæ, imprimis Chili et Patagoniæ incolæ. *A. DC. Prod.* xiv. 626. *Hombr. et Jacq. Voy. Pole Sud Dicot. t.* 15. *Miers in Journ. Linn. Soc.* xvii. 129, *t.* 6.

3. **Thesium,** *Linn. Gen. n.* 292.—Flores hermaphroditi. Perianthii tubus basi adnatus, supra ovarium campanulatus v. cylindraceus, apice v. ad medium v. sæpe multo altius divisus; lobi 5 rarius 4, valvati, intus pone stamina fasciculo pilorum sæpius donati, interdumque ab apice reflexo-barbati. Stamina 5 rarius 4, basi loborum v. paullo infra affixa, filamentis tenuibus brevibus; antheræ ovatæ v. oblongæ, loculis parallelis longitudinaliter dehiscentibus. Discus epigynus inconspicuus v. cum perianthio continuus margine nullo prominente (v. rarius obscuro?). Ovarium inferum; stylus nunc elongatus nunc brevis, stigmate capitato v. obscure 3-lobo; ovula 2–3, ab apice placentæ tenuis sæpe flexuosæ v. contortuplicatæ pendula. Fructus nuceus, parvus, globosus v. ovoideus, extus vix carnosulus, perianthio persistente coronatus v. rarius demum denudatus, endocarpio crustaceo v. parum indurato. Semen conforme; embryo in centro albuminis carnosi teres, rectus v. parum curvus, sæpe obliquus, radicula cotyledonibus æquilonga v. longiore.—Herbæ basi sæpe duræ v. lignescentes, haud raro radicibus parasiticæ, rarius fruticuli. Folia alterna, linearia, sæpius parva, nunc ad squamas minutas reducta. Inflorescentia simpliciter spicata v. racemosa pedunculis unifloris, v. composita pedunculis cymoso-3-∞-floris. Bractea v. folium subtendens interdum pedunculo adnatum; bracteolæ sub flore solitario v. sub cymulo 2 oppositæ interdum deficientes.

Species ultra 100, in temperatis orbis veteris late dispersæ, inter tropicos pauciores, duæ solæ Brasilienses, cæterum in America tota desunt. *A. DC. Prod.* xiv. 637. *Nees, Gen. Fl. Germ. Monochl. n.* 48. *Reichb. Ic. Fl. Germ. t.* 541 *ad* 546; *Iconogr. Eur. t.* 452 *ad* 458. *Jacq. Fl. Austr. t.* 416. *Ten. Fl. Nap. t.* 220. *Guss. Pl. Rar. t.* 20. *Vis. Fl. Dalm. Suppl. t.* 4. *Tchihatch. As. Min. t.* 39. *Bong. et Mey. Verz. Pfl. Sais. Nor. t.* 13. *Ledeb. Ic. Fl. Ross. t.* 233, 237. *Wight, Ic. t.* 1852.

R. Brown in Prod. Fl. N. Holl. 353, sectiones 3 (sine nomine) indicavit, quarum una, *Frisea*, Endl., facile distincta est perianthii lobis intus barba densa ex apice et marginibus pendente vestitis; antheræ etiam sæpius (an semper?) magis reversæ videntur. Species omnes austro-Africanæ, adhuc icone nulla illustratæ. Cæteræ duæ sectiones, imprimis perianthio lobato v. partito distinctæ, limitibus certis non definiendæ sunt, et a Candollio quoad species plerasque sub *Euthesio* includuntur, perianthii segmentis præter fasciculum pilorum ad basin pone stamina glabris et ad hanc sectionem pertinent icones omnes supra citatæ. Species tamen paucas separavit idem auctor in Prodromo characteribus minoris valoris scil. *Chrysothecium*, Jaub. et Spach, Ill. Pl. Br. t. 104, et 300, species 2 orientales parte supera perianthii tubi elongata tenuique dum in cæteris speciebus sæpissime lobis brevior est, ratione tamen in variis speciebus valde diversa, *Ætheothesium*, DC., species unica austro-Africana, foliis latis crassis amplexicaulibus et bracteis amplis insignis, characteribus tamen nullis certis ab aliis pluribus distinguenda; *Discothesium*, A. DC., species 4 austro-Africanæ, disco epigyno margine leviter prominulo discreto, quod tamen in speciebus tribus a nobis examinatis vix confirmare possumus. Discum in his speciebus solito crassiorem vidimus sed more generis cum perianthii tubo perfecte continuum et habitus omnino *Euthesii*. Inflorescentia tamen specierum plurium austro-Africanarum peculiaris est, et *Euthesia* gerontogea, a *Friseis* separata, sectiones cæteras Candollei includentia, in subsectiones duas distribuenda videntur: 1. *Euthesium* pedunculis (sæpius 1-floris interdum etiam cymuloso-pluriflores) ad axillas dissitis v. in spicam tenuem simplicem terminalem approximatis,

species numerosæ per orbem veterem Africa capensi inclusa latissime dispersæ. 2. *Ætheothesium*, cymulis terminalibus v. in solis summis axillis confertis, cymam terminalem compactam v. capitulum terminale formantibus; species omnes austro-Africanæ e.g. *T.* (*Euthesium*, DC.) *strictum, paniculatum*, affinesque, *T.* (*Ætheothesium*, DC.) *euphorbioides*, *T.* (*Discothesium*, DC.) *triflorum*, aliæque nonnullæ.

Sectio *Psilothesium*, A. DC. Prod. xiv. 670, et in Mart. Fl. Bras. v. i. t. 37, species 2 Brasilienses continet, ab *Euthesiis* gerontogeis paullo distinctas caule annuo tenui virgatim ramoso, foliis ad squamellas minutas dentesve reductis, floribus parvis gracile spicatis, perianthio sæpius 5-mero, ex DC. a fructu maturo deciduo, in speciminibus tamen nostris utriusque speciei perianthium in fructu perfecto persistens vidimus, et interdum etsi rarius in *Euthesiis* gerontogeis fructus hinc inde perianthio delapso denudatus est.

Rhinostegia, *Turcz. in Bull. Soc. Imp. Nat.* 1843, 56, ab A. DC. rite ad *Thesium* reducitur. *R. brevifolia*, Turcz., est *T. Dregeanum*, A. DC.; *R. longifolia*, Turcz., nobis ignota est.

4. **Thesidium,** *Sond. in Flora*, 1857, 364.—Flores dioici. Perianthii tubus in flore ♂ tenuis solidus, in flore ♀ ovoideus, ovario adnatus, supra ovarium brevissime campanulatus v. vix ullus; lobi 4, valvati, in flore ♂ sæpius fasciculo pilorum pone stamina instructi. Stamina 4, ad basin loborum affixa, filamentis brevibus; antheræ parvæ, loculis parallelis longitudinaliter dehiscentibus; in flore ♀ staminodia sæpius 0. Discus obscurus, margine nullo prominulo. Ovarium inferum; stylus brevis, stigmate obscure 2–3-lobo; ovula 2–3, ab apice placentæ centralis filiformis rectæ v. contortuplicatæ pendula. Fructus nuceus *Thesii*, parvus, globosus v. ovoideus, perianthio marcescente coronatus, endocarpio crustaceo. Semen conforme; embryo in centro albuminis carnosi teres, sæpe obliquus.—Fruticuli humiles, ramosissimi, rarius herbæ. Folia alterna, sæpius minima v. squamiformia, rigidula. Flores minimi, nunc intra bracteas solitarii subsessiles in spicam terminalem tenuem interruptam dispositi, nunc secus ramos intricatos ad axillas sessiles, solitarii v. terni, numerosissimi. Bracteæ bracteolæque minimæ.

Species enumeratæ 6, Africæ australis incolæ. *A. DC. Prod.* xiv. 673. Genus a *Thesio* imprimis floribus dioicis differt. Habitus etiam satis diversus, interdum fere salsoloideus.

5? **Osyridicarpos,** *A. DC. Prod.* xiv. 635.—Flores hermaphroditi. Perianthii tubus basi ovario adnatus, supra ovarium cylindraceus, fere ad apicem carnosulus, summo apice tenuis; lobi 5, tenues, valvati, intus basi fasciculo pilorum instructi. Stamina 5, summo tubo sub lobis affixa, filamentis brevibus tenuibus; antheræ ovatæ, loculis parallelis longitudinaliter dehiscentibus. Discus indistinctus, nisi pro disco haberes partem carnosam perianthii apice inter stamina sinuato-5-lobam, margine tamen haud prominulam. Ovarium inferum; stylus elongatus, tenuis, stigmate capitellato v. obscure 2–3-lobo; ovula 2–3, ab apice placentæ filiformis flexuosæ pendula. Drupa (a nobis non visa) fere *Osyridis* ex vestigio perianthii cupula 5-angulari minima coronata (*A. DC.*).—Suffrutices glabri, ramis laxis interdum elongatis subscandentibus. Folia alterna, breviter petiolata, lanceolata v. ovata, plana. Flores ad axillas solitarii v. 3–5-ni, breviter pedicellati, bracteolis minimis v. 0. Perianthii tubus sæpius (nec constanter) extus ad basin partis liberæ verrucis v. appendiculis carnosulis 4–5 subreflexis instructus.

Species 2, inter se valde affines, altera austro-Africanæ, altera Abyssinica.

Genus *Thesieas* cum *Osyrideas* arcte connectit. Specimina nostra omnia florida primo aspectu *Thesium* referunt et sub *Thesio* a variis collectoribus missa. Folia tamen, et ex DC. fructus, potius *Osyridis*, et si partem carnosam perianthii pro disco haberes (in vivo perianthium quasi calycem corollæ adnatum simulat ex Burchellio) genus forte *Osyrideis* transferendum foret.

Tribus II. Osyrideæ.

6. **Cervantesia,** *Ruiz et Pav. Prod.* 39, *t.* 7; *Fl. Per. et Chil.* iii. 19, *t.* 241.—Flores hermaphroditi. Perianthii carnosuli tubus basi ovario adnatus, supra ovarium breviter campanulatus, post anthesin facile fere a basi in segmenta solvendus; lobi 5, valvati, usque ad discum soluti, intus pone stamina fasciculo parvo pilorum instructi. Stamina 5, basi loborum affixa, filamentis brevibus; antheræ oblongæ, loculis parallelis

longitudinaliter dehiscentibus. Discus perianthii tubum vestiens, margine inter stamina in lobos carnosulos squamiformes ovatos v. oblongos productus. Ovarium primum in fundo perianthii fere liberum, mox basi accrescens semi-inferum, ante maturitatem jam fere inferum; stylus brevis, crassiusculus, stigmate 2–3-lobo; ovula 2–3, ex apice placentæ longe filiformis contortuplicatæ pendula. Fructus subglobosus, exocarpio carnoso in segmenta 5 a basi sæpe solvenda subdiviso, endocarpio crustaceo sæpius inter exocarpii segmenta demum fisso fere 2–3-valvi. Semen subglobosum; embryo linearis, subteres, longiusculus, in albumine carnoso obliquus.—Arbor, ramulis novellis inflorescentiis foliorumque pagina inferiore plus minus ferrugineo-tomentosis villosisve. Florum cymulæ v. fasciculi densæ, ad axillas sessiles v. in spica brevi secus rhachin plures sessiles; spicæ ad axillas sessiles v. superiores in panicula terminali plures.

Species distinguit Miers 3, sed omnes unius formæ videntur, Andium Columbiæ, Ecuadoræ et Peruviæ incolæ. *A. DC. Prod.* xiv. 692. *Cav. Ic. t.* 475. *Miers in Journ. Linn. Soc.* xvii. 78, *t.* 3.

Miers l. c. *Cervantesiam* et *Iodinam* a *Santalaceis* ad *Styracaceas* transfert, lobis squamiformibus disci pro petalis perperam descriptis. Hæ squamæ, cum margine disci continuæ, omnino similes sunt iis *Santali* et *Comandri*, dum stamina certe extra discum affixa sunt etsi disco arcte contigua, ut in omnibus generibus subtribus *Osyridearum*. Ovarium in alabastro liberum apparet omnino ut in *Santalo*. Squamellæ, in facie interiore segmentorum perianthii fructiferi a Miersio descriptæ, sunt vestigia persistentia filamentorum post antheras delapsas. Cæterum *Cervantesia* et *Iodina* ab omnibus affinibus differunt exocarpio (perianthii tubo) insigniter 5-sulcato facile in segmenta totidem solvendo, etsi vix nisi basi sponte separatur.

7. **Iodina,** *Hook. et Arn. in Hook. Bot. Misc.* iii. 172.—Flores hermaphroditi. Perianthii tubus basi ovario adnatus, post anthesin facile solvendus, supra ovarium brevissime lateque campanulatus; lobi 5, valvati, fere induplicati, usque ad discum soluti, pone stamina fasciculo pilorum instructi. Stamina 5, basi loborum affixa, filamentis brevibus; antheræ ovato-oblongæ, loculis parallelis longitudinaliter dehiscentibus. Discus crateriformis, perianthii partem liberam vestiens, margine inter stamina in lobos squamiformes crassiusculos rotundatos productus. Ovarium in alabastro semi-inferum, mox fere inferum; stylus longiuscule conicus, stigmate 3-fido; ovula 3, ab apice placentæ centralis rectæ pendula. Fructus globosus, exocarpio tenuiter carnoso facile in segmenta 5 solubili, endocarpio crustaceo interdum inter exocarpii segmenta fisso fere 2–3-valvi. Semen globosum; embryo brevis, in centro albuminis carnosi obliquus, radicula clavata cotyledonibus linearibus longiore.—Frutex elatus, glaber. Folia alterna, rhombea, rigide coriacea, angulis spinescentibus, basi in petiolum brevem contracta. Cymulæ ad axillas sessiles, densæ, paucifloræ, floribus tenuissime puberulis. Fructus sæpe ad axillas abortu solitarii.

Species 1, in America australi extratropica a Montevideo usque ad Aconcagua Andium frequens. *Reissek in Mart. Fl. Bras.* xi. 77, *t.* 23. *Miers in Journ. Linn. Soc.* xvii. 83, *t.* 4.

8. **Pyrularia,** *Mich. Fl. Bor. Amer.* ii. 231. (Hamiltonia, *Muehlenb. in Willd. Spec. Pl.* iv. 1114. Sphærocarya, *Wall. in Roxb. Fl. Ind. ed. Car. et Wall.* ii. 371; *Tent. Fl. Napal. t.* 10.)—Flores abortu subdioici, fertiles sæpe hermaphroditi. Perianthii tubus in flore ♂ brevissimus solidus, in flore fertili turbinatus, ovario adnatus; lobi 5, patentes, valvati, usque ad discum soluti, intus pone antheras fasciculo pilorum v. squama pilosa antheris adhærente instructi. Stamina 5, basi loborum affixa, in flore fertili minora, filamentis brevibus; antheræ ovatæ, loculis parallelis longitudinaliter dehiscentibus (in flore fertili cassæ ?). Discus parum prominulus, inter stamina in squamas distinctas productus. Ovarium inferum; stylus columnaris, stigmate depresso-capitato obscure lobato; ovula 2–3, ab apice placentæ brevis rectæ pendula. Drupa obovoidea v. subglobosa, majuscula, perianthii lobis persistentibus coronata v. vix demum denudata, exocarpio carnoso, endocarpio duro haud crasso. Semen globosum; embryo prope apicem albuminis carnosi brevis, subteres.—Arbores fruticesve. Folia annua, alterna, breviter petiolata, membranacea. Flores in summis axillis v. ad apices ramorum cymulosi, cymulis racemum

terminalem compositum seu paniculam racemiformem formantibus; flores fertiles sæpe ad apices ramorum pauciores, sæpius gemini v. solitarii. Bracteolæ parvæ.

Species 2, altera boreali-Americana, altera Himalaica. *A. DC. Prod.* xiv. 628 (*quoad sp.* 1 *et* 2). *Wight Ic. t.* 255 (*icon a Wall. Tent. iterata*). Flores ♀ v. ☿ nobis desunt, eorum char. ex auctoribus citatis v. e reliquiis in fructu persistentibus sumpsimus.

9. **Acanthosyris**, *Griseb. Symb. Fl. Argent.* 151. (Osyris *sect.*, *Eichl. in Mart. Fl. Bras.* xiii. i. 236, *t.* 53.)—Flores hermaphroditi. Perianthii tubus basi late turbinatus ovario adnatus, supra ovarium breviter lateque campanulatus; lobi 5 rarius 4, usque ad discum soluti, valvati, pone stamina fasciculo pilorum antheris adhærente instructi. Stamina 5 rarius 4, basi loborum affixa, filamentis brevibus tenuibus; antheræ ovatæ, loculis parallelis longitudinaliter dehiscentibus. Discus perianthii tubi partem liberam vestiens, margine inter stamina in squamas distinctas productus. Ovarium semi-inferum; stylus longiusculus, stigmate obscure 2–3-fido; ovula 2–3, a placenta centrali apice ultra ovula obtuse producta pendula, arcte reflexa. Drupa, a nobis non visa, globosa, ½ poll. diametro, perianthii reliquiis (lobis deciduis) coronata, endocarpio firmiter lignoso.—'Arbores elatæ, pulchræ nunc in fruticem 6-pedalem reductæ,' habitu fere *Celastri*, spinis brevibus axillaribus (pedunculis abortivis?) nunc minimis v. raris armatæ, rarius inermes. Folia alterna, ad nodos vetustos sæpe fasciculata, oblonga, rigidule membranacea, basi in petiolum brevissimum contracta. Pedunculi graciles, foliis breviores, 1–3-flori, in axillis foliorum inferiorum innovationis v. sæpius cum foliis ad nodos vetustiores fasciculati. Bracteolæ minutæ v. 0.

Species 2, Brasiliæ australis et Reipublicæ Argentinæ incolæ.

Spinæ *A. spinescentis*, Griseb., semper more pedunculorum ad axillas v. paullo supra axillas oriuntur, sed in ramis annotinis folio subtendente delapso et fasciculo foliorum superne evoluto infrafoliaceæ apparent. In speciminibus nostris ut in icone citata ovulum unum cæteris altius affixum videtur, sed revera est potius apex placentæ ultra ovula productus.

10. **Comandra**, *Nutt. Gen. N. Am. Pl.* i. 157. (Hamiltonia, *Spreng. Syst.* i. 831 *pro parte.*) —Flores hermaphroditi. Perianthii tubus basi ovario adnatus, supra ovarium campanulatus; lobi 5, rarius 4, usque ad discum soluti, valvati, pone stamina fasciculo pilorum antheris adhærente instructi. Stamina 5 rarius 4, basi loborum affixa, filamentis brevibus crassiusculis; antheræ ovatæ, loculis parallelis longitudinaliter dehiscentibus. Discus perianthii tubum vestiens, margine inter stamina in squamas rotundatas distinctas productus. Ovarium inferum; stylus longiusculus, stigmate capitellato; ovula 2–3, ab apice placentæ linearis interdum flexuosæ pendula, v. sub apice placentæ crassioris affixa. Drupa ovoidea v. globosa, exocarpio tenuiter carnoso v. succulento, endocarpio crustaceo haud crasso. Semen globosum; embryo in albumine carnoso subteres.—Herbæ suffruticesve erecti, glabri. Folia alterna, angusta v. ovali-oblonga. Cymæ terminales umbelliformes, v. laterales pauciflorae, ebracteolatæ.

Species 4, quarum 1 Europæa, cæteræ boreali-Americanæ. *A. DC. Prod.* xiv. 636 (*excl. sect.* 2). *Reichb. Ic. Fl. Germ. t.* 547 (*Hamiltonia*). *Hook. Fl. Bor. Amer. t.* 179.

Formæ duæ adsunt sectiones bene distinctas præbentes. 1. *Eucomandra*, caulibus sæpius ramosis, cymulis ad apices ramorum v. in summis axillis 3–5-floris umbelliformibus, ovarii placenta lineari, fructu ovoideo parum carnoso perianthii reliquiis coronato. Species Europæa cum 2 Americanis inter se valde affines. 2. *Haplocomandra*, caulibus e basi perenni sæpius pluribus simplicibus, pedunculis axillaribus gracilibus 1–3-floris, ovarii placenta crassiore, fructu globoso maturo denudato, exocarpio succulento. Species Americana (*C. livida*, Richards.).

11. **Santalum**, *Linn. Gen. n.* 480. (Sirium, *Schreb. Gen. Pl.* 82.)—Flores hermaphroditi. Perianthii tubus campanulatus v. ovoideus, ima basi ovario adnatus; lobi 4 rarius 5, usque ad discum soluti, valvati, intus pone stamina fasciculo pilorum instructi. Stamina basi loborum affixa iisque breviora, filamentis brevibus; antheræ ovatæ, loculis parallelis longitudinaliter dehiscentibus. Discus tubum perianthii tenuiter vestiens, inter stamina in squamas distinctas carnosulas spathulatas triangulares v. fere quadratas productus.

Ovarium primum in fundo perianthii fere liberum, mox basi accrescens semi-inferum; stylus elongatus, stigmate breviter 2–3-lobo; ovula 2–3, infra medium placentæ centralis longe acuminatæ affixa, arcte reflexa. Drupa subglobosa, cicatrice annulari perianthii delapsi coronata, exocarpio haud crasso, endocarpio duro sæpius rugoso. Semen subconforme; embryo in centro albuminis rectus v. obliquus, linearis, teres, radicula cotyledonibus multo longiore.—Arbores fruticesve glabri. Folia opposita v. rarius alterna, petiolata, integerrima, coriacea v. subcarnosa, pennivenia sed costa sola sæpius conspicua. Flores quam in generibus affinibus sæpius majores, in axillis superioribus v. ad apices ramorum trichotome paniculati, paniculis laxiusculis at sæpius foliis brevioribus v. interdum ad racemos simplices reductis. Bracteæ inconspicuæ.

Species ad 8, inter se valde affines, Indiæ orientalis, Archipelagi Malayani, Australiæ et ins. maris Pacifici incolæ. *A. DC. Prod.* xiv. 682 (*sect.* 1, § 1). *Benth. Fl. Austral.* vi. 213. *Griff. in Trans. Linn. Soc.* xvii. 59, *t.* 1, 2. *Henfr. in Trans. Linn. Soc.* xxii. 69, *t.* 17, 18. *Roxb. Corom. Pl. t.* 2 (*Sirium*). *Hayne, Arzneigew.* x. *t.* 1, 2. *Bot. Mag. t.* 3235. *Gaudich. in Freyc. Voy. Bot. t.* 45. *Seem. Fl. Vit.* 210, *t.* 55. *Bedd. Fl. Sylv. t.* 256.

12. **Fusanus,** *R. Br. Prod.* 355, *excl. syn. Linn. et Berg.* (Eucarya, *Mitch. Three Exped. Austral.* ii. 100 ?)—Flores hermaphroditi v. abortu masculi. Perianthii tubus ovario adnatus, supra ovarium crateriformis v. breviter latissimeque subcampanulatus; lobi 4, usque ad discum soluti, valvati, intus pone stamina fasciculo pilorum instructi. Stamina basi loborum affixa iisque breviora; antheræ ovatæ, loculis parallelis longitudinaliter dehiscentibus. Discus calycis tubi partem superam vestiens, margine continuo sinuato nec in squamas producto. Ovarium inferum; stylus brevissimus, conicus, stigmate parvo 2–3-lobo; ovula 2–3, a placenta centrali crassiuscula apice obtusa v. vix acuminata pendula, arcte reflexa. Drupa globosa v. ovoidea, cicatrice annulari perianthii delapsi coronata, exocarpio carnoso, endocarpio duro extus foveolato v. rugoso. Semen globosum; embryo in centro albuminis linearis, teres, rectus v. vix incurvus.—Arbores fruticesve glabri. Folia opposita v. alterna. Flores quam in *Santalo* minores, trichotome paniculati v. subcymosi.

Species 5, Australasicæ, in sectiones 2 facile pro generibus propriis habendas distribuendæ.

1. *Eufusanus.* Species 4, omnes Australianæ, foliis oppositis, inflorescentia terminali, perianthii parte discifera breviter lateque concava, placenta apice interdum breviter acuminata, drupa globosa exocarpio carnoso, endocarpio crasso osseo. SANTALI sect. 1, § 2, *A. DC. Prod.* xiv. 684. FUSANUS, *R. Br. l. c.*; *Benth. Fl. Austral.* vi. 215.

2. *Mida.* Species 1, Novo-Zelandica, foliis alternis, inflorescentia axillari, perianthii parte discifera magis evoluta, placenta apice obtusa supra ovula parum producta, drupa fere ovoidea, pericarpio minus incrassato. SANTALI sect. 2, *A. DC. Prod.* xiv. 686. *Hook. Ic. Pl. t.* 563, 575. MIDA, *A. Cunn. in Ann. Nat. Hist. ser.* 1, i. 376.

In seminibus paucis *Eufusani* examinatis cotyledones brevissimas vidimus, in unico perfecto *Midæ* cotyledones radicula paullo longiores erant.

13. **Colpoon,** *Berg. Pl. Cap.* 38, *t.* 1. (Fusanus, *Murr. Syst. Veg. Linn. ed.* 1744, 765.)—Flores hermaphroditi v. rarius abortu masculi. Perianthii tubus ovario adnatus, supra ovarium breviter expansus; lobi 4–5 rarius 6, usque ad discum soluti, valvati, intus pone stamina fasciculo pilorum instructi. Stamina basi loborum affixa iisque breviora, filamentis tenuibus brevibus; antheræ ovatæ, loculis parallelis longitudinaliter dehiscentibus. Discus latus, concavus, inter stamina in lobos latos brevissime productus. Ovarium inferum; stylus conico-cylindraceus, stigmate brevissime 4–5-lobo; ovula 4–5, a placenta centrali crassiuscula obtusa ultra ovula brevissime v. longiuscule producta pendula, arcte reflexa. Drupa ovoidea, perianthii lobis persistentibus v. cicatrice annulari delapsorum coronata, exocarpio carnosulo v. subsucculento, endocarpio rigide crustaceo (v. interdum osseo ?). Semen globosum; embryo in centro albuminis carnosi obliquus, teres (in semine unico perfecto examinato) vix apice in cotyledones divisus.—Frutices glabri, nunc dense ramosi nunc ramis laxis subscandentes (*Burchell*). Folia opposita v. in ramulis vegetioribus rarius subalterna, ovata, rigida, crassiuscula. Flores in paniculas breves thyrsoideas v. subcymosas terminales dispositi.

Species 2 v. 3, Africæ australis incolæ, a Candollio in genera duo separatæ, a Baillono, Adans. iii. 112, in unum conjunctæ. In forma typica, *Colpoon*, Berg., *Osyridis* sect. A. DC. Prod. xiv. 634, flores plerique 4-meri (paucos tamen 5-meros inter 4-meros vidimus) et perianthium a fructu maturo deciduum, et hic forte species 2 latent imprimis fructu distinctæ. In sectione *Rhoiacarpo*, flores plerique 5-meri, interdum tamen 4-meri v. 6-meri et perianthium marcescens in fructu persistens; species unica. RHOIACARPOS, *A. DC. Prod.* xiv. 634. HAMILTONIA, *Harv. Gen. Pl. Cap. ed.* i. 298, *non aliorum.*

Colpoon, Berg., a Brownio cum *Fusano* suo jungitur, a Candolleo cum *Osyride*, a Baillono cum *Rhoiacapo*, et omnes fere æquo jure. Genera enim v. sectiones *Anosyris*, *Santalum*, *Comandra*, *Fusanus*, *Mida*, *Colpoon*, *Rhoiacarpus* et *Osyris* inter se valde affinia, melius sectiones unius generis censenda forent, vix tamen sperandum est botanicos *Santalum album* accipere pro specie *Osyridis*, v. *Osyridem albam* pro specie *Santali*, et coacti sumus genera plura admittere characteribus levioris momenti separata.

14. **Nanodea**, *Banks*; *Gærtn. f. Fruct.* iii. 251. *t.* 225.—Flores hermaphroditi (v. abortu masculi ?). Perianthii tubus turbinatus, ovario adnatus, supra ovarium brevissime expansus; lobi 4, valvati, usque ad discum soluti, ima basi abrupte contracti quasi brevissime lateque stipitati. Stamina 4, basi loborum affixa, filamentis brevissimis crassiusculis; antheræ ovatæ, loculis parallelis longitudinaliter dehiscentibus. Discus explanatus, concavus, partem liberam perianthii vestiens, inter stamina angulatus v. vix brevissime lobatus. Ovarium inferum; stylus breviter conicus, stigmate brevissime 2-lobo; ovula 2, ex apice placentæ brevis rectæ pendula. Drupa globosa, exocarpio succulento, endocarpio osseo crassiusculo. Semen globosum; embryo in albumine carnoso brevis, subteres, cotyledonibus parvis.—Herba nana multicaulis v. cæspitosa. Folia alterna, anguste linearia. Flores parvi, ad apices caulis v. ramorum sæpius terni, inter folia suprema sessiles iisque breviores, cymula 2-bracteolata. Drupa sæpius solitaria floribus lateralibus abortientibus, foliis ultimis arcte stipata.

Species 1, Americæ australis Magellanicæ incola. *A. DC. Prod.* xiv. 675. *Gaudich. in Ann. Sc. Nat. ser.* 1, v. *t.* 2, *f.* 3.

15. **Myoschilos**, *Ruiz et Pav. Prod.* 41, *t.* 34; *Syst. Veg.* 73; *Fl. Per. et Chil. t.* 242.—Flores hermaphroditi. Perianthii tubus ovario adnatus, late turbinatus; lobi 5, usque ad ovarium soluti, valvati, glabri. Stamina 5, basi loborum affixa iisque breviora, filamentis filiformibus; antheræ parvæ, ovatæ, loculis parallelis longitudinaliter dehiscentibus. Discus latus, planus, crassiusculus. Ovarium inferum; stylus breviter filiformis, stigmate patentim 3-lobo; ovula 3, ab apice placentæ brevis pendula. Fructus ovoideo-globosus, tenuiter carnosus v. subdrupaceus, bracteis bracteolisque basi stipatus, perianthii lobis diu persistentibus v. sæpius lobis longe ante maturationem deciduis cicatrice annulari coronatus. Semen (perfecte maturum non vidimus) rotundatum, embryone parvo cylindraceo intra albumen carnosum (*C. Gay*).—Frutex ramosus, glaber. Folia alterna, parvula, ovalia v. ovali-oblonga, membranacea, integerrima. Ramuli floriferi v. spicæ amentiformes, breviter cylindracei, aphylli, ad nodos defoliatos ramorum annotinorum sessiles. Flores in amento sessiles, parvi, arcte conferti, singuli bractea bracteolisque latis inclusi.

Species 1, Chilensis. *A. DC. Prod.* xiv. 627 (*Myoschylos*). *Miers in Journ. Linn. Soc.* xvii. 127, *t.* 5.

Miers l. c. aliisque locis *Myoschilum*, *Arjonam* et *Quinchamalium* ad *Olacineas* tradit, bractea bracteolisque pro calyce descriptis, cui assentiri nequimus, nam bractea e rhachi spicæ oriunda est, etsi ut in *Thesio* aliisque pedicello (in his generibus vix evoluto) interdum adnata, dum bracteolæ e pedicello ipso oriuntur.

16. **Buckleya**, *Torr. in Sillim. Journ.* xlv. 170. (Nestronia, *Raf. N. Sylv. Amer.* 12, *pro parte ex char. fl.* ♂. Quadriala, *Sieb. et Zucc. Fam. Nat. Fl. Jap.* i. 86, *t.* 2.)—Flores dioici, masculi umbellati ebracteati, fœminei solitarii 4-bracteati. Fl. ♂: Perianthium campanulatum, 4-fidum, lobis subvalvatis v. leviter imbricatis, uno sæpius exteriore. Stamina 4, ad basin loborum affixa iisque breviora, filamentis filiformibus; antheræ parvæ, loculis parallelis longitudinaliter dehiscentibus. Discus tubum perianthii vestiens, inter

lobos perianthii angulatus v. vix in dentes v. squamellas brevissime productus. Fl. ♀: Perianthii tubus ovario adnatus, lineari-obconicus, supra ovarium brevissime explanatus, extus sub lobis bracteis 4 iis alternis appendiculatus; lobi 4, breves lati, valvati. Staminodia 0. Ovarium inferum; stylus brevis, stigmate parvo 2–4-lobo; ovula 3–4, minima, vix ante fecundationem conspicua, ab apice placentæ centralis brevis crassæ pendula. Fructus ovoideus v. oblongus, bracteis 4 auctis rigide foliaceis stellato-patentibus diu persistentibus coronatus, perianthii limbo jam prius delapso, exocarpio carnoso haud crasso, endocarpio subcrustaceo. Semen conforme; embryo in axi albuminis carnosi angustus, albumine parum brevior, cotyledonibus lineari-sublanceolatis planis, radicula brevi supera.—Frutices elati, ramosi, glabri. Folia opposita v. rarius sparsa, breviter petiolata, acuminata, integerrima, pennivenia. Flores ♂ parvi, umbellulis in axillis summis v. ad apices ramulorum pedunculatis; ♀ ad apices ramulorum solitarii breviter pedicellati.

Species 2 v. 3, quarum una Japonica, 1 v. 2 boreali-Americanæ, omnes inter se parum distinctæ. *A. DC. Prod.* xiv. 623. *A. Gray in Sillim. Journ. ser.* 2, xviii. 98.

Appendices foliaceæ florum ♀ quas bracteas nuncupamus uti jam indicavit A. Gray l. c., a nonnullis pro sepalis descriptæ sunt; paullo infra apicem tubi adnati perianthii affixæ sunt, lobis perianthii alternæ, basi articulatæ. In specie Americana, *B. distichophylla*, perianthii tubus adnatus sub anthesi ecostatus est obscure obtuseque 4-gonus, angulis bracteis respondentibus; in specie Japonica, *B. quadriala*, tubus adnatus 8-costatus apparet, costis 4 a bracteis descendentibus multo magis prominentibus quam 4 alternæ. In utraque specie fructus subæqualiter 8-costatus est. Folia summa floralia plantæ ♀ basi ovario breviter adnata etiam in *Osyride alba* observantur.

Darbya, *A. Gray in Sillim. Journ. ser.* 2, i. 388, cujus flores ♂ soli noti sunt, ab A. DC. ad *Comandram* relata, nobis omnino cum charactere generico *Buckleyæ* convenire videtur, et habitus inflorescentiaque eadem; tubus perianthii minus explanatus est. Fructus diversus dicitur, sed non nisi verbis incertis collectoris notus, et genus adhuc valde dubium remanet.

17. **Osyris**, *Linn. Gen. n.* 1101.—Flores subdioici, fertiles tamen sæpius hermaphroditi. Perianthii tubus in flore ♂ brevissimus solidus, in flore fertili ovario adnatus, lobi 3 v. 4; late triangulares, usque ad discum soluti, valvati, intus pone stamina fasciculo pilorum instructi. Stamina 3 v. 4, basi loborum affixa iisque breviora, filamentis crassiusculis; antheræ ovatæ, loculis discretis subparallelis longitudinaliter dehiscentibus. Discus subplanus, inter stamina angulatus. Ovarium inferum; stylus longiuscule conicus v. brevissimus, stigmate 3–4-fido; ovula 2–4, a placenta centrali brevi crassa pendula. Fructus globosus v. breviter ovoideus, perianthii lobis persistentibus v. sæpius lobis demum deciduis cicatrice parva coronatus, exocarpio carnosulo v. fere succulento, endocarpio crustaceo. Semen globosum; embryo in centro albuminis carnosi rectus v. leviter incurvus, obliquus, teres v. angustus, cotyledonibus radicula multo longioribus interdum leviter dilatatis.—Frutices glabri. Folia alterna, angusta v. ovata, chartacea v. crassiuscula, integerrima. Flores parvi, ad axillas cymulosi v. ♂ in racemulum foliatum conferti, fertiles interdum solitarii, bracteis parvis caducis.

Species 5 v. 6, Europæ australis, Africæ fere totæ et Indiæ orientalis incolæ. *A. DC. Prod.* xiv. 633 (*sect.* 1). *Dcne. in Ann. Sc. Nat. ser.* 2, vi. *t.* 6.

Genus formas 2 sat distinctas præbet. In specie typica Europæa, *O. alba*, Linn., rami virgati spartioidei, folia parvula angusta, flores ♂ foliis bracteiformibus subtensi, in ramulos breves racemiformes dispositi; flores fertiles solitarii in ramulis brevibus sæpe subterminales, fructu inter folia floralia 2–3 persistentia subsessili v. interdum folia summa perianthii basi subadnata. *Nees, Gen. Fl. Germ. Monochl. n.* 49. *Reichb. Ic. Fl. Germ. t.* 548. *Sibth. Fl. Græc. t.* 954. In speciebus Africanis et Asiaticis rami laxiores, folia latiora plana sæpe crassiuscula, flores utriusque sexus in pedunculo tenui pauci cymulosi rarius solitarii, stylus brevissimus, stigmate sæpe in disco fere sessili, fructus a foliis plus minus distans. *Wight, Ic. t.* 1853. *O. abyssinica*, Hochst., in Africa australi Natalensi sat frequens, in herbariis cum *Colpoone compresso* sæpe confusa, facile distinguitur foliis omnibus alternis, floribus sæpissime 3-meris, notisque genericis.

18. **Omphacomeria**, *A. DC. Prod.* xiv. 680.—Flores polygami sæpius abortu dioici v. rarius monoici. Perianthii tubus in flore ♂ subnullus, in flore ♀ ovario adnatus, ovoideus;

lobi 4 v. 5, usque ad discum soluti, valvati, apice vix inflexi. Stamina 4 v. 5, prope basin loborum affixa, filamentis brevibus; antheræ ovatæ, loculis parallelis longitudinaliter dehiscentibus; staminodia in flore ♀ parva v. 0. Discus subplanus, vix ovario latior. Ovarium inferum; stylus brevissimus, stigmate 2-lobo; ovula 2 (v. 3?) ab apice placentæ minutæ centralis pendula. Drupa ovoidea v. globosa, perianthii lobis coronata, exocarpio succulento, endocarpio crustaceo. Semen conforme; albumen copiosum carnosum; embryo minutus? in seminibus 2 examinatis frustra quæsivimus.—Frutices omnino aphylli, habitu *Leptomeriæ*, ramis virgatis teretibus, nodis glanduliformibus nequidem squamiferis. Flores minuti, ad nodos sessiles, ♂ fasciculati, ♀ v. ☿ solitarii, disco minimo insidentes, ebracteati. Baccæ quam in *Leptomeriis* plerisque majores.

Species 2, Australianæ. *Benth. Fl. Austral.* vi. 225. *Hook. Ic. Pl. t.* 1172.

19. **Henslowia,** *Blum. Mus. Bot. Lugd. Bat.* i. 242, *t.* 43. (Dendrotrophe, *Miq. Fl. Ind. Bat.* i. i. 779. Tupeia, *Blum. Fl. Jav. Lor. t.* 27, 28. *Korth. in Verhandl. Batav. Genootsch.* xvii. 185 *ad* 196, *non Cham. et Schl.*)—Flores abortu dioici v. monoici. Perianthii tubus in flore ♂ brevissimus solidus, in flore ♀ ovario adnatus, ovoideus v. oblongus; lobi 5 v. 6, usque ad discum soluti, valvati, intus pone stamina v. medio sæpius fasciculo pilorum instructi. Stamina 5 v. 6, basi loborum affixa, filamentis brevibus; antheræ parvæ, loculis rima obliqua 2-valvibus, mox fere explanatis; in flore ♀ staminodia parva v. 0. Discus leviter concavus v. convexus, ultra ovarium non extensus. Ovarium inferum; stylus vix ullus, stigmate subsessili 2–3-lobo; ovula 2–3, ab apice placentæ crassiusculæ centralis (v. interdum hinc parieti adnatæ?) pendula. Drupa ovoidea v. suglobosa, exocarpio carnosulo, endocarpio osseo, extus rugoso, intus in laminas duras intra costas seminis intrusas producto. Semen sulcis longitudinalibus profundis in costas valde prominentes divisus, sectione transversa stellato-6–8-loba; embryo in centro albuminis breviter linearis, radicula cotyledonibus multo longiore.—Frutices sæpe (nec semper?) in arbores more *Loranthacearum* parasitici. Folia alterna, petiolata, sæpius crassiuscula. Flores ♂ minimi, ad axillas cymuloso-fasciculati, v. in pedicellis capitellati; ♀ majores, pauciores v. solitarii, sæpius sessiles.

Species enumeratæ 12, Indiæ Orientalis, Archipelagi Malayani et Chinæ incolæ, inter se tamen sæpe valde affines et nonnullæ forsan reducendæ. *A. DC. Prod.* xiv. 630. *H. philippinensis*, A. DC., a Cumingio in Malacca nec in ins. Philippinarum lecta fuit. *H. fruticosa*, Champ., e Hongkong, certe ab *H. heterantha*, Hook. f., inflorescentia aliisque notis bene distincta est.

20. **Scleropyron,** *Arn. in Mag. Zool. and Bot.* ii. 549.—Flores abortu subdioici, fertiles sæpe hermaphroditi. Perianthii tubus in flore ♂ brevis solidus, in flore fertili ovoideus, ovario adnatus; lobi 5, usque ad discum soluti, valvati v. leviter imbricati, uno exteriore. Stamina 4, ad basin loborum affixa iisque breviora, filamentis brevibus 2-fidis; antherarum loculi in ramis separata, singuli 2-valves fere 2-locellati. Discus annularis, margine undulatus. Ovarium inferum; stylus brevis, crassiusculus, stigmate lato peltato margine dentato; ovula 3, ab apice placentæ liberæ v. uno latere parieti adnatæ pendula. Drupa obovoideo-pyriformis, in pedicellum contracta, perianthii reliquiis diu coronata, exocarpio carnoso crasso, endocarpio duro tenuiore. Semen subglobosum; embryo teres, in centro albuminis carnosi.—Arbores glabræ v. inflorescentia pubescente, spinis brevibus ad nodos defoliatos (pedunculis abortivis?) sæpe armatæ. Folia alterna, breviter petiolata, integerrima, coriacea, pennivenia. Spicæ breves, laxiusculæ, fere amentiformes, aphyllæ, ad nodos defoliatos ramorum annotinorum v. vetustiorum solitariæ v. geminæ.

Species nobis notæ 2, Indiæ orientalis incolæ, ab A. DC. in Prod. xiv. 629 ad *Pyrulariam* relatæ. Una e Zeylania et Peninsula, *Wight, Ic. Pl. t.* 241; *Bedd. Fl. Sylv. t.* 304, includit *P. Wallichianam*, et *P. ceylanicam*, A. DC., altera Malayana (*Maingay*) est verisimiliter *P. moschifera*, A. DC., et forte eandem legit Johnson in Cochinchina. In hac perianthii lobi omnes valvati videntur, in *S. Wallichiano* certe plus minus imbricati ut jam indicavit Beddome, uno semper exteriore.

Genus nostro sensu habitu, inflorescentia, staminibus, disco, etc., bene a *Pyrularia* distinguitur.

21. **Choretrum,** *R. Br. Prod.* 354.—Flores hermaphroditi. Perianthii tubus ovario

adnatus, turbinatus, supra ovarium brevissime productus extusque ad apicem ovarii margine prominulo sæpe cinctus, lobi 4 v. 5, usque ad discum soluti, valvati, apice inflexi v. incrassati. Stamina 4–5, prope basin loborum affixa, filamentis brevissimis; antheræ terminales, loculis divaricatis confluentibus, in valvas 4 aperiendæ, explanatæ. Discus subplanus, perianthii tubi partem liberam brevissimam vestiens, margine truncatus v. sinuato-4–5-lobus. Ovarium inferum; stylus brevissimus, stigmate integro v. leviter 2-lobo; ovula 2? ab apice placentæ brevissimæ centralis pendula. Drupa parva, ovoidea v. globosa, perianthii lobis persistentibus coronata, exocarpio succulento, endocarpio crassiusculo duro.—Frutices ramulis numerosis v. rigidis aphyllis, foliis nempe omnibus ad squamas minutas deciduas reductis. Flores minuti, secus ramulos solitarii v. fasciculati, bracteis minutis squamiformibus 2–4 involucrati.

Species 4, Australianæ. *Benth. Fl. Austral.* vi. 218. *Endl. Iconogr. t.* 45.

Ovula in ovario minuto difficillime observata, et vix ante fecundationem distincta.

22. **Leptomeria,** *R. Br. Prod.* 353.—Flores hermaphroditi. Perianthii tubus ovario adnatus, sæpius angustus, vix ultra ovarium productus, nec extus marginatus; lobi 5, rarius 4, usque ad discum soluti, valvati, apice subinflati v. crassiusculi. Stamina 5, rarius 4, prope basin loborum affixa, filamentis brevissimis; antheræ terminales, loculis divaricatis confluentibus, in valvas 4 aperiendæ v. in discum subintegrum medio prominulum explanatæ. Discus epigynus subplanus, plus minus distinctus. Ovarium inferum; stylus brevissimus, stigmate integro v. vix lobato; ovula 2 (v. 3?) sub apice placentæ centralis affixa, pendula. Drupa parva, ovoidea v. globosa, perianthii lobis persistentibus coronata, exocarpio carnoso v. subsicco, endocarpio crustaceo. Semen ovoideum; embryo in albumine carnoso minimus.—Frutices ramis numerosis tenuibus v. rigidis subaphyllis, foliis nempe ad squamas alternas minutas sæpius deciduas reductis, v. rarius paullo longioribus lineari-teretibus. Flores minuti, in racemulos v. spiculas terminales lateralesve dispositi, singuli sessiles v. pedicellati, in axilla bracteæ minute squamiformis v. rarius longioris foliaceæ.

Species 14, Australianæ. *Benth. Fl. Austral.* vi. 220. *Labill. Pl. Nov. Holl.* i. *t.* 93 (*Thesium*). *Endl. Iconogr. t.* 74.

Genus ab Endlichero in sectiones 2 dividitur: 1. *Xeromeria*, bracteis sub floribus minutis caducissimis nec sæpius nisi in spicula nascente conspicuis. 2. *Oxymeria*, bracteis sub floribus persistentibus, minimis v. flores superantibus.

23. **Phacellaria,** *Benth. gen. nov.*—Flores monoici, secus ramos sparsi, sessiles. Perianthii tubus in fl. ♂ brevis solidus, in fl. ♀ ovario adnatus ovoideus; lobi 4 v. 5, usque ad discum soluti, breves, valvati. Stamina 4 v. 5, basi loborum affixa, filamentis brevissimis crassis; antheræ terminales, loculis distinctis divergentibus longitudinaliter dehiscentibus. Discus subplanus, inter stamina v. inter lobos perianthii angulatus. Ovarium inferum; stylus brevissimus, crassiusculus, stigmate breviter 3-lobo v. subintegro; placenta centralis brevis, crasso-conica, ovulis 3 ab apice pendulis appressis. Fructus junior ovoideo-oblongus, perianthii lobis persistentibus coronatus, pericarpio carnoso; maturus nobis deest.—Fruticuli in arboribus v. in *Loranthis* parasitici, caulibus fasciculatis brevibus (3–5-pollicaribus) aphyllis. Flores minimi, secus ramos sparsi, solitarii v. fasciculati, sessiles v. foveolis rami leviter immersi. Bracteæ 0.

Species 2, in Birma v. in Malacca crescentes: 1. *P. rigidula*, Benth., caulibus teretibus rigidulis (ad ½ lin. diam.) ramosis. Birma v. Malacca, *Griffith, Kew Distrib. n.* 2745. 2. *P. compressa*, Benth., caulibus crassiusculis plano-compressis (1–1½ lin. latis) simplicibus. Moulmeyn, *C. Parish*. Flores in his speciminibus minus perfecti quam in Griffithianis, sed species stricte congener videtur.

24. **Myzodendron,** *Banks et Sol.*; *DC. Prod.* iv. 285; *Mem. Loranth. t.* 11, 12 (*errore* Misodendron).—Flores dioici. Perianthium in flore ♂ 0. Stamina 2–4, circa discum parvum glanduliformem affixa, filamentis crassiuscule filiformibus; antheræ terminales, erectæ, ovoideæ v. globosæ, uniloculares, vertice 2-valvatim dehiscentes. Perianthium floris ♀ ovario adnatum, margine supra ovarium libero brevissimo, extus angulis 3 longi-

tudinalibus interdum in alam dilatatis et inter angulos rimis totidem setam unicam pluresve foventibus instructum. Staminodia 0. Ovarium inferum, disco vix conspicuo coronatum; stylus brevis, crassus, stigmatibus 3 brevibus; ovula 3, ab apice placentæ centralis crassiusculæ pendula. Fructus parvus, nuceus v. utriculosus, extus setis lateralibus valde elongatis plumosis instructus v. rarius nudus. Semen conforme; embryo in centro albuminis carnosi teres, radicula supera crassa ex albumine prominula cotyledonibus minimis v. vix distinctis multo longiore.—Suffrutices ramosissimi, in arboribus parasitici. Folia alterna parva v. 0. Flores minuti, secus ramos alterni ebracteati v. in spiculas parvas amentiformes dispositi.

Species 4, Chili australis et terræ Magellanicæ incolæ. *Hook. f. Fl. Ant.* ii. 289, *t.* 102 *ad* 107 *ter. Pœpp. et Endl. Nov. Gen. et Sp. t.* 1 *ad* 3. *Deless. Ic. Sel.* iii. *t.* 80.

De ligni structura aliisque notis anatomicis et physiologicis, confer Hook. f. l.c., ubi sectiones 2 distinguuntur: 1. *Gymnophyton*, ramis sæpius articulatis aphyllis, spiculis minimis amentiformibus, bracteis imbricatis flores singulos foventibus, masculis 2-andris. 2. *Eumyzodendron*, ramis foliatis continuis, floribus axillaribus solitariis v. 2–3-nis, masculis 3–4-andris. Flores superiores interdum spicam seu racemum terminalem formant foliis floralibus ad bracteas reductis. Genus habitu et embryonis radicula ad apicem albuminis prominula *Loranthaceis* accedit, ovarium cæterique characteres tamen potius *Santalacearum*.

TRIBUS III. ANTHOBOLEÆ.

25. **Anthobolus,** *R. Br. Prod.* 357.—Flores abortu dioici. Perianthium usque ad discum divisum in segmenta 4, rarius 3 v. 5, valvata, apice concava v. inflexa. Stamina 4, rarius 3 v. 5, filamentis brevissimis; antheræ ovatæ, loculis distinctis parallelis demum lateraliter rima longitudinali dehiscentibus. Discus planus, inter stamina sinuato-lobatus. Ovarium superum, basi disco leviter immersum, carnosum; stigma sessile, pulvinatum, obscure sulcatum; ovulum, ut videtur, in centro loculi erectum. Drupa ovoidea v. oblonga, pedicello incrassato carnoso insidens, omnino supera, exocarpio succulento haud crasso, endocarpio crustaceo v. duriusculo. Semen erectum; embryo in apice albuminis carnosi parvus, subteres, radicula supera cotyledonibus minimis longiore.—Frutices glabri, ramis tenuibus rigidisve. Folia alterna, lineari-teretia et persistentia, v. ad squamas minutas deciduas reducta. Flores minimi, pedicellati, ♂ sæpius 3–5-ni, ♀ 1–2 in pedunculo brevi axillari. Bracteolæ minutæ, caducissimæ.

Species 3 v. 4, Australianæ. *Benth. Fl. Austral.* vi. 226. *Hook. Ic. Pl. t.* 1173.

26. **Exocarpus,** *Labill. Voy.* i. 155, *t.* 14. (Sarcocalyx, *Zipp. in Bull. Feruss.* xviii. 92, *ex A. DC.* Xynophylla, *Montrous. in Mém. Acad. Sc. Lyons* x. 250 *ex descr.*)—Flores hermaphroditi v. abortu masculi. Perianthium usque ad discum divisum in segmenta 5 rarius 4, valvata, apice leviter concava. Stamina 5 rarius 4, prope basin segmentorum affixa, filamentis brevissimis latis; antherarum loculi distincti, adnati, introrsum subparalleli v. divergentes marginalesque, longitudinaliter dehiscentes. Discus planus, crassiusculus, sinuato-5–4-lobus. Ovarium superum, disco semi-immersum, carnosulum, subconicum; stigma in vertice ovarii sessile, parvum, sub-2-lobum; ovulum, ut videtur, in centro loculi erectum. Fructus nuceus v. drupaceus, pedicello incrassato carnoso insidens, omnino superus, exocarpio tenui sicco v. carnosulo, endocarpio crustaceo v. indurato. Semen erectum; embryo in apice albuminis carnosi parvus subteres, radicula supera cotyledonibus minimis longiore.—Arbores fruticesve. Folia alterna v. rarius opposita, sæpius caducissima v. omnia ad squamas minutas reducta, ramulis floriferis sæpissime aphyllis, v. rarius folia omnia v. ramorum sterilium bene evoluta et persistentia. Flores minuti, in spiculas v. fasciculos ad axillas sessiles dispositi, singuli sessiles v. subsessiles, dente rhacheos v. bractea minuta squamiformi subtensi, uno rarius 2 v. 3 cujusve spiculæ fertili, pedicello mox accreto incrassatoque fulto, cæteris mox abortientibus deciduis.

Species ad 12, pro maxima parte Australianæ, quarum una per Archipelagum Malayanum late dispersa, adsunt etiam singulæ in Novo-Zelandia, ins. Norfolk, ins. Sandwicensibus et ut videtur in

Madagascaria. *A. DC. Prod.* xiv. 688. *Benth. Fl. Austral.* vi. 228. *Baill. Adans.* iii. 109. *Blume, Mus. Bot.* i. *t.* 37. *Hook. f. Fl. Nov. Zel. t.* 52, *ic. in Schnizl. Iconogr. t.* 108*** *repetita.*

Ovulum ex ic. Blumei mediante funiculo ab apice loculi suspensum quod ex observationibus sequentibus non confirmatur, ab aliis ex apice placentæ centralis adnatæ pendulum dicitur, in speciminibus siccis examinatis a basi erectum apparet.

27. **Champereia,** *Griff. in Calc. Journ. Nat. Hist.* iv. 237. (Maluluchan, *Blanc. Fl. Filip.* 188, *ed.* 2, 133. Opiliæ *sect.* Opiliastrum, *Baill. Adans.* iii. 123.)—Flores hermaphroditi (interdum abortu masculi ?). Perianthium usque ad discum divisum in segmenta 5, valvata. Stamina 5, filamentis filiformibus brevissimis v. demum perianthio subæquilongis ; antheræ ovatæ v. oblongæ, loculis parallelis longitudinaliter dehiscentibus. Discus subplanus, margine breviter inter stamina 5-lobus. Ovarium superum, in disco semi-immersum ; stigma sessile, latiusculum, pulvinatum ; ovulum, ut videtur, in centro loculi erectum. Drupa ovoideo-oblonga, pedicello haud incrassato fulta, omnino supera, exocarpio tenui ; endocarpium crustaceum. Semen conforme ; embryo in centro albuminis oleoso-carnosi rectus, subteres, radicula supera clavata cotyledonibus angustis longiore. — Frutices interdum arborescentes, glabri. Folia alterna, breviter petiolata, plana, demum fere coriacea. Flores minimi, cymulis 3–5-floris pedicellatis in paniculas graciles ramosas axillares dispositis, sub fructu tamen inflorescentia sæpe subsimplex videtur. Bracteæ minutæ v. 0.

Species v. varietates inter se quam maxime affines 2, Malaccæ et Archipelagi Malayani (Javæ, ins. Philippinensium, *Cuming, n.* 1129, etc.) incolæ. *Kurz, For. Fl. Burm.* ii. 330.

Genus, ut jam monuit Griffith, *Exocarpum* cum *Opilieis* (supra i. 349) arcte connectens. Planta ex Indiæ Orientalis Peninsula, a Baillono Adans. iii. 125, generice separata sub nomine *Champereiæ Perrottetianæ*, nobis ignota est, ex charactere dato a genere Griffithiano pluribus notis recedit.

Tribus IV. Grubbieæ (v. genus anomalum).

28. **Grubbia,** *Berg. Pl. Cap.* 90, *t.* 2. (Ophira, *Linn. Mant. n.* 1304.)—Flores hermaphroditi, ternatim sessiles, ternationibus axillaribus dissitis v. in strobilum axillarem confertis. Perianthii tubus brevis, ovario adnatus; limbi segmenta 4, lata, valvata, dorso dense pilosa. Stamina 8, quorum 4 ad basin loborum, 4 iis alterna et parum breviora, filamentis crassiusculis inflexis ; antheræ parvæ, loculis demum lateraliter dehiscentibus. Discus pilosus, parum prominulus. Ovarium inferum ; stylus breviter filiformis, stigmate emarginato v. breviter 2-fido ; ovula 2, a placenta libera v. parieti plus minus adnata pendula. Fructus cujusve axillæ plus minus connati uno solo sæpius perfecto, exocarpiis carnosulis connatis, endocarpio fructus perfecti duro sæpius osseo. Semen ovoideum ; embryo in centro albuminis linearis, subteres, radicula cotyledonibus multo longiore.— Frutices ericoidei. Folia opposita, angusta, integerrima, margine revoluta. Flores parvi, in utraque axilla cujusve paris foliorum v. bractearum ternati, ternationibus oppositis verticillastra 6-flora constituentibus.

Species 2, Africæ australis incolæ, inflorescentia distinctissimæ, in sectiones v. genera 2 ab auctoribus separatæ. *A. DC. Prod.* xiv. 618. In specie typica, *Ophira*, Linn., flores in verticillastris axillaribus dissitis dispositi, pilis perianthiorum albis insignes, cujusve axillæ in capitula distincta 3-flora bracteis 2 latis glabris stipata conferti. In *G. stricta*, DC. (Ophira, *Lam. Illustr. t.* 293 ; Strobilocarpos, *Klotzsch in Linnæa* xiii. 380), ramuli floridi ad capitulum parvum globosum v. ovoideum strobiliformem in axillis foliorum subsessile reducti, verticillastris in strobilo 3–6 arcte confertis, ut in *Ophira* typica 6-floris sed folia floralia ad bracteas flores non superantes reductæ et post anthesin fructus omnes strobili in syncarpium connati, pauci tantum in strobilo perfecti.

Ordo CL. **BALANOPHOREÆ.**

Endl. Gen. Pl. 72. Hook. f. in Trans. Linn. Soc. xxii. 1. Balanophoraceæ, Lindl. Veg. Kingd. 89. Eichler in DC. Prod. xvii. 117.

Flores unisexuales, rarissime hermaphroditi, in inflorescentias (*spadices* dictas), simplices rarissime ramosas unisexuales v. androgynas densissime conferti. Fl. ♂ nudi, v. perianthio 3–8-lobo lobis valvatis instructi. *Stamina* in floribus achlamydeis solitaria v. 2-na, in floribus perianthio instructis sæpissime lobis ejus opposita, rarissime 1 v. 2; filamenta libera v. in tubum v. columnam connata. *Antheræ* in floribus achlamydeis basi v. dorso affixæ, normales, 2-loculares, rimis lateralibus v. anticis dehiscentes, in cæteris basifixæ, liberæ v. in capitulum connatæ, 2-loculares v. 4-∞-locellatæ, loculis locellisve poris rimisve anticis posticis terminalibusve dehiscentibus v. irregulariter ruptis; pollen globoso-trigonum, rarius ellipsoideum. Fl. ♀: *Perianthium* 0, v. ovario arcte adnatum, limbo parvo supero truncato 2-labiato v. tubuloso, rarius e segmentis lineari-clavatis subulatisve ovario adnatis. *Ovarium* globosum v. ellipsoideum et compressum, v. prismatico-obovoideum, 1–3-loculare, loculis parvis. *Styli* terminales; v. 1 filiformis v. subclavatus, v. 2 breves v. elongati, stigmatibus simplicibus v. capitellatis, rarissime stigma sessile discoideum. *Ovula* in loculis solitaria, sæpissime pendula, nuda v. integumento unico instructa v. ad sacculum embryonalem reducta, anatropa, semianatropa v. atropa, funiculo brevissimo v. 0. *Fructus* parvus, ovario conformis sed paullo major, nuceus, omnino crustaceus v. extus carnosulus v. coriaceus, 1-locularis loculo minuto, 1-spermus. *Semen* loculum implens, globosum v. compressum, rarius oblongum; testa tenuissima v. 0, rarissime crassiuscula. *Albumen* densum, oleosum, rarius amylaceum. *Embryo* microscopicus, apicem versus seminis situs v. subcentralis, rarissime lateralis, pyriformis clavatus v. subglobosus, indivisus.

Herbæ carnosæ, radicibus parasiticæ, fuscæ flavæ rubræ v. rarius subviolaceæ, perennes v. monocarpicæ, stomatibus et chlorophyllo destitutæ, parenchymate amylifero v. cerifero sclerogyne sæpe farcto. Rhizomata tuberosa, simplicia v lobata, interdum ramos cylindraceos glabros v. tomentosos emittentia, nuda v. squamosa, epi- v. hypo-gæa, ad basin pedunculorum sæpe in volvam brevem v. elongatam coriaceo-carnosam lobatam desinentia. Pedunculi breves v. elongati, cylindracei, nudi v. annulo cincti v. rariter squamis deciduis v. persistentibus instructi. Spadices ovoidei clavati cylindracei globosi v. fusiformes, simplices v. processibus mammilliformibus floriferis elongatis v. deplanatis onusti, in uno genere ramosi, in altero ad apicem pedunculi fasciculati. Bracteæ spadicis 0 v. numerosæ, nunc unguiculatæ ovatæ et imbricatæ, nunc stipitatæ hexagono-pyramidatæ et valvatim cohærentes, deciduæ; in *Mystropetalo* solo flores modo normali bracteati et 2-bracteolati. Flores parvi v. ♀ præsertim minuti et stratum continuum non raro pilis articulatis densissime confertis immixti formantes; ♂ sæpius multo majores, nunc fœmineis intermixti, nunc in parte inferiore v. superiore spadicis numerosiores.

Species ad 35, pleræque sylvis primævis humidis montium et convallium tropicarum obviæ, paucæ austro-Africanæ, una Mediterranea, altera Novo-Zelandica.

Formæ abnormes indicantur in characteribus nostris tribuum, quarum plures monotypicæ v. e generibus perpaucis constantes inter se longe differunt.

Ordo habitu naturalis, sed quoad flores utriusue sexus et fructum polymorphus, *Halorageis* evidenter affinis, nam *Cynomorium Hippuridi* accedit et *Lophophytum Gunneræ*, denique indole ovarii et ovulorum *Helosideæ* et *Lophophyteæ Santalaceas* affinesque in mentem revocant. Auctorum sententiæ valde differunt quoad florum fœmineorum compositionem in *Langsdorffieis*, *Helosideis* et *Lophophyteis*, ubi ex Hofmeistero et Eichlero constant ex ovario nudo appendicibus coronato. Hæ appendices tamen ab omnibus auctoribus prioribus pro limbo supero perianthii adnati habitæ sunt. Hujus quæstionis solutio quærenda est in observatione floris fœminei incrementi. Styli evolutio, ea appendicium serior, nobis indicare videtur harum originem veram ex perianthio. Ovarii et ovuli structura in plerisque generibus longe difficilius explanatur, et sub

quoque genere indicamus quæ sequuntur ex investigationibus eximiis Hofmeisteri et Eichleri, non tamen semper sententiis suis stamus, ex quibus interdum stirpes, aliunde quam maxime inter se affines (e.g. *Scybalium* et *Helosis*), magnopere differre dicantur structura et insertione ovuli et seminis.

CONSPECTUS GENERUM.

Series A. MONOSTYLI. Stylus 1 v. 0.

a. Stamen 1 v. stamina 2–4 inter se libera.

Tribus I. Cynomorieæ. Flores polygami, perianthio instructi. Stamen 1, in fl. ☿ epigynum, anthera 2-loculari. Ovulum 1, pendulum.

1. CYNOMORIUM.—*Reg. Mediterr., As. centr.*

Tribus II. Sarcophyteæ. Flores dioici rarius monoici. Perianthium fl. ♂ 3–4-lobum; fl. ♀ 0. Stamina 3, antheris multilocellatis. Stylus 0. Ovula 3, pendula.

2. SARCOPHYTE.—*Afric. Aust.*

Tribus III. Mystropetaleæ. Flores monoici. Perianthium fl. ♂ 2-labiatum, 3-lobum; fl. ♀ pigynum, subcampanulatum. Stamina 2–3, antheris 2-locularibus. Ovula 3, pendula.

3. MYSTROPETALUM.—*Afric. Aust.*

Tribus IV. Dactylantheæ. Flores monoici? Perianthium fl. ♂ 0; fl. ♀ e processibus subulatis 2–3. Stamina 1 v. 2, antheris 2-locularibus. Ovula ignota.

4. DACTYLANTHUS.—*Nov. Zel.*

b. Stamina lobis perianthii opposita, in columnam connata.

Tribus V. Eubalanophoreæ. Flores monoici v. dioici. Perianthium fl. ♂ 2–6-lobum; fl. ♀ 0. Stamina 3–∞, antheris 2-locularibus v. 4–∞-locellatis. Ovulum 1, pendulum.

5. BALANOPHORA.—*Asia et Austral. trop. et subtrop., Archip. Malay., Nov. Hebrides.*

Tribus VI. Langsdorffieæ. Flores dioici v. monoici. Perianthium fl. ♂ 3-lobum v. e squamis 2–3; fl. ♀ tubulosum. Antheræ 2-loculares. Ovulum 1.

6. LANGSDORFFIA. Perianthium fl. ♂ 3-lobum, lobis valvatis; flores ♀ connati.—*Amer. trop.*

7. THONNINGIA. Perianthii fl. ♂ squamæ columnæ stamineæ adnatæ; flores ♀ inter se liberi. —*Afric. trop.*

Series B. DISTYLI. Styli 2.

Tribus VII. Helosideæ. Perianthium fl. ♂ 3-lobum v. integrum; fl. ♀ ovario adnatum limbo breviter 2-labiato. Stamina 3, in columnam connata.

* *Perianthium fl. ♂ 3-lobum.*

8. SCYBALIUM. Pedunculi squamati. Bracteæ spadicis imbricatæ.—*Amer. trop.*

9. HELOSIS. Pedunculi nudi. Bracteæ spadicis pyramidatæ valvatim cohærentes.—*Amer. trop.*

** *Perianthium fl. ♂ subcampanulatum v. tubulosum.*

10. CORYNÆA. Antherarum capitulum 6-locellatum.—*Amer. trop.*

11. RHOPALOCNEMIS. Antherarum capitulum multilocellatum.—*Himal. or., Java.*

Tribus VIII. Lophophyteæ. Perianthium fl. ♂ 0; fl. ♀ ovario adnatum, limbo truncato. Stamina 2, antheris 2-locularibus.

12 LOPHOPHYTUM. Volva 0. Flores utriusque sexus processibus spadicis mammilliformibus bracteis suffultis inserti.—*Amer. trop.*

13. OMBROPHYTUM. Volva evoluta. Flores utriusque sexus stipitibus squamarum peltatarum insertis.—*Peruvia.*

14. LATHROPHYTUM. Volva evoluta. Flores ♂ in parte superiore spadicis sessiles dense verticillati, ♀ ut in *Ombrophyto*.—*Brasil.*

TRIBUS I. CYNOMORIEÆ.

1. **Cynomorium,** *Linn. Gen. n.* 922. Spadices unisexuales. Flores polygami. Perianthii segmenta 4–6, rarius 1–3 v. 7–8, lineari-clavata, in fl. ☿ et ♀ rarius, in fl. ♂ sæpius subregulariter verticillata, in fl. ☿ et ♂ basi v. lateribus ovarii adnata v. fere epigyna, fructu persistentia. Stamen 1, posticum, in fl. ♂ basi perianthii insertum, in fl. ☿ epigynum stylo antepositum, filamento crassiusculo filiformi; anthera dorsifixa, versatilis, 2-locularis, loculis 2-locellatis rimis anticis dehiscentibus; pollen globosum, 3-verrucosum. Ovarium oblique globoso-ovoideum, stipitatum, 1-loculare, in fl. ♂ ad stylum rudimentarium reductum; stylus terminalis, elongatus, sursum sensim incrassatus, antice canaliculatus, stigmate obtuso v. truncato; ovulum ab apice loculi pendulum, parietibus ovarii non adhærens, hemitropum, integumento unico, micropyle obliqua deorsum spectante. Fructus nuceus, stylo perianthioque marcescente auctus, ovoideo-globosus, pericarpio coriaceo semini adhærente. Semen globosum, testa crassiuscula, albumine subcarneo oleoso; embryo minimus, pyriformis, indivisus, radicula micropylem spectante.—Herba carnosa, fusco-rubra v. purpurea, amyligera; rhizoma primum subglobosum, demum elongatum cylindraceum ramosum, pilis assugantibus vestitum, ramis ascendentibus in pedunculos spadiciferos abeuntibus, volva 0. Pedunculi crassi, squamis laxis v. imbricatis deciduis tecti. Spadices cylindracei v. clavati, e mammillis floriferis deplanatis basi bracteatis constantes; bracteæ breviter stipitatæ, lamina late triangularis basi deorsum producta, primum imbricatæ demum deciduæ. Flores plerique ♀, cum ♂ et ☿ immixti, in cymulas irregulares abbreviatas paucifloras conferti.

Species 1, regionis Mediterraneæ ab ins. Canariensibus ad Syriam et Asiæ centralis incola. *Eichler in DC. Prod.* xvii. 122. *Rich. in Mém. Mus. Par.* viii. *t.* 21. *Hook f. in Trans. Linn. Soc.* xxii. *t.* 1 A. *Weddell in Arch. Mus. Par.* x. *t.* 24 *ad* 27, *et in Ann. Sc. Nat. ser.* 3, xiv. *t.* 11, *f.* 43 *ad* 47. *Hofmeist. in Pringsh. Jahrb.* i. *t.* 10, *f.* 1 *ad* 5, *et in Neue Beitrag. Embryobild.* i. *t.* 11. Stamina rarissime 2 a Parlatoreo (in Fl. Ital. iv. 382) descripta.

TRIBUS II. SARCOPHYTEÆ.

2. **Sarcophyte,** *Sparrm. in K. Vet. Akad. Handl. Stockh.* xxvii. 300, *t.* 7. (Ichthyosma, *Schlecht. in Linnæa* ii. 671, *t.* 8, iii. 194.) Spadices unisexuales. Flores dioici. Fl. ♂: Perianthium tubo brevi solido; lobi 3–4, ovati, concavi, valvati. Stamina 3 v. 4, basi loborum perianthii inserta, filamentis brevibus cylindraceis; antheræ basifixæ, globosæ, multilocellatæ, locellis periphericis apice ruptis demum confluentibus; pollen globosum, 3-porosum. Ovarii rudimenta 0. Fl. ♀ plus minusve in capitula connati. Ovarium ovoideum, 3-loculare; stigma sessile, discoideum; ovula 3, ab apice placentæ centralis primum liberæ pendula, ad saccos embryonales reducta, anatropa. Fructus, syncarpium carnosulum, endocarpiis induratis obtuse 3-gonis 1-locularibus 1-spermis. Semen subglobosum, integumento 0, albumine carnoso oleoso; embryo centralis, globosus.—Herba crassa, carnosa, sanguinea, glaberrima, amyligera, odore ingrato; rhizoma amorphum, lobatum, esquamatum, circa pedunculi basin in volvam brevem irregulariter lobatam productum. Pedunculi breves, crassi, squamis persistentibus instructi. Spadices ampli, pyramidati, paniculatim ramosi; bracteæ ad basin ramorum primariorum persistentes. Flores ♂ ramis spadicis solitarii; ♀ in capitula subglobosa subsessilia concreti. Fructus sæpissime cassi, putamine osseo.

Species 1, Africæ australis incola. *Eichler in DC. Prod.* xvii. 126, *et in Act. Congr. Bot. Par.* 1867, *t.* 2, *f.* 21, 22. *Griff. in Trans. Linn. Soc.* xix. *t.* 38. *Hook. f. ibid.* xxii. *t.* 1 C. *Tratt. Thes. Bot. t.* 90. *Wedd. in Ann. Sc. Nat. ser.* 3, xiv. *t.* 10, *f.* 34 *ad* 48. *Hofmeist. Neue Beitrag. Embryobild.* i. *t.* 13. Ovarii loculi et ovula ex Eichlero.

TRIBUS III. MYSTROPETALEÆ.

3. **Mystropetalon,** *Harv. in Ann. Nat. Hist. ser.* 1, ii. 385, *t.* 19, 20. (Blepharochlamys, *Presl, Epim. Bot.* 245.)—Spadices androgyni. Flores monoici. Fl. ♂: Perianthium

2-labiatum, 3-partitum ; segmenta spathulata, concava, unguiculata, antico paullo minore, valvata. Stamina unguibus segmentorum perianthii inserta, 2 fertilia, tertium, segmento antico insertum, rudimentarium v. 0, filamentis filiformibus ; antheræ conniventes, dorsifixæ, versatiles, 2-loculares, loculis 2-locellatis extrorsum dehiscentibus ; pollen cubicum, granulatum. Fl. ♀ disco cupulari inserti. Perianthium superum, tubulosum v. urceolatum, 3-lobum, deciduum. Staminum rudimenta 2, minima, v. 0. Ovarium ovoideum, puberulum, 3-loculare ; stylus filiformis, terminalis, deciduus, stigmate obscure 3-lobo ; ovula in loculis solitaria, elongata, pendula, ad saccos embryonales reducta, anatropa ? Fructus subglobosus, nuceus, pericarpio carnosulo intus crustaceo, 1-spermus. Semen globosum, integumento 0, albumine grumoso oleoso ; embryo minutus, apicalis, pyriformis, indivisus, radicula supera.—Herbæ carnosæ, amyligeræ ; rhizoma ignotum. Pedunculi squamis sparsis lineari-lanceolatis tecti. Spadices oblongi. Flores sessiles, conferti, bracteati et 2-bracteolati, ♂ in spadicibus terminales.

Species 2, Africæ australis incola. *Hook. f. in Trans. Linn. Soc.* xxii. *t.* 1 B. *Eichler in DC. Prod.* xvii. 124, *et in Act. Congr. Bot. Par.* 1867, *t.* 1, *f.* 10. Descriptio ovulorum ex Eichlero.

TRIBUS IV. DACTYLANTHEÆ.

4. **Dactylanthus,** *Hook. f. in Trans. Linn. Soc.* xxii. 425, *t.* 75.—Spadices unisexuales, conferti. Flores dioici. Fl. ♂: Perianthium 0. Stamina 1–2, filamentis brevissimis ; antheræ dorso basi affixæ, didymæ, 2-loculares, loculis rimis lateralibus dehiscentibus ; pollen subgloboso-trigonum. Fl. ♀ : Perianthium ovario adnatum, in processus 2–3 angustos erectos epigynos productum. Ovarium stipitatum, ovoideo-oblongum, utrinque attenuatum ; stylus terminalis, filiformis, stigmate obtuso ; ovula . . . Fructus . . .—Herba carnosa, glaberrima, ferruginea, intus rubra ; rhizoma lobatum, tuberculatum, esquamatum ; volva 0. Pedunculi conferti, squamis imbricatis ovato-oblongis obtusis tecti ; squamæ superiores majores, oblongæ, involucrum spadicem superans efformantes. Spadices ad apicem pedunculi numerosi, graciles, erecti, cylindracei, basi nudi v. floribus imperfectis sparsis aucti ; pars florifera anguste fusiformis v. cylindracea ; ♂ robustiores. Flores dense conferti, ebracteati et ebracteolati.

Species 1, Novæ Zelandiæ incola. *Hook. f. Handb. N. Zeal. Fl.* 255. Genus defectu exemplarium imperfecte cognitum.

TRIBUS V. EUBALANOPHOREÆ.

5. **Balanophora,** *Forst. Char. Gen. t.* 50. (Cynopsole, *Endl. Gen.* 74. Sarcocordylis, *Wall. Cat. Herb. Ind. n.* 7249, *nomen tantum.*)—Spadices unisexuales v. androgyni. Flores monoici v. dioici. Fl. ♂: Perianthii tubus cylindraceus, solidus; lobi 3–6, ovati, concavi, valvati. Stamina 3–∞, filamentis 0, v. in columnam solidam cylindraceam connatis ; antheræ connatæ, v. inter se distinctæ et 2-loculares loculis 2-locellatis, v. in capitulum 3-∞-locellatum omnino confluentes, loculis locellisve extrorsum longitudinaliter v. rarius transversim dehiscentibus ; pollen subtrigono-globosum, læve v. pustulatum. Ovarii rudimenta 0. Fl. ♀ : Perianthium 0. Ovarium ellipsoideum, compressum, 1-loculare, utrinque angustatum v. basi stipitatum, apice in stylum gracilem persistentem attenuatum, stigmate terminali ; ovulum 1, ab apice loculi pendulum, integumento 0, anatropum. Fructus nuceus, pericarpio crustaceo semini adhærente. Semen globosum, albumine copioso oleoso ; embryo minimus, subglobosus, e cellulis 2–3 constans.—Herbæ carnosæ, glabræ, rubræ flavæ albidæ v. fuscæ, cera scatentes ; rhizoma tuberosum, simplex v. lobatum, rarius elongatum, lenticellis stellato-lobulatis conspersum, lobis ad basin pedunculorum in volvam lobatam ampliatis. Pedunculi cylindracei, graciles v. robusti, squamis persistentibus tecti, v. fere nudi et involucro annulari lobato cincti. Spadices ovoidei globosi cylindracei v. clavati. Flores corporibus cellulosis clavatis densissime confertis immixti, ♂ majusculi, in spadicibus androgynis inferiores v. inter ♀ sparsi ; ♀ stratum tenue efformantes, minuti, interdum cum stipitibus corporum clavatorum sparsi v. verticillati.

Species 11, Asiæ orientalis tropicæ, Archipelagi Malayani, Australiæ tropicæ et ins. Nov. Hebridarum incolæ. *Eichl. in DC. Prod.* xvii. 143. *Griff. in Trans. Linn. Soc.* xx. *t.* 3 *ad* 7. *Royle, Ill. Pl. Himal. t.* 78 A. *Hook. f. in Trans. Linn. Soc.* xxii. *t.* 4 *ad* 8, *et t.* 75. *Hook. Ic. Pl. t.* 205, 206, (*Langsdorffia*). *Jungh. et Gœpp. in Nov. Act. Nat. Cur.* xviii. *Suppl.* i. *t.* 1–3. *Unger in Ann. Wien. Mus.* ii. *t.* 2. *Beccari in Nuov. Giorn. Bot. Ital.* i. *t.* 2 *ad* 4. *Wedd. in Ann. Sc. Nat. ser.* 3, xiv. *t.* 9. *Hofmeist. in Pringsh. Jahrb.* vi. 529, *et in Neue Beitr. Embryobild. t.* 14, 15. Embryo a nobis non visus.

TRIBUS VI. LANGSDORFFIEÆ.

6. **Langsdorffia,** *Mart. in Eschweg. Journ. v. Bras.* ii. 178, *et Nov. Gen. et Sp.* iii. 181, *t.* 298, 299.—Spadices unisexuales v. androgyni. Flores dioici, rarius monoici. Fl. ♂: Perianthii tubus cylindraceus, solidus; lobi 3, ovati, concavi, valvati. Stamina 3, basi loborum perianthii inserta, filamentis brevissimis connatis; antheræ basifixæ, cohærentes, cordato-rotundatæ, 2-loculares, loculis 2-locellatis extrorsum dehiscentibus, rimis superne confluentibus; pollen subglobosum, 2–4-porosum. Ovarii rudimenta 0. Fl. ♀ inferne inter se confluentes, lineari-prismatici. Perianthium superum, elongato-tubulosum, apice truncato obscure lobulato. Ovarium 1-loculare; stylus filiformis, inferne perianthii tubo adnatus, longe exsertus, superne stigmatosus, deciduus; ovulum ab apice loculi pendulum, integumento destitutum, orthotropum? Fructus e strato florum confluentium, endocarpiis crustaceis. Semina ad basin strati minima, pendula, oblonga, albumine copioso oleoso; embryo axilis, subglobosus, extremitate acutiore supera.—Herba dure carnosa, flava, cerigera, squamis floribusque purpurascentibus; rhizoma deforme v. elongatum, cylindraceum et ramosum, ramis robustis tomentosis in volvas cupulares lobatas ampliatis. Pedunculi breves, dense squamosi; squamæ imbricatæ, triangulari-lanceolatæ, rigidæ, spadices involucrantes, persistentes. Spadices ♂ oblongi, ♀ hemisphærici. Flores ebracteati et ebracteolati, ♂ majusculi, processibus conicis (fl. ♀ imperfectis) immixti; ♀ stratum continuum efformantes.

Species 1, Americæ australis tropicæ incolæ. *Eichler in DC. Prod.* xvii. 140, *et in Mart. Fl. Bras.* iv. ii. *t.* 1 *ad* 3. *Rich. in Mém. Mus. Par.* viii. *t.* 19. *Hook. f. in Trans. Linn. Soc.* xxii. *t.* 2. *Wedd. in Ann. Sc. Nat. ser.* 5, xiv. *t.* 11, *f.* 48 *ad* 57. *Karst. in Nov. Act. Nat. Cur.* xxvi. ii. *t.* 63, 64. *Hofmeist. Neue Beitrag. Embryobild.* 1, *t.* 12.

7. **Thonningia,** *Vahl in Dansk. Selsk. Skrivt.* vi. 124, *t.* 6. (Conophyta, *Schum. in Isert, Reis. nach Guinea,* 283. Hæmatostrobus, *Endl. Gen. Pl.* 76, *in nota.*)—Spadices unisexuales. Flores dioici ?. Fl. ♂: Perianthium e squamulis 2–3 minutis lineari-subulatis pedicello antherifero subclavato sparsis. Antheræ 3–(5 ?), lineari-elongatæ, in columnam pedicello continuam connatæ, apicibus demum liberis, 2-loculares, loculis 2-locellatis extrorsum dehiscentibus; pollen globoso-trigonum. Fl. ♀: Perianthium superum, tubulosum, ore (interdum oblique) 3-lobo v. obscure 2–3-dentato. Ovarium elongatum, anguste cylindraceum, basi interdum tumidum; stylus crasse filiformis, elongatus, inferne perianthio vaginatus, superne longe exsertus, stigmate obtuso; ovula . . . Fructus ima basi perianthii spadice immersus. Semina . . .—Herba carnosa, sanguinea, cerigera?; rhizoma cylindraceum, ramosum, hic illic nodosum, tomentosum v. glabratum, ramorum apices in volvam brevissimam ampliati. Pedunculi breves v. elongati, squamis imbricatis tecti; squamæ triangulari-ovatæ, basi pilosæ, superiores spadicem involucrantes, summis sensim brevioribus, persistentes. Spadices ♂ minores, depresso-hemisphærici; ♀ majores, hemisphærici v. globosi. Flores ebracteati v. bracteolis ad basin fl. ♂ minutis, ♀ stratum continuum efformantes.

Species 1, Africæ occidentalis tropicæ incola. *Eichler in DC. Prod.* xvii. 141. *Hook. f. in Trans. Linn. Soc.* xxii. *t.* 3.

TRIBUS VII. HELOSIDEÆ.

8. **Scybalium,** *Schott et Endl. Melet. Bot.* 3, *t.* 2.—Spadices unisexuales v. androgyni. Flores monoici v. dioici. Fl. ♂: Perianthii tubus cylindraceus, basi intus processu conico

(ovarii rudimento ?) auctus; lobi 3, ovati, concavi, valvati. Stamina 3, filamentis in tubum connatis apicibus liberis; antheræ perianthii lobis oppositæ, basifixæ, ovato-cordatæ, connatæ, loculis 2–4-locellatis apicibus ruptis dehiscentibus; pollen globoso-trigonum. Fl. ♀: Perianthium superum, e labiis 2 rotundatis v. triangularibus brevibus antero-posticis. Ovarium oblongum v. ellipsoideum, a dorso compressum, 2-loculare; styli 2, elongati, filiformes, decidui, stigmatibus capitellatis; ovula 2 ex apice placentæ centralis primum liberæ demum in septum medium dilatatæ pendula, cum septo ovariique parietibus confluentia, anatropa. Fructus nuceus, 1-locularis, 1-spermus. Semen oblongum, albumine oleoso; embryo minutissimus, subovoideus, apicalis.—Herbæ carnosæ, rubræ v. fusco-rubræ, glaberrimæ, amyligeræ; rhizoma tuberosum globosum v. deforme, simplex lobatum v. ramosum, nudum; volva 0 v. obscura. Pedunculi cylindracei v. obconici, squamis oblongis v. triangulari-ovatis acutis tecti. Spadices globosi v. depresso-hemisphærici rarius subtabuliformes; bracteis subpeltatis primum imbricatis cito deciduis tecti. Flores in mamillis deplanatis bracteis respondentibus spadicis conferti, foliis numerosissimis lineari-clavatis immixti; bracteolæ 0.

Species 4, Brasiliæ, Novæ Granadæ et ins. Jamaicæ incolæ. *Eichl. in DC. Prod.* xvii. 131, *et in Act. Congr. Bot. Par.* 1868, *t.* 2, *f.* 20, *et in Mart. Fl. Bras.* iv. ii. *t.* 7, 8. *Hofmeist. Neue Beitr. Embryobild.* i. *t.* 17, *f.* 1 *ad* 6. SPHÆRORHIZON, *Hook. f. in Trans. Linn. Soc.* xxii. 50, *t.* 10, *et* PHYLLOCORYNE, *Hook. f. l.c.* 51, *t.* 11. *Hofmeist. l.c. t.* 17, *f.* 7, 8, recte ab Eichlero ad *Scybalium* reducta. Ovula a nobis non visa.

9. **Helosis,** *Rich. in Mém. Mus. Par.* viii. 416, *t.* 20. (Lathræophila, *Leandr. Sacram. in Ann. Sc. Nat. ser.* 2, viii. 32. Caldasia, *Mutis, Sem. Nov. Granat.* 26, *ex Schott et Endl. Melet.* 11.)—Spadices androgyni. Fl. ♂: Perianthii tubus cylindraceus, basi intus processu conico (ovarii rudimento ?) auctus; lobi 3, ovati, concavi, valvati. Stamina 2, filamentis in tubum connatis apicibus liberis; antheræ basifixæ, ovato-cordatæ, connatæ, loculis primum 1–4-locellatis, demum plus minusve confluentibus ab apice deorsum antice v. postice disruptis, pollen globoso-3-gonum. Fl. ♀: Perianthium superum, e labiis 2 triangularibus obtusis brevibus alabastro interdum lobatis antero-posticis. Ovarium ellipsoideum, 1-loculare; styli 2, elongati, filiformes, decidui, stigmatibus capitellatis; ovulum 1, ab apice loculi pendulum. Fructus nuceus. Semen oblongum v. subglobosum, albumine oleoso; embryo microscopicus, apicalis, subovoideus, indivisus.—Herbæ glabræ, carnosæ, fusco-rubræ, amyligeræ; rhizoma tuberosum ramos elongatos cylindraceos nudos subterraneos emittens; volva (nisi annulus pedunculi) 0. Pedunculi ramis insidentes erecti, nudi, breves v. elongati, basi v. altius oblique annulati. Spadices late ovati v. globosi, bracteis peltatis hexagonis valvatim connexis cito deciduis tecti. Flores utriusque sexus in mamillis deplanatis spadicis bracteis respondentibus conferti, pilis numerosissimis lineari-clavatis immixti; bracteolæ 0.

Species 3 (an unius varietates ?), Americæ tropicæ incolæ. *Eichl. in DC. Prod.* xvii. 134; *Act. Congr. Bot. Par.* 1868, *t.* 1, *f.* 5, 6, *et t.* 2, *f.* 23 *ad* 27, *et in Mart. Fl. Bras.* iv. ii. *t.* 4, 5, 6. *Mart. Nov. Gen. et Sp.* iii. *t.* 298, *f.* 2, *et t.* 300. *Hook. f. in Trans. Linn. Soc.* xxii. *t.* 15, 16. *Wedd. in Ann. Sc. Nat. ser.* 3, xiv. *t.* 11, *f.* 39 *ad* 42. *Hofmeist. Neue Beitr. Embryobild.* i. *t.* 16, *f.* 1 *ad* 5. *Solms-Laub. in Pringsh. Jahrb.* vi. 530. Ovulum quod nobis pendulum videtur ex descriptione Eichleri et Hofmeisteri 'erectum, atropum, toto ambitu ovario coalitum.' Embryo a nobis non visus.

10. **Corynæa,** *Hook. f. in Trans. Linn. Soc.* xxii. 31, *t.* 13, 14.—Spadices unisexuales v. androgyni. Fl. ☿: Perianthium tubulosum v. infundibulare, margine crenato-lacero, basi intus processu conico (ovarii rudimento ?) auctum. Stamina 3, filamentis in tubum ima basi perianthii insertum connatis; antheræ basifixæ, ovato-cordatæ, coalitæ, 2-loculares, loculis apicibus disruptis dehiscentibus; pollen globoso-trigonum. Fl. ♀: Perianthium superum, e labiis 2 rotundatis brevibus antero-posticis. Ovarium ellipsoideum v. obovoideum, a dorso compressum, 1-loculare; styli 2, elongati, filiformes, decidui, stigmatibus capitellatis; ovulum 1, ab apice loculi pendulum. Fructus nuceus. Semen globosum v. subglobosum, albumine oleoso; embryo . . .—Herbæ glabræ, carnosæ, fusco-rubræ, amyligeræ; rhizoma tuberosum, lobatum, rarius ramos emittens, nudum; volva

cupulari v. 0 (nisi pedunculi annulus). Pedunculi e lobos rhizomatis erumpentes, crassi, breves v. elongati, nudi, interdum oblique annulati. Spadices globosi, oblongi v. clavati, bracteis peltatis hexagonis valvatim connexis cito deciduis tecti. Flores utriusque sexus in mamillis deplanatis spadicis bracteis respondentibus conferti; pilis numerosissimis lineari-clavatis immixti; bracteolæ 0.

Species 4, Andium Peruviæ et Novæ Grenadæ incolæ. *Eichler in DC. Prod.* xvii. 137. *Chatin, Comp. Anat. t.* 96 (*Balanophora*).

11. **Rhopalocnemis,** *Jungh. in Nov. Act. Nat. Cur.* xviii. *Suppl.* i. 213. (Phæocordylis, *Griff. in Trans. Linn. Soc.* xx. 100, *t.* 8.)—Spadices unisexuales. Flores dioici. Fl. ♂: Perianthium infundibulare, margine crenato-lacero, ovarii rudimento 0. Stamina 3, filamentis in columnam elongatam solidam connatis; antheræ ellipsoideæ, basifixæ, in capitulum ovoideum septis verticalibus et transversis multilocellatum confluentes, apicibus disruptis dehiscentes, locellis demum confluentibus; pollen globoso-trigonum. Fl. ♀: Perianthium superum, e labiis 2 antero-posticis rotundatis. Ovarium ellipsoideum, a dorso compressum, 1-loculare; styli 2, elongati, filiformes, decidui, stigmatibus capitellatis; ovulum 1, pendulum. Fructus nuceus. Semen globosum, albuminis strato tenui; embryo magnus, amylaceus, non oleosus.—Herba crassa, robusta, flavo-fusca v. ferruginea, glabra, amyligera; rhizoma magnum, multilobatum, nudum, rugosum; volva crassa, lobata, lobis subtriangularibus. Pedunculi breves, robusti, fl. ♀ nudi, fl. ♂ floribus imperfectis bracteisve deformatis verrucati. Spadices magni, oblongo-cylindracei, obtusi, bracteis peltatis hexagonis valvatim connexis deciduis tecti. Flores utriusque sexus pilis numerosissimis filiformi-clavatis immixti; bracteolæ 0.

Species 1, montium Indiæ maxime orientalis et Javæ incola. *Eichl. in DC. Prod.* xvii. 138. *Gœpp. in Nov. Act. Nat. Cur.* xxii. *pars* i. *t.* 11 *ad* 25. *Hook. f. in Trans. Linn. Soc.* xxii. *t.* 12. *Hofmeist. Neue Beitrag. Embryobild.* i. *t.* 16, *f.* 6 *ad* 8. Descriptio seminis ex Hofmeistero.

Tribus VIII. Lophophyteæ.

12. **Lophophytum,** *Schott et Endl. Melet. Bot.* i. *t.* 1. (Archimedea, *Leandr. Sacram. in Ann. Sc. Nat. ser.* 2, vii. 32. Lepidophyton, *Hook. f. in Lindl. Veg. Kingd. ed.* 3, 90.)—Spadices androgyni, rarius unisexuales. Flores mamillis unisexualibus spadicis bracteis suffultis conferti. Fl. ♂: Perianthium 0. Stamina 2, libera, filamentis brevibus filiformibus; antheræ basifixæ, lineari-oblongæ, 2-loculares, loculis 2-locellatis rimis longitudinalibus dehiscentibus; pollen ellipsoideum, 3-striatum. Fl. ♀: Perianthii limbus truncatus, vertice intruso. Ovarium prismatico-clavatum, primum 1-loculare, demum ope placentæ in septum transformatæ 2-loculare; styli 2, fundo verticis intrusi floris inserti, breves, decidui, stigmatibus capitellatis; ovula 2, ab apice placentæ primum liberæ centralis pendula, demum cum loculi parietibus septoque coalita, anatropa. Fructus clavato-pyramidatus, nuceus, 1-locularis 1-spermus. Semen loculum fere implens, subovoideum, compressum, albumine oleoso; embryo . . .—Herbæ crassæ, glabræ, amyligeræ; rhizoma tuberosum v. cylindraceo-elongatum, globosum v. lobatum, tessellatim rimosum, plus minusve squamatum, basi nudum; volva 0. Pedunculi ramos v. lobos rhizomatis terminantes, breves, squamis multiseriatim imbricatis rigidis triangulari-ovatis acutis persistentibus cæruleo-nigrescentibus fuscisve tecti. Spadices oblongo-conici, demum elongati, flavi v. albi, mamillis floriferis primum confertis demum axi spadicis elongato remotis, ♀ in spadice inferioribus; bracteæ squamis pedunculi consimiles sed longius stipitatæ et deciduæ. Flores dense congesti, ♂ squamulis carnosis (fl. ♀ imperfectis ?) immixti; ♀ nudi v. rarissime bracteolati.

Species 4, descriptæ, quarum 2–3 adhuc dubiæ, Americæ tropicæ australis incolæ. *Eichl. in DC. Prod.* xvii. 127; *in Act. Bot. Congr. Par.* 1867, *t.* 1, *f.* 13 *ad* 19; *et in Mart. Fl. Bras.* iv. ii. *t.* 9 *ad* 15. *Hook. f. in Trans. Linn. Soc.* xxii. *t.* 9. *Wedd. in Ann. Sc. Nat. ser.* 3, xiv. *t.* 10, *f.* 29 *ad* 33. *Chat. Comp. Anat.* i. *t.* 100, 101. Ovula et semina a nobis non visa.

13. **Ombrophytum,** *Pœpp. in Leipz. Literaturz.* 1833, 1874, *ex Endl. Gen. Pl.* 73; *Pœpp. et Endl. Nov. Gen. et Sp.* ii. 40, *t.* 155.—Spadices androgyni. Flores cum stipitibus processuum peltatorum spadicis conferti. Fl. ♂: Perianthium 0. Stamina 2, libera, filamentis brevibus filiformibus; antheræ basifixæ, lineari-oblongæ, 2-loculares, loculis rimis lateralibus dehiscentibus. Fl. ♀: Perianthii limbus truncatus. Ovarium obovoideo-prismaticum, 1-loculare; styli 2, vertice floris inserti, breves, divergentes, stigmatibus capitellatis; ovulum 1, ab apice loculi pendulum. Fructus nuceus. Semen oblongum, albumine copioso; embryo . . . —Herbæ carnosæ, glabræ, rufo-flavescentes, amyligeræ; rhizoma globosum v. disciforme, nudum, in volvam magnam lobatam abeuns. Pedunculi erecti, nudi. Spadices cylindracei v. fusiformes, processibus floriferis ♀ inferioribus. Bracteæ processus spadicis suffulcientes peltatæ v. 0? Flores dense conferti, ♂ squamulis depresso-prismaticis carnosis contiguis stipati, v. nudi.

Species 2, Andium Peruviæ incolæ, imperfecte cognitæ. *Eichl. in DC. Prod.* xvii. 129, *et in Mart. Fl. Bras.* iv. ii. *t.* 16, *f.* 1, 2. *Weddell in Ann. Sc. Nat. ser.* 3, xiv. *t.* 10, *f.* 23 *ad* 28. Ovulum et semen a nobis non visa a Weddellio solo descripta, sed ab Eichlero iis *Lophophyti* comparata sunt.

14. **Lathrophytum,** *Eichler in Bot. Zeit.* 1868, 513, *t.* 9, *in Mart. Fl. Bras.* iv. ii. 35, *t.* 16, *f.* 3, *et in DC. Prod.* xvii. 130.—Spadices androgyni. Flores ♂ spadice subsessiles, ♀ stipitibus processuum peltatorum spadicis conferti. Fl. ♂: Perianthium 0. Stamina 2, papilla spadicis triangulari decurrente inserta, filamentis 0; antheræ basifixæ, primum erectæ, demum deflexæ, elliptico-cordatæ, 2-loculares, loculis 2-locellatis, lateraliter dehiscentibus; pollen ellipsoideum, 3-plicatum. Fl. ♀: Perianthii limbus truncatus, vertice intruso. Ovarium obovoideo-prismaticum; styli 2, fundo verticis intrusi floris inserti, breves; ovula . . . Fructus nuceus, 1-spermus. Semen . . .—Herba carnosa, glabra, fuscescens, amyligera; rhizoma tuberosum, nudum; volva ampla, cupularis, profunde lobata. Pedunculi nudi. Spadices fusiformes; parte inferiore ♀ processus peltatos iis *Ombrophyti* similes gerente, superiore ♂ multo longiore, floribus innumeris in verticillis creberrimis dispositis operta. Bracteæ et bracteolæ ut videtur 0.

Species 1, Brasiliæ prov. Rio de Janeiro incola, imperfecte cognita, a nobis non visa. Ovula verisimiliter *Lophophyti* ex Eichlero.

Ordo CLI. EUPHORBIACEÆ.

Endl. Gen. 1107. Lindl. Veg. Kingd. 274. Baill. Etud. Gen. Euph. 1858; Hist. Pl. v. 105. Benth. in Journ. Linn. Soc. xvii. 185. Antidesmeæ, Endl. Gen. 287. Stilaginaceæ et Scepaceæ, Lindl. Veg. Kingd. 259, 283. Buxaceæ, Baill. Monogr. Bux. et Stylocer. 1859. Daphniphyllaceæ, Muell. Arg. in DC. Prod. xvi. i. 1.

Flores unisexuales, monoici v. dioici, regulares v. vix irregulares. *Perianthium* sæpe parvum, interdum 0, in floribus ♂ et ♀ haud raro dissimile, nunc calycinum, simplex varie valvatum v. imbricatum, v. interdum e sepalis distincte 2-seriatim imbricatis similibus v. rarius exterioribus interioribus dissimilibus; nunc duplex, petalis parvis squamiformibus v. calyce longioribus et contorto-imbricatis rarissime subvalvatis. Flores ♂: *Torus* interdum in discum intrastaminalem expansus v. disci glandulæ v. lobi cum staminibus seriei exterioris alternantes. *Stamina* numero varia, nunc ∞ (pauca numerosa v. numerosissima usque ad 1000), nunc sepalis v. petalis isomera v. pauciora v. ad unicum reducta; filamenta libera v. varie connata. *Antheræ* 2-loculares, filamento varie affixæ, loculis sæpius parallelis distinctis rima longitudinali dehiscentibus demum 2-valvibus, interdum vero loculi varie discreti divergentes v. divaricati, rarius apice confluentes, v. poro terminali dehiscentes v. longitudinaliter v. trans-

versim 2-locellati. *Pollen* (ex Mohl et Edgeworth) globosum v. ellipsoideum, extus læve granulosum v. striis sulcisve 3 notatum, in perpaucis tamen speciebus observatum. *Ovarii rudimentum* nunc in medio toro inter stamina v. ad apicem columnæ staminalis evolutum, integrum v. partitum, nunc parvum minutum v. sæpe omnino deest. Flores ♀: *Sepala* haud raro quam in maribus magis soluta imbricataque v. angustiora v. majora. *Petala* interdum minora et sæpius quam in maribus desunt. *Discus* hypogynus sæpe annularis pulvinatus v. cyathiformis, nunc e glandulis distinctis v. 0. *Staminodia* interdum adsunt irregularia, sed vix in ullo genere constantia. *Ovarium* sessile v. rarissime gynophoro brevi fultum, ad normam 3-loculare, haud raro 2- v. 4-loculare, rarius 1- v. 5–∞-loculare. *Styli* (formis perpaucis abnormibus exceptis) tot quot ovarii loculi, et cum apice carpellorum continui, nunc basi v. alte in columnam tenuem v. crasso-carnosam v. cavam connati, nunc sæpius alte v. a basi liberi, erecti patentes v. recurvi, subulati v. varie incrassati v. plano-dilatati, integri 2-fidi v. rarius ∞-fidi v. plumosi, latere interiore superne v. a basi papilloso-stigmatosi, v. apice in stigma breve expansi. *Ovula* in quoque loculo solitaria, v. 2 collateralia, descendentia, anatropa, angulo centrali loculorum affixa, raphe ventrali, micropyle extrorsum supera, rarius ab angulo centrali parum distantia raphe plus minus dorsali, micropyle axin fructus spectante; funiculus sæpissime in *obturatorem* cellulosum squamiformem v. cucullatum micropylem obtegentem v. interdum ovulum v. ovulorum par partim v. omnino involventem expansus. *Fructus* ad normam capsularis, in coccos tot quot loculi ovarii secedens, columellam persistentem relinquens, variat tamen indehiscens, bacciformis v. drupaceus et in loculos divisus, rarissime 2-3-pyrenus, v. abortu 1-locularis v. 1-pyrenus 1-spermusque, v. in valvas loculicide dehiscens; pericarpium duplex, exocarpio nunc membranaceo coccis adhærente, nunc herbaceo incrassato v. carnoso in valvas solvendo; endocarpium cartilagineum crustaceum v. induratum, in quoque cocco superne dorsoque elastice fissum 2-valve v. crepitanter 2-partitum, valvis mox tortis, in baccis drupisvé rarius ab exocarpio solvitur. *Semina* tot quot ovula v. abortu pauciora, hilo lineari v. parvo medio v. altius lateraliter v. juxta apicem affixa, haud raro apice strophiola (carunculo) parva aucta; testa sæpissime crustacea, rarius indurato-sublignosa v. tenuiter membranacea, strato exteriore nonnunquam in vivo pulposo-carnoso pro arillo sæpe descripto, in sicco tamen rarius distinguendo; albumen sæpissime copiosum, carnosum v. fere cartilagineum, rarius membranaceo-papyraceum v. 0. *Embryo* centralis, rectus v. rarius leviter incurvus, albumine fere æquilongus v. rarius abbreviatus; cotyledones planæ, latæ, foliaceæ v. tenuiter carnosæ v. (in *Stenolobieis*) angustæ semiteretesque, v. rarissime crasso-carnosæ v. latissimæ et contortuplicatæ; radicula supera, breviter prominens, rarius elongata v. intra basin cotyledonum retracta.

Arbores fruticesve ramosi v. interdum herbæ erectæ v. diffusæ, caule in speciebus nonnullis volubili v. in aliis crasso-carnoso; succo sæpe lacteo interdum venenoso. Folia ad normam alterna, indivisa, integerrima v. dentata, pennivenia v. juxta basin digitatim 3–∞-nervia; variant tamen opposita v. verticillata, digitatim lobata v. 3–∞-foliolata v. ad squamellas minutas reducta, nunquam pinnatim composita. Stipulæ sæpe adsunt parvæ, caducæ v. persistentes, sed vix in eodem genere constantes, rarius amplæ foliaceæ v. more *Artocarpearum* connatæ gemmam includentes et folio evoluto delapsæ cicatricem annularem relinquentes. Glandulæ interdum geminæ ad apicem petioli v. ad basin limbi. Indumentum e pilis simplicibus v. stellatis v. interdum lepidotum; pili malpighiacei rarissimi si unquam adsint. Species paucæ ramulis spinescentibus v. aculeis infrastipularibus v. infrafoliaceis armatæ. Inflorescentia ad normam composita, primaria axillaris v. racemosa centripeta, ultima cymulosa centrifuga, interdum vero cymulis ad florem unicum reductis undique centripetim axillaris, spicata racemosa v. paniculata, v. in aliis generibus undique centrifuga, panicula terminali dichotome cymosa v. ad fasciculum simplicem v. florem unicum terminalem reducta. Bracteæ sub cymulis v. floribus solitariis sæpius parvæ squamiformes, interdum varie auctæ v. 2–3 connatæ cymulas v. racemos involucrantes. Bracteolæ haud raro adsunt intra bracteam geminæ v. sub pedicellis in cymula ∞. Flores in toto ordine stricte unisexuales vidimus, etsi hinc inde

in floribus ♀ perpaucis ejusdem speciei stamen unum alterum subperfectum evolvitur, et rarissime ovulum adesse dicitur in ovarii rudimento floris quodam ♂, quod tamen nobis nunquam obvium fuit.

Species bene notæ paullo ultra 3000, tribuum 3 ultimarum pro maxima parte inter tropicos in utroque orbe vigentes, tribuum 3 priorum imprimis extratropicæ, boreales v. australes; plurimæ tamen e tribu *Euphorbiearum*, perpaucæ e *Stenolobieis* v. *Buxeis* plus minus tropicales sunt. In regionibus Arcticis Antarcticis uti in summis Alpibus *Euphorbiaceæ* omnino desunt.

Euphorbiaceæ seriem plantarum ostendunt a cæteris ordinibus haud difficile separandam, si specimina adsint utriusque sexus bene evoluta, etsi genera nonnulla primo aspectu *Celastrineis Sterculiaceis*, etc., inter *Polypetalas* accedere videantur, alia quodammodo *Urticeis* inter *Monochlamydeas* approximantur, semper tamen characteribus certis distinguenda. Genera plurima, ad specimina imperfecta definita, ab auctoribus cum ordinibus variis confusa, melius nota locum certum obtinuerunt, alia sexu unico tantum descripto adhuc valde dubia remanent.

Ordo vastus et polymorphus, olim quoad genera eo tempore nota optime ab Adriano de Jussieu compositus, quam maxime auctus, cura diligentissima a H. Baillono et a Muellero Argoviensi elaboratus est. Hi tamen auctores sententia valde differunt quoad generum tribuumque limites et ordinationem. Affinitates naturales a Baillono potius quæsitæ etsi non semper apte consecutæ, a Muellero sæpissime neglectæ et divisiones plurimæ Prodromi, tam tribus et subtribus quam genera et sectiones, characteribus certis ad extremum secutis, quam maxime artificiales evadunt. Si methodum cum affinitatibus naturalibus (consanguinitate) congruum quærimus, characterum plurium valor in ordine valde inconstans apparet. Inflorescentia, hucusque nimis neglecta, sæpe affinitates etiam tribuales indicat, etsi non semper exacte definienda. Calycis ♂ modus et præsertim æstivatio, in generibus perplurimis constans, in *Crotone* variat. Antherarum forma et dehiscentia sæpissime characteres genericos optimos præbent, in *Phyllantho* tamen species quam maxime affines separant. Characteres e calyce ♀ (a ♂ sæpius diverso) e carpellorum numero, e stylorum indole, sæpe boni evadunt, sed caute utendi, nam in generibus pluribus naturalibus singulatim variant. Stipulæ, glandulæ receptaculi floris ♂, discus hypogynus floris ♀, strophiola v. caruncnlus seminum, in speciebus constantes, rarissime in charactere generico feliciter utantur. Tribus igitur sex, hic pro naturales receptæ, e characteribus sæpe valde diversis limitantur. Divisiones ulteriores sæpe nimis artificiales sunt, sed meliores adhuc non occurrunt.

FORMÆ ABNORMES.

Bracteæ 4–5, rarius ∞, in involucrum calyciforme connatæ, cymulam androgynam includunt in *Euphorbieis*; 2 rarius ∞ ad basin inflorescentiæ vacuæ laxe v. arcte imbricatæ in *Buxeis* nonnullis, in *Uapaca*, *Dalechampiis* plerisque et minus distincte in aliis paucis generibus; 2 ad apicem pedicelli in globum clausum connatæ florem v. cymulam juniorem includentem, per anthesin varie ruptum in *Ægxtoxico* et *Pera*; bractea rhachi margine undique adnata alabastra includit, per anthesin dorso irregulariter rupta in *Hura* et *Algernonia*.

Glandula magna utrinque ad basin bractearum in *Hippomaneis* plerisque et in paucis aliis, glandulæ bractearum contiguarum involucri in unam connatæ in *Euphorbia* et *Calycopeplo*, omnes involucri in unam annularem connatæ in *Synadenio*, irregulariter in involucro dorsales in *Pedilantho*, ad latera loborum involucri, hinc inde deficientes in *Anthostemate*.

Squamellæ exteriores sepaliformes v. glanduliformes in calyce ♀ ad basin segmentorum iisque alternæ in *Epiprino*, in *Julocrotonibus* nonnullis et in *Conceveiba*.

Calyx rudimentarius v. 0 in floribus ♂ *Styloceratis* et in iis specierum plurimarum v. omnium *Uapacæ*, *Gymnanthis*, *Actinostemonis*, *Adenopeltidis*, *Colliguajæ*, *Dalembertiæ*, *Peræ* et *Euphorbiearum*; in floribus ♀ eorundem generum interdum evolvitur et hinc inde deest in aliis generibus ubi in flore ♂ conspicuus est.

Calyx fructifer persistens valde auctus in *Epiprino*, *Blachia*, *Dimorphocalyce* et *Sagotia*.

Petala subvalvata concava v. biconcava in *Galearia* et *Dicœlia*.

Antherarum loculi apice poro dehiscentes in *Poranthera*, antheræ distincte 4-locellatæ v. varie 4-valves in *Tetrorchidio*, *Cleidio*, *Macaranga et Endospermo*.

Ovarium 1-loculare stylis 2–3 in *Antidesmate* et *Crotonopside*. Pistillum totum 1-carpicum in *Cometia*, *Ægxtoxico*, *Eremocarpo*, *Hemicyclia*, et sæpius in *Drypetide*. Ovarium in loculos duplo carpellorum numero divisum in *Styloceratide*.

Capsula loculicide dehiscens valvis non septicide solutis in *Simmondsia*, *Buxo* et *Oldfieldia*; in perpluribus generibus coccis mox bivalvibus, capsula fere simul loculicide et septicide dehiscit.

Fructus drupaceus 1-spermus in *Sarcococca*, in *Drypetide* generibusque ei affinibus paucisque aliis, 2–3-pyrenus in *Stylocerate*, et *Bridelia*, subbaccatus 3-locularis in *Bischofia*, capsularis etsi 1-spermus in *Pseudantho*, *Stachystemone*, *Erythrococca*, et in paucis speciebus in alia genera dispersis.

Albumen perparcum v. 0 v. membranaceum cotyledonibus crasso-carnosis v. contortuplicatis in *Cleistantho*, *Amanoa*, *Discocarpo*, *Lachnostyle*, *Actephila*, *Forchhammera*, *Hevea*, *Elateriospermo*, *Simmondsia*, et forte in nonnullis aliis adhuc imperfecte notis, leviter ruminatum in *Æxtoxico*.

Embryo albumine quater ad sexies brevior in *Daphniphyllo*.

CONSPECTUS TRIBUUM (exceptis neglectis).

Tribus I. Euphorbieæ. Involucrum calyciforme, cum floribus inclusis plurimis masculis 1-andris unico fœmineo centrali florem unicum hermaphroditum simulans. Perianthia vera minima v. 0.

Tribus II. Stenolobieæ. Embryo in centro albuminis linearis, cotyledonibus radicula non v. vix latioribus. Cætera nunc *Phyllanthearum* nunc *Crotonearum*. (Fruticuli Australienses sæpius ericoidei v. herbæ humiles Australianæ cum una austro-Andina).

Tribus III. Buxeæ. Ovula in loculis gemina rarius solitaria, *raphe dorsali*. Flores distincti. Stamina sepalis opposita v. ∞. Embryo varius. Capsula sæpius loculicide dehiscens. (Genera hemisphærii borealis extratropica v. montana.)

Tribus IV. Phyllantheæ. Flores distincti. Embryonis cotyledones radicula multo latiores. Stamina omnia v. exteriora sepalis opposita. Ovula in loculis gemina.

Tribus V. Galearieæ. Stamina sepalis opposita *Phyllanthearum*. Ovula in loculis solitaria *Crotonearum*.

Tribus VI. Crotoneæ. Flores distincti. Embryonis cotyledones radicula multo latiores. Stamina omnia v. exteriora sepalis alterna. Ovula in loculis solitaria.

Subtribus 1. Jatropheæ. *Paniculæ 2–3-chotome cymosæ, rarius ad fasciculum terminalem reductæ, androgynæ flore centrali fœmineo v. unisexuales.*

Subtribus 2. Eucrotoneæ. *Racemi v. spicæ terminales, androgyni v. rarius unisexuales. Flores ♂ sæpius petaliferi. Filamenta in alabastro apice inflexa antheris reversis (demum sæpius erecta).*

Subtribus 3. Chrozophoreæ. *Racemi spicæ v. rarius paniculæ racemiformes axillares rarius terminales v. ad apices ramorum paniculati. Flores ♂ sæpissime petaliferi. Antheræ jam in alabastro erectæ.*

Subtribus 4. Adrianeæ. *Racemi v. spicæ terminales, simplices. Petala 0. Styli distincti v. vix basi connati.*

Subtribus 5. Acalypheæ. *Racemi v. spicæ axillares v. ad apices ramorum paniculati. Petala 0. Calyx ♂ valvatus v. rarius lobis leviter imbricatis. Styli sæpius distincti.*

Subtribus 6. Geloniеæ. *Calyx ♂ valde imbricatus. Cætera fere Acalyphearum.*

Subtribus 7. Plukenetieæ. *Stylus sæpius cum ovario continuus columnaris apice breviter nunc brevissime lobatus. Cætera fere Acalyphearum.*

Subtribus 8. Hippomaneæ. *Calyx ♂ parvus, jam ante anthesin apertus, nunc minimus v. 0. Cætera Acalyphearum v. Plukenetiarum.*

CONSPECTUS GENERUM.

Tribus I. Euphorbieæ. Flores monoici, ♂ ∞ cum ♀ unico centrali involucro calyciformi cincti florem hermaphroditum simulantes. Fl. ♂: Stamen 1, filamento in pedicellum articulato, perianthio 0 v. ad squamellam minutam ad articulationem reducto. Fl. ♀: Perianthium 0 v. calyx brevis. Ovarium 3-loculare, ovulis in loculis solitariis. Capsula 3-cocca. Semina albuminosa; cotyledones latæ, planæ.

Florum fasciculus in involucro inclusus est cymula, cum cymulis seu glomerulis androgynis hinc inde in variis generibus *Euphorbiacearum* observandis (e.g. in *Crotoneis* e subtribu *Jatrophearum*) comparanda, inflorescentia centrifuga, flore terminali seu centrali fœmineo primum evoluto, masculis in circumferentia sæpe in fasciculos 4–5-confertis ramos primarios cymæ indicantes. Sententiæ Bailloni florem revera hermaphroditum esse nequaquam assentiri possumus.

1. PEDILANTHUS. Involucrum irregulare, obliquum declinatum v. urceolatum, postice appendice intus glandulosa auctum. Cætera *Euphorbiæ*.—*Amer. trop.*, *California*.

2. EUPHORBIA. Involucrum calyciforme, regulare v. parum inæquale. Glandulæ extra lobos iis alternæ, distinctæ. Bracteolæ intra involucrum lineares integræ divisæ v. obsoletæ.—*Utriusque orbis reg. calid. et temp.*

3. SYNADENIUM. Involucrum alte 5-lobum, æquale. Glandulæ in cupulam seu discum integrum lobos cingentem connatæ. Bracteolæ intra involucrum 5 majores latæ, fasciculos florum ♂ includentes, dorso in cupulam circa floris ♀ stipitem connatæ.—*Afr. trop. et austr.*

4. CALYCOPEPLUS. Involucrum alte 4-lobum, æquale. Glandulæ extra lobos iis alternæ, parvæ, distinctæ, stipitatæ v. 0. Bracteolæ intra involucrum 4 majores latæ, fasciculos florum includentes, dorso liberæ. Calyx floris ♀ 4–6-lobus.—*Australia.*

5. ANTHOSTEMA. Involucrum alte lobatum, latere exteriore hians. Glandulæ magnæ, ad latera loborum hinc inde deficientes. Bracteolæ intra involucrum majores flores ♂ includentes, dorso liberæ. Calyx utriusque sexus parvus, 3–4-dentatus.—*Afr. trop., Madagascaria.*

Tribus II. Stenolobieæ. Perianthium calycinum petaloideum v. duplex. Stamina sepalis opposita v. ∞. Ovula in loculis ovarii solitaria v. gemina in angulo centrali contigua. Embryo in centro albuminis linearis, cotyledonibus radicula non v. vix latioribus. Frutices sæpius ericoidei foliis integerrimis coriaceis, v. herbæ humiles foliis parvis membranaceis. Species, unica austro-Andina excepta, omnes Australianæ.

* *Ovarii loculi 2-ovulati.*

6. PORANTHERA. Sepala 5, petaloidea. Petala parva v. 0. Stamina 5, antheris poris terminalibus dehiscentibus. Styli lineares, 2-partiti. Capsula depresso-globosa. Herbæ suffruticesve, racemis capituliformibus in corymbo terminali.—*Australia.*

7. MICRANTHEUM. Sepala 6, petaloidea, 2-seriata. Petala 0. Filamenta libera v. vix basi connata, ovarii rudimentum cingentia. Antherarum loculi longitudinaliter dehiscentes. Ovarium 3-lobum. Capsula 3-locularis. Frutices ericoidei, foliis ad nodos alternos ternis.—*Australia.*

8. PSEUDANTHUS. Capsula abortu 1-locularis 1-sperma. Folia ad nodos oppositos v. alternos solitaria. Cætera *Micranthei.*—*Australia.*

9. STACHYSTEMON. Filamenta sæpius numerosa, omnia v. saltem interiora in columnam centralem coalita absque rudimento ovarii. Cætera *Pseudanthi.*—*Australia.*

** *Ovarii loculi 1-ovulati.*

† *Stamina ∞, sæpius numerosa.*

10. BEYERIA. Petala sæpius adsunt. Glandulæ petalis alternæ. Filamenta brevissima, in receptaculo hemisphærico congesta. Stigma sessile, peltatum v. rarius alte 3-fidum. Frutices. Flores axillares v. rarius in racemulo terminali.—*Australia.*

11. RICINOCARPUS. Petala adsunt. Glandulæ petalis alternæ. Filamenta alte in columnam centralem connata. Styli 2-fidi, basi breviter connati. Frutices. Flores in racemulo terminali, rarius pseudo-axillares.—*Australia.*

12. BERTYA. Petala 0. Disci glandulæ 0. Filamenta alte in columnam centralem connata. Styli distincte 2–4-fidi, sæpius 3-fidi. Frutices. Flores axillares, pauci.—*Australia.*

†† *Stamina numero sepalorum v. petalorum dupla v. pauciora, filamentis distinctis v. vix basi connatis.*

13. MONOTAXIS. Petala adsunt. Stylorum rami fimbriati. Capsula inappendiculata. Herbæ suffruticesve humiles, cymis terminalibus densis.—*Australia.*

14. DYSOPSIS. Petala desunt. Styli indivisi, lanceolati, subfimbriati. Capsula inappendiculata. Herba tenera, prostrata, radicans. Flores ad axillas solitarii v. ad apices ramorum conferti.—*Amer. austr. extratrop. Andina.*

15. AMPEREA. Petala desunt. Stylorum rami integri. Capsula dentibus 6 erectis appendiculata. Herbæ suffruticesve, foliis parvis v. 0. Flores ad nodos glomerati.—*Australia.*

Tribus III. Buxeæ. Perianthium calycinum sepalis imbricatis v. 0. Petala 0. Stamina sepalis opposita v. ∞. Ovula in loculis ovarii gemina, rarius solitaria, axi affixa v. ab angulo centrali plus minus distantia, rapho dorsali. Styli indivisi. Cotyledones variæ.

* *Stamina ∞. Ovarii rudimentum in fl. ♂ 0.*

16. SIMMONDSIA. Sepala fl. ♂ 5. Filamenta brevissima, antheris magnis erectis. Ovarium 3-loculare, loculis 1-ovulatis, stylis 3 longis caducissimis. Capsula 3-valvis. Albumen 0. Cotyledones crasso-carnosæ. Frutex foliis oppositis.—*California.*

17. Styloceras. Perianthium fl. ♂ 0. Filamenta brevissima, bracteæ affixa, antheris magnis erectis. Ovarium 2–3-carpellare, 4–6-locellatum, locellis 1-ovulatis, stylis 2–3 longis persistentibus. Drupa indehiscens, pyrenis tot quot locelli v. abortu paucioribus. Frutices foliis alternis. Spicæ axillares, breves.—*Amer. trop.*

** *Stamina tot quot sepala iisque opposita. Ovarii rudimentum in fl. ♂ evolutum.*

18. Sarcococca. Sepala ♂ 4. Filamenta elongata. Frutices foliis alternis integerrimis. Florum racemuli axillares, densi, ♀ ad basin racemuli.—*Ind. or.*

19. Buxus. Sepala ♂ 4. Filamenta elongata. Frutices foliis oppositis integerrimis. Florum racemuli axillares, densi v. pauciflori, ♀ in racemulo terminali.—*Orbis vet. hemisph. borealis, Madagasc., Ind. occid.*

20. Pachysandra. Sepala ♂ 4. Filamenta elongata. Herbæ foliis alternis sæpius grosse dentatis. Spicæ longiusculæ ad basin caulis infra folia v. terminales, fl. ♀ ad basin spicæ paucæ v. unicus terminalis.—*Amer. bor., Japonia.*

Tribus IV. Phyllantheæ. Perianthium calycinum, 1–2-seriale, v. duplex petalis parvis squamiformibus rarius calycem æquantibus. Stamina 1–2-serialia, seriei exterioris sepalis opposita, v. rarius in centro floris ∞. Ovula in loculis ovarii gemina, in angulo centrali contigua, raphe ventrali. Cotyledones radicula multo latiores. Inflorescentiæ axillares v. laterales, rarius ad apices ramorum subpaniculatæ.

* *Folia alterna, indivisa. Flores petaliferi, ♂ ad axillas v. nodos glomerati, ♀ sæpe solitarii.*

Excepta: Petala interdum desunt in fl. ♀ v. omnibus *Discocarpi, Amanoæ* et *Actephilæ*

† *Calyx valvatus.*

21? Stenonia. Filamenta circa rudimentum ovarii libera. Ovarium 3-loculare. Fructus . . . —*Madagasc.*

22. Bridelia. Filamenta sub rudimento ovarii in columnam connata. Ovarium 2-loculare. Bacca 2-pyrena. Albumen sæpius carnosum rarius parcum v. 0; cotyledones planæ. Foliorum venæ secundariæ transversim parallelæ.—*Orbis veteris reg. trop.*

23. Cleistanthus. Filamenta sub rudimento ovarii in columnam connata. Ovarium 3-loculare. Capsula 3-cocca. Albumen parcum v. 0; cotyledones plicatæ v. crasso-carnosæ. Foliorum venæ secundariæ reticulatæ.—*Orbis veteris reg. trop.*

†† *Calyx imbricatus.*

a. *Albumen parcum v. 0.*

24. Amanoa. Filamenta circa rudimentum ovarii libera. Stigmata sessilia, disciformia. Albumen perparcum v. 0; cotyledones crasso-carnosæ.—*Amer. trop., Africa trop. occid.*

25. Discocarpus. Filamenta basi in columnam connata, sub ovarii rudimento libera, patentia. Discus fl. ♂ glaber. Styli superne recurvi in laminam latam expansi. Albumen parcum; cotyledones latissimæ, carnosulæ, valde plicatæ.—*Brasilia, Guiana.*

26. Lachnostylis. Filamenta basi in columnam connata, sub ovarii rudimento libera, patentia. Discus fl. ♂ villosissimus. Styli breves, patentes, cuneati, breviter 2-fidi. Albumen parcum; cotyledones latissimæ, carnosulæ, valde plicatæ.—*Afr. austr.*

27. Actephila. Filamenta in medio disco circa ovarii rudimentum libera v. basi breviter connata. Styli breves, indivisi v. 2-fidi. Albumen parcum; cotyledones latissimæ, carnosæ, plicatæ.—*Asia trop., Australia.*

b. *Albumen (ubi notum) crassum.*

28. Wielandia. Filamenta in columnam connata, sub ovarii rudimento radiato-5-lobo breviter libera. Ovarium 5-loculare.—*Seychelles.*

29. Savia. Filamenta circa ovarii rudimentum libera. Discus annularis angulatus cupulatus v. varie lobatus. Ovarium 3-loculare. Albumen carnosum; cotyledones planæ.—*Ind. occid., Madagasc.*

30. Andrachne. Filamenta circa ovarii rudimentum libera. Disci glandulæ distinctæ.

Ovarium 3-loculare. Albumen carnosum; cotyledones planæ.—*Eur., Asia temp. et trop., Afr. austr., Amer. bor., Peruvia?*

** *Folia alterna indivisa (subopposita in perpaucis* Phyllanthis). *Flores apetali, ♂ ad axillas v. nodos glomerati rarius subcymosi, ♀ sæpe solitarii. Calyx imbricatus. Stamina 1-seriata (2–3-seriata in perpaucis* Phyllanthis). *Styli v. styli rami erecti v. recurvi, tenues v. apice solo dilatati. Cocci 2-valves v. bacca 3-locularis.*

† *Capsula in coccos 2-valves dissiliens (indehiscens in perpaucis* Phyllanthis).

31. Agyneia. Fl. ♂ sepala margine tenui albo cincta, cæterum incrassata, quasi squama adpressa aucta. Antheræ 3, ad apicem columnæ sessiles. Ovarii rudimentum 0. Herbæ diffusæ v. patentim ramosæ, foliis parvis.—*Asia trop., ins. Mascar.*

32. Sauropus. Fl. ♂ sepala basi incrassata v. squama prominula aucta. Filamenta 3, alte in columnam connata. Ovarii rudimentum 0. Frutices suffruticesve foliis distichis membranaceis. Fl. ♀ calyx sub fructu sæpe auctus.—*Asia trop.*

33. Cluytiandra. Omnia *Sauropodis* nisi filamenta 5, basi breviter tantum connata.—*Africa trop.*

34. Phyllanthus. Sepala basi nuda. Stamina in centro floris ♂ 2–6 rarissime ∞, filamentis connatis v. liberis; antheræ polymorphæ; ovarii rudimentum 0. Fl. ♀: Pistillum 3–∞-merum; styli sæpius 2-fidi. Herbæ frutices v. arbores.—*Reg. calid. utriusque orbis.*

35. Leptonema. Sepala basi nuda. Stamina 5 antheris *Antidesmatis.* Ovarii rudimentum 0. Pistillum 3–5-merum; styli 2-partiti. Frutex. Florum ♂ umbellæ pedunculatæ.—*Madagascaria.*

36. Securinega. Sepala basi nuda. Stamina iis opposita, sæpius 5. Ovarii rudimentum sæpius evolutum. Pistillum 3-merum; styli bifidi. Habitus *Phyllanthi.—Amer. trop., Afr. trop. et austr., ins. Mascar., Asia temp.*

37. Neorœpera. Sepala basi nuda. Stamina 5–6, circa discum planum libera. Styli indivisi, elongati, clavati. Habitus *Phyllanthi.—Australia.*

†† *Bacca 3-locularis septis tenuibus v. evanidis. Seminum testa ventre duplex lacunam fovens.*

38. Fluggea. Stamina sæpius 5. Ovarii rudimentum in fl. ♂ evolutum. Styli 2-fidi. Frutices dioici, calyce *Phyllanthi.—Ind. or., Australia.*

39. Breynia. Filamenta 3 alte in columnam connata. Ovarii rudimentum in fl. ♂ 0. Styli indivisi v. 2-fidi. Frutices monoici, calyce ♂ turbinato supra plano fere clauso, ♀ demum explanato.—*Asia trop., Australia, ins. maris Pacifici.*

*** *Folia alterna. Flores apetali, ♂ ad axillas v. nodos glomerati. Calyx imbricatus. Stamina sæpe ∞. Styli valde dilatati, patentes. Fructus drupaceus, indehiscens, abortu 1-spermus, rarius 2-pyrenus 2-spermus, v. demum 3–4-coccus.*

40. Petalostigma. Filamenta ∞, basi in columnam connata, antheris erectis. Ovarii rudimentum in fl. ♂ 0. Pistillum sæpius 4-merum; styli in laminas planas patentes expansi. Fructus demum in coccos 2-valves dissiliens.—*Australia.*

41. Putranjiva. Stamina pauca in centro floris. Styli breves, patentes, in ramos latos carnosos expansi. Arbores monoici v. dioici.—*Ind. or.*

42. Drypetes. Stamina numero sepalorum æqualia v. subdupla, circa discum centralem planum concavum v. leviter convexum affixa. Ovarium 1–2-loculare; stigmata (v. styli) peltata v. reniformia, subsessilia. Arbores fruticesve dioici.—*Amer. trop.*

43. Forchhammeria. Stamina ∞, circa ovarii rudimentum affixa. Ovarium 2-loculare. Stigmata in discum sessilem orbiculatum sub-2-lobum connata. *Albumen* 0; *cotyledones convolutæ.* Arbor.—*Mexico.*

44. Hemicyclia. Stamina ∞, circa discum centralem latum concavum affixa. Ovarium 1-loculare; stigma (v. stylus) sessile, late reniforme v. orbiculatum. Arbores fruticesve dioici.—*Asia trop., Australia.*

45. Cyclostemon. Stamina ∞, circa discum centralem latum planum v. concavum affixa. Ovarium 2–4-loculare; styli breves v. brevissimi, stigmatibus crassis valde dilatatis (rarius elongatis?). Arbores dioici, ramis defoliatis sæpe floriferis.—*Asia et Afr. trop.*

**** *Folia opposita v. verticillata, indivisa. Flores apetali, ♂ ad axillas fasciculati v. in racemulis brevibus densis v. cymulosis fasciculatis ramosisve dispositi, ♀ pauci subsessiles v. pedicellati. Calyx imbricatus. Capsula in coccos 2-valves dissiliens (v. rarius valvatim dehiscens?).*

† *Folia omnia opposita.*

46. DISSILIARIA. Sepala 4–6. Filamenta 4–∞, brevissima. Ovarii rudimentum in fl. ♂ 0. Styli lineares, indivisi. Florum fasciculi axillares v. subterminales.—*Australia.*

47. LONGETIA. Sepala 6 rarius 5. Filamenta 10–18, calyce longiora. Ovarii rudimentum v. receptaculum centrale prominens. Styli brevissimi, lati, crassi. Inflorescentia ♂ axillaris, umbellulis sessilibus v. pedunculatis.—*Nov. Caled.*

48. BURÆAVIA. Sepala 4. Filamenta 8–12, calyce longiora. Styli brevissimi, lati, patentes. —*Nov. Caled., ins. Fiji.*

49. CHORIOPHYLLUM. Sepala 4, rarius 5–6. Filamenta 4, calyce longiora. Styli brevissimi, lati, crassi. Inflorescentia ♂ axillaris, laxe racemoso-cymulosa.—*Archip. Malay.*

†† *Folia sæpius (nec semper) 3–4-natim verticillata.*

50. TOXICODENDRON. Sepala 5–12, brevia et irregularia. Stamina ∞, dense conferta, filamentis brevissimis, antheris magnis erectis, loculis late 2-valvibus. Styli basi connati, apice patentes, crassi, indivisi. Capsula crassa, dura. Inflorescentia ♂ axillaris, dense cymulosa v. breviter racemosa.—*Afr. aust.*

51. MISCHODON. Sepala 5–8. Stamina 5–10, filamentis filiformibus. Styli plani, patentes, obovati, crassiusculi. Inflorescentia ♂ axillaris, dense breviterque paniculata.—*Zeylania.*

***** *Folia opposita v. alterna, digitatim foliolata. Cymulæ racemi v. paniculæ axillares v. laterales. Flores apetali.*

52. OLDFIELDIA. Calyx ♂ parvus, breviter 5–7-fidus. Stamina 4–10, circa discum crassum. Capsula globosa, dura, loculicide 2-valvis. Folia opposita, 5–7-foliolata. Cymulæ ♂ laxæ, pedunculatæ.—*Afr. trop. occid.*

53. BISCHOFIA. Sepala 5. Stamina 5, filamentis brevibus antheris magnis. Styli lineares, indivisi. Fructus subbaccatus, indehiscens. Folia alterna, 3-foliolata. Racemi paniculato-ramosi.—*Asia trop., ins. maris Pacifici.*

54. PIRANHEA. Calycis lobi v. segmenta 4–6. Stamina 1–10, filamentis tenuibus, antheris parvis. Styli lineares, indivisi. Capsula 3-cocca. Folia alterna, 3-foliolata. Racemi simplices.—*Bras. bor., Guiana.*

****** *Folia alterna, indivisa. Racemi v. spicæ ♂ amentiformes v. tenues simplicesque, v. paniculato-ramosi, axillares laterales v. rarius simul subterminales. Flores dioici, rarissime petaliferi.*

‡ *Fructus carnosus v. demum induratus, indehiscens v. rarissime loculicide 2-valvis.*

55. UAPACA. Amenta ♂ subglobosa et flores ♀ solitarii, *primum involucro 4–6-phyllo demum reflexo inclusa.* Calyx minimus v. 0. Stamina circa rudimentum ovarii 4–5. Ovarium sæpius 3-loculare, stylis apice dilatatis ramosis.—*Afr. trop., Madagasc.*

56. APOROSA. Amenta ♂ densa, cylindracea. Spicæ ♀ breves. Stamina 2–5 in centro floris, ovarii rudimento minuto v. 0. Ovarium 2–3-loculare, stylis 2-fidis sæpe laciniatis.—*Asia trop.*

57. DAPHNIPHYLLUM. Racemi ♂ et ♀ laxiusculi. Stamina 5–18 in centro floris conferta, filamentis brevibus, antheris magnis 2-valvibus. Ovarii rudimentum in fl. ♂ 0. Ovarium 2-loculare, stylis crassiusculis indivisis. Embryo parvus.—*Asia trop., Archip. Malay.*

58. BACCAUREA. Racemi v. spicæ utriusque sexus tenues simplices v. ♂ ramosi. Stamina circa ovarii rudimentum 4–5 v. rarius numero dupla. Ovarium sæpius 3-loculare, stylis v. stigmatibus brevibus crassis v. planis apice sæpius brevissime lobatis v. fimbriatis.—*Asia trop., ins. maris Pacifici.*

59. COMETIA. Amenta ♂ densa, cylindracea. Racemi ♀ pauciflori. Stamina 3–5, sub ovarii rudimento apice dilatato. Ovarium 1-loculare, stylo dilatato suborbiculari excentrico carnosulo. —*Madagasc.*

60. ANTIDESMA. Spicæ utriusque sexus tenues, simplices v. paniculato-ramosæ. Calyx alte divisus. Stamina circa ovarii rudimentum 2–5. Ovarium 1-loculare, stylis 3 sæpissime 2-lobis.—*Asia et Afr. trop., ins. maris Pacifici.*

61. HIERONYMA. Racemi utriusque sexus pedicellis brevissimis tenues, paniculato-ramosi. Calyx sinuato-dentatus. Discus fl. ♂ cupulatus v. cyathiformis. Stamina circa rudimentum ovarii 2-5. Ovarium sæpius 2-loculare, stylis brevibus 2-partitis. Indumentum sæpe lepidotum.—*Amer. trop.*

62. MÆSOBOTRYA. Racemi utriusque sexus tenues, simplices v. fasciculati. Calyx 5-fidus. Stamina circa rudimentum ovarii 5, disci glandulis 5 alterna. Ovarium 2-loculare, stylis brevibus 2-fidis.—*Afr. trop.*

63. ÆXTOXICON. Racemi simplices. Sepala distincta, valde imbricata. *Petala calycem æquantia.* Stamina circa rudimentum ovarii ad 5. Ovarium 1-loculare, stylo unico. Indumentum insigniter lepidotum.—*Chile.*

†† *Capsulæ cocci a columella persistente dissilientes.*

64. HYMENOCARDIA. Spicæ ♂ amentiformes; racemi ♀ breves, laxi. Stamina 4–5, filamentis in centro floris sub ovarii rudimento sæpius connatis. Ovarium 2-loculare, septo contrarie compressum, stylis linearibus indivisis. Cocci *plani, samaroidei,* margine interiore post casum hiantes.—*Asia et Afr. trop.*

65. RICHERIA. Racemi v. spicæ ♂ tenues, ♀ breves, densi. Stamina circa rudimentum ovarii 3–4. Ovarium 3-loculare, stylis brevibus crassis latis integris v. breviter 2-fidis.—*Amer. trop.*

66. THECACORIS. Racemi utriusque sexus pedicellis brevibus tenues. *Petala sæpius adsunt minima.* Stamina circa rudimentum ovarii 5. Ovarium 3-loculare, stylis longiusculis apice 2-fidis.—*Afr. trop., Madagasc.*

67. CYATHOGYNE. *Caulis herbaceus.* Racemi pedicellis brevissimis v. spicæ utriusque sexus tenues. Stamina circa ovarii rudimentum apice disciforme 5. Ovarium 3-loculare, stylis subintegris obtusis v. apice retusis.—*Afr. trop.*

Genus anomalum. Flores monoici, petaliferi.

68. DICŒLIA. Racemi longi, cymulis androgynis. Petala subvalvata, basi biconcava. Antheræ 5, loculis in cavis petalorum receptis demum exsertis.—*Borneo.*

Tribus V. Galearieæ. Perianthium duplex petalis calyce longioribus, v. calycinum 1-seriale. Stamina 1–2-serialia, seriei exterioris ut in *Phyllantheis* sepalis opposita, petalis alterna. Ovula in loculis ovarii ut in *Crotoneis* solitaria. Ovarii rudimentum in fl. ♂ sæpissime evolutum. Tribus forte nimis artificialis sed genera nec sub *Phyllantheis* nec sub *Crotoneis* bene militant.

69. GALEARIA. Racemi terminales, simplices, tenues. Flores 5-meri. Petala subvalvata. Stamina 10; antheræ variæ. Drupa transversim oblonga, indehiscens.—*Penins. et Archip. Malay.*

70. MICRODESMIS. Flores ad axillas dense fasciculati, 5-meri, petaliferi. Petala imbricata. Stamina 5 v. 10; antherarum loculi paralleli. Drupa subglobosa, indehiscens.—*Afr. et Asia trop.*

71. POGONOPHORA. Racemi axillares, paniculati. Sepala, petala et stamina 5; antheræ lineares, loculis adnatis. Capsula 3-cocca.—*Amer. trop.*

72. TETRORCHIDIUM. Racemi axillares, simplices v. subramosi. Sepala 3. Petala 0. Antheræ 3, subsessiles, 4-locellatæ, 4-valves. Capsula 2–3-cocca.—*Amer. trop.*

Tribus VI. Crotoneæ. Perianthium ♂ nunc calycinum 1- v. rarius 2-seriale, nunc duplex, petalis sæpe calycem excedentibus. Stamina 1–2-serialia, seriei exterioris sepalis alterna, v. sæpius in centro floris ∞, pauca (interdum 1–2) v. numerosa nunc numerosissima. Ovula in loculis ovarii solitaria. Cotyledones radicula multo latiores. Inflorescentia varia, sæpius racemoso-spicata v. paniculata.

Subtribus 1. Jatropheæ. *Paniculæ 2–3-chotome cymosæ, rarius ad fasciculum terminalem reductæ, androgynæ flore centrali fœmineo, v. unisexuales.*

* *Flores apetali.*

73. ELATERIOSPERMUM. Folia integra, pennivenia. Paniculæ pauciflores, laxæ. Sepala valde imbricata. Stamina 10–18, receptaculo villoso. Ovarii rudimentum 0.—*Penins. et Archip. Malay.*

74. CUNURIA. Folia integra, pennivenia. Paniculæ pauciflores. Sepala valde imbricata. Stamina 10, receptaculo valde elevato. Ovarii rudimentum staminibus subæquale.—*Bras. bor.*

75. Micrandra. Folia integra, pennivenia. Paniculæ laxæ. Calyx vix imbricatus. Stamina 5. Ovarii rudimentum obscurum.—*Brasilia.*

76. Avellanita. Folia integra, subtriplinervia. Flores pauci in fasciculum terminalem dispositi. Calyx valvatus. Stamina numerosa.—*Chile.*

77. Hevea. Folia 3-foliolata. Paniculæ laxæ. Calyx 5-dentatus v. breviter 5-lobus. Stamina 5–10, filamentis sub ovarii rudimento in columnam connatis.—*Brasilia, Guiana.*

** *Flores ♂ petaliferi v. rarius calyce petaloideo apetali.*

78. Joannesia. Folia 5-foliolata. Paniculæ densæ. Calyx subvalvatus. Stamina 7–10. Drupa 2-locularis, indehiscens.—*Brasilia.*

79. Jatropha. Folia digitatim venosa v. lobata, rarius integerrima pennivenia. Flores paniculati v. fasciculati. Calyx imbricatus (in *Cnidoscolo* petalis deficientibus petaloideus). Stamina 10 v. pauciora v. in *Cnidoscolo* plura. Capsula 2–3-cocca.—*Orbis utriusque reg. calid. imprimis Amer. et Afr.*

80. Acidocroton. Folia integra, pennivenia, parva. Florum fasciculi simplices. Calyx parvus, patens. Stamina ∞. Capsula 2-cocca. Fruticulus aculeis geminis horridus.—*Cuba.*

81. Trigonostemon...

Sed: 81. Tritaxis. Folia integra, pennivenia. Cyma ∞-flora, laxa v. densa. Calycis lobi subimbricati. Staminum verticilli circa columnam centralem 1 v. 2, pentandri, staminibus 2 v. 3 columnam terminantibus. Capsula 3-cocca.—*Asia trop.*

82. Aleurites. Folia digitatim venosa, sæpe 3-loba. Paniculæ floribundæ. Calyx valvatim ruptus. Petala 5. Stamina ∞. Drupa indehiscens.—*Asia or., ins. maris Pacifici.*

83. Garcia. Folia integra, pennivenia. Florum fasciculi simplices (nunc ad florem unicum reducti). Calyx valvatim ruptus. Petala 8–12. Stamina ∞. Capsula 3-cocca.—*Amer. trop.*

Subtribus 2. Eucrotoneæ. *Racemi v. spicæ terminales, androgyni v. rarius unisexuales. Flores ♂ sæpissime petaliferi. Filamenta apice primum inflexa antheris adnatis in alabastro reversis, in flore aperto sæpe erectis.*

84. Croton. Sepala æqualia v. rarius inæqualia, inappendiculata, valvata v. leviter imbricata. Ovarium perfecte 3-loculare v. casu 2–4-loculare.—*Utriusque orbis reg. calid., Amer. bor.*

85. Julocroton. Sepala inæqualia, imbricata, exteriora floris ♀ sæpius dorso glandulis v. appendiculis 1–3 aucta. Spicæ quam in *Crotone* densiores.—*Amer. trop.*

86. Crotonopsis. Sepala subæqualia, imbricata. Styli 2–3, sed ovarium jam abortu 1-loculare, 1-ovulatum.—*Amer. bor.*

87. Eremocarpus. Sepala subæqualia, imbricata. Ovarium 1-loculare, 1-ovulatum, stylo unico longo simplici.—*Amer. bor.*

Subtribus 3. Chrozophoreæ. *Spicæ racemi v. rarius paniculæ racemiformes, axillares rarius terminales v. ad apices ramorum paniculati. Flores ♂ sæpissime petaliferi. Filamenta recta v. summo apice inflexa, antheris jam in alabastro erectis.*

* *Petala fl. ♂ in corollam 5-lobam v. ore sinuatam connata. Cymulæ laxiusculæ secus rhachin paniculæ racemiformis pedunculatæ. Stamina ∞.*

88. Givotia. Sepala fl. ♂ valde imbricata. Discus integer v. sinuato-lobatus. Drupa indehiscens. Folia integra, 5–9-nervia.—*Ind. or.*

89. Ricinodendron. Sepala fl. ♂ valde imbricata. Disci glandulæ 5, magnæ, stamina cingentes. Drupa indehiscens. Folia digitata.—*Afr. trop.*

90. Manniophyton. Calyx fl. ♂ valvatim ruptus. Disci glandulæ 5, pilosæ. Capsula 3-cocca. Folia integra v. 3–5-loba.—*Afr. trop.*

91. Pausandra. Calyx fl. ♂ breviter sinuato-lobatus. Discus cupularis, integer. Stamina 5–7, antherarum loculis connectivo latiusculo introrsum adnatis. Capsula dura, 3-cocca.—*Amer. trop.*

** *Petala libera. Calyx imbricatus v. apertus, truncatus v. dentatus.*

92. Trigonostemon. Stamina 3 v. 5, antheris ad apicem columnæ centralis sessilibus. Styli 2-fidi. Capsula 3-cocca. Racemi axillares v. rarius terminales.—*Ind. or., Archip. Malay.*

93. Paracroton. Stamina 15–20, filamentis in columnam connatis. Styli 2-fidi. Capsulæ

cocci et semina latiora quam longa. Folia repando-serrata. Racemi terminales, longissimi. —*Java*.

94. Ostodes. Stamina in receptaculo convexo v. columnari 15–30, filamentis distinctis. Styli 2-partiti. Capsulæ cocci tardius dissilientes. Flores ♂ secus rhachin racemi cymulosi.—*Ind. or.*, *Archip. Malay.*

95. Codiæum. Calyx parvus, appressus. Petala in fl. ♂ parva, in fl. ♀ 0. Stamina in receptaculo parum elevato 15–30, filamentis distinctis; antherarum loculi apice sæpius confluentes. Styli indivisi, subulati. Capsula 3-cocca. Racemi axillares, longi, tenues.—*Archip. Malay.*, *Australia*, *ins. maris Pacifici.*

96. Baloghia. Calyx per anthesin patens v. reflexus. Petala longiora. Stamina in receptaculo convexo conico v. columnari 10–100; antherarum loculi distincti, paralleli. Styli alte 2-∞-fidi. Capsula 3-cocca. Racemi terminales breves laxi.—*N. Caledon.*, *Australia.*

97. Alphandia. Calyx 5-dentatus. Petala longiora. Stamina in receptaculo conico ∞; antherarum loculi apice discreti. Styli 2-fidi. Capsula 3-cocca. Racemi terminales, longiusculi. —*Nova Caledonia.*

98. Fontainea. Calyx cyathiformis truncatus. Petala longiora. Stamina in receptaculo conico 25–30; antherarum loculi distincti, paralleli. Styli crassiusculi, indivisi. Drupa sæpius abortu 1-sperma, indehiscens. Racemi in axillis summis breves, laxi.—*N. Caledon.*, *Australia.*

99. Blachia. Fl. ♂: Sepala imbricata. Disci glandulæ petalis æquilongæ. Stamina in receptaculo convexo 10–20, filamentis distinctis; antherarum loculi apice confluentes. Fl. ♀: Sepala post anthesin aucta foliacea v. rarius decidua. Styli 2-partiti. Capsula 3-cocca. Racemi terminales.—*Ind. or.*, *China.*

100. Dimorphocalyx. Fl. ♀: Calyx breviter dentatus, petalis brevior. Stamina in receptaculo elevato v. columnari 10–20; antherarum loculi distincti. Fl. ♀: Calycis segmenta post anthesin valde aucta, foliacea. Styli 2-fidi. Capsula 3-cocca. Cymæ pauciflora, axillares v. terminales.—*Ind. or.*, *Archip. Malay.*

101. Sagotia. Fl. ♂: Sepala imbricata. Antheræ ultra 20, in receptaculo seriatim confertæ, subsessiles, loculis introrsum connectivo lato plano dissite adnatis. Fl. ♀: Sepala post anthesin valde aucta, patentia. Capsula loculicide 3-valvis. Racemi terminales.—*Brasilia bor.*, *Guiana.*

102. Cluytia. Fl. ♂: Sepala imbricata. Discus petalifer margine inter petala glandulis v. squamellis auctus. Stamina 5, infra apicem columnæ centralis verticillata. Capsula septicide 3-valvis. Flores ad axillas fasciculati v. ♀ solitarii.—*Afr. austr.*

*** *Petala libera. Calyx ♂ valvatus. Capsula 3-cocca.*

† *Ovarii rudimentum in fl. ♂.*

103. Agrostistachys. Stamina 8–13, filamentis basi subconnatis; antherarum loculi a connectivo glandulifero penduli. Styli breves, crassiusculi, 2-fidi. Spicæ axillares.—*Ind. or.*, *Afr. trop.*

104. Argithamnia. Stamina 4–10 rarius ad 15, filamentis breviter v. alte connatis; antheræ dorsifixæ, loculis parallelis. Styli breves, patentes, laciniati. Calyx sub fructu sæpe auctus. Spicæ axillares.—*Amer. trop. et subtrop.*

105. Caperonia. Stamina 10 v. pauciora, in columna 2-verticillata, petalis ad basin columnæ supra calycem elevatis; antheræ variæ. Styli breves, lacero-multifidi. Herbæ suffruticesve sæpius hispidæ. Racemi axillares, floribus secus rhachin dissitis.—*Amer. et Afr. trop.*

106. Pseudocroton. Stamina 16–30, circa rudimentum columnare dense lepidotum; antheræ erectæ, demum recurvæ. Frutex lepidotus. Racemi ♂ pauciflori, ad apices ramorum subpaniculati.—*Amer. centr.*

†† *Ovarii in fl. ♂ rudimentum 0.*

107. Sumbavia. Petala parva. Stamina numerosa. Styli indivisi. Arbores indumento stellari. Folia ampla, 3-nervia. Racemi spiciformes, axillares.—*Penins. et Archip. Malay.*

108. Tannodia. Stamina 10, basi breviter connata. Styli 2-fidi. Frutex glaber. Folia lata, 3–5-nervia. Racemi tenues, terminales.—*Madagascaria.*

109. Crotonogyne. Stamina in receptaculo elevato crasso 15–20. Styli 2-partiti. Frutex indumento lepidoto. Racemi longi, axillares.—*Afr. trop.*

110. Chrozophora. Stamina 5–15, basi in columnam connata. Styli 2-fidi. Herbæ

stellato-tomentosæ v. hispidæ. Spicæ breves, in axillis superioribus sessiles, densæ.—*Reg. Mediterr. Afr. et As. trop.*

111. SPERANSKIA. Petala brevia. Stamina 10–15, filamentis liberis; antherarum loculi subglobosi. Caulis herbaceus. Racemus terminalis.—*China bor.*

Subtribus 4. Adrianeæ. *Racemi v. spicæ omnes terminales, simplices. Flores apetali. Styli distincti v. basi brevissime connati. Capsula 3-cocca.*

* *Calyx ♂ sæpe coloratus, lobis imbricatis v. brevissimis.*

112. MANIHOT. Stamina 10; antheræ dorsifixæ. Styli patentes, varie dilatati. Folia sæpe lobata v. digitata. Racemi laxi. Flores majusculi.—*Amer. trop. imprimis Brasilia, in orbe vetere inquilina.*

** *Calyx ♂ in alabastro clausus, per anthesin valvatim fissus v. partitus.*

† *Ovarii in fl. ♂ rudimentum* 0.

113. ADRIANA. Stamina numerosa in receptaculo dense conferta; antheræ lineares, erectæ. Styli 2-fidi, fimbriati. Folia grosse dentata v. 3-loba.—*Australia.*

114. PACHYSTROMA. Stamina 3, filamentis in columnam connatis; antheræ magnæ, dorsifixæ. Styli crassi, recurvi, indivisi. Folia spinoso-dentata.—*Brasilia.*

†† *Ovarii rudimentum in fl. ♂ præsens.*

115. CEPHALOCROTON. Stamina 6–8, 2-seriata, filamentis bis flexis, antheræ dorsifixæ. Styli multifidi. Frutices indumento stellato. Flores ♂ ad apicem rhacheos in capitulum globosum conferti, ♀ ad basin racemi 1–2.—*Afr. trop.*

116. ADENACHLÆNA. Stamina 4 (v. 5–6?) 1-seriata, filamentis erectis; antheræ dorsifixæ. Styli multifidi. Frutices v. arbores, indumento stellato v. glabrescentes. Fl. ♂ in capitulum v. spicam elongatam dispositi, ♀ ad basin rhacheos pauci.—*Ind. or.*

Subtribus 5. Acalypheæ. *Racemi v. spicæ axillares v. ad apices ramorum paniculati, sæpius tenues simplices v. ramosi, v. rarius ad fasciculos sessiles axillares reducti. Flores apetali. Calyx ♂ valvatim partitus v. fissus v. rarius lobis brevibus leviter imbricatis. Styli distincti v. basi brevissime connati, in speciebus perpaucis altius in columnam tenuem connati.*

* *Calyx ♂ in alabastro clausus (exceptis* Adenocline *et* Hasskarlia). *Antheræ 2–4-globosæ, loculis 2 distinctis parvis globosis v. 2-globosis.*

117. BERNARDIA. Stamina pauca v. numerosa; antheræ cruciatim 4-globosæ. Styli brevissimi, integri v. laceri. Capsula 3-cocca. Frutices rarius herbæ. Florum fasciculi rarius spicæ tenues ad axillas sessiles.—*Amer. trop. et subtrop.*

118. ERYTHROCOCCA. Stamina pauca; antheræ 2-globosæ, loculis erectis. Styli plumoso-multifidi. Capsula abortu 1-locularis, 1-sperma, indehiscens. Frutex tenuis, aculeis infrastipularibus. Inflorescentia axillaris, fasciculata.—*Afr. trop.*

119. HASSKARLIA. Stamina 3; antheræ 4-globosæ, loculis erectis. Disci hypogyni squamæ 3, subpetaloideæ. Styli plani in orbem subsessilem patentes. Capsula 3-cocca. Arbor v. frutex. Spicæ ♂ amentiformes, axillares v. laterales.—*Afr. trop.*

120. CLAOXYLON. Stamina sæpius numerosa; antherarum loculi 2, obovoidei v. globosi, erecti. Disci hypogyni squamæ 3 sæpe subpetaloideæ. Styli lineares, indivisi. Capsula 3–2-cocca. Arbores v. frutices. Spicæ axillares v. laterales, sæpius tenues.—*Afr., Asia et Australia trop., ins. maris Pacifici.*

121. MICROCOCCA. Stamina 3–10; antheræ *Claoxyli.* Disci hypogyni laminæ 3, lineares. Styli breves, lineares, indivisi. Capsula 3–4-cocca. Herba foliis alternis. Racemi ♂ axillares, filiformes.—*Afr. et Asia trop.*

122. MERCURIALIS. Stamina 8–20; antherarum loculi subglobosi, divaricati. Disci hypogyni laminæ 3, lineari-subulatæ. Styli breves, indivisi. Capsula 2-cocca. Herbæ foliis oppositis. Racemi ♂ axillares tenues.—*Eur., Reg. Medit., Asia or., alibi inquilina.*

123. LEIDESIA. Stamina 4–7; antherarum loculi subglobosi, divaricati. Fl. ♀: Calyx 0 v. squamula minuta. Styli lineares, indivisi. Capsula 1–2-cocca. Herba tenera foliis alternis. Racemi filiformes, terminales.—*Afr. austr.*

124. Adenocline. Stamina 6–12; antherarum loculi subglobosi, divaricati. Styli tenues, 2-partiti. Capsula 3-cocca. Herbæ teneræ, foliis alternis v. rarius oppositis. Inflorescentiæ axillares v. foliis floralibus diminutis in racemum terminalem abeuntes.—*Afr. austr.*

125. Seidelia. Stamina 2–3; antherarum loculi fere 2-globosi. Fl. ♀ calyx 3-fidus. Styli tenues, indivisi. Herba pumila, foliis alternis angustis. Florum fasciculi v. cymulæ axillares v. subterminales.—*Afr. austr.*

** *Calyx ♂ in alabastro clausus. Antherarum loculi sæpius stipitati, demum flexuosi, apice dehiscentes. Styli sæpius laceri v. plumosi.*

126. Acalypha. Stamina sæpissime 8. Fl. ♀ sæpius intra bracteam foliaceam sessiles, sepalis 3–4 parvis. Herbæ frutices v. arbores, habitu et inflorescentia variis.—*Utriusque orbis reg. calid.*

127. Mareya. Stamina 10–20. Fl. ♀ bractea parva, sepala 4–6. Spicæ longæ, tenues.—*Afr. trop.*

*** *Calyx ♂ in alabastro clausus. Antherarum loculi oblongi, undique v. supra medium adnati, paralleli v. divergentes. Arbores fruticesve.*

† *Stamina sæpius pauca. Capsula 3-cocca.*

128. Adelia. Stamina 8–15; antherarum loculi contigui, paralleli. Ovarii rudimentum in fl. ♂ 0. Styli laceri. Frutices rarius spinescentes. Flores ad axillas fasciculati.—*Amer. trop.*

129. Leucocroton. Stamina 6–10; antherarum loculi contigui, paralleli. Ovarii rudimentum in fl. ♂ villosulum. Styli breves, crassi, sub-2-lobi. Indumentum breviter stellatum v. sublepidotum. Racemi axillares, breves.—*Cuba.*

130. Chloradenia. Stamina 3–5; antherarum loculi contigui, paralleli. Ovarii rudimentum in fl. ♂ angustum. Styli basi longiuscule connati, superne 2-partiti. Indumentum stellatum. Folia ampla, subpeltata. Racemi axillares, breves.—*Java.*

131. Cœlodepas. Stamina 4–5, filamentis crassis cuneatis connatis; antherarum loculi penduli v. divergentes. Ovarii rudimentum in fl. ♂ parvum. Styli patentes, complanati, 2-fidi. Arbores glabræ. Folia pennivenia. Spicæ ♂ ad axillas fasciculatæ, elongatæ.—*Ind. or., Java.*

132. Bocquillonia. Stamina 2–3, filamentis basi connatis; antherarum loculi contigui, paralleli. Ovarii rudimentum in fl. ♂ 0. Styli lati, patentes, ovarii vertici appressi. Folia pennivenia. Flores ♂ minuti, in capitula globosa lateralia sessilia densissime conferta.—*Nov. Caled.*

133. Adenophædra. Stamina 2–3, filamentis basi connatis; antherarum loculi a connectivo acuminato penduli. Ovarii rudimentum in fl. ♂ 0. Styli in discum ovarii vertici adnatum connati. Folia pennivenia. Spicæ ♂ tenues, simplices, axillares.—*Brasilia.*

134. Caryodendron. Stamina 4–6, circa discum crassum latum affixa; antherarum loculi contigui, paralleli. Flores ♀ ignoti. Arbores. Racemi longi, ad apices ramorum parce ramosi. —*Amer. trop.*

135. Alchornea. Stamina 8 v. pauciora; antherarum loculi contigui, paralleli. Ovarii rudimentum in fl. ♂ 0. Styli lineares, sæpius indivisi. Folia pennivenia v. basi 3–5-nervia. Spicæ v. racemi tenues, axillares v. laterales, simplices v. paniculato-ramosæ.—*Utriusque orbis reg. calid.*

136. Alchorneopsis. Ovarii rudimentum in fl. ♂ 3-partitum. Cætera *Alchorneæ.*—*Brasil. bor., Guiana.*

137. Lepidoturus. Stamina 8; antherarum loculi contigui, paralleli. Ovarii rudimentum in fl. ♂ 0. Styli 2-fidi. Folia 3–5-nervia. Spicæ ♂ amentiformes, laterales, sessiles, bracteis subimbricatis.—*Afr. trop., Madagasc.*

(Confer etiam 172, Tragiæ species paucas stylorum columna brevi.)

†† *Stamina numerosa rarissime infra 15. Ovarii rudimentum in fl. ♂ 0. Fructus varius.*

a. Americanæ.

138. Conceveiba. Filamenta interiora elongata, flexuosa; antherarum loculi connectivo lato separati. Calyx ♀ extus basi glandulis magnis auctus. Styli crassi, retusi v. vix 2-fidi. Capsula magna, suberosa, 3-cocca. Racemi ♂ tenues ad apices ramorum paniculati, ♀ simplices floribus crasse pedicellatis.—*Amer. trop.*

139. GAVARRETIA. Fl. ♂ ignoti. Calyx ♀ truncatus, eglandulosus. Styli 2–4-fidi. Spica ♀ simplex, elongata, floribus sessilibus. Folia rigide coriacea.—*Brasilia bor.*

140. LASIOCROTON. Filamenta recta; antherarum loculi contigui, paralleli. Calyx fl. ♀ patens, 5-fidus, eglandulosus. Styli breves, crassi, retusi v. brevissime fimbriati. Capsula 3-cocca. Habitus *Malloti*. Folia tomentosa, 3–5-nervia. Racemi axillares, ♂ breves densi, ♀ elongati laxi.—*Jamaica.*

b. *Gerontogeæ.*

141. NEOBOUTONIA. Antheræ erectæ, filamentis brevissimis, loculis adnatis parallelis. Styli rigidi, 2-partiti. Fructus . . . Folia lata, 7–9-nervia. Racemi ♂ longi, tenues, ad apices ramorum paniculati.—*Afr. trop.*

142. CŒLODISCUS. Receptaculum disciforme in centro floris elevatum. Cætera *Malloti*.—*Ind. or.*

143. PODADENIA. Antherarum loculi a connectivo acuminato penduli. Styli elongati, indivisi. Capsula globosa, carnosa, indehiscens, glandulis stipitatis densissime echinata. Folia pennivenia.—*Zeylania.*

144. TREWIA. Antherarum loculi paralleli, contigui. Styli longe lineares, indivisi. Capsula carnosa, 2–4-locularis, indehiscens v. loculicide 2–4-valvis. Folia 3–5-nervia.—*Ind. or.*

145. COCCOCERAS. Capsula depressa, 3-angulata v. 3-cornuta, loculicide dehiscens. Cætera *Malloti*.—*Malay. Penins. et Archip.*

146. MALLOTUS. Antherarum loculi paralleli, contigui v. connectivo late sejuncti. Styli indivisi, sæpius fimbriati. Capsula 2–3-cocca. Folia alterna rarissime opposita, nunc peltata v. 3–7-nervia, interdum 3-loba, nunc integerrima pennivenia. Spicæ v. racemi simplices v. paniculato-ramosæ, axillares v. ad apices ramorum paniculatæ.—*Asia trop. et Australia, in Afr. trop. paucæ.*

**** *Calyx in alabastro clausus. Antheræ sæpissime 4-locellatæ.*

147. CLEIDION. Stamina ultra 20. Styli longi, 2-fidi. Capsula 2–3-cocca. Habitus et inflorescentia *Malloti*.—*Amer., Afr. et Asia trop.*

148. MACARANGA. Stamina pauca v. numerosa. Styli sæpius breves, patentes, indivisi. Capsula nunc 2-cocca nunc 1-cocca, tardius v. vix dehiscens. Folia peltata v. 3–7-nervia, interdum lobata rarius pennivenia. Racemi v. spicæ sæpius paniculati nunc ramosissimi, laterales v. terminales.—*Asia et Afr. trop., ins. maris Pacifici.*

***** *Calyx ♂ in alabastro clausus. Stamina numerosissima, filamentis repetito-ramosissimis, antheris 2-globosis. Capsula 3-cocca.*

149. RICINUS. Calyx ♀ spathaceo-fissus. Caulis elatus, herbaceus. Folia palmatim 7–∞-loba. Racemi ad apices ramorum subpaniculati, floribus majusculis.—*Utriusque orbis reg. calid. sed sæpe inquilina.*

150. HOMONOIA. Sepala fl. ♀ angusta, imbricata. Frutices foliis angustis v. parvis penniveniis. Spicæ axillares, densifloræ v. abbreviatæ.—*Ind. or., Archip. Malay.*

****** *Calyx ♂ breviter lobatus v. subimbricatus jam ante anthesin apertus.*

151. CHEILOSA. Calyx ♂ 5-partitus. Stamina 5–10; antherarum loculi breves connectivo disjuncti. Ovarii rudimentum in fl. ♂ obtusum v. 3-fidum. Styli apice 2-fidi. Capsula 3-cocca. Folia pennivenia. Racemi ♂ laxi, axillares v. laterales, tenues, foliis breviores.—*Java.*

152. ENDOSPERMUM. Calyx ♂ 4-dentatus. Stamina 6–10; antherarum loculi didymi, 4-valves. Styli in discum planum connati. Fructus didymus, in coccos indehiscentes secedens. Folia lata, 3–5-nervia. Racemi axillares lateralesque, utriusque sexus longiusculi.—*Archip. Malay., China austr.*

153. CEPHALOMAPPA. Calyx ♂ turbinatus, breviter 2–5-fidus. Stamina 2–4. Styli basi connati, superne recurvo-patentes, incisi v. 2-fidi. Folia pennivenia. Racemi axillares, breviter paniculati; fl. ♂ in capitula globosa moriformia dense conferti, ♀ solitarii.—*Borneo.*

(Vide etiam 119, HASSKARLIAM; et 124, ADENOCLINEM.)

Genera non satis nota.

154? CLADOGYNOS. Calyx ♂ coloratus, 2–3-partitus. Stamina 4, filamentis basi connatis. Styli ramosi, glanduloso-plumosi. Folia subpeltata, sub-3-loba. Flores ♂ capitato-congesti, ♀ longe pedicellati, calyce foliaceo 6-fido.—*Archip. Malay.*

155? Calpigyne. Calyx ♂ rotatus, 4-fidus. Stamina 4, filamentis basi connatis. Styli 2-fidi, eroso-lacerati. Folia oblonga, integerrima v. serrulata. Spicæ filiformes, floribus ♂ glomeratis.—*Celebes, Borneo.*

156? Cocconerium. Flores ♀ ad axillas solitarii et cum foliis verticillati, sepalis 5 valvatis. Styli bis terve 2-fidi. Capsula 3-cocca.—*Nov. Caled.*

Subtribus 6. Gelonieæ. *Spicæ v. glomeruli rarius racemi axillares v. oppositifolii. Flores apetali. Calyx ♂ valde imbricatus. Stamina ∞, centralia. Styli plus minus 2-fidi et (excepto* Erismantho) *distincti v. vix basi connati.*

157. Chætocarpus. Stamina 5–20, filamentis in columnam alte connatis. Ovarii rudimentum in fl. ♂ 3-fidum. Styli 2-partiti. Capsula echinato-setosa v. tuberculata, 3-cocca. Folia alterna, coriacea. Florum glomeruli axillares, densi.—*Asia et Amer. trop.*

158. Mettenia. Stamina (7?), filamentis in columnam alte connatis. Styli 2-partiti. Capsula tuberculoso-echinata, in valvas 2-partitas dissiliens, seminibus in columella diu persistentibus. Folia alterna. Florum glomeruli in axillis superioribus sessiles, racemum terminalem basi foliatum formantes.—*Ind. occid.*

159. Gelonium. Stamina 10–60, filamentis liberis; antheræ dorsifixæ. Styli breves, patentes, brevissime 2-fidi v. laceri. Fructus globoso-sub-3-queter, vix tardius dehiscens. Folia alterna. Florum fasciculi v. glomeruli oppositifolii. —*Asia calid., Africa trop. et austr.*

160. Baliospermum. Stamina 10–60, filamentis liberis; antheræ terminales, loculis adnatis. Styli breves, crassi, recurvi, 2-fidi. Capsula 3-dyma, 3-cocca. Folia alterna, sæpius dentata v. sublobata. Racemi axillares, breves densique v. longi laxi v. subpaniculati.—*Ind. or., Archip. Malay.*

161? Phyllobotryum. Stamina 20–50, filamentis liberis apice dilatatis; antherarum loculi divaricati, demum transversim 2-valvati. (Fl. ♀ ignoti). Folia alterna. Racemi ♂ breves, folii costæ adnati, pauciflori.—*Africa trop.*

162. Erismanthus. Stamina ad 12, filamentis liberis; antheræ erectæ, loculis adnatis. Sepala ♀ magna, foliacea. Styli basi in columnam tenuem connati, superne patentes 2-fidi. Folia opposita, subsessilia, oblique cordata. Spicæ ♂ ad axillas sessiles, amentiformes. Fl. ♀ solitarii, pedunculati.—*Penang.*

Subtribus 7. Plukenetieæ. *Spicæ v. racemi axillares v. rarius subterminales. Flores apetali. Calyx ♂ valvatus; ♀ imbricatus v. reduplicato-valvatus (exceptis* Tragiis *paucis). Stylus cum ovario continuus, elongatus v. crassus cavusque, sæpius carnosus, apice breviter nunc brevissime lobatus.*

* *Frutices v. arbores erecti, foliis sæpius amplis ad apices ramorum confertis, rarius sparsis.*

163. Epiprinus. Stamina 8–15, filamentis superne inflexis; antheræ magnæ, dorsifixæ, erectæ. Calycis ♀ segmenta 5–6, reduplicato-valvata, demum valde aucta, foliacea, squamulis totidem exterioribus alterna. Stylus longe columnaris. Spicæ v. racemi terminales et in axillis summis, floribus ♀ in parte inferiore.—*Malacca.*

164. Pycnocoma. Stamina numerosa, filamentis in alabastro sæpius flexuosis; antheræ terminales, parvæ. Sepala ♀ imbricata. Stylus longe columnaris. Racemi in axillis superioribus, floribus ♀ sæpe terminalibus.—*Afr. trop.*

165. Ramelia. Stamina 2–3, filamentis incurvis. Sepala ♀ imbricata. Stylus superne infundibularis. Spicæ unisexuales, laterales et terminales.—*Nov. Caled.*

166. Astrococcus. Stamina 4 (v. 6–8?) filamentis erectis; antheræ basifixæ. Sepala ♀ imbricata. Ovarii loculi et capsulæ cocci stellato-patentes. Stylus oblongus, apice cavus. Racemi graciles, axillares v. laterales, floribus ♀ in parte inferiore cum uno sæpe terminali.—*Brasil. bor.*

167. Angostylis. Stamina 15–25, receptaculo fere columnari, filamentis brevibus; antheræ basifixæ. Sepala ♀ imbricata. Styli columna cava, suburceolata. Capsula 3-dyma, urceolo stylari coronata, 3-cocca. Flores majusculi, ♂ ad nodos 2–3-ni, pedicellati, ♀ axillares, solitarii, longe pedicellati.—*Brasil. bor.*

** *Caules volubiles v. alte scandentes v. herbacei breviterque ascendentes, in speciebus perpaucis laxe arborescentes.*

168. Sphærostylis. Stamina 3, filamentis in columnam connatis; antheræ erectæ. Sepala

♀ vix imbricata. Stylus globosus. Frutex scandens. Racemi spiciformes, axillares terminalesque.—*Madagascaria.*

169. PLUKENETIA. Stamina 8–30, toro convexo globoso v. elongato affixa; antheræ erectæ. *Sepala ♀ imbricata. Ovarium sæpe 4-loculare. Stylus globosus v. cylindraceus.* Frutices suffruticesve volubiles v. scandentes (excepta *P. conophora*). Racemi axillares v. laterales.—*Utriusque orbis reg. calid.*

170. ACIDOTON. Stamina numerosa, toro elevato carnoso affixa; antheræ erectæ. Sepala ♀ imbricata. Styli columna crassa. Arbuscula laxe ramosa, pilis urentibus. Flores axillares, ♂ pedicellati fasciculati, ♀ secus rhachin spicæ subsessiles.—*Jamaica.*

171. PLATYGYNE. Stamina 4–8, sæpius 5; antheræ ovatæ. Sepala ♀ imbricata. Styli columna crassa. Frutex volubilis, pilis urentibus. Folia angusta. Flores subterminales v. laterales, ♂ pedicellati fasciculati, ♀ sessiles solitarii v. gemini.—*Cuba.*

172. TRAGIA. Stamina 3 v. pauciora, rarius ∞; antheræ ovatæ v. oblongæ. Sepala ♀ imbricata, interdum pinnatifida. Styli in columnam interdum tenuem v. brevem connati, apice liberi indivisi. Herbæ suffruticesve scandentes v. volubiles, rarius caulibus breviter ascendentibus. Pili sæpe urentes. Racemi terminales oppositifolii v. axillares. Flores sæpe dissiti, inferiores ♀.—*Utriusque orbis reg. calid., Afr. austr., Amer. bor.*

173. CNESMONE. Stamina 3, filamentibus brevibus crassis, antherarum connectivum ultra loculos productum. Calycis ♀ segmenta 3, vix imbricata. Styli carnosi basi in massam brevem latam connati. Frutex alte scandens villosus. Inflorescentia *Tragiæ.—Ind. or., Archip. Malay.*

174. DALECHAMPIA. Stamina sæpius 20–30, toro convexo v. columnari affixa. Calyx ♀ 5–12-partitus. Stylorum columna longa carnosa. Frutices suffruticesve volubiles alte scandentes v. rarius suberecti. Racemi sæpius in capitula axillaria contracti, bracteis 2 magnis sæpe coloratis involucrati, v. rarius basi laxe bracteati.—*Utriusque orbis imprimis Americæ reg. calid.*

(*Hippomaneæ* plurimæ, imprimis generum polyandrorum, stylum *Plukenetiearum* ostendunt, et stylus basi tenuiter columnaris est in speciebus paucis *Acalyphearum.*)

Subtribus 8. Hippomaneæ. *Spicæ v. racemi axillares v. terminales, interdum paniculati. Flores apetali. Calyx ♂ parvus, jam ante anthesin apertus, nunc minimus v. 0. Stylus varius, nunc columnaris apice ramosus, nunc a basi in stylos distinctos divisus.*

* *Bracteæ flores subtendentes nudæ v. sæpe 2-glandulosæ.*

† *Stamina ∞ (6–50, rarissime pauciora), filamentis (excepta* Trisyngyni*) brevissimis.*

175. MABEA. Calyx ♂ 5-lobus. Ovarium 3-loculare. Styli in columnam longam alte coaliti, superne tenues indivisi. Capsula 3-cocca. Racemi terminales, floribundi, sæpe compositi, floribus ♀ ad basin racemi paucis.—*Amer. trop.*

176. HOMALANTHUS. Calyx ♂ compressus, late 2-partitus. Antherarum loculi breves, divaricati, vertice 2-valvatim dehiscentes. Ovarium sæpius 2-loculare. Styli distincti, lineares, indivisi. Capsula carnosa, indehiscens v. vix demum in coccos dorso 2-valves secedens. Racemi terminales, indivisi, floribus ♀ ad basin racemi paucis.—*Archip. Malay., ins. Pacif., Australia.*

177. PIMELEODENDRON. Calyx ♂ compressus, late brevissimeque 2-fidus. Antheræ terminales, latæ, truncatæ, loculis divergentibus extrorsum adnatis. Racemi laterales v. subaxillares. (Fl. ♂ soli noti).—*Archip. Malay.*

178. SENEFELDERA. Calyx ♂ breviter lateque 3–5-lobum. Ovarium 3-loculare. Styli basi in columnam brevem crassam coaliti, superne recurvo-patentes crassiusculi indivisi. Capsula 3-cocca. Spicæ ad apices ramorum paniculatæ.—*Brasilia.*

179. TRISYNGYNE. Calyx ♂ tubulosus, 4–5-dentatus. Filamenta subulata; antheræ lineares. Ovarium 2-loculare. Stylus columnaris, apice 2-lobus.—*Nov. Caled.*

†† *Stamina 1–2, rarius 3 (in* Actinostemone *∞).*

a. *Sepala ♂ 4–5, lata, valde imbricata.*

180. OMPHALEA. Staminum columna brevissima, apice filiformi-dilatata, 2–3-loba; antherarum loculis margini loborum adnatis. Ovarium 3-loculare; stylus columnaris, obtusus v. brevissime 3-lobus. Frutices scandentes. Panicula terminalis.—*Amer. trop., Madagasc.*

b. *Calyx ♂ breviter sæpius brevissime lobatus.*

181. OPHTHALMOBLAPTON. Stamen 1, e fundo calycis exsertum. Ovarium 3-loculare; stylus columnaris, superne crassus, breviter 3-lobus. Capsula 3-cocca. Arbores. Spicæ ♂ breves et flores ♀ axillares v. laterales.—*Brasilia.*

182. HIPPOMANE. Stamina 2, in columnam connata. Ovarium 6–9-loculare; styli basi connati, superne stellato-patentes, recurvi, indivisi. Drupa ∞-locularis, indehiscens. Arbor. Spicæ terminales, rhachi crassa.—*Amer. trop. maritim.*

183. MAPROUNEA. Filamenta alte connata. Ovarium 3-loculare; styli alte connati, superne breviter patentes, indivisi. Capsula 3-cocca. Frutices. Spicæ densæ, capituliformes, ovoideæ v. subglobosæ.—*Amer. et Afr. trop.*

184. STILLINGIA. Filamenta libera. Ovarium 2–3-loculare; styli basi breviter connati, indivisi. Capsula 2–3-cocca, columella nulla, receptaculo tamen post coccos delapsos persistente indurato patentim 2–3-cornuto. Frutices. Spicæ terminales. Bracteæ 2-glandulosæ.—*Amer. bor. et austr., ins. Mascar. et maris Pacifici.*

185. SAPIUM. Filamenta libera. Ovarium 2–3-loculare. Styli liberi v. basi breviter connati. Capsula demum loculicide dehiscens, seminibus sæpissime diu in columellam persistentibus. Arbores fruticesve. Spicæ v. racemi terminales, simplices v. paniculatæ. Bracteæ sæpe 2-glandulosæ.—*Utriusque orbis reg. calid.*

186. BONANIA. Filamenta libera. Ovarium 2-loculare. Styli liberi v. basi breviter connati. Capsula in valvas 3 2-partitas dehiscens. Fruticuli, spicis racemulisve axillaribus (rarius terminalibus?) tenuibus brevibus.—*Cuba.*

c. *Calyx ♂ a basi 3-partitus, rarius alte 3–5-fidus.*

187. DITTA. (Fl. ♂ ignoti.) Ovarium 2-loculare, stylis brevissimis crassis 2-lobis. Habitus *Bonaniæ.* Fructus 2-coccus *Excæcariæ.*—*Cuba.*

188. SEBASTIANIA. Calyx ♂ quam in *Excæcaria* sæpius magis evolutus. Semina strophiolata. Frutices tenues v. herbæ. Racemi v. spicæ terminales v. simul axillares v. laterales. Cætera *Excæcariæ.*—*Amer. trop. et subtrop. et Afr. trop. occid., una specie Asia et Afr. trop.*

189. EXCŒCARIA. Filamenta libera. Styli basi breviter connati, indivisi. Capsula in coccos 2-valves v. vix dehiscentes dissiliens, columella persistente. Semina estrophiolata. Arbores fruticesve. Racemi v. spicæ axillares laterales v. rarius terminales.—*Asia, Australia, Afr. trop. et subtrop.*

(Confer etiam 72, TETRORCHIDIUM, antheris 4-valvibus sepalis oppositis.)

d. *Calyx ♂ rudimentarius v. sæpius omnino deficiens.*

190. GYMNANTHES. Stamina 2–3, filamentis liberis v. vix basi connatis. Ovarium 3-loculare. Styli liberi v. brevissime connati, indivisi. Capsula 3-cocca, columella persistente. Frutices. Racemi v. spicæ axillares, rarius simul terminales.—*Ind. occid., Amer. trop.*

191. ACTINOSTEMON. Stamina ∞ rarius 3, filamentis liberis. Ovarium 3-loculare. Styli basi v. alte in columnam tenuem connati, superne recurvo-patentes, indivisi. Capsula 3-cocca, columella persistente. Frutices. Racemi terminales v. axillares e gemmis squamatis oriundi.—*Amer. trop.*

192. ADENOPELTIS. Habitus, spicæ terminales, receptaculum post coccos delapsos divaricato-cornutum, cæterique characteres *Stillingiæ*, excepta calycis deficientia.—*Chile.*

193. COLLIGUAJA. Stamina 2–3, filamentis brevibus. Styli basi breviter connati, crassiusculi, indivisi. Capsula 3-cocca, columella persistente. Habitus *Stillingiæ* et *Adenopeltidis*, sed flores ♂ plures pedunculo communi bracteæ adnato florem polyandrum simulant.—*Amer. austr. extratrop.*

194. DALEMBERTIA. Stamen 1. Styli basi in columnam connati, superne patentes indivisi. Capsula 3-cocca, columella persistente. Suffrutices foliis sæpius repando-dentatis lobatisve. Racemi terminales.—*Mexico.*

** *Bracteæ membranaceæ margine toto rhachi adnatæ alabastra juniora includentes, per anthesin irregulariter ruptæ v. fissæ.*

195. HURA. Calyx ♂ cupulatus truncatus. Stamina 8–20, antheris in columna sessilibus 2–4-verticillatis. Ovarium 5–20-loculare. Styli in columnam carnosam alte connati, apice

patentes indivisi. Capsula magna, depressa, ∞-cocca, crepitanter dissiliens. Arbores. Spicæ oblongæ, terminales, pedunculatæ.—*Amer. trop., in orbe vetere inquilina.*

196. ALGERNONIA. Sepala ♂ 3, imbricata. Stamen 1. Ovarium 3-loculare. Styli in columnam alte connati, superne patentes. Capsula 3-cocca, transversim angulata v. alata. Frutices. Spicæ terminales, tenues.—*Brasilia.*

*** *Bracteæ in involucrum sæpius globosum, junius clausum, per anthesin hians v. valvatim fissum, flores ∞ includens, connatæ.*

197. PERA. Calyx ♂ valvatus v. rudimentarius v. 0. Stamina 2–6. Ovarium 3-loculare. Stigma peltatum, subsessile. Capsula in valvas 2-fidas dehiscens. Arbores fruticesve. Involucra ad axillas glomerata.—*Amer. trop.*

GENERA EXCLUSA V. DUBIA.

ADELANTHUS, Endl., ab auctore Gen. Suppl. ii. 30 sub *Antidesmeis* collocatus, est *Pyrenacantha*, Hook., inter **Olacineas** *Phytocreneas.*

ADENOCHETON, Fenzl in Flora, 1844, 312, nomen tantum (ADENOCHETUS, Baill. Etud. Euph. 653 ad specimen ♂ descriptus) est *Cocculus Leæba*, DC., inter **Menispermaceas.**

ANTITAXIS, Miers, est genus *Menispermacearum* valde anomalum, a nobis supra i. 33 dubie ad *Euphorbiaceas* relatum, sed postea rite ab auctore ipso et in Hook. Fl. Ind. i. 106 ad **Menispermaceas** restitutum.

ASPIDANDRA, Hassk. Hort. Bogor. Descr. 47, est planta in horto Bogoriensi culta, sub nomine *Rypariæ cæsiæ*, sed ex descriptione auctoris a specie Blumeana diversa. Specimen nostrum folia tantum præbet glaberrima, pilis malpighiaceis a Blumeo et Muellero in *Ryparia cæsia* memoratis omnino deficientibus. Genus cæterum, floribus ♀ ignotis, valde obscurum remanet.

ATERAMNUS, P. Br. Hist. Jam., est species imperfecte descripta, nequaquam agnoscenda, et nomen delendum.

CALLITRICHE, Linn., a Bailleno ad *Euphorbiaceas* relata, supra, i. 676, inter **Halorageas** recensetur.

DOVYALIS, E. Mey., a Lindleyo sub *Euphorbiaceis* enumerata, est **Bixinea,** supra, i. 128.

ELÆOGENE, Miq. Fl. Ind. Bat. Suppl. 460; arbor Sumatrana alternifolia, inflorescentia paniculata, floribus ignotis, quoad genus dubia remanet. Calyx fructifer 5-partitus dicitur, lobis acutis dorso inferne gibboso-incrassatis. Baccæ crasso-coriaceæ, sublignosæ, duræ, globosæ, 3-coccæ, loculis 1-spermis.

FORESTIERA, Poir. (BORYA, Willd.; BIGELOWIA, Sm.) a Lindleyo sub *Scepaceis* enumerata, est **Oleacea,** supra, ii. 676.

GARRYA, Dougl., ab Endlichero, Gen. Pl. 288 ad *Antidesmeas* dubias associata, et GRISELINIA, Forsk., a Sprengelio Pug. Pl. i. 63 in *Tricoccis* posita, sub **Cornaceis** recensentur supra, i. 951.

HEXADICA, Lour. Fl. Cochinch. 562, ex ordine evidenter excludenda est, sed genus imperfecte descriptum valde incertum et nomen delendum.

LASCADIUM, Rafin. Fl. Ludov. 114, genus ex schedis Robinianis pessime definitum, est verisimiliter planta sub alio quodam ordine jam nota et nomen delendum.

LOPADOCALYX, Klotzsch in Pl. Preiss. i. 178, est *Olacis* species inter **Olacineas,** supra, i. 347.

LUNASIA, Blanco, ab Endlichero Gen. Suppl. 1425 *Euphorbiaceis* adscripta, est ut rite indicavit Muell. Arg. **Rutacearum** genus, idem ac *Rabelaisia*, Planch., supra i. 299, et nomen Blancoi Planchoniano substituimus supra, i. 991.

LUNTIA, CINOGASUM, AROTON et BRUNSVIA, Neck. Elem. ii. 335 ad 337, genera a *Crotone*, Linn., CRATOCHWILIA, Neck. l. c. 339 a *Cluytia*, Linn., et BROMFELDIA, Neck. l. c. 347, a *Jatropha*, Linn., separata, sunt verisimiliter jam sub aliis nominibus nota, sed characteribus pessimis agnoscere nequimus, et omnino prætermittenda sunt.

MAINEA, Vell., ab Endlichero, Gen. Pl. 1125, *Euphorbiaceis* adscripta, est *Trigonia*, Aubl., inter **Vochysiaceas,** supra, i. 977.

MARGARITARIA, Linn. f. Suppl. 66, quoad plantam sic dictam masculam in herbario servatam, est *Combretacea*, planta fœmina videtur *Phyllanthus antillanus*, Muell. Arg. (*Cicca antillana*, Juss.). Character Linneanus neutri bene convenit et nomen suum tam genericum quam specificum delendum est.

MOACURRA, Roxb., a Muellero in Prodromo sub *Euphorbiaceis* descripta, est *Chailletiæ* species

inter **Chailletiaceas,** supra, i. 341. Baillon *Chailletiaceas* omnes in *Euphorbiaceis* includit, nobis tamen ordinem bene remotum constituere videntur.

MONOSPORA, Hochst. in Flora, 1841, 660, est *Trimeria*, Harv., inter **Bixaceas,** supra, i. 129.

MYTILOCOCCUS, Zoll. in Miq. Fl. Ind. Bat. i. ii. 387, sub *Euphorbiaceis* descriptus, est, ut rite indicavit Muell. Arg., *Lunasia*, Blanco inter **Rutaceas,** supra, i. 991.

ODONTOCARYAM, Miers, genus **Menispermacearum,** olim ex ordine rejecimus et dubie ad *Euphorbiaceas* retulimus ob flores ♀ a Miersio descriptos ad *Jatropham* pertinentes. Cfr. supra, i. 960.

PAYERIA, Baill. Adans. i. 50, t. 3, est evidenter *Quivisia*, Cav., inter **Meliaceas,** supra, i. 330. *P. chrysogyne*, Muell. Arg. a Baillono Hist. Pl. v. 239 sub *Payeria* inter *Euphorbiaceas* recepta, ab eo tardius ibid. v. 495 ad *Quivisiam* refertur, et speciei typicæ, *P. excelsæ*, Baill., icon et descriptio ad amussim cum *Quivisia decandra*, Cav., conveniunt, antheris a tubo stamineo jam delapsis v. ab auctore prætermissis.

PENNANTIA, Forst., a Bartlingio Ord. Nat. 372 inter genera minus cognita *Euphorbiacearum* admissa, est **Olacinea,** supra, i. 351.

PERIPTERYGIUM, Hassk. Cat. Hort. Bogor. 234, est *Cardiopteris*, Wall., supra i. 355 pro genere anomalo **Olacinearum** descripta. Nuperius tamen Beccari in nota in Nuov. Giorn. Bot. Ital. ix. 100, genus ex *Olacineis* recto jure excludit et ad *Gamopetalas* transfert; dein *Convolvulaceis Boragineis*que comparat, ab utroque tamen ordine *Cardiopteris* pluribus notis recedit, imprimis ovuli situ et embryone. Affinitates adhuc valde dubiæ remanent, ab *Euphorbiaceis* certe remotæ.

PHYLLOXYLON, Baill. Adans. ii. 54, frutex Mauritianus, habitu *Phyllanthi* sect. *Xylophylli*, floribus ♂ 6-meris 6-andris, ♀ ignotis, generis et affinitatis dubia remanet. Muell. Arg. in DC. Prod. xv. ii. 1256 quærit an *Santalacea*? ubi *Exocarpus* habitum subsimilem præbet, sed character non convenit.

PLAGIOPTERON, Griff., a Lindleyo Veg. Kingd. 282, *Euphorbiaceis* dubiis additum, est **Tiliacea,** supra i. 238.

PRÆTORIA, Baill. Etud. Euph. 470, t. 11, f. 14, est *Pipturi* species inter **Urticaceas,** infra.

PYRENACANTHA, Hook. Bot. Misc. ii. 107, ab auctore dubie *Stilagineis* adscripta a Baillono in DC. Prod. xvii. 18 rite ad **Olacineas** (*Phytocreneas*) refertur, a nobis olim errore ad *Santalaceas* relata.

RYPAROSA, Blume, Bijdr. 600 (RYPARIA, ex Auct. emend. in Fl. Jav. Præf. 8; RHYPARIA, ex emend. Hassk. Cat. Hort. Bogor. 239) est genus non satis notum, verisimiliter ex ordine excludendum, ob petala lanceolata valvata basi intus squamula lanata aucta. Ex Muell. Arg. in DC. Prod. xv. ii. 1260 species continet duas inter se non congeneres.

TETRAGYNE, Miq. Fl. Ind. Bat. Suppl. 463, floribus ♂ et fructibus ignotis, quoad genus valde dubium remanet. Frutex est v. arbor Sumatrana, foliis breviter petiolatis semipedalibus membranaceis. Flores ♀ ad axillas solitarii, breve pedicellati. Sepala 5, imbricata. Ovarium 4-loculare, loculis 1-ovulatis. Stigmata 4, linearia, reflexa. An *Alchorneæ* (*Stipellariæ*) species?

TRIBUS I. EUPHORBIEÆ.

1. **Pedilanthus,** *Neck. Elem.* ii. 354. (Crepidaria, *Haw. Syn. Pl. Succul.* 136.)—Involucrum irregulare, obliquum, declinatum v. calceiforme v. subæqualiter urceolatum, postice appendice polymorpha interdum ampla colorata auctum, ore breviter 5-fido v. denticulato; glandulæ in fundo appendicis 2–6 v. 0. Flores ♂ in involucro ∞, pedicellati. Perianthium 0. Stamen 1, filamento brevi cum pedicello articulato; antherarum loculi distincti, subglobosi. Fl. ♀ in centro involucri 1. Perianthium e squamellis 3 minutis v. 0. Ovarium ad apicem pedicelli sessile, 3-loculare; styli in columnam longiusculam connati, apice breviter liberi, integri v. 2-fidi; ovula in loculis solitaria. Capsula in coccos sæpe carinatos v. cornutos 2-valves a columella persistente elastice dissiliens. Semina albuminosa, cotyledonibus latis.—Frutices ramis sæpe carnosis. Folia caulina alterna, integerrima, floralia sæpius opposita. Involucra viridia v. colorata, in cymas dichotomas terminales v. axillares disposita. Bracteolæ intra involucrum sub floribus ♂ lineari-setaceæ v. sæpe obsoletæ.

Species editæ 15, nonnullæ tamen non satis notæ, Americæ tropicæ a Brasilia boreali usque ad Mexicum et Indiam occidentalem incolæ. *Boiss. in DC. Prod.* xv. ii. 4, 1261. *Poit. in Ann. Mus.*

Par. xix. *t.* 19. *Jacq. Hort. Schœnbr. t.* 276 (*Euphorbia*). *Benth. Bot. Sulph. t.* 23. *Muell. Arg. in Mart. Fl. Bras.* xi. ii. *t.* 98. *Bot. Mag. t.* 2514 (*Euphorbia*). *Bot. Reg. t.* 837.

Genus *Euphorbiæ* sectioni *Poinsettiæ* arcte affine. Involucri forma variat de specie in speciem, in *P. Finkii* appendix maxima calceiformis, in *P. lineariformi* obliqua et late scutelliformis, in *P. macrocarpo* lata, 3-cuspidata, in aliis speciebus ad gibbum obtusum reducta, sed characteres ad sectiones distinctas separandas haud invenimus. Klotzsch et Garcke in Abhandl. Akad. Berl. 1859, genera 15 proposuerunt ad numerum glandularum distincta: PEDILANTHUS, glandulis 4, HEXADENIA, glandulis 6, et DIADENARIA, glandulis 2, characteres non majoris valoris quam formæ appendicis, *P. linearifolia* differt etiam floribus ♀ squamis perianthii 3 distincte munitis.

2. **Euphorbia,** *Linn. Gen. n.* 609. (Tithymalus, *Gærtn. Fruct.* ii. 115, *t.* 107.)—Involucrum calyciforme, regulare v. vix obliquum, campanulatum v. turbinatum, sæpius herbaceum, lobis 4–5 rarius 6–8 membranaceis brevibus integris v. laceris, intra glandulas sæpe occultis; glandulæ totidem v. rarius pauciores, extra lobos iis alternæ, sæpius latæ patentesque, integræ 2-cornutæ v. divisæ, dorso appendicula petaloidea auctæ v. nudæ. Flores ♂ in involucro ∞, pedicellati. Perianthium 0 v. rarius squamella ad articulationem minuta. Stamen 1, filamento brevi cum pedicello articulato; anthera erecta, loculis distinctis sæpius subglobosis divaricatis longitudinaliter dehiscentibus. Flos ♀ in centro involucri 1, pedicello demum elongato ex involucro exsertus. Perianthium 0 v. e segmentis 3 minutis. Ovarium ad apicem pedicelli sessile, 3-loculare; styli 3, distincti v. plus minus coaliti, apice patentes indivisi v. 2-fidi, lobis apice v. introrsum stigmatosis; ovula in loculis solitaria. Capsula in coccos 2-valves a columella persistente dissiliens, endocarpio cartilagineo v. duro. Semina albuminosa, cotyledonibus latis planis.—Herbæ suffrutices v. frutices habitu vario, succo sæpissime acrido lactescente, caule nunc crasso carnoso subaphyllo nunc herbaceo v. lignoso. Folia inferiora v. omnia alterna v. superiora v. omnia opposita, indivisa, integerrima v. rarius dentata. Involucra (olim cum floribus inclusis pro flore hermaphrodito polyandro habita) in cymam terminalem disposita v. in axillis foliorum v. in dichotomiis solitaria subcymosa v. fere racemosa. Bracteæ sub cyma v. sub involucris oppositæ; bracteolæ intra involucrum, ad normam sub floribus ♂ lineares v. setaceæ, interdum vero interiores v. fere omnes desunt v. inferiores in bracteas pauciores laceras pone fasciculos florum iisque basi cohærentes connatæ.

Species ultra 600, in regionibus temperatis utriusque orbis latissime dispersæ, inter tropicos pauciores. *Boiss. in DC. Prod.* xv. ii. 8, *et Ic. Euph. Parisiis*, 1866, *cum tabb.* 121. *Muell. Arg. in Mart. Fl. Bras.* xi. ii. 667, *t.* 92 *ad* 97. *Benth. Fl. Austral.* vi. 44. *Kurz For. Fl. Brit. Burm.* ii. 415.

Genus a Boissiero optime elaboratum 'vastissimum et naturalissimum, ideo in sectiones recte definitas difficillime distribuendum. Characteres quibus series sectionum innitantur non satis graves, nec exceptionibus immunes, meliores tamen deficiunt.' Boissier sectiones 26 proposuit, quibus unam addidit Muell. Arg., nonnullæ tamen species unicæ sunt charactere unico anomalæ, aliæ e speciebus paucis confectæ inter se quam maxime dissimilibus, majores vero etsi vix limitibus certis definitæ pro maxima parte haud difficile recognoscendæ. Characteres tamen e glandularum forma quibus Klotzsch et Garcke genera plura distinguerunt, e seminum strophiola v. sculptura, e stylorum indole, raro cum habitu conveniunt. Divisiones sequentes, e Boissierianis selectæ, imprimis ex habitu et inflorescentia sumptæ, sat naturales videntur, nec magis incertæ evadunt quam plures e minoribus a Boissiero propositis hic vero non separatis.

1. *Anisophyllum.* Herbæ prostratæ diffusæ v. divaricato-ramosæ, rarissime basi frutescentes. Folia omnia opposita, linea elevata plus minus distincte stipulifera connexa, basi plus minus inæqualia v. obliqua. Involucra solitaria v. cymosa, sæpius minima; glandulæ 4 rarius 5, sæpius appendicula petaloidea auctæ. Species in America Australia et orbis veteris regionibus tropicis numerosæ, in hemisphærio boreali orbis veteris paucæ, plurimæ parvæ prostratæ inter se ægre distinguendæ, paucæ majores Sandwicenses glandulis exappendiculatis insignes, et mediantibus *E. atoto*, *E. lævi*, etc. cum cæteris *Anisophyllis* arcte junctæ. *Boiss. Ic. Euph. t.* 1 *ad* 26. *Jacq. Ic. Rar. t.* 476, 478 *Hort. Vind. t.* 186. *Reichb. Ic. Fl. Germ. t.* 131. *Hook. Exot. Fl. t.* 36. *Sibth. Fl. Gr. t.* 461. *Dcne. in Jacquem. Voy. Bot. t.* 157. *Miq. Stirp. Surin. t.* 28. *Muell. Arg. in Mart. Fl. Bras.* xi. ii. *t.* 92. ANISOPHYLLUM, *Haw. Syn. Pl. Succ.* 159.

2. *Adenopetalum.* Herbæ rarius frutices, caule non vel vix carnoso. Folia sparsa v. superiora,

rarius omnia opposita v. ternatim verticillata; glandulæ v. rarius setulæ ad basin petiolorum geminæ (stipulares?) v. ad axillas solitariæ, sæpe minutæ v. obsoletæ. Involucra axillaria v. terminalia, solitaria, cymulosa; glandulæ 5, rarius 4, sæpius appendicula petaloidea auctæ. Species omnes Americanæ, habitu et inflorescentia sæpius fere *Eremophyti*, rarius *Poinsettiæ*, rarissime *Tithymali*, ab omnibus differunt glandulis ut in *Anisophyllo* appendiculatis. Sectio igitur quodammodo polymorpha, non magis tamen quam sectiones minores Prodromi *Crossadenia* et *Tricherostigma*. Sequentes includimus Boissierianas:—

Zygophyllidium. Species annuæ, dichotomæ, foliis omnibus oppositis v. infimis solis alternis. Semina tuberculata. *Boiss. Ic. Euph. t.* 27 *ad* 30.

Cyttarospermum. Herbæ fruticesve. Folia inferiora sæpius alterna, superiora varia. Inflorescentia nunc axillaris anomala, nunc dichotoma, laxe-cymosa. *Boiss Ic. Euph. t.* 31 *ad* 37. *Jacq. Ic. Rar. t.* 477. *Muell. Arg. in Mart. Fl. Bras.* xi. ii. *t.* 97. ADENOPETALUM, *Kl. et Garcke in Monatsber. Akad. Berl.* 1859, 250 (foliis floralibus concoloribus, involucris sæpius 4-meris glandularum appendicibus indivisis). EUMECANTHUS, *Kl. et Garcke, l. c.* 248 (foliis floralibus coloratis petaloideis, involucris sæpius 4-meris glandularum appendicibus indivisis), et LEPTOPUS, *Kl. et Garcke, l. c.* 249 (involucris sæpius 4-meris, glandularum appendicibus sæpius partitis).

Dichilium. Herbæ elatiores, habitu et inflorescentia *Cyttarospermo* (*Eumecantho*) convenientes, seminibus longitudinaliter mamilloso-tuberculatis. *Boiss. Ic. Euph. t.* 38. *Muell. Arg. in Mart. Fl. Bras.* xi. ii. *t.* 93.

ALECTOROCTONUM, *Schlecht. in Linnæa* xix. 252. Frutices ramis demum fere articulatis. Folia sæpius verticillata, longe petiolata; grex habitu satis distinctus. *Boiss. Ic. Euph. t.* 39, 40. *Jacq. Ic. Rar. t.* 479. *Bot. Mag. t.* 883. His tamen addidit Boissier in sectione sua *Alectoroctona* species nonnullas herbaceas habitu valde diversas. *Boiss. Ic. t.* 40 *bis.*

PETALOMA, *Rafin.* (ex *Boiss.*) (DICHROPHYLLUM, *Kl. et Garcke, l. c.* 249). Herbæ foliis alternis, cymis more *Poinsettiæ* terminalibus. Bracteæ seu folia floralia insigniter albo-marginata. *Bot. Mag. t.* 1747.

Crossadenia. Species paucæ, inter se valde dissimiles, habitu speciebus variis gerontogeis affines sed glandularum appendice palmatifida v. 2-cornuta distinctæ. *E. goyasensis*, Boiss., *Epithymæ* in *Tithymalo* simillima est; *E. sarcodes*, Boiss., Muell. Arg. in Mart. Fl. Bras. xi. ii. t. 94, *Rhizanthium* refert; *E. phosphorea*, Mart., Muell. Arg. l. c., t. 95 (glandularum appendice ex icone nec glandula ipsa bicornuta) speciebus carnosis costatis aphyllis accedit; *E. lycioides*, Boiss., cum *E. cuneata* comparanda, *E. gymnoclada*, Boiss., cum *Tirucallis.*

Stachydium. Species 3, Americæ tropicæ, inter se valde affines et forte unius varietates, quoad habitum et folia *Dichilio* similes, sed bracteæ seu folia floralia in spicas secundas fere strobiliformes imbricata more *E. elegantis* affiniumque in *Anisophyllo*. *Muell. Arg. in Mart. Fl. Bras.* xi. ii. *t.* 96. His addidit Boissier speciem Austro-Africanam imperfecte notam a nobis non visam et verisimiliter alienam.

TITHYMALOPSIS, *Kl. et Garcke, l. c.* 249. Species paucæ, boreali-Americanæ, *Zygophyllidiis* subsimiles, sed perennes, glandulis ad basin foliorum nullis v. vix conspicuis. *Boiss. Ic. Euph. t.* 42. *Hook. Ic. Pl. t.* 346. *Bot. Mag. t.* 2992. *Lodd. Bot. Cab. t.* 390.

TRICHEROSTIGMA, *Kl. et Garcke, l. c.* 248. Frutices inflorescentia axillari v. laterali, inter se cæterum quam maxime dissimiles. Species 2, Californicæ, *Benth. Bot. Sulph. t.* 23 B et 24 cum tertia (inedita?) Domingensi, ramis divaricatis tortuosis crassiusculis, foliis parvulis in ramulis seu gemmis lateralibus confertis; quarta, *E. antisyphilitica*, habitu fere *Ephedroideo* ramis elongatis teretibus aphyllis, cum *E. fulgente*, Karw., ex America centrali (*Paxt. Mag.* iv. 31, *cum ic.*; *Maund, Botanist, t.* 100; *E. jacquiniæflora*, *Bot. Mag. t.* 3673) ramis tenuibus elongatis laxis, foliis alternis longiuscule petiolatis, inflorescentia axillari breviter subramosa vix lege naturali associata. Huic habitu foliis et inflorescentia convenit *E. Hoffmanniana*, Boiss. Ic. Euph. t. 50 (EUPHORBIASTRUM, *Kl. et Garcke, l. c.* 252) ex eodem loco, et glandulis solis differt, quæ in *E. fulgenti* in appendicem magnam petaloideam coloratam expansæ, in *E. Hoffmanniana* in laminam latam crassam supra papilloso-rugosam.

Portulacastrum, species 2 continet Chilenses v. Bolivianas annuas diffusas, habitu fere *Anisophylli*, sed folia alterna basi æqualia exstipulata.

3. *Poinsettia.* Herbæ suffruticesve rarius frutices, ramis floralibus non umbellatis. Folia infima v. omnia alterna, superiora sæpe opposita; stipulæ 0 nisi setæ minutæ v. glandulæ ad basin petiolorum. Involucra ad apices ramorum in cymam conferta, bracteis foliaceis seu foliis floralibus sæpe coloratis cincta, glandulis exappendiculatis. Species omnes Americanæ nisi in orbe vetere inquilinæ,

a *Tithymalo* inflorescentia, ab *Adenopetalo* glandulis involucri distinctæ. Hæ glandulæ sæpe inæquales v. ad unam reductæ genus quodammodo cum *Pedilantho* connectunt, *Jacq. Ic. Rar. t.* 480, *Hort. Schœnbr. t.* 277. *Reichb. Iconogr. Exot. t.* 173, 174. *Bot. Reg. t.* 765. POINSETTIA, *Grah. in Edinb. New Philos. Journ.* xx. 412; *Bot. Mag. t.* 3493.

E. geniculata, Saund. Ref. Bot. t. 231 non Ort. est *E. (Anisophyllum) hypericifolia.*

4. *Eremophyton.* Herbæ suffrutiessve, ramis superioribus sæpe dichotomis nec umbellatis. Folia inferiora alterna, superiora interdum opposita, exstipulata. Involucra solitaria, axillaria terminalia v. in dichotomiis, glandulis exappendiculatis. Species omnes gerontogeæ. *Boiss. Ic. Euph. t.* 43, 44, 49. *Anders. in Journ. Linn. Soc.* v. *Suppl. t.* 5. Hic includimus sectiones *Cheirolepidium*, *Eremophyton* et *Pseudacalypha*, Boiss., nec satis differre videtur sect. *Bongium*, Boiss. (*E. bongensis*, Kotschy in Pl. Tinn. t. 19). Styli in pluribus sectionibus variant liberi v. plus minus connati, integri v. plus minus bifidi.

E. Guienzii, Boiss., ex Africa australi, a Boissiero lapsu calami sub *Eremophyto* inclusa, est eadem ac *E. epicyparissias*, E. Mey.

5. *Euphorbium.* Caules carnosi, sæpius crassi, teretes angulati v. elevato-costati, aphylli v. foliis paucis caducis coronati. Cymæ laterales v. terminales, sæpius subsessiles, ad capitula solitaria v. pauca more *Eremophyti* reducta, rarius ramis subumbellatim evolutis fere *Tithymali*. Stipulæ 0 (v. minutæ glanduliformes?). Nodi interdum varie aculeati v. spiniferi. Glandulæ involucri integræ, exappendiculatæ. Species pro maxima parte Africanæ, paucæ Asiaticæ v. Americanæ, in Europa et Australia desunt. Subsectiones sequentes quoad species plerasque distinctæ formis intermodiis connectuntur.

a. *Tirucalli* (ARTHROTHAMNUS, *Kl. et Garcke, l. c.* 251). Frutices ramis angustis teretibus v. compressis, alternis oppositis v. fasciculatis, sæpissime aphyllis. Species austro-Africanæ v. tropicæ utriusque orbis. *Boiss. Ic. Euph. t.* 46. *Hook. Ic. Pl. t.* 182, 700. *Webb, Phytogr. Canar. t.* 208. *Arthrothamnus* a Boissiero distinguitur ramis articulatis, sæpe tamen variant ramulis plus minus ætate articulatis, et *E. Tirucalli* ipsa est species typica *Arthrothamni*, Kl. *Lyciopsis* (*E. cuneata*, Jaub. et Spach, Ill. Pl. Or. t. 463, 464; Anders. in Journ. Linn. Soc. v. Suppl. t. 4) est species Arabica, monente jam Boissiero *Tirucalli* valde affinis, differt caule ramosiore minus carnoso, nodis sæpius folia parva ferentibus, habitu toto *E. lycioidem*, *E. Hindsianam* aliasque Americanas glandulis appendiculatis distinctas referens.

b. *Goniostema.* Species paucæ Mascarenses, caule crasso, costis elevatis fere alatis inermibus. *DC. Pl. Gr. t.* 124. *Lodd. Bot. Cab. t.* 1477.

c. *Diacanthium.* Caules crassi, nodis elevatis in costas elevatas v. alas plus minus connatis v. rarius sparsis, aculeis solitariis (infrafoliaceis?) v. geminis (infrastipularibus?) v. rarius ternis sæpissime armatis. Species Africanæ v. Asiaticæ. *Boiss. Ic. Euph. t.* 48. *DC. Pl. Gr. t.* 46, 77, 139, 140, 140*, 151. *Wight, Ic. t.* 897, 898, 1862, 1863, 1993. *Bot. Mag. t.* 2902, 3527. *Lodd. Bot. Cab. t.* 1334. *Andr. Bot. Rep. t.* 617. *Saund. Ref. Bot. t.* 39. ANTHACANTHA, *Lemaire, Ill. Hort.* 1858; *Misc.* 64. STERIGMANTHE, *Kl. et Garcke, l. c.* 252.

d. *Treisia.* Caules crassi, nodis elevatis plus minus mammiformibus, arcte confertis sed sparsis nec seriatis, inermibus v. pedunculo demum spinescente rarius armatis. *Boiss. Ic. Euph. t.* 47. *DC. Pl. Gr. t.* 144. *Jacq. Hort. Schœnb. t.* 106, 207, 208, 484; *Ic. Rar. t.* 85. *A. DC. Pl. Rar. Jard. Gen. Not.* vii. *t.* 5. *Bot. Mag. t.* 2520, 2624, 3476. *Lodd. Bot. Cab. t.* 220, 1315. *Saund. Ref. Bot. t.* 161, 209. TREISIA, DACTYLANTHES *et* MEDUSEA, *Haw. Syn. Pl. Succ.* 131 *ad* 133.

Rhizanthium a *Treisia* non differt nisi caule carnoso abbreviato pro rhizomate descripto, ramis floriferis magis evolutis.

6. *Tithymalus.* Herbæ, rarius frutices, parum ramosi. Folia caulina alterna v. rarissime opposita, floralia sæpe opposita, omnia exstipulata. Ramuli floriferi dichotome ramosi v. rarius simplices monocephali, axillares, superiores in umbellam 3–∞-radiatam rarius ad radia 2 reductam conferti. Involucri glandulæ exappendiculatæ. Species numerosæ, per totam aream generis Australia excepta dispersæ, pro maxima tamen parte regionis Mediterraneæ ab ins. Canariensibus usque ad Persiam incolæ. *Boiss. Ic. Euph. t.* 54 *ad* 119. *Vent. Jard. Malm. t.* 30. *Sm. Ic. Pict. t.* 3. *Jacq. Ic. Rar. t.* 86 *ad* 89, 481 *ad* 486; *Hort. Schœnb. t.* 107, 485 *ad* 488; *Hort. Vind. t.* 188; *Fl. Austr. t.* 121, 344, 345, 375, 376, 435, 436, 450; *App. t.* 14. *Jacq. f. Ecl. t.* 66. *Reichb. Ic. Fl. Germ. t.* 132 *ad* 150. *Waldst. et Kit. Pl. Rar. Hung. t.* 54, 55, 93, 135, 162, 280. *Ledeb. Ic. Fl. Ross. t.* 12, 185 *ad* 192, 387. *Klotzsch in Pr. Waldem. Reise, Bot. t.* 18 *ad* 20. *Wight, Ic. t.* 1864. *Sibth. Fl. Gr. t.* 460, 462 *ad* 471. *Jaub. et Spach, Ill. Pl. Or. t.* 130. *Grant in Trans. Linn. Soc.* xxix. *t.* 93. *Del. Fl. Æg. t.* 30. *Desf. Fl. Alt. t.* 101 *ad* 103. *Ten. Fl. Nap. t.* 143,

Moris, Fl. Sard. t. 109. *All. Fl. Ped. t.* 69, 83. *Jord. Obs. t.* 11. *Cav. Ic. t.* 34. *Boiss. Voy. Esp. t.* 159 *ad* 163. *Brot. Phyt. Lusit. t.* 76. *Webb, Phytogr. Canar. t.* 207, 209. *Bot. Mag. t.* 1305, 1494, 1961, 2258, 3321. *Bot. Reg. t.* 190, 274 *et* 1838, *t.* 43. *Lodd. Bot. Cab. t.* 1145. *Saund. Ref. Bot. t.* 210. GALARHŒUS et ESULA, *Haw. Syn. Pl. Succul.* 143, 153.

Inter species in Prodromo enumeratas series 2, *Oppositifoliæ*, et series 3, *Crotonopsides, Boiss. Ic. Euph. t.* 51 *ad* 53, habitu et inflorescentia abnormi *Eremophytis* accedunt, *Laurifoliæ* et *Pachycladæ* insignes sunt caule alte fruticoso v. arborescente, foliis ad apices ramorum confertis, umbellæ radiis mono- v. oligo-cephalis, nonnullæ ex his *Pachycladis Tirucalli* accedunt.

KERASELMA et ATHYMALUS, *Neck. Elem.* ii. 353, genera ad species *Euphorbiæ* proposita, imperfecte descripta, ad sectiones suas non certe referenda.

3. **Synadenium,** *Boiss. in DC. Prod.* xv. ii. 187.—Involucrum campanulatum, alte 5-lobum, lobis squamiformibus fimbriatis; glandulæ in cupulam v. discum concavum carnosum truncatum margine rugulosum basi involucri affixum eoque vix breviorem connatæ. Flores ♂ in involucro ∞, pedicellati, in fasciculos 5 lobis involucri oppositos conferti. Perianthium 0. Stamen 1, filamento brevi cum pedicello articulato; antherarum loculi distincti. Flos ♀ in centro involucri 1, intra cupulam bracteolarum cum stipite crasso articulatus. Perianthium 0. Ovarium sessile, 3-loculare; styli alte connati, 2-fidi; ovula in loculis solitaria. Capsula 3-cocca et semina *Euphorbiæ*.—Frutices ramis teretibus crassis subcarnosis. Folia sparsa, obovata, integerrima, crassiuscula. Cymæ terminales, 2–3-chotomæ, foliis floralibus seu bracteis oppositis. Involucra in dichotomiis v. ad apices ramulorum intra bracteas summas solitaria, sessilia. Bracteæ intra involucrum pone quemque fasciculum florum ♂ latæ, fasciculum plus minus includentes et dorso plus minus in tubum seu cupulam integram v. lobatam circa florem ♀ connatæ; bracteolæ interiores parvæ, lineares.

Species 2 v. 3, Africæ australis et tropicæ orientalis incolæ. *Bot. Mag. t.* 5633 (quoad bracteas fl. ♂ imperfecte).

4. **Calycopeplus,** *Planch. in Bull. Soc. Bot. Fr.* viii. 30.—Involucrum campanulatum v. patens, alte 4-lobum; glandulæ 4 extra lobos iis alternæ parvæ stipitatæ v. 0. Flores ♂ in involucro ∞, pedicellati, in fasciculos 4 lobis involucri oppositos conferti. Perianthium 0. Stamen 1, filamento brevi cum pedicello articulato; antherarum loculi distincti. Fl. ♀ in centro involucri 1. Perianthium cupulatum v. latum, 4- v. 6-lobum. Ovarium 3-loculare; styli distincti v. basi coaliti, integri v. 2-fidi; ovula in loculis solitaria. Capsula 3-cocca et semina *Euphorbiæ*.—Frutices v. suffrutices ephedroidei, sub anthesi sæpius aphylli, ramis virgatis oppositis v. verticillatis teretibus angulatis v. compressis. Folia in ramulis novellis opposita v. verticillata, angusta, integerrima, caducissima; stipulæ minutæ v. 0. Involucra parva, subsessilia, axillaria v. terminalia, viridia v. cum lobis perianthii ♀ margine albo-petaloidea. Bracteæ intra involucrum pone quemque fasciculum latæ, fasciculum includentes, dorso florem centralem spectantes sed liberæ; bracteolæ interiores angustæ v. 1–2 in quoque fasciculo latæ.

Species 2 v. 3, Australiæ occidentalis incolæ. *Benth. Fl. Austral.* vi. 53. *Boiss. Ic. Euph. t.* 120 (*Euphorbia*).

5. **Anthostema,** *A. Juss. Euph. Tent.* 56, *t.* 18.—Involucrum imperfectum, latere exteriore hians, e bracteis 4–6 raro pluribus plus minus connatis compositum. Glandulæ magnæ, anguste scutellatæ, ad latera bractearum v. loborum involucri hinc inde deficientes. Flores ♂ in involucro ∞, breviter pedicellati, in fasciculos tot quot lobi involucri iisque oppositos conferti. Perianthii rudimentum 3–4-dentatum. Stamen 1, filamento brevi cum pedicello articulato; antherarum loculi distincti. Flos ♀ in involucro 1, juxta aperturam sublateralis. Perianthium maris. Ovarium sessile, cum stipite articulatum, 3-loculare; stylus 3-fidus, ramis clavatis v. 2-fidis; ovula in loculis solitaria. Capsula 3-cocca et semina *Euphorbiæ*.—Arbores. Folia alterna, integerrima, coriacea, nitidula, parallele pennivenia. Involucra parva, in cymas densas ad axillas sessiles conferta. Bracteæ ad ramos cymæ et sub involucris parvæ, oppositæ; intra involucrum pone quemque fasciculum latæ, fasciculum includentes, inter se liberæ; bracteolæ interiores lineares.

Species 3, Africæ tropicæ et Madagascariæ incolæ. *Boiss. in DC. Prod.* xv. ii. 188. *Baill. Etud. Euph. t.* 5, *f.* 1 *ad* 7; *Adans.* v. 366.

TRIBUS II. STENOLOBIEÆ.

6. **Poranthera,** *Rudge in Trans. Linn. Soc.* x. 302, *t.* 22.—Flores monoici, sæpius petaliferi. Fl. ♂: Calycis segmenta 5, petaloidea, imbricata. Petala 5, parva v. 0, basi glandula parva aucta. Stamina 5, segmentis calycinis opposita, filamentis liberis; antheræ 4-locellatæ, locellis apice poris distinctis v. in 2 confluentibus dehiscentibus. Ovarii rudimenta 3, parva, clavata v. membranacea. Fl. ♀: Calyx et petala maris. Ovarium latum, apice planum v. concavum, 6-lobum, 3-loculare; styli 3 usque ad basin in ramos 2 lineares divisi; ovula in loculis gemina. Capsula depresso-globosa, loculicide 3-valvis v. in coccos 2-valves dehiscens, valvis coccisve ab axi columnari persistente dissilientibus. Semina reticulata; embryo teres, incurvus, cotyledonibus radicula non latioribus.—Herbæ annuæ v. demum suffrutescentes. Folia alterna v. rarius irregulariter opposita, membranacea, integerrima, parva v. angusta. Stipulæ parvæ, acuminatæ. Flores parvi, albi, dense racemosi, in axillis bractearum solitarii, pedicellati, ♀ ad basin racemi pauci. Racemi capituliformes, ad apices ramorum solitarii v. sæpius in corymbo terminali foliato plures.

Species 5, omnes Australianæ. *Benth. Fl. Austral.* vi. 55. *Brongn. in Duperr. Voy. Coq. Bot. t.* 50. *Baill. Etud. Euph. t.* 25, *f.* 1 *ad* 9. *Hueg. Bot. Archiv. t.* 8. *P. microphylla*, Brongn., recenter a Cheesmannio in Nova Zelandia lecta, verisimiliter ibidem inquilina est.

7. **Micrantheum,** *Desf. in Mém. Mus. Par.* iv. 253, *t.* 14.—Flores plerumque monoici, apetali. Fl. ♂: Calycis segmenta 6, petaloidea, imbricata, 3 interiora sæpe paullo majora. Discus 0. Stamina 3, segmentis exterioribus opposita, v. 6 segmentis omnibus opposita v. 8–9 minus regulariter affixa, filamentis distinctis; antherarum loculi paralleli, longitudinaliter dehiscentes. Ovarii rudimentum parvum, lobatum. Fl. ♂: Calyx maris. Ovarium 3-lobum, 3-loculare, lobis in stylos simplices desinentibus; ovula in loculis gemina. Capsula ovoidea, in coccos 2-valves a columella persistente dissiliens. Semina in loculis gemina v. abortu solitaria, oblonga, lævia, strophiolata; embryo linearis, rectus, cotyledonibus radicula longioribus vix latioribus.—Frutices ericoidei, ramosissimi. Folia brevissime petiolata, parva, angusta, integerrima, coriacea, ternatim ad nodos alternos affixa (quasi 3-foliolata absque petiolo communi). Flores parvi, in axillis superioribus solitarii v. pauci, ♂ breviter pedicellati, ♀ sæpius sessiles.

Species 2, Australianæ. *Benth. Fl. Austral.* vi. 57.

CALETIA, *Baill. Etud. Euph.* 553, *t.* 26, genus ad *M. hexandrum* Hook. f. propositum, ob lobos ovarii rudimenti in flore ♂, staminum numero variabili, minus definite segmentis perianthii alternos quam in speciebus typicis, postea ab auctore uti a Muell. Arg. ad species nonnullas *Pseudanthi* extensum est, sed nobis nec naturale nec bene definitum videtur.

8. **Pseudanthus,** *Sieb. in Spreng. Syst. Cur. Post.* 22. (Chrysostemon, *Klotzsch in Pl. Preiss.* ii. 232. Chorizotheca, *Muell. Arg. in Linnæa,* xxxii. 76.)—Flores monoici, apetali. Fl. ♂: Calycis segmenta 6, petaloidea v. rigidula, imbricata, subæqualia v. 1 ex interioribus deficiens v. in filamentum longum mutatum. Discus 0. Stamina 3, 6 v. ∞ usque ad 20, libera v. basi cum rudimento parvo ovarii connata; antherarum loculi distincti, extrorsum 2-valvatim dehiscentes. Fl. ♀: Calyx maris. Ovarium 2–3-lobum, lobis in stylos breves crassos divergentes desinentibus, prima juventute 2–3-loculare, ovulis in quoque loculo geminis, per anthesin septis evanidis et ovulis plerisque abortientibus 1-loculare evadit, ovulo unico perfecto. Capsula oblonga, abortu 1-locularis, in valvas 4 v. 6 dehiscens. Semen oblongum, læve, strophiolatum; embryo linearis, rectus, cotyledonibus radicula longioribus vix latioribus.—Frutices ericoidei. Folia opposita v. alterna, parva, coriacea, obtusa, marginibus crassis, costa subtus prominula; stipulæ parvæ, subulatæ v. basi dilatatæ. Flores parvi, in axillis superior-

ibus sessiles v. breviter pedicellati, ♂ sæpius ∞ in eadem axilla, ♀ solitarii v. masculis paucis associati.

Species 7, Australianæ. *Benth. Fl. Austral.* vi. 58. *Endl. Atakta, t.* 11.

Ovarii rudimentum in flore ♂ *Pseudanthi* ab auctoribus negatur, nos tamen semper invenimus in specie typica *P. pimeleoidi*, Sieb., ut in cæteris. In solo *P. polyandro*, F. Muell., deest, quem ad *Stachystemonem* transtulimus.

9. **Stachystemon,** *Planch. in Hook. Lond. Journ.* iv. 471, *t.* 15.—Flores monoici, apetali. Fl. ♂ : Calycis segmenta 6, rigidula, subæqualia, integerrima, imbricata. Discus 0. Stamina ∞, omnia v. interiora in columnam centralem connata; antheræ sessiles v. filamentis brevibus fultæ, loculis distinctis extrorsum 2-valvatim dehiscentibus. Ovarii rudimentum 0. Fl. ♀ : Calycis segmenta latiora et teneriora quam in mare sæpiusque fimbriata. Ovarium 2-lobum v. rarius 3-lobum, lobis in stylos breves crassos divergentes desinentibus, prima juventute 2- v. rarius 3-loculare, ovulis in quoque loculo geminis, per anthesin septis evanidis et ovulis plerisque abortivis 1-loculare evadit, ovulo unico perfecto. Capsula ubi nota ovoidea, abortu 1-locularis. Semen oblongum, læve, strophiolatum.—Frutices ericoidei. Folia alterna, parva, coriacea, obtusa, costa subtus prominula; stipulæ minimæ. Flores sessiles v. breviter pedicellati, ad apices ramorum fasciculati, ♂ sæpius ∞ cum 1–3 ♀. Columna staminea perianthio longior, interdum valde elongata.

Species 3, Australiæ occidentalis extratropicæ incolæ. *Benth. Fl. Austral.* vi. 61.

Genus *Pseudantho* valde affine nec differt nisi columna staminea centrali absque rudimento ovarii.

10. **Beyeria,** *Miq. in Ann. Sc. Nat. ser.* 3, i. 350, *t.* 15. (Calyptrostigma, *Klotzsch in Pl. Preiss.* i. 175.)—Flores monoici v. rarius dioici, sæpius petaliferi. Fl. ♂ : Calycis segmenta 5 rarius 4, plus minus petaloidea, imbricata, concava. Petala sæpius tot quot calycis segmenta, parva v. rarius calyce longiora, interdum pauciora v. plura v. minima v. 0. Glandulæ petalis alternæ v. rarius oppositæ. Stamina numerosa, filamentis brevissimis in receptaculo hemisphærico congesta; antherarum loculi distincti, paralleli, extrorsum longitudinaliter dehiscentes. Ovarii rudimentum 0. Fl. ♀ : Calycis segmenta quam in mare sæpius rigidiora, post anthesin sæpius aucta. Petala eadem. Ovarium sessile, 3-loculare, integrum; stigma sessile, latum, integrum v. 3-lobum, planum peltatum v. plus minus conicum v. calyptriforme, rarius alte 3-lobum; ovula in loculis solitaria. Capsula 3-locularis, 3-sperma, dura, tardius dehiscens, rarius abortu 1-locularis 1-sperma. Semina oblonga, lævia, strophiolata; embryo in medio albumine linearis, cotyledonibus radicula longioribus vix latioribus.—Frutices sæpe glutinosi. Folia alterna, sæpius angusta, integerrima, marginibus recurvis v. revolutis, subtus pube appressa stellata albida. Flores parvi, axillares, ♂ solitarii v. 2-3-ni, rarius racemosi; ♀ sæpius solitarii.

Species 13, omnes Australianæ. *Benth. Fl. Austral.* vi. 63. In sectiones sequentes distribuuntur:—

1. *Eubeyeria.* Antheræ duplo longiores quam latæ, connectivo integro v. vix lobato adnatæ. Stigma integrum v. vix lobatum. *Labill. Pl. Nov. Holl.* ii. *t.* 222 (*Croton*).

2. *Beyeriopsis.* Antheræ breves, loculis distinctis v. connectivo alte 2-lobo adnatis v. semiliberis connectivo integriore. Stigma integrum v. vix lobatum. BEYERIOPSIS, *Muell. Arg. in DC. Prod.* xv. ii. 199.

3. *Oxygyne.* Flores ♂ racemosi. Antheræ *Beyeriopseos.* Stigma alte 3-lobum. Petala calyce longiora. Species unica tropica, *Ricinocarpo* accedens, sed antheræ, stigmate lobi lati recurvi, aliæque notæ potius *Beyeriæ.*

11. **Ricinocarpus,** *Desf. in Mém. Mus. Par.* iii. 459, *t.* 22. (Rœperia, *Spreng. Syst. Veg.* iii. 13.)—Flores monoici, petaliferi. Fl. ♂ : Calycis segmenta 4–6, sæpius 5, subæqualia, imbricata. Petala totidem sæpius longiora, rarius deficientia. Glandulæ totidem, petalis alternæ. Stamina numerosa, filamentis in columnam centralem connatis apice breviter liberis; antheræ reflexæ, loculis distinctis parallelis extrorsum longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀ : Calyx et petala maris. Ovarium sessile, 3-loculare; styli basi breviter connati, alte 2-fidi; ovula in loculis solitaria. Capsula in

coccos bivalves dissiliens. Semina oblonga, lævia, strophiolata; embryo ubi notus in medio albumine linearis, cotyledonibus radicula longioribus vix latioribus.—Frutices glabri v. stellato-tomentosi. Folia alterna, integerrima, lineari-oblonga v. lanceolata, marginibus recurvis v. revolutis, subtus pallida v. albo-tomentosa. Flores ♂ solitarii glomerati v. rarius racemosi, terminales v. ramulo florifero abbreviato pseudo-axillares; ♀ sæpius solitarii v. glomerulo v. racemo masculorum associati. Pedicelli bractea parva squamiformi stipati, sæpeque basi 2-bracteolati.

Species 13, omnes Australianæ. *Benth. Fl. Austral.* vi. 69. *Endl. Iconogr. t.* 124.

12. **Bertya,** *Planch. in Hook. Lond. Journ.* iv. 472, *t.* 16.—Flores monoici, apetali. Fl. ♂: Calycis segmenta 5, petaloidea, subæqualia, imbricata. Discus 0. Stamina numerosa, filamentis in columnam centralem connatis apice breviter liberis; antherarum loculi paralleli, extrorsum 2-valvatim dehiscentes. Ovarii rudimentum 0. Fl. ♀: Calyx per anthesin quam in mare sæpius minor, fructifer interdum auctus. Staminodia 0. Ovarium sessile, 3-loculare; styli liberi v. basi breviter connati, alte 2–4-fidi, vulgo 3-fidi; ovula in loculis solitaria. Capsula ovoidea v. oblonga, abortu sæpius 1-locularis, 1-sperma. Semen oblongum, læve, strophiolatum; embryo ubi notus linearis, rectus, cotyledonibus radicula longioribus vix latioribus.—Frutices sæpe glutinosi, plus minus stellato-tomentosi v. glabri. Folia alterna, marginibus recurvis v. revolutis rarius planis, adulta supra glabra, subtus tomentosa v. alba. Flores axillares, solitarii v. pauci, pedicellati v. fere sessiles. Bracteæ in pedicello 3–8, parvæ, persistentes imbricatæ et calycem simulantes v. deciduæ.

Species 10, omnes Australianæ. *Benth. Fl. Austral.* vi. 74. *F. Muell. Fragm.* viii. 141; *Pl. Vict. t.* 20.

13. **Monotaxis,** *Brongn. in Ann. Sc. Nat. ser.* 1, xxix. 386, *et in Duperr. Voy. Coq. Bot.* 223, *t.* 49.—Flores monoici, petaliferi. Fl. ♂: Calycis segmenta 4–5, imbricata, patentia, subæqualia, subpetaloidea. Petala totidem, calyce breviora v. longiora. Stamina numero petalorum dupla v. pauciora, filamentis in centro floris distinctis v. basi breviter connatis; antherarum loculi distincti, subglobosi, connectivo crasso curvo separati. Ovarii rudimentum 0. Fl. ♀: Calyx et petala maris. Ovarium sessile, 3-loculare; styli distincti, in ramos 2 fimbriatos divisi; ovula in loculis solitaria. Capsula globosa v. 3-dyma, inappendiculata, in coccos 2-valves dissiliens. Semina ovoidea v. oblonga, lævia, strophiolata; embryo linearis, rectus v. leviter incurvus, cotyledonibus radicula multo longioribus vix latioribus.—Herbæ suffruticesve sæpius humiles, glabri. Folia alterna, integerrima, plana v. marginibus recurvis. Flores parvi, dense cymosi, subcapitati, cymis in dichotomiis v. ad apices ramorum intra folia ultima sessilibus v. breviter pedunculatis, floribus singulis intra cymam pedicellatis, masculis numerosis, fœmineis in media cyma paucis v. solitariis. Bracteæ parvæ, squamiformes.

Species 7, omnes Australianæ. *Benth. Fl. Austral.* vi. 78. Genus in sectiones 2 dividitur:—

1. *Eumonotaxis.* Flores sæpius 4-meri. Calycis segmenta fere valvata. Petala breviora. *Endl. Atakta. t.* 8.

2. *Hippocrepandra.* Flores sæpius 5-meri. Calycis segmenta distinctius imbricata. Petala longiora. Species omnes occidentales, cymis capituliformibus sessilibus. HIPPOCREPANDRA, *Muell. Arg. in Linnæa,* xxxiv. 61.

14. **Dysopsis,** *Baill. Etud. Euph.* 435. (Molina, *C. Gay, Fl. Chil.* v. 345, *t.* 61.)—Flores monoici, apetali. Fl. ♂: Calyx tenuiter membranaceus, anguste campanulatus v. urceolatus, semi-3-fidus, lobis valvatis. Stamina 6, fundo calycis affixa, exserta, filamentis tenuissimis basi plus minus connatis; antheræ oblongæ, prope basin affixæ, versatiles, loculis contiguis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Calyx alte 3-fidus, lobis leviter imbricatis persistentibus. Ovarium 3-loculare; styli distincti, membranacei, lanceolati, margine leviter laciniati; ovula in loculis solitaria. Capsula 3-dyma, in coccos 2-valves dissiliens, endocarpio tenui. Semina ovoidea, nitidula, testa crustacea; albumen carnosum; embryo centralis, teres, rectus, cotyledonibus radicula

brevioribus nec latioribus.—Herba tenera, prostrata, radicans, glabra v. hispidula, habitu fere *Hydrocotylis*. Folia alterna, petiolata, late ovata v. orbiculata, grosse crenata v. obtuse lobata, membranacea, 3–5-plinervia. Flores in axillis solitarii, parvi, utriusque sexus nunc brevissime nunc longe, ♀ interdum longissime, pedicellati, superiores interdum ad apices ramorum subsessiles conferti. Capsulæ parvæ.

Species 1, Andium Americæ australis et ins. Juan Fernandez incola. *Muell. Arg. in DC. Prod.* xv. ii. 949. Genus nulli arcte affine, habitu ab omnibus *Crotoneis* longe recedit et embryo certe *Stenolobiearum*, ubi *Monotaxi* quodammodo accedit.

15. **Amperea,** *A. Juss. Euph. Tent.* 35, *t.* 10. Flores monoici v. dioici, apetali. Fl. ♂: Calyx campanulatus, subpetaloideus, 3–5-lobus. Stamina calycis loborum numero dupla v. pauciora, filamentis in centro floris liberis v. basi breviter connatis, interdum glandulis tot quot perianthii lobi cincta; antheræ 2-loculares v. exteriores 1-loculares, loculis distinctis globosis v. ovoideis parallelis longitudinaliter dehiscentibus, connectivo interdum glandula parva coronato. Ovarii rudimentum 0. Fl. ♀: Calyx quam in mare altius divisus, lobis 5 rarius 4 rigidiusculis, sub fructu persistens vix auctus. Ovarium sessile, 3-loculare; styli 2-fidi; ovula in loculis solitaria. Capsula ovoidea, appendiculis 6 dentiformibus in annulum dispositis coronata, in coccos 2-valves dissiliens. Semina obovoideo-oblonga, lævia, strophiolata; embryo ubi notus linearis, leviter incurvus, cotyledonibus radicula longioribus vix latioribus.—Herbæ perennes suffruticesve, caule basi v. rhizomate duro sæpe lignoso, ramis decumbentibus v. erectis rigidulis sæpe subaphyllis. Folia dum adsint alterna, linearia, integerrima, marginibus revolutis v. rarius plana, subdentata. Flores parvi, ad nodos v. ad axillas glomerati, bracteis parvis scariosis cincti, ♂ sæpius numerosi, ♀ parvi v. solitarii, omnes sessiles v. brevissime pedicellati. Capsulæ parvæ.

Species 6, omnes Australianæ. *Benth. Fl. Austral.* vi. 82. *Brongn. in Duperr. Voy. Coq. Bot. t.* 49. *A. Rich. Sert. Astrol. t.* 20.

Tribus III. Buxeæ.

16. **Simmondsia,** *Nutt. in Hook. Lond. Journ.* iii. 400, *t.* 16. (Brocchia, *Mauri in Ten. Cat. Ort. Napol.* 80.)—Flores dioici, apetali. Discus 0. Fl. ♂: Sepala 5, lata, valde imbricata. Stamina ∞ (10–20), filamentis brevissimis liberis; antheræ magnæ, erectæ, oblongæ, loculis parallelis contiguis lateraliter 2-valvibus. Ovarii rudimentum 0. Fl. ♀: Sepala 5–6, valde imbricata, interiora quam in mare multo longiora, foliacea. Ovarium 3-loculare; styli distincti, lineares, subteretes, indivisi, hirsuto-papillosi, decidui; ovula in loculis solitaria, axi affixa, pendula, raphe dorsali. Capsula majuscula, ovoideo-oblonga, acutiuscula, nitida, pericarpio coriaceo, loculicide 3-valvis. Semen abortu sæpius unicum, testa coriacea; albumen perparcum v. 0; cotyledones crasso-carnosæ, radicula minima.—Frutex dichotomus, ramosissimus, minute puberulus. Folia opposita, subsessilia, integerrima, coriacea, pennivenia. Flores ♂ in glomera subglobosa ad axillas sessilia v. brevissime pedunculata conferti, sub quaque bractea solitarii sessilesque, bracteis parvis; ♀ in dichotomiis sæpius solitarii, pedicello brevi mox recurvo.

Species 1, Californica. *Muell. Arg. in DC. Prod.* xvi. i. 22. Genus ob ovulorum positionem ad *Buxaceas* relatum, etsi floribus ♀, ovarii loculis 1-ovulatis, stylis caducissimis, aliisque notis a cæteris generibus longe distet. Stamina *Styloceratidis* v. *Toxicodendri*. Semina exalbuminosa et embryo *Amanoæ* v. *Elateriospermi*.

17. **Styloceras,** *A. Juss. Euph. Tent.* 53, *t.* 17.—Flores monoici v. subdioici, apetali. Discus 0. Fl. ♂: Calyx 0. Stamina ∞ (6–30), receptaculo basi bracteæ adnato affixa, filamentis brevissimis; antheræ majusculæ, oblongæ, erectæ, loculis parallelis connectivo latiusculo introrsum adnatis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Sepala 5, brevia, rigidula, bracteis ∞ similibus stipata. Ovarium e carpellis 2 septis spuriis jam sub anthesi 4-loculare (prima juventute 2-loculare ex Baill.); styli 2, longi, cum ovario continui, distincti v. basi breviter connati, indivisi; ovula in quoque carpello 2, in loculis solitaria, ab apice pendula, ab angulo centrali subdistantia, micropyle axin

oblique spectante. Drupa carnosa, siccitate dura, ovoidea v. subglobosa, stylis persistentibus 2-cornuta, indehiscens, endocarpio cartilagineo subcrustaceo in pyrenas 4 v. abortu pauciores diviso. Seminum testa lævis, crustacea; albumen carnosum; cotyledones planæ, latiusculæ.—Arbores glaberrimæ. Folia alterna, petiolata, integerrima, coriacea, penniveniа, venis primariis paucis subtus valde prominulis. Spicæ ♂ ad axillas sessiles, breves, densifloræ. Flores ♀ ad axillas sæpe solitarii, pedicellati, bracteis secus pedicellum dissitis, sed interdum flos ♀ adest ad basin spicæ ♂. Ovarium et fructus interdum casu 3-mera dicuntur, in speciminibus a nobis visis semper 2-mera.

Species 3, Columbianæ v. Bolivianæ. *Muell. Arg. in DC. Prod.* xvi. i. 9. *Baill. Monogr. Bux.* 77; *Etud. Euph. t.* 26. *H. B. et K. Nov. Gen. et Sp.* vii. *t.* 637, 638.

18. **Sarcococca,** *Lindl. Bot. Reg. t.* 1012. (Lepidopelma, *Klotzsch in Pr. Waldem. Reise, Bot.* 118, *t.* 22.)—Flores monoici, apetali. Discus 0. Fl. ♂: Sepala 4, 2-seriatim imbricata, additis bracteis exterioribus 2. Stamina 4, sepalis opposita, filamentis liberis exsertis crassiusculis; antheræ juxta basin dorsifixæ, oblongæ, demum recurvæ, loculis introrsum adnatis subparallelis longitudinaliter dehiscentibus. Ovarii rudimentum urceolatum v. cupulatum, truncatum. Fl. ♀: Calyx maris, bracteis exterioribus pluribus. Ovarium 2–3-loculare; styli distincti, breves, primum erecti v. conniventes, mox recurvo-patentes, indivisi; ovula in loculis gemina, ab angulo centrali plus minus distantia, raphe dorsali, micropyle axin spectante. Fructus subdrupaceus, ovoideus v. globosus, vix sulcatus nec cornutus, indehiscens, exocarpio pulposo-carnoso v. tenui subsicco, endocarpio tenuiter crustaceo. Semina abortu sæpius solitaria subglobosa v. gemina hemisphærica, estrophiolata, testa membranacea; albumen carnosum; cotyledones planæ, latæ, crassiusculæ.—Frutices glabri. Folia alterna, breviter petiolata, integerrima, coriacea, penniveniа v. simul triplinervia. Racemuli brevissimi, densi, ad axillas glomerati. Flores sub quaque bractea solitarii, ♂ et ♀ in diversis axillis, v. ♀ ad basin racemuli, ♂ solitarii.

Species 3, Indiæ Orientalis et Archipelagi Malayani incolæ. *Muell. Arg. in DC. Prod.* xvi. i. 11. *Baill. Monogr. Bux. t.* 3. *Hook. Exot. Fl. t.* 148 (*Pachysandra*). *Wight, Ic. t.* 1877.

Austrobuxus, *Miq. Fl. Ind. Bat. Suppl.* 444, planta Sumatrana a nobis non visa, ex auctoris descriptione est verisimiliter eadem ac *Sarcococca sumatrana*, Bl., a Muellero inter varietates *S. salignæ* inclusa.

19. **Buxus,** *Linn. Gen. n.* 1053.—Flores monoici, apetali. Discus 0. Fl. ♂: Sepala 4, 2-seriatim imbricata. Stamina 4, sepalis opposita, filamentis liberis exsertis crassiusculis; antheræ juxta basin dorsifixæ, oblongæ, demum recurvæ, loculis introrsum adnatis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum truncatum v. obtuse 3-lobum. Fl. ♀: Sepala 6, valde imbricata, exteriora minora. Ovarium 3-loculare; styli breves, crassi, inter se distantes v. rarius basi contigui; ovula in loculis gemina, ab apice pendula, ab angulo interno distantia, raphe dorsali, micropyle axin spectante. Capsula ovoidea, stylis persistentibus 3-cornuta, loculicide dehiscens, valvis indivisis stylis fissis 2-cornutis, pericarpio indurato, endocarpio soluto cartilagineo. Semina oblonga, 3-quetra, strophiola parva, testa crustacea nigra nitida; albumen subcarnosum; cotyledones oblongæ, radicula vix latiores.—Frutices ramosissimi, glabri, interdum demum arborescentes. Folia opposita, breviter petiolata, integerrima, coriacea, penniveniа. Racemuli densi, ad axillas sessiles v. breviter pedunculati. Bracteæ sæpe numerosæ, segmentis perianthii similes nisi minores. Flores sub quaque bractea solitarii, sessiles v. breviter pedicellati, terminales sæpe ♀, cæteris ♂, et bracteæ plures sæpe vacuæ. Ovarii apex in speciebus typicis inter stylos truncatus v. glanduloso-3-lobus, in *B. subcolumnari*, Muell. Arg., styli basi contigui.

Species ad 19, quarum 6 regionum temperatarum v. montanarum hemisphærii borealis in orbe vetere incolæ, cum una Madagascariensi et altera Africana tropica, cæteræ omnes in India occidentali crescentes. *Muell. Arg. in DC. Prod.* xvi. i. 14. *Baill. Monogr. Bux.* 58; *Adans.* xi. 268.

Genus in sectiones 2 dividitur: 1. *Eubuxus,* species gerontogeæ, spicis densis, sepalis bracteisque

latis membranaceo-scariosis. *Baill. Monogr. Bux. t.* 1. *A. Juss. Euph. Tent. t.* 1. *Gærtn. Fruct. t.* 108, *quoad embryonem male. Nees, Gen. Fl. Germ. Monochlam. n.* 41, *Reichb. Ic. Fl. Germ. t.* 153.

2. *Tricera*, species Indiæ occidentalis spicis v. racemis laxioribus sæpe paucifloris, sepalis minoribus sæpe angustis et siccitate nigricantibus, bracteis parvis. *Baill. Monogr. Bux. t.* 2. CRANTZIA, *Swartz, Prod.* 38. TRICERA, *Swartz, Fl. Ind. Occid.* 331, *t.* 7. *A. Juss. Euph. Tent. t.* 1. *A. Rich. Fl. Cub. t.* 71.

20. **Pachysandra,** *Mich. Fl. Bor. Amer.* ii. 177, *t.* 45.—Flores monoici, apetali. Discus 0. Fl. ♂: Sepala 4, 2-seriatim imbricata. Stamina 4, sepalis opposita, filamentis liberis exsertis crassiusculis; antheræ dorsifixæ, oblongæ, demum recurvæ, loculis introrsum adnatis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum vertice truncatum. Fl. ♀: Sepala 4 v. 6, 2-seriatim imbricata. Ovarium 3-loculare; styli basi subdistincti, erecti, longiusculi, superne patentes, indivisi; ovula in loculis gemina, ab angulo centrali parum distantia. Fructus speciei typicæ Americanæ a nobis non visus; capsula subglobosa, 3-cornis, in carpella 2-valvia dissiliens (*Mich.*, *A. Gray*); in specie Japonica subdrupaceus videtur, epicarpio in sicco laxo in vivo verisimiliter pulposo, endocarpio tenuiter crustaceo. Semina pauca, obovoideo-oblonga, testa crustacea nitida omnino *Buxi.*—Herbæ basi procumbentes radicantesque, ramis adscendentibus apice foliatis. Folia alterna, petiolata, latiuscula, grosse dentata v. rarius integerrima, triplinervia. Spicæ longiusculæ, floribundæ, in specie Americana ad basin caulis infra folia ad axillas squamarum parvarum sitæ, floribus ♀ ad basin spicæ paucis dissitis cæteris ♂, in specie Japonica terminales inter folia summa sessiles, flore ♀ unico terminali. Flores in utraque sub bracteis alternis solitarii, sessiles v. breviter pedicellati.

Species 2, altera boreali-Americana, altera Japonica. *Muell. Arg. in DC. Prod.* xvi. i. 21. *Baill. Monogr. Bux.* 55, *t.* 3. *Bot. Mag. t.* 1964. *Bot. Reg. t.* 33. *Lodd. Bot. Cab. t.* 910.

TRIBUS IV. PHYLLANTHEÆ.

21? **Stenonia,** *Baill. Etud. Euph.* 578, *t.* 22.—Flores dioici, petaliferi. Calycis segmenta 5, valvata. Petala parva, spathulata, denticulata. Discus 5-lobus. Fl. ♂: Stamina 5, filamentis a basi liberis; antheræ erectæ, loculis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum 3-partitum. Fl. ♀: Ovarium 3-loculare; styli breves, 2-partiti, lobis ovoideis crassis crenulatis; ovula in loculis gemina. Fructus . . .— Arbor. Folia alterna, petiolata, integerrima, pennivenia. Flores ad nodos ramorum annotinorum fasciculati, pedicellati. (*Char. ex Baill. et Muell. Arg.*)

Species 1, ins. Comorensium Madagascariæ incola, a nobis non visa. *Muell. Arg. in DC. Prod.* xv. ii. 511.

22. **Bridelia,** *Willd. Spec.* iv. 978 (Briedelia). (Zarcoa, *Llanos in Mem. Acad. Cienc. Madr.* iv. 501, *ex char.* Candelabria, *Hochst. in Flora* 1843, 79.)—Flores monoici, petaliferi. Fl. ♂: Calycis segmenta 5, valvata. Petala 5, brevia, squamiformia, stipitata v. spathulata, lamina sæpius parva lata subdentata. Discus margine integer v. sinuatolobatus. Stamina 5, filamentis in medio disco basi in columnam connatis superne liberis patentibus; antherarum loculi paralleli, longitudinaliter dehiscentes. Ovarii rudimentum ad apicem columnæ styliforme v. divisum. Fl. ♀: Calycis segmenta quam in ♂ angustiora. Discus duplex, interiore annulari v. cupulato ovarii basin arcte cingente (an staminodia connata?). Ovarium 2-loculare v. rarissime hinc inde 3-loculare; styli distincti v. basi breviter connati, 2-lobi v. subintegri; ovula in loculis gemina. Bacca v. drupa parvula, indehiscens, exocarpio carnoso v. pulposo, endocarpio crustaceo v. parum indurato 2-pyreno v. abortu 1-pyreno. Semina in pyrenis abortu sæpius solitaria; albumen in plerisque speciebus carnosum, facie interiore late profundeque excavato; embryo cavitati albuminis parallelus, cotyledonibus latis tenuibus; in *B. retusa* tamen semina vidimus omnino *Cleistanthi*, albumine membranaceo, cotyledonibus crasso-carnosis altera majore minorem plicatam fovente.—Frutices arboresve. Folia alterna, petiolata, integerrima,

venis primariis pinnatis, secundariis transversis utrinque prominulis. Flores parvi, ad axillas glomerati, bracteis parvis squamiformibus stipati, ♂ numerosi subsessiles, ♀ pauciores v. solitarii, sæpius evidentius pedicellati. Baccæ v. drupæ globosæ v. ovoideæ, parvulæ, læves.

Species ad 25, Asiæ et Africæ tropicæ, insularum Mascarensium et Archipelagi Malayani, Australiæ et Novæ Caledoniæ incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 493. *Benth. Fl. Austral.* vi. 119. *Kurz, For. Fl. Brit. Burm.* ii. 366. *Roxb. Corom. Pl. t.* 171 *ad* 173 (*Cluytia*). *Bedd. Fl. Sylv. t.* 260. *Brandis, For. Fl. t.* 55.

23. **Cleistanthus,** *Hook. f. in Hook. Ic. Pl. t.* 779, *et Fl. Nigr. t.* 36. (Lebidiera, *Baill. Etud. Euph.* 581, *t.* 27, *Amanoæ* sect., pro genere proprio receptum a *Muell. Arg. in Linnæa* xxxii. 80. Leiopyxis, *Miq. Fl. Ind. Bat. Suppl.* 445.)—Flores monoici, petaliferi. Fl. ♂ : Calycis segmenta v. lobi 5, valvata. Petala 5, brevia, squamiformia, stipitata v. spathulata, lamina parva lata subdentata. Discus margine integer v. sinuato-lobatus. Stamina 5, filamentis in medio disco basi in columnam connatis superne liberis patentibus; antherarum loculi paralleli, longitudinaliter dehiscentes. Ovarii rudimentum ad apicem columnæ styliforme, divisum. Fl. ♀ : Calyx minus alte divisus quam in ♂, basi sub ovario cupulatus. Discus duplex, interiore annulari v. cupulato ovarii basin arcte cingente (an staminodia connata?). Ovarium 3-loculare ; styli distincti, 2-fidi ; ovula in loculis gemina. Capsula globosa v. depressa, 3-sulca, in coccos 2-valves dissiliens. Semina in coccis gemina v. abortu solitaria; albumen sæpius parcum, interdum submembranaceum v. vix ullum ; cotyledones crasso-carnosæ v. rarius tenuiores, sæpius plus minus plicatæ.—Arbores fruticesve. Folia alterna, integerrima, coriacea, pennivenia, venis primariis minus conspicuis quam in *Bridelia* intra marginem arcuatis anastomosantibus, secundariis reticulatis. Flores parvuli, ad axillas foliorum dense glomerati, sessiles v. præsertim ♀ breviter pedicellati. Capsulæ basis in speciebus pluribus post coccos delapsos cum receptaculo indurata circa columellam persistit pateriformis.

Species ad 22, Asiæ et Africæ tropicæ, Madagascariæ, Archipelagi Malayani, Australiæ et Novæ Caledoniæ incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 504. *Benth. Fl. Austral.* vi. 121. *Kurz, For. Fl. Brit. Burm.* ii. 370. *Wight, Ic. t.* 1911 (*Amanoa*). *Roxb. Corom. Pl. t.* 169, 170 (*Cluytia*).

Genus *Brideliæ* affine quidem sed fructu et habitu bene distinctum, ab *Amanoa* calyce valvato et patria facile dignoscendum. Semina quoad crassitudinem albuminis et cotyledonum ut in illis variare videntur, et genera sequentia *Cleistantho* addenda videntur :—

Lebidieropsis, *Muell. Arg. in Linnæa* xxxii. 79, *et in DC. Prod.* xv. ii. 509, est *Cluytia collina*, Roxb., l. c., albumine carnoso etsi haud crasso, cotyledonibus crassis una longitudinaliter plicata altera majore leviter concava.

Nanopetalum, *Hassk. Hort. Bogor. Descr.* 65 ; *Muell. Arg. in DC. Prod.* xv. ii. 510, est species Archipelagi Malayani a *Cleistantho* separata ob albuminis deficientiam, cotyledonibus crassis. In speciminibus Zollingeri n. 3777 albumen pertenue submembranaceum invenimus, cotyledonibus ut in pluribus *Cleistanthis* et in *Bridelia retusa* inæqualibus crasso-carnosis, una longitudinaliter plicata ab altera majore cincta.

24. **Amanoa,** *Aubl. Pl. Gui.* i. 256, *t.* 101.—Flores monoici, sæpius petaliferi. Fl. ♂ : Sepala 5, imbricata, parum inæqualia. Petala 5, brevia, squamiformia. Discus brevis. Stamina in disco 5, filamentis liberis crassis brevibus v. demum elongatis; antheræ crassæ, loculis distinctis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum columnare, teres v. 3-quetrum, apice 3-lobum. Fl. ♀ : Sepala quam in mare angustiora, petalis interdum obsoletis. Ovarium subglobosum, 3-loculare, stigmatibus 3 sessilibus crassis carnosis disciformibus; ovula in loculis gemina. Capsula demum indurata, in coccos 2-valves dissiliens. Semina in coccis abortu solitaria, nitida, media facie affixa, testa crustacea; albumen tenue v. 0; cotyledones crassæ, carnosæ, radicula brevi.—Arbores fruticesve sæpius glabri. Folia alterna, coriacea, integerrima. Flores axillares, ♂ sessiles glomerati, ♀ solitarii v. pauci, pedicellati. Ramuli floriferi interdum foliis floralibus abortientibus racemos v. paniculas terminales simulant.

Species 6, Americæ et Africæ occidentalis inter tropicos incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 219, *in Mart. Fl. Bras.* xi. ii. 9, *t.* 1, *et in Flora* 1872, 2. *Planch. in Hook. Ic. Pl. t.* 797, *et in Hook. Fl. Nig. t.* 47.

Genera *Amanoa, Cleistanthus* et *Bridelia* in Prodromo in tribus duo distinctas separata, a Baillono in genus unicum junguntur et certe inter se valde affinia sunt. Characteres tamen uti habitus bene definiti videntur, et genera tria nobis servanda videntur.

25. **Discocarpus,** *Klotzsch in Wiegm. Archiv.* vii. 201, *t.* 9.—Flores dioici, sæpius petaliferi. Fl. ♂ : Sepala 5, rarius 4, membranacea, imbricata, exterioribus paullo minoribus. Petala totidem, parva, interdum deficientia. Discus membranaceus, cyathiformis v. cupulatus, 5-lobus. Stamina 5–4, filamentis in medio disco in columnam connatis, superne circa ovarii rudimentum 3-partitum liberis patentibus; antherarum loculi paralleli, longitudinaliter dehiscentes. Fl. ♀ : Sepala quam in mare rigidiora. Discus crassior, patens, subinteger. Ovarium 3-loculare; styli 3, distincti, superne recurvo-patentes, in laminam latam crenulatam dilatati, crenulis margine stigmatosis; ovula in loculis gemina. Capsula dura, globosa, 3-cocca v. abortu 1–2-cocca, coccis 2-valvibus. Semina in coccis solitaria, testa crassa sæpius rugosa, membrana interna tenui; albumen tenue v. 0; cotyledones latissimæ, valde contortuplicatæ.—Arbores divaricato-ramosæ. Folia alterna, brevissime petiolata, integerrima, coriacea, nitidula. Flores ad axillas dense glomerati, sessiles, ♂ numerosi, ♀ pauciores interdum solitarii. Capsulæ tomentosæ, cæterum læves v. molliter verrucoso-muricatæ.

Species 3, Brasiliæ et Guianæ incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 223, *et in Mart. Fl. Bras.* xi. ii. *t.* 2.

Rami apice spinescentes dicuntur quod in speciminibus nostris non apparet. Gemmæ axillares tamen, stipulis rigidis acutissimis involutæ, interdum spinas simulant. Arillum membranaceum circa semina ab auctoribus descriptum haud invenimus.

26. **Lachnostylis,** *Turcz. in Bull. Soc. Imp. Nat. Mosc.* 1846, 503.—Flores dioici, petaliferi. Fl. ♂ : Sepala 5, membranacea, imbricata, subæqualia. Petala 5, vix breviora. Discus latus, villosissimus. Stamina 5, filamentis in medio disco ad medium in columnam glabram connatis, superne circa rudimentum ovarii villosum 3-partitum liberis patentibus; antherarum loculi paralleli, longitudinaliter dehiscentes. Fl. ♀ : Calyx et petala maris. Discus parum prominulus. Ovarium globosum, dense villosissimum, 3-loculare; styli breves, plani, recurvo-patentes, cuneati, breviter 2-fidi; ovula in loculis gemina. Capsula in coccos 2-valves dissiliens, pericarpio crassiuscule crustaceo. Semina subglobosa, lævia, testa crassiuscule membranacea; albumen tenue; cotyledones latissimæ, valde contortuplicatæ.—Frutex ramosissimus. Folia parvula, alterna, coriacea, integerrima. Flores tomentoso-villosi, ad axillas fasciculati, ♂ breviter pedicellati v. subsessiles, ♀ pauciores interdum solitarii, pedicellis longiusculis.

Species 1, Africæ australis incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 224. *Hook. Ic. Pl. t.* 1279.

Genus quoad characteres essentiales vix a *Discocarpo* separandum, distinguitur patria, habitu, et disco.

27. **Actephila,** *Blum. Bijdr.* 581. (Anomospermum, *Dalz. in Hook. Kew Journ.* iii. 228, *non Miers.*)—Flores monoici v. interdum forte dioici, sæpius petaliferi. Fl. ♂ : Sepala 5–6, subæqualia v. interiora paullo majora, imbricata. Petala totidem, sub disco parva squamiformia v. 0. Discus expansus, integer v. 5-lobus. Stamina 3–6, in medio disco circa ovarii rudimentum 2–3-fidum affixa, filamentis liberis v. sub rudimento breviter connatis; antherarum loculi paralleli, introrsum v. demum filamento recurvo extrorsum rima longitudinali dehiscentes. Fl. ♀ : Calyx et petala maris. Ovarium in disco sessile, 3-loculare; styli breves, liberi v. basi connati, indivisi v. 2-fidi; ovula in loculis gemina. Capsula dura, loculicide 3-valvis v. in coccos 2-valves dissiliens. Semina sæpius in coccis solitaria, majuscula, testa fragili; albumen perparcum v. 0; cotyledones crassæ, carnosæ, interdum valde dilatatæ, sibi invicem plicatæ v. valde contortuplicatæ.—Arbores fruticesve. Folia alterna, petiolata, sæpius ampla, integerrima, demum coriacea. Flores ad axillas

glomerati, ♂ sæpius plures breviter nunc brevissime pedicellati, ♀ solitarii v. cum ♂ pauci, longius pedicellati et sæpe majores.

Species ad 10, Indiæ orientalis Archipelagi Malayani et Australiæ incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 221. *Benth. Fl. Austral.* vi. 88. *Kurz, For. Fl. Brit. Burm.* ii. 340. *Baill. Adans.* vi. *t.* 10. *Wight, Ic. t.* 1910.

LITHOXYLON, *Endl. Gen.* 1122, genus ad *Securinegam nitidam,* Lindl. Collect. t. 9, non Willd., in hortis e seminibus Taitensibus cultam propositum, habitu floribusque omnino *Aotephilæ* convenit, sed seminibus indescriptis adhuc dubium remanet. *L. grandifolium,* Muell. Arg. ex Australia, rite a Baillono ad *Actephilam* refertur.

28. **Wielandia,** *Baill. Etud. Euph.* 568, *t.* 22.—Flores monoici, petaliferi. Fl. ♂ : Calyx alte 5-fidus, lobis imbricatis. Petala lata, calyce longiora. Discus 5-angulatus. Stamina 5, petalis alterna, filamentis in columnam crassam connatis apice breviter liberis mox recurvis ; antheræ primum erectæ mox recurvæ, loculis parallelis contiguis longitudinaliter dehiscentibus. Ovarii rudimentum columnam stamineam terminans, vertice planum, inter stamina radiatim 5-lobum. Fl. ♀ : Calyx et petala maris. Discus cupularis, ovarium cingens. Ovarium 5-loculare ; styli recurvo-patentes, apice breviter 2-lobi ; ovula in loculis gemina. Capsulæ loculi 2-valves, abortu 1-spermi.—Frutex elatior, glaber. Folia alterna, petiolata, integerrima, coriacea, tenuiter pennivenia et reticulata. Flores ad axillas fasciculati, pauci, ♂ breviter ♀ longe pedicellati, ramulis floriferis interdum ob folia floralia diminuta racemulos simulantibus.

Species 1, insularum Seychellarum incola. *Muell. Arg. in DC. Prod.* xv. ii. 228 (*Saviæ* sect.). Specimen nostrum imperfectum a Bakero Fl. Maurit. 291, sub *Mespilodaphne* notatur. Char. supra datus præcipue ex Baill. l. c.

29. **Savia,** *Willd. Spec.* iv. 771.—Flores dioici v. monoici, sæpius petaliferi. Discus varius. Fl. ♂ : Sepala 5, subæqualia, imbricata. Petala parva v. calycem superantia. Stamina 5, petalis alterna, filamentis liberis v. ima basi receptaculo adnatis ; antheræ erectæ, loculis parallelis contiguis longitudinaliter dehiscentibus. Ovarii rudimentum sæpius breve, 3-fidum. Fl. ♀ : Sepala et petala maris. Ovarium 3-loculare ; styli distincti, superne patentes, 2-fidi, ramis crassiusculis v. tenuibus ; ovula in loculis gemina. Capsula in coccos 2-valves dissiliens, endocarpio crustaceo v. parum indurato. Semina ovoidea v. 3-quetra, testa crustacea v. crassiuscule membranacea ; albumen carnosum, crassum v. tenue ; cotyledones latæ, planæ v. leviter plicatæ, radicula sæpe obliqua.—Frutices glabri. Folia alterna, integerrima, rigidule membranacea v. subcoriacea, pennivenia. Flores axillares, ♂ dense glomerati, subsessiles, ♀ solitarii v. pauci, breviter v. longe pedicellati.

Species ad 10, quarum 4, genuinæ, Indiæ occidentalis incolæ, floribus dioicis, petalis parvis squamiformibus v. 0. *Muell. Arg. in DC. Prod.* xv. ii. 230. *A. Juss. Euph. Tent. t.* 2. *Baill. Etud. Euph. t.* 26. *A. Rich. Fl. Cub. t.* 70 (*Phyllanthus*). His addiderunt Baillon et Muell. Arg. species 5 Madagascarienses monoicas, petalis calycem æquantibus v. subsuperantibus, quæ in sectiones (v. prius genera) 2, PETALODISCUS, *Baill. Etud. Euph.* 571, *t.* 22, et CHARIDIA, *Baill. l. c.* 572, ob differentias parvas in disco v. stylis distinctas distribuuntur. Sectionem *Wielandiam,* Muell. Arg., ducente Baillono, pro genere proprio retinemus.

GONATOGYNE, *Klotzsch* ; *Muell. Arg. in Mart. Fl. Bras.* xi. ii. 13, species austro-Brasiliensis imperfecte nota, ex speciminibus nostris fructiferis et charactere dato, videtur *Saviæ* species *S. clusiæfoliæ,* Griseb., proxime affinis, certe non *Amanoæ* species.

30. **Andrachne,** *Linn. Gen. n.* 1095.—Flores monoici, sæpius petaliferi. Fl. ♂ : Calycis segmenta v. lobi 5–6. Petala breviora v. rarius subæquilonga. Disci glandulæ v. lobi numero petalorum æquales iisque oppositi v. duplo plures. Stamina 5–6, petalis alterna, filamentis liberis ; antheræ erectæ, loculis parallelis distinctis longitudinaliter dehiscentibus. Ovarii rudimentum parvum. Fl. ♀ : Calycis segmenta sæpius quam in ♂ majora. Petala minuta v. 0. Ovarium 3-loculare ; styli breves, angusti, 2-fidi v. 2-partiti ; ovula

in loculis gemina. Capsula sicca, in coccos 2-valves dissiliens. Semina curvula, rugosa, estrophiolata; albumen carnosum; embryo curvulus, radicula longiuscula, cotyledonibus planis latis.—Herbæ suffruticesve diffusi v. frutices tenuiores. Folia alterna, petiolata, membranacea, sæpe parva. Flores ad axillas pedicellati, ♂ sæpius fasciculati, ♀ solitarii.

Species 10, per varias regiones late dispersæ, a Muell. Arg. in sectiones 6 distributæ quarum pleræque species singulæ sunt glandulis disci plus minus evolutis v. connatis parum distinctæ. *Muell. Arg. in DC. Prod.* xv. ii. 233. *Nees, Gen. Fl. Germ. Monochl. n.* 39. *Reichb. Ic. Fl. Germ. t.* 153. *Sibth. Fl. Gr. t.* 953. *Eichw. Pl. Cauc. Casp. t.* 20.

Eraclissa, *Forsk. Fl. Æg. Arab.* 208 (*Telephioides* et *Sclerandrachne*, Muell. Arg.) species continet typicas Europæas et Orientales. *Pseudophyllanthus* est species Capensis. Lepidanthus, *Nutt. in Trans. Amer. Phil. Soc.* v. 175, est species boreali-Americana. Phyllanthidia, *Didrichs. in Vidensk. Meddel. Nat. For. Kjobenh.* 1857, 150, species Peruviana, nobis ignota est. Arachne, *Neck. Elem.* ii. 348 (Leptopus, *Dcne. in Jacquem. Voy. Bot.* 155, *t.* 156), species continet 4 Asiaticas a cæteris paullulum diversas, foliis floribusque majoribus, disco in glandulas numero petalorum duplo plures diviso. *Kl. in Waldem. Reise, t.* 24 (*Phyllanthus*).

31. **Agyneia,** *Vent. Jard. Cels. t.* 23. (Diplomorpha, *Griff. Notul.* iv. 479.)—Flores monoici, apetali. Discus 0. Fl. ♂: Sepala 6, imbricata, subæqualia, sub-2-seriata, punctata, medio crassiuscula quasi squama adnata aucta, margine albo-membranaceo cincta. Stamina 3, filamentis in centro floris in columnam connatis; antheræ circa apicem columnæ subsessiles, loculis parallelis extrorsum longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Sepala acuta, immarginata. Ovarium ovoideum, 3-loculare, vertice truncatum, mox concavum; styli brevissimi, erecto-patentes, alte 2-fidi; ovula in loculis gemina. Capsula ovoidea, loculicide dehiscens v. demum in coccos 2-valves dissiliens. Semina curvula, hilo longo laterali; albumen carnosum; embryo curvulus, cotyledonibus latis planis.—Herbæ annuæ v. basi indurescentes, ramis rigidulis diffusis v. patentibus sæpe angulatis. Folia alterna, parvula, integerrima. Flores axillares, ♂ sæpius plures glomerati, minuti, breviter pedicellati, ♀ solitarii, majores longiusque pedicellati. Bracteæ ad basin pedicellorum interdum ∞, stipuliformes.

Species (v. varietates?) 2, Indiæ orientalis, Archipelagi Malayani et insularum Mascarensium incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 238. *A. Juss. Euph. Tent.* 24, *t.* 6. *Wight, Ic. t.* 1893.

Genus vix a *Phyllanthi* sectione *Synostemo* differt, perianthii ♂ segmentorum disco incrassato quasi squama adnata instructo. Hæ squamæ tamen, ut in *Sauropo*, a receptaculo floris omnino distinctæ sunt.

32. **Sauropus,** *Blume, Bijdr.* 595. (Ceratogynum, *Wight, Ic.* v. ii. 26, *t.* 1900.)—Flores monoici, apetali. Discus 0. Fl. ♂: Calyx sæpius alte divisus; segmenta 6, sub-2-seriata, basi nunc leviter incrassata, nunc squamellis supra columnam stamineam conniventibus aucta. Stamina 3, filamentis in centro floris in columnam brevem crassam connatis v. apice breviter liberis patentibus; antheræ sub apice truncato v. peltato columnæ sessiles v. subsessiles, loculis distinctis parallelis extrorsum dehiscentibus. Ovarii rudimentum (præter columnæ apicem) 0. Fl. ♀: Calyx quam in ♂ minus divisus et interdum rotato-expansus brevissime tantum sinuato-lobatus, lobis basi vix v. parum incrassatis. Ovarium ovoideum v. depresso-globosum, vertice truncatum v. concavum; styli brevissimi, patentes, liberi v. basi adnati, 2-fidi v. 2-partiti; ovula in loculis gemina. Capsula depresso-globosa, in coccos 2-valves dissiliens. Semina in coccis sæpius gemina; albumen carnosum; embryo rectus v. vix incurvus, cotyledonibus planis latis.—Fruticuli rarius suffrutices, habitu *Phyllanthi*, foliis alternis distichis membranaceis integerrimis. Flores ad axillas fasciculati, in quaque axilla haud numerosi, omnes pedicellati, ♂ minuti, ♀ in eadem v. in distincta axilla solitarii v. rarius 2, longius pedicellati.

Species descriptæ 14, Indiæ orientalis, Archipelagi Malayani (et Novæ Caledoniæ?) incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 240. *Baill. Etud. Euph. t.* 27. *Wight, Ic. t.* 1951, 1952. Calycis lobi v. segmenta et appendices baseos in fl. ♂ variant fere de specie in speciem, et genus nequaquam in sectiones distinctas dividere possumus. Segmentorum appendices pro disci lobis descriptæ sunt, sed nobis semper videntur calyci solo affixæ, a receptaculo floris omnino distinctæ.

33. **Cluytiandra,** *Muell. Arg. in Seem. Journ. Bot.* 1864, 328, *et in DC. Prod.* xv. ii. 225.—Flores monoici, apetali. Discus 0. Fl. ♂: Calyx 5-fidus, lobis basi squamula parva auctis. Stamina 5, filamentis in centro floris basi in columnam connatis superne liberis; antherarum loculi paralleli, longitudinaliter dehiscentes. Ovarii rudimentum 0 (v. ad apicem columnæ inter stamina parvum 3-partitum, *Muell. Arg.*). Fl. ♀: Calyx quam in ♂ minus alte divisus. Ovarium 3-loculare, vertice truncatum; styli breves, patentes, 2-fidi; ovula in loculis gemina. Capsula in coccos 2-valves dissiliens. Seminum albumen carnosum, cotyledones planæ latæ.—Frutex habitu *Sauropodis*. Folia alterna, disticha, membranacea, integerrima, pennivenia. Flores ad axillas fasciculati, ♂ minuti, breviter pedicellati, ♀ sæpius in eadem axilla solitarii, pedicello elongato.

Species 1, Africæ tropicæ occidentalis incola, a Baillono ad *Andrachnem* relata, sed petalorum absentia et squamellis ad basin perianthii potius *Sauropodi* affinis videtur, et vix nostro sensu ab eo separanda, filamentis superne liberis et ovarii rudimento in fl. ♂ ex Muell. Arg. evoluto. Hoc tamen in floribus minutis in speciminibus nostris vix perfectis haud deteximus.

34. **Phyllanthus,** *Linn. Gen. n.* 1050. — Flores monoici rarissime dioici, apetali. Discus varius v. 0. Fl. ♂: Sepala 6, 5 v. rarius 4, distincta v. rarius basi breviter connata, imbricata, plus minus distincte 2-seriata, omnia similia herbacea v. subpetaloidea v. exteriora breviora. Stamina in centro floris 3, rarius 2 v. 5 v. rarissime 6-∞, filamentis liberis v. in columnam centralem connatis; antherarum loculi nunc distincti paralleli longitudinaliter dehiscentes nunc divergentes quoad connectivum oblique v. subtransversim 2-valvati v. horizontaliter in unum confluentes. Ovarii rudimentum 0. Fl. ♀: Calyx maris v. rigidior. Ovarium 3-∞-loculare; styli distincti v. plus minus connati, integri v. sæpius 2-fidi, erecti v. recurvo-patentes, subulati v. plano-dilatati, superne introrsum v. margine stigmatosi; ovula in loculis gemina. Capsula sicca v. carnosa, demum sæpissime in coccos 2-valves dissiliens, rarius loculicida v. vix dehiscens. Semina (dum omnia perfecta) transversim 3-angularia, dorso convexa, angulo interiore recta, estrophiolata, testa membranacea v. crustacea; albumen carnosum; embryo rectus v. leviter incurvus, cotyledonibus planis rectisque v. rarius flexuosis.—Herbæ frutices v. arbores, habitu vario. Folia integerrima, alterna v. rarissime opposita, sæpius disticha, ramulis folia pinnata haud raro simulantibus. Flores parvi, axillares v. rarius ad nodos ramulorum aphyllorum, ♂ sæpius ∞ glomerati, subsessiles v. distincte pedicellati, rarius pauci rarissime solitarii, ♀ in eadem axilla v. in ramulo distincto pauci v. solitarii, longius pedicellati.

Species enumeratæ ad 450, per regiones calidiores utriusque orbis latissime dispersæ, in temperatis rariores, in Europa et Asia Rossica desunt, in America boreali perpaucæ inveniuntur, et paucæ tantum in Africa australi et Australia extratropica crescunt. *Muell. Arg. in DC. Prod.* xv. ii. 275, *et in Mart. Fl. Bras.* xv. ii. 25, *t.* 3 *ad* 10. *Benth. Fl. Austral.* vi. 93.

Genus numero specierum vix *Crotoni* cedens, et difficillime in sectiones naturales dividendum, etsi diversitates insignes ostendit in disco, in calyce, in filamentorum antherarum v. stylorum numero v. evolutione, et a pluribus auctoribus in genera plurima divellitur. Mueller Argoviensis sectiones 44 in Prodromo distinxit, quibus addidit 2 in Flora Brasiliensi; plures tamen sunt potius species singulæ charactere uno alterove parum abnormes, et majores, exceptis *Glochidio Synostemone et Xylophyllo*, vix naturales; species nonnullæ, e.g. *Euphyllanthi* v. *Paraphyllanthi*, speciebus in altera sectione separatis similiores sunt quam illis in eadem sectione inclusis. Cæterum divisiones sequentes, a pluribus genera propria nuncupata, insigniores sunt.

* *Discus in utroque sexu deficiens.*

1. *Glochidium.* Arbores fruticesve gerontogei, foliis sæpius coriaceis majusculis v. amplis. Stamina 3-∞, antheris erectis in columna centrali sessilibus. Ovarium 3-∞-loculare; styli breves crassi, erecti, basi sæpe connati. Species enumeratæ ultra 100, plures tamen ægre distinguendæ, Asiæ tropicæ, Archipelagi Malayani, Australiæ et insularum maris Pacifici incolæ. PHYLLANTHI series 1, *Muell. Arg. in DC. Prod.* xv. ii. 275. GLOCHIDION, *Forst. Char. Gen.* 113, *t.* 57. *A. Juss. Euph. Tent. t.* 3. *Kurz, For. Fl. Brit. Burm.* ii. 341. *Wight, Ic. t.* 1906 *ad* 1908. BRADLEIA, *Gærtn. Fruct.* ii. 127, *t.* 109. *Labill. Sert. Austr. Caled. t.* 76 *ad* 78. *Cav. Ic. t.* 371. GYNOON, *A. Juss. Euph. Tent.* 17, *t.* 3. *Wight, Ic. t.* 1909. GLOCHISANDRA, *Wight, Ic.* v. ii. 28, *t.* 1905. LOBOCARPUS, *W. et Arn. Prod. Fl. Penins.* 7. GLOCHIDIONOPSIS, *Blume, Bijdr.* 588.

In *P. obscuro*, Willd., affinibusque capsula dura dense tomentosa subglobosa non sulcata tardius a basi breviter dehiscens; in speciebus nonnullis (e.g. *P. ramifloro*) fructus fere *Fluggeæ* nisi 5–6-merus, pericarpio maturo irregulariter rupto; semina ut videtur pulpo immersa, testa nitida crustacea ventre duplicata inter laminas cava.

2. *Synostemon.* Suffrutices v. herbæ perennes Australienses, foliis parvis. Stamina 3, antheris erectis columnæ centrali adnatis. Ovarium 3-loculare; styli distincti v. basi connati. Species enumeratæ 12. *Benth. Fl. Austral.* vi. 97. Synostemon, *F. Muell. Fragm. Phyt. Austral.* i. 32.

** *Discus evolutus v. rarius in uno sexu deficiens. Capsula carnosa v. baccata.*

3. *Cicca.* Arbores fruticesve. Ramuli floriferi imprimis ♂ sæpe aphylli racemos simulante inflorescentia tamen interdum normalis. Sepala et stamina sæpissime 4, filamentis liberis. Ovarium sæpius 4- v. 2-loculare; styli patentes. Species paucæ, gerontogeæ et Americanæ tropicæ, quarum typica Asiatica in America inquilina inflorescentia sæpius aphylla v. paucifoliata, Cicca, *Linn. Mant.* n. 1275. *Kurz, For. Fl. Brit. Burm.* ii. 351. Tricaryum, *Lour. Fl. Cochinch.* 557. Staurothyrax, *Griff. Notul.* iv. 476. Species 3 v. 4, Americanæ, florum glomerulis ad normam generis axillaribus. Wurtzia, *Baill. Adans.* i. 186, *t.* 7.

Prosorus, *Dalz. in Hook. Kew Journ.* iv. 345, *Thwaites in Hook. Kew Journ.* vi. *t.* 10, *et* Calococcus, *Kurz ex Teijsm. et Binnend. in Batav. Natuurk. Tijdschr.*, xxvi. 48, ob flores 4-meros a Muell. Arg. in sectione *Cicca* includuntur, sed ovarium 3-merum et capsula sicca potius *Paraphyllanthum* indicant.

Hedycarpidium, est *P. javanicus*, Muell. Arg., qui a *Cicca* differre dicitur staminibus monadelphis. Fructus tamen indescriptus est.

4. *Kirganelia.* Frutices habitu *Phyllanthi* normalis. Stamina 5, filamentis sæpe nec semper plus minus connatis. Ovarium 3–∞-loculare; styli patentes, distincti v. basi connati. Species omnes gerontogeæ. Kirganelia, *A. Juss. Euph. Tent.* 21, *t.* 4.

Anisonema, *A. Juss. Euph. Tent.* 19, *t.* 4, *Wight, Ic. t.* 1899, ob stamina 5, sæpe inæqualia 3 cæteris longiora v. altius connata, et Peltandra, *Wight, Ic.* v. 24, *t.* 1891, 1892, staminibus 5 æqualibus, filamentis ad medium connatis, ad *Kirganeliam* referantur, sed capsula sicca potius *Paraphyllanthi*.

Fluggeopsis, est *P. fluggeiformia*, Muell. Arg. (*P. glaucus*, Wall. Cat. n. 5927), species Nepalensis staminibus ut in *Peltandra* 5 æqualibus, filamentis liberis, antheris *Paraphyllanthi*, fructu ignoto verisimiliter capsulari. *Kirganeliæ* duæ Blancoi in Prodromo memoratæ errore typographico sub *Fluggeopside* collocatæ sunt.

5. *Emblica.* Stamina sæpius 3 et antheræ erectæ loculis parallelis *Paraphyllanthi.* Ovarium 3-loculare, stylis connatis. Species Asiatica, *Brand. For. Fl. t.* 52. *Bedd. Fl. Sylv.* t. 258. Emblica, *Gærtn. Fruct.* ii. 122, *t.* 108. *Wight, Ic. c.* 1896. Dichelactina, *Hance in Walp. Ann.* iii. 375. Mueller Arg. in Prodromo sub sectione *Emblica* species plures includit habitu vario, fructu sicco v. subcarnoso, stylis in omnibus plus minus in columnam connatis apice tantum liberis divergentibus nec a basi liberis ut in *Paraphyllantho*.

*** *Discus evolutus. Capsula sicca.*

6. *Emblicastrum.* Stamina 3–4, filamentis brevissimis; antheræ didymæ *Paraphyllanthi.* Ovarium 3-loculare, stylis in columnam longam apice brevissime 3-lobam connatis. Species unica ex ins. Madura Archipelagi Malayani, a Teijsm. et Binnend. Cat. Hort. Bogor. 229, sub *Scepasmate parvifolio* enumerata, rite a Muell. Arg. in Prod. 324 ad *Phyllanthum* relata, etsi pluribus notis in genere singularis. Habitus quam in *Emblica* rigidior, fere *P. pulchri*, Wall. v. *P.* (*Scepasmatis*) *buxifolii*, Muell. Arg. Flores in axillis solitarii, subsecundi, intra bracteas 3 (bractea cum bracteolis) minimas latas laceras sessiles, ♂ minimi sepalis 4 latis membranaceis, ♀ majores sepalis 5 rigidis erectis lanceolatis, quod in nulla alia specie observatur. Discus hypogynus denticulatus. Styli columna ovario triplo saltem longior.

7. *Williamia.* Arbusculæ Cubenses. Stamina 10–15, antheris erectis in columna centrali sessilibus distinctis loculis parallelis. Ovarium 3-loculare, stylis v. stigmatibus subsessilibus unilateraliter peltiformibus patentibus inciso-lobatis. Williamia, *Baill. Etud. Euph.* 559, *t.* 27.

8. *Paraphyllanthus.* Frutices v. herbæ habitu variæ amphigeæ. Stamina 3, rarissime 2 v. 4–6, filamentis liberis v. plus minus connatis, antheris erectis distinctis, loculis parallelis longitudinaliter dehiscentibus. Ovarium 3-loculare; styli patentes, distincti v. basi breviter connati, sæpius plus minus bifidi. Species præsertim in orbe vetere numerosæ. *Wight, Ic. t.* 1895. *Labill. Pl. Nov. Holl. t.* 225. *Wawra in Pr. Maxim. Reise, Bot. t.* 46. *Muell. Arg. in Mart. Fl. Bras.* xi. ii. *t.* 3, *f.* 2, *t.* 7, *f.* 1. Sectio minime naturalis, ab *Euphyllantho* propter antherarum indolem separata, etiam sequentes *Prodromi* facile includit.

Hemicicca, *Baill. Etud. Euph.* 645, species Japonica, sepalis sæpe nec in omnibus floribus ad 4, staminibus ad 2 reductis. Styli indivisi, sed in *Paraphyllantho* quoad divisionem valde diversi.

Pseudomenarda, est *P. purpureus*, Muell. Arg., species Africana, stylis brevibus latis crassis more sectionis patentibus sed basi brevissime connatis.

Microglochidion, species continet 2 Guianenses, stylis (a speciminibus nostris jam delapsis) ex Muell. Arg. ut in *Hemicicca* indivisis.

Ciccastrum, species Brasiliensis, a *Microglochidio* distincta filamentis basi connatis. *Muell. Arg. in Mart. Fl. Bras.* xi. ii. *t.* 4.

Orbicularia, *Baill. Etud. Euph.* 616, species paucæ Indiæ occidentalis, staminibus sæpe 6. Cætera *Paraphyllanthi*.

Catastylium, species Jamaicensis magna, foliis amplis coriaceis, ramulis floriferis aphyllis ad ramos vetustos racemiformibus. Inflorescentia *Ciccæ*. Capsula sicca videtur cæteraque *Paraphyllanthi*.

9. *Euphyllanthus*. Herbæ fruticesve rarius arborescentes, foliis sæpius parvis v. membranaceis distichis, habitu tamen vario. Stamina in speciebus typicis 3, in aliis 5–6 v. 2, filamentis liberis v. plus minus connatis; antheræ distinctæ v. rarius confluentes divergentes v. reflexæ, loculis obliquis divergentibus v. horizontaliter divaricatis distinctis v. confluentibus. Ovarium 3-loculare; styli liberi v. breviter connati. Capsula sicca. Species in utroque orbe numerosæ. *Wight, Ic. t.* 1894. *Miq. Stirp. Surin. t.* 31. *Muell. Arg. in Mart. Fl. Bras.* xi. ii. *t.* 6, *f.* 1, *t.* 7, *f.* 2, *t.* 8, 9. *Vell. Fl. Flum. Ic.* x. *t.* 16, 17 (*pessime*). *Lodd. Bot. Cab. t.* 116. Conami, *Aubl. Pl. Gui.* ii. 926, *t.* 354. Macræa, *Wight, Ic.* iv. ii. 27, *t.* 1901, 1902. Synexemia et Geminaria, *Rafin.* ex *Muell. Arg.* Genera sequentia auctorum v. sectiones Prodromi sub *Euphyllantho* includenda videntur.

Meborea, *Aubl. Pl. Gui.* ii. 825, *t.* 323 (Rhopium, *Schreb. Gen. Pl.* 608. Tephranthus, *Neck. Elem.* ii. 235), est species Guianensis, filamentis superne liberis, antheris ab apice filamenti v. a connectivo prominente valde divaricatis fere reflexis.

Cathetus, *Lour. Fl. Cochinch.* 607, ex charactere dato a Seemannio et a Muell. Arg. confirmato, est *P. cinerascens*, Hook. et Arn.; Seem. Bot. Her. t. 97 (*P. fasciculatus*, Muell. Arg.) in Prodromo pro sectione distinctus antheris ab apice pendulis nec a basi erectis. Antheræ tamen, in icone citata haud bene delineatæ, nobis videntur ut in cæteris *Euphyllanthis* basi nec apice affixæ, angulo recto divergentes v. plus minus reflexæ.

Anisolobium, est *P. Welwitschianus*, Muell. Arg., ex Africa tropica, andrœcio omnino *Catheti*, sed sepala interiora exterioribus duplo longiora.

Ceramanthus, *Hassk. Cat. Hort. Bogor.* 240, est *P. gracilis*, Baill., andrœcio fere *Catheti*, sed pro sectione distinctus disco in utroque sexu maximo urceolato.

Menarda, *A. Juss. Euph. Tent.* 23, *t.* 6, species continet Africanas v. Mascarenses, ab *Euphyllantho* distinctas staminibus sæpius 5, nec 3, quod revera in *P. pentandro*, Schum., aliisque observavimus, in speciminibus tamen Africanis a Muell. Arg. ad *P. tenellum* relatis sæpe 3 tantum invenimus. Muell. Arg. in Mart. Fl. Bras. xi. ii. 30, t. 6, f. 2, speciem addidit Brasiliensem floribus ♂ 5-meris 5-andris.

Asterandra, *Klotzsch in Wiegm. Archiv.* vii. 200, species 2 includit ex America tropica, staminibus vulgo 6 (rarius paucis v. usque ad 9), filamentis ad apicem in columnam connatis, antheris radiato-patentibus v. demum reflexis. Styli in columnam brevem connati, apicibus stigmatosis patentibus petaloideo-dilatatis.

Oxalystylis, est species Americana, *P.* (*Asterandræ*) *grandifloro* quam maxime affinis, stylis tamen infra dilatationem stigmatosum longioribus.

Ciccopeltandra, est species Brasiliensis, antheris *Euphyllanthi* sed 5 nec 3, floribus ♀ fructuque ignotis.

Hemiphyllanthus, species continet paucas Americanas, inter se habitu valde dissimiles, ab *Euphyllantho* separatas ob stylos plus minus connatos integros v. vix 2-lobos.

In *P. cyclanthera* affinibusque ex India occidentali, antheræ (2 v. 3?) circa apicem columnæ brevis sessiles, loculis omnibus in unam circularem confluentibus.

Epistylium, *Swartz, Fl. Ind. Occid.* 1095, *t.* 22, species 2 continet Jamaicenses a nobis non visas, ♀-andras, racemis axillaribus v. ut in *Catastylio* in ramis vetustis lateralibus, stylis longe in columnam connatis. Grisebach *E. cauliflorum*, Sw. in *P.* (*Catastylio*) *cladantho*, Muell. Arg. agnovit, perperam tamen ex Muell. Arg., qui speciem veram Swartzii vidit.

10. *Reidia*. Frutices sæpe arborescentes, foliis sæpius parvis v. membranaceis. Sepala sæpius in flore ♂ 4, in flore ♀ 4–6. Stamina 2, antheris ad apicem columnæ sessilibus, loculis disjunctis

cruciatim dispositis antheras 4 uniloculares simulantibus. Ovarium 3-loculare; styli 3, distincti. Species omnes gerontogeæ. REIDIA, *Wight, Ic.* v. 27, *t.* 1903, 1904.

ERIOCOCCUS, *Hassk. Cat. Hort. Bog.* 242, nomen a Muell. Arg. ad sectionem totam extensum, ab auctore affixum fuit ad species orario capsulaque lanatis; *Reidia*, Wight, includit etiam species ovario capsulaque glabris.

Eriococcoides, Muell. Arg., est *P. acutissimus*, Miq., antherarum loculis parallelis v. leviter divergentibus, cæterum more *Reidiæ* cruciatim affixis. In *Reidiis* typicis antherarum loculi ut in *Euphyllantho* breves divergentes.

NYMPHANTHUS, *Lour. Fl. Cochinch.* 543, nobis ignotus, ab *Eriococcoide* differre dicitur ovario 6-loculari, ex auctore tamen 3-loculare est, et character *Euphyllantho* convenit etsi auctor etiam speciem *Paraphyllanthi* includat.

SCEPASMA, *Blume, Bijdr.* 582, *Baill. Etud. Euph. t.* 25, species unica ex Archipelago Malayano, a *Reidia* non differt nisi pistillo 5–8-mero. Habitus *P. pulchri*, Wall.

P. elegans, Wall. affinesque, insignes sunt sepalis margine fimbriatis. *P. macrocalyx*, Muell. Arg., calyce fructifero valde aucto foliaceo ab omnibus *Asiaticis* distinguitur, calyx fructifer pariter auctus foliaceus observatur etiam in speciebus paucis Australiensibus v. Novo-Caledonicis aliarum sectionum.

11. *Xylophylla.* Frutices aphylli, ramulis compressis linearibus v. sæpius valde dilatatis; nodis floriferis marginalibus dentiformibus. Characteres florales et carpici modo *Paraphyllanthi* modo *Euphyllanthi*. Species omnes Americanæ. *Muell. Arg. in Mart. Fl. Bras.* xi. ii. *t.* 10. XYLOPHYLLA, *Schreb. Gen. Pl.* 200. *Gærtn. Fruct. t.* 108. *Jacq. Hort. Schœnbr. t.* 348. *Bot. Mag. t.* 1021, 2652. *Bot. Reg. t.* 373. GENESIPHYLLA, *L'Hér. Sert. Angl.* 29. *Choretropsis* a Muellero pro sectione separatur ob ramulos teretes tenues, nodis floriferis vix immersis. Species unica Brasiliensis.

Supersunt species Novo-Caledonicæ ad 18 in Prodromo in sectiones 7 distributæ quas rite examinare in speciminibus nostris sæpe floribus perpaucis donatis nequivimus. Nonnullæ habitum præbent *Glochidii* et discus pariter deest sed styli subpatentes videntur, in plerisque disci glandulæ plus minus evolvuntur. In *Gomphidio*, Baill., perianthii segmenta interiora ut in *Anisolobio* exterioribus conspicue longiora. In *P. æneo*, Baill., discus ex Muell. Arg. evolutus est quod a Baillono negatur. Flores ♂ ♀ examinavimus, in uno glandulas minutas vidimus, in altero nullas deteximus. Cæterum hæ omnes species in collectione Novo-Caledonica ditissima Musei Parisiensis ulterius elaborandæ.

Formæ abnormes in genere insigniores observantur ramulis floriferis brevibus tenuibus aphyllis racemulos axillares simulantes in *P. Martii*, Muell. Arg., paucisque aliis, et pariter racemiformibus ad ramos vetustos lateralibus in *P. disticho*, Muell. Arg. (*Cicca disticha*, Linn.), *P. caulifloro* (*Epistylio*, Sw.), *P. cladantho*, Muell. Arg., aliisque paucis. In his tamen flores secus rhachin dense glomerati nec ut in *Antidesmate* affinibusque sparsi v. bracteis fulti, et racemuli ♀ interdum in ramulos foliatos excrescunt. In *P. bæobotryoide*, Muell. Arg., tamen racemi ♂ stricte axillares simplices tenuesque. Folia opposita observantur in speciebus paucis Novo-Caledonicis et in *P. oppositifolio*, Baill., ex ins. Mascarensibus. In *P. fluitante*, Spruce (sub hoc nomine jam in herbariis a Muellero examinatis signato), caules brevissimi, fluitantes, foliis supra aquam expansis habitu *Salviniæ*.

P. verrucosus, Thunb., seu sectio *Pleiostemon*, Muell. Arg., nobis videtur ad *Securinegam* referendus, *P. congestus*, Muell. Arg., ab auctore ipso serius ad *Securinegam* translatus est. *P. Wightianus*, Muell. Arg. (CHORIZANDRA, *Wight, Ic.* vi. 13, *t.* 1994) vix a *Fluggea obovata* differt, ovarii rudimento (an revera ?) deficiente.

35. **Leptonema**, *A. Juss. Euph. Tent.* 19, *t.* 4.—Flores dioici, apetali. Discus 0. Fl. ♂: Calyx 5-partitus, segmentis imbricatis. Stamina 5, filamentis liberis; antheræ in alabastro recurvæ v. pendulæ, per anthesin erectæ, loculis ad apicem connectivi globosi distinctis. Ovarii rudimentum 0. Fl. ♀: Calyx maris. Ovarium 3–5-loculare; styli subulati, 2-partiti; ovula in loculis gemina. Capsula depressa, in coccos 2-valves dissiliens. Semina . . .—Frutex ramosus. Folia alterna, longiuscule petiolata, integra, pennivenia, subtus pubescentia. Inflorescentiæ axillares, fl. ♂ in umbellam pedunculatam dispositi, ♀ solitarii longius pedunculati. (*Char. ex Juss. et Muell. Arg.*)

Species 1, Madagascariensis, a nobis non visa. *Muell. Arg. in DC. Prod.* xv. ii. 445. Genus, evidenter *Phyllantho* valde affine, differt florum ♂ umbella seu fasciculo pedunculato, et antheris fere *Antidesmatis*, ab hoc genere quocum jungit Baill. Hist. Pl. v. 247, longe distat inflorescentia, disci et ovarii rudimenti e fl. ♂ absentia, ovario, stylis et fructu.

36. **Securinega**, *Juss. Gen.* 388.—Flores monoici v. dioici, apetali. Fl. ♂: Sepala 5,

imbricata. Disci lobi v. glandulæ 5, staminibus alterni. Stamina 5 v. rarius pauciora, filamentis liberis sepalis oppositis; antheræ erectæ, loculis distinctis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum plus minus evolutum, parvum v. longiuscule 2–3-fidum. Fl. ♀: Calyx maris. Discus subinteger. Ovarium 3-loculare; styli distincti, recurvi, 2-fidi; ovula in loculis gemina. Capsula sicca v. carnosula, in coccos 2-valves dissiliens. Seminum testa membranacea v. tenuiter coriacea, non lacunosa; albumen carnosum; embryo rectus, cotyledonibus planis latis.—Frutices ramosi. Folia alterna, integerrima, sæpe parva. Flores ad axillas glomerati, ♂ parvi, numerosi, subsessiles, ♀ pauciores v. solitarii, evidentius pedicellati.

Species ad 8, per varias regiones tropicas v. temperatas dispersæ. *A. Juss. Euph. Tent.* 14, *t.* 2. *Muell. Arg. in DC. Prod.* xv. ii. 447 (excl. *Fluggea*), *et in Mart. Fl. Bras.* xi. ii. 76, *t.* 11.

Genus in omnibus *Phyllantho* (sect. *Paraphyllantho* v. fere *Ciccæ*) convenit, excepto ovarii rudimento in fl. ♂ evoluto. Species typica Madagascariensis bene ab A. Jussieuo a *Fluggea* distinguitur. Geblera, *Fisch. et Mey. Ind. Sem. Hort. Petrop.* 1835, 28, ex Asia temperata, et Colmeiroa, *Reut. in Mem. Soc. Phyt. Genev.* x. 240, *t.* 6, e Hispania, rite in Prodromo in *Securinega* includuntur. Meineckia, *Baill. Etud. Euph.* 586, species arabica a nobis non visa, ab auctore a *Securinega* distinguitur petalis in fl. ♀ evolutis etsi minutis, quæ tamen a Muell. Arg. negantur. *Phyllanthus congestus*, Spruce, Muell. Arg. in DC. Prod. xv. ii. 379, e Brasilia, rite a Muell. Arg. in Mart. Fl. Bras. l. c. ad *Securinegam* transfertur. *S. acidothamnus* e Cuba, *S. elliptica* ex America australi, et *S. Schuechiana*, Muell. Arg., e Brasilia, sunt etiam vere congeneres. Pleiostemon, *Sond. in Linnæa*, xxiii. 135, ex Africa australi, in Prodromo pro sectione *Phyllanthi* receptum, nobis tam habitu quam characteribus *Securinegis* parvifoliis congener videtur. Ovarii rudimentum semper invenimus etsi sæpius minimum, interdum vero filamentis vix brevius. *Fluggea trichogynis*, Baill., e Madagascaria, nobis ignota est, sed verisimiliter recto jure in *Securinega* includitur. Bessera, *Spreng. Pugill.* ii. 90, genus est valde dubium, character instructus est ad *Koeleram*, Willd., quæ dubie ad *Flacourtiam* a pluribus refertur.

37. **Neoroepera,** *Muell. Arg. in DC. Prod.* xv. ii. 488.—Flores monoici, apetali. Fl. ♂: Sepala 5–6, subpetaloidea, imbricata. Stamina 5–6, circa discum centralem latum planum affixa, filamentis liberis; antheræ erectæ, loculis parallelis distinctis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Calycis lobi v. segmenta quam in mare angustiora. Ovarium 3-loculare; styli distincti, patentes, indivisi, elongati et clavati v. breviores apice dilatati; ovula in loculis gemina. Capsula coriacea, in coccos 2-valves dissiliens. Semina leviter compressa, estrophiolata, testa lævi, nitida; albumen copiosum; embryo fere rectus, cotyledonibus latis planis.—Frutices. Folia alterna, breviter petiolata, parvula, integerrima, coriacea. Flores ad axillas fasciculati, ♂ numerosi, quam in *Fluggea* majores, ♀ in fasciculo solitarii, longius pedicellati.

Species 2, Australianæ. *Benth. Fl. Austral.* vi. 116. Genus a Baillono ad sectionem *Securinegæ* reductum, nobis abunde distinctum videtur florum ♂ structura, stylis indivisis et habitu.

38. **Fluggea,** *Willd. Spec. Pl.* iv. 757.—Flores dioici, apetali. Fl. ♂: Sepala 5, subpetaloidea, imbricata. Stamina 5 v. rarius pauciora, glandulis disci alterna, filamentis liberis; antheræ erectæ, loculis distinctis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum 2–3-fidum. Fl. ♀: Calyx maris. Discus planus, annularis, dentatus. Ovarium 3-loculare; styli distincti, recurvi, 2-fidi; ovula in loculis gemina. Fructus subsuccosus, pericarpio tenui indehiscente v. irregulariter rupto nec in coccos secedente. Semina subtriquetra, dorso rotundata, testa crustacea ventre duplicata inter laminas cava; albumen haud copiosum, circa cavum incurvum; embryo incurvus, cotyledonibus latiusculis planis.—Frutices. Folia alterna, disticha, petiolata, integerrima. Flores minimi, axillares, pedicellati, ♂ in axillis sæpius numerosi, ♀ pauci v. solitarii. Stamina exserta.

Species ad 6, Asiæ, Africæ et Australiæ inter tropicos incolæ, a Muell. Arg. in DC. Prod. xv. ii. 449, *Securinegæ* adscriptæ. *Wight, Ic. t.* 1875. *Brandis, For. Fl. t.* 54 (*Securinega*).

Genus fructu et seminibus a *Securinega* distinctum, a *Breynia* differt calyce et (uti *Securinega* a *Phyllantho*) ovarii rudimento in fl. ♂ evoluto.

39. **Breynia,** *Forst. Char. Gen.* 145, *t.* 73. (Melanthesa, *Blume, Bijdr.* 590.)—Flores

monoici, apetali. Discus 0. Fl. ♂: Calyx breviter turbinatus, supra planus, lobis v. dentibus 6 inflexis fere clausus. Stamina 3, filamentis in columnam centralem connatis; antheræ ad apicem columnæ sessiles, adnatæ, loculis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Calyx turbinatus v. campanulatus, fructifer interdum auctus explanatus, lobis brevibus nunc ad dentes minutos reductis. Ovarium sessile v. breviter stipitatum, 3-loculare, superne carnosum; styli erecti v. patentes, indivisi v. apice 2-fidi; ovula in loculis gemina. Bacca globosa v. depressa, indehiscens. Semina triquetra, dorso rotundata, testa crustacea ventre duplicata inter laminas cava, extus in vivo sæpius pulposa; albumen haud copiosum, circa cavum incurvum; embryo curvus, cotyledonibus latiusculis planis.—Frutices v. arbusculæ. Folia alterna, petiolata, sæpius disticha et siccitate nigricantia. Flores axillares, parvi, pedicellati, in axillis solitarii v. ♂ fasciculati, fasciculo rarius in racemum brevissimum excurrente. Baccæ sæpius rubræ.

Species ad 12, Asiæ tropicæ, Australiæ et insularum maris Pacifici australis incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 438. *Benth. Fl. Austral.* vi. 113. *Wight, Ic. t.* 1897, 1898 (*Melanthesa*). *Bot. Mag. t.* 1862 (*Phyllanthus*). *Lodd. Bot. Cab. t.* 731 (*Phyllanthus*).

In speciebus typicis styli breves erecti v. patentes, sæpius indivisi. MELANTHESIOPSIS, *Muell. Arg. in Linnæa*, xxxii. 74, *et in DC. Prod.* xv. ii. 436, potius sectio quam genus distinctum, species 2 Asiaticas includit stylis longioribus apice patentibus bifidisque. Genera a Muellero distinguuntur seminibus arillo inclusis in *Melanthesiopside* exarillatis in *Breyniæ*. Seminum structura in utroque nobis eadem videtur. In vivo testæ stratus exterior plus minus pulposa dicitur et sæpe pro arillo pulposo describitur.

40. **Petalostigma,** *F. Muell. in Hook. Kew Journ.* ix. 16. (Hylococcus, *R. Br. in Bauer Ic. ined.*)—Flores monoici, apetali. Discus 0. Fl. ♂: Sepala 4–6, imbricata. Stamina ∞, filamentis basi in columnam centralem sæpe brevissimam connatis, superne liberis; antheræ erectæ, adnatæ, loculis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Sepala quam in ♂ angustiora, caducissima. Ovarium 4-loculare v. rarius 3-loculare; styli patentes, in laminas stigmatosas planas fere petaloideas expansi; ovula in loculis gemina. Fructus ovoideo-globosus, primum drupam simulans, exocarpio carnoso, endocarpio duro, demum in coccos 2-valves dissiliens. Semina oblonga, strophiola parva, testa crustacea nitida non lacunosa; albumen carnosum; embryo rectus, cotyledonibus latis planis.—Arbor. Folia alterna, integerrima. Flores axillares, ♂ glomerati, brevissime pedicellati, ♀ solitarii v. pauci, pedicellis longioribus.

Species 1, Australiana. *Benth. Fl. Austral.* vi. 92. *Baill. Adans.* vii. *t.* 2.

41. **Putranjiva,** *Wall. Tent. Fl. Nap.* 61. (Nageia, *Roxb. Fl. Ind.* iii. 766, *non Gærtn.*—Flores dioici v. monoici, apetali. Discus 0. Fl. ♂: Calyx tenuis, alte 3–6- (sæpius 5-) lobus v. partitus, lobis segmentisve inæqualibus imbricatis. Stamina 3 v. 2, rarius 4, filamentis in centro floris brevibus distinctis v. subconnatis; antheræ erectæ, loculis distinctis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Calyx maris. Ovarium ovoideum, 3- v. 2-loculare; styli breves, patentes, in ramos latos carnosos papillosos expansi; ovula in loculis gemina. Drupa ovoidea v. globosa, endocarpio duro fere osseo, abortu 1-locularis 1-sperma. Semen ovoideum, testa crustacea; albumen carnosum; embryo rectus, cotyledonibus latis planis.—Arbores ligno duro. Folia alterna, integerrima, rigide membranacea v. coriacea, tenuiter penninervia et reticulato-venosa. Flores axillares, ♂ numerosi, brevissime pedicellati, dense glomerati, ♀ longius pedicellati, solitarii v. pauci.

Species 2, Indiæ orientalis incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 443. *Endl. Iconogr. t.* 19. *Wight, Ic. t.* 1876. *Brand. For. Fl. t.* 53. *Royle, Ill. Himal. Pl. t.* 83*a* (100).

In specie typica *P. Roxburghii* (inclusis *P. sphærocarpa* et *P. amblyocarpa*, Muell. Arg.) andrœcium et pistillum sæpius 3-mera et flores (an semper?) dioici; in altera, quæ PALENGA, *Thw. in Hook. Kew Journ.* viii. 270, *t.* 7, andrœcium et pistillum sæpius 2-mera, styli minus dilatati, et in uno specimine flores certe monoicos vidimus.

42. **Drypetes,** *Vahl, Ecl.* iii. 49.—Flores dioici, apetali. Fl. ♂: Sepala 4–6, imbricata. Stamina circa discum centralem planum v. concavum numero sepalorum æqualia v. subdupla, exteriora sepalis opposita ad margines v. in sinubus disci, interiora intra marginem affixa, filamentis liberis; antherarum loculi paralleli, longitudinaliter dehiscentes. Ovarii rudimentum in medio disco varium nunc minutum v. 0. Fl. ♀: Calyx maris. Discus vix prominens. Ovarium 1- rarius 2-loculare; stigmata 1–2, peltata v. reniformia, ad apicem ovarii sessilia v. breviter stipitata; ovula in loculis gemina. Fructus ovoideus, 1-locularis, abortu 1-spermus v. rarius didymus 2-locularis 2-spermus, subdrupaceus, indehiscens, carne subcoriacea, endocarpio duro nunc osseo. Semina estrophiolata; albumen carnosum; embryo rectus, cotyledonibus planis latis.—Arbores fruticesve glabri. Folia alterna, coriacea, integerrima v. obscure sinuato-dentata, pennivenia. Flores ad axillas glomerati, sessiles v. pedicellati, ♂ sæpius numerosi, ♀ pauciores.

Species 9, Brasiliæ, Indiæ occidentalis et Floridæ incolæ. *Muell. Arg. in. DC. Prod.* xv. ii. 453, *et in Mart. Fl. Bras.* xi. ii. 79, *t.* 12. *Poit. in Mém. Mus. Par.* i. *t.* 6 *ad* 8.

FREIREODENDRON, *Muell. Arg. in DC. Prod.* xv. ii. 244, *et in Mart. Fl. Bras.* xi. ii. 17, *t.* 3, est *Drypetes sessiliflora*, Allem., in Comment. a Soc. Vell. edit., a genere separata ob ovarii rudimentum in fl. ♂ 0. Flores ♂ tamen ex icone sola noti, discus in hac icone glaber apparet, sed ex descriptione auctoris pilosiusculus est, et staminum insertio nobis omnino eadem apparet ac in speciebus nonnullis Cubensibus, ubi discus in centro floris pilosiusculus parum convexus, vix in ovarii rudimentum protrusus.

43. **Forchhammeria,** *Liebm. in Vidensk. Meddel. Naturh. Foren. Kjobenh.* 1853, 93. —Flores (dioici?) apetali. Fl. ♂: Calyx minutus, 4–8-dentatus, dentibus inæqualibus sensim obsoletis. Stamina ∞ (16–24), toro brevissimo carnoso affixa, filamentis liberis; antherarum loculi paralleli, longitudinaliter dehiscentes. Ovarii rudimentum in medio toro sessile, brevissime 2-lobum. Fl. ♀: Calyx maris. Discus brevissimus, in dentes minimos 8–12 deciduos productus. Ovarium 2-loculare; stigmata in discum sessilem orbiculato-peltatum obscure 2-lobum connata; ovula in loculis gemina. Fructus ovoideus v. subglobosus, 2-locularis v. abortu 1-locularis, subdrupaceus, indehiscens, carne exteriore tenui, endocarpio crasso spongioso-mucoso (v. demum indurato?). Semina in loculis abortu solitaria, estrophiolata, testa subcoriacea; albumen 0; cotyledones convolutæ, carnosæ.—Arbor glabra. Folia alterna, ad apices ramulorum sæpe conferta, petiolata, oblonga, integerrima, coriacea, pennivenia. Racemi ad nodos defoliatos laterales, breves.

Species 1, Mexicana. Specimen nostrum a Liebmannio acceptum haud perfectum et characterem pro parte e descriptione auctoris excerpimus. Stipulas negat Liebmann sed in specimine certe adsunt parvæ, rigidulæ, subulatæ. Generis ab auctore dubie ad *Capparideas* relati jam supra i. 108 affinitatem cum *Euphorbiaceis* indicavimus, inter quas *Drypetidi* proximum videtur. Muell. Arg. in DC. Prod. xv. ii. 1258, ex ordine rejicit, ob semina exalbuminosa cotyledonibus convolutis, semina tamen similia observantur in *Discocarpo* affinibusque.

44. **Hemicyclia,** *W. et Arn. in Edinb. New Phil. Journ.* xiv. 297. (Periplexis, *Wall. Cat. Herb. Ind. n.* 8022. Astylis, *Wight, Ic. t.* 1992. Anaua, *Miq. Fl. Ind. Bat. Suppl.* 410.)—Flores dioici, apetali. Fl. ♂: Sepala 4–5, valde imbricata, interiora sæpius majora subpetaloidea. Stamina ∞ (4–23), circa discum centralem latum concavum integrum v. margine undulatum affixa, filamentis liberis; antheræ erectæ, loculis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Calyx maris. Discus hypogynus planus, annularis. Ovarium oblique ovoideum, 1-loculare; stigma sessile, late reniforme v. semi-orbiculare, planum v. recurvum, integrum v. emarginatum; ovula in loculo gemina. Fructus globosus v. ovoideus, drupaceus, indehiscens, exocarpio mucoso, endocarpio crustaceo v. indurato nunc osseo. Semen abortu sæpius unicum, oblongum, hinc sulcatum, testa haud crassa; albumen carnosum; embryo rectus, cotyledonibus latis planis.—Arbores fruticesve. Folia alterna, petiolata, integerrima, demum coriacea. Flores ad axillas v. ad nodos ramulorum defoliatorum, parvi, pedicellati. ♂ pauci fasciculati, ♀ sæpius solitarii.

Species 9, Indiæ orientalis, Archipelagi Malayani et Australiæ incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 487. *Benth. Fl. Austral.* vi. 117. *Kurz, For. Fl. Brit. Burm.* ii. 365. *Wight. Ic. t.* 1872. *Bedd. Fl. Sylv. t.* 279.

Genus a *Cyclostemone* differt ovario ad carpellum unicum reducto. Fructus endocarpium variat tenue v. induratum, character tamen valde incertus nec ad sectiones distinguendas sufficit.

45. **Cyclostemon**, *Blume, Bijdr.* 597. (Sphragidia, *Thw. in Hook. Kew Journ.* vii. 269, *t.* 10. Pycnosandra, *Blume, Mus. Bot.* ii. 191. Laneasagum, *Bedd. in Madras Journ. Sc. ser.* 2, vi. 71.)—Flores dioici, apetali. Fl. ♂: Sepala 4, rarius 5, lata, imbricata, alabastris sæpius globosis. Stamina ∞, pauca v. numerosa, circa discum centralem planum v. concavum affixa, filamentis liberis calyce brevioribus; antheræ erectæ, interdum magnæ, loculis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Calyx maris. Discus hypogynus annularis v. obsoletus. Ovarium 2–4-loculare; styl breves nunc brevissimi, stigmatibus crassis valde dilatatis v. in unum pileiformem connatis (rarius elongatis filiformibus?); ovula in loculis gemina. Fructus (in *C. macrophyllo* et *C. natalensi*) subglobosus, indehiscens, pericarpio crasso indurato 2-loculari. Semina in loculis abortu solitaria; albumen carnosum; embryo rectus, cotyledonibus planis latis.—Arbores. Folia alterna, coriacea v. submembranacea, integerrima v. crenato-dentata. Flores tam ♀ quam ♂ ad axillas v. ad nodos ramorum vetustiorum fasciculati, pedicellati.

Species ad 18, Indiæ orientalis, Archipelagi Malayani v. Africæ tropicæ incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 481. *Kurz, For. Fl. Brit. Burm.* ii. 363. *Bedd. Fl. Sylv. t.* 278, *et Ic. Pl. Ind. Or. t.* 183. *Harv. Thes Cap. t.* 200.

Genus a Muell. Arg. in sectiones 3 dividitur. In speciebus typicis stamina sæpius ultra 10, ovarium 2-loculare, stigmata dilatata subsessilia. *Stenogynium* paullulum differt staminibus paucioribus, stylis sub stigmatibus parum productis. Dodecastemon, *Hassk. in Verh. Akad. Amst.* iv. 141, *ex ejusd. Hort. Bogor.* 63, pro sectione *Cyclostemonis* in Prodromo admissum, species nobis ignota, ovario 3–4 loculari, stylis filiformibus, vix congener videtur.

46. **Dissiliaria**, *F. Muell.*; *Baill. Adans.* vii. 356.—Flores monoici (v. dioici?), apetali. Fl. ♂: Sepala 4–6, imbricata, interioribus paullo majoribus subpetaloideisque. Discus (an semper?) 0. Stamina 4–6 v. ∞, filamentis brevissimis; antheræ dorsifixæ, loculis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Sepala 3–4, interioribus interdum minoribus. Discus annularis v. cyathiformis. Ovarium breve, 3-loculare; styli lineares, patentes, indivisi, liberi v. basi breviter connati; ovula in loculis gemina. Capsula tridyma, in coccos 2-valves dissiliens, pericarpio duro. Semina estrophiolata; albumen carnosum; embryo rectus, cotyledonibus latis planis.—Arbores fruticesve. Folia opposita, integerrima v. crenulata, penninervia, tenuiter reticulata. Flores parvi, axillares v. gemma terminali nondum evoluta subterminales, ♂ minimi fasciculati, brevissime pedicellati, ♀ pauci v. solitarii. Capsulæ sæpius solitariæ.

Species 3, Australiæ tropicæ v. orientalis subtropicæ incolæ. *Benth. Fl. Austral.* vi. 90.

Choriceras, *Baill. Adans.* xi. 119, est verisimiliter *D. tricornis*, Benth., cujus carpellorum apices jam in flore distincti sunt, et stylorum cicatrices v. bases persistentes in fructu dissiti, tubercula v. cornua brevia ad apices coccorum relinquunt. Flores tamen tam ♂ quam ♀ specierum *Dissiliariæ* adhuc imperfecte noti sunt. Styli basi arcte approximati v. valde dissiti in eodem genere observantur in *Stylocerate* et in *Buxo.*

47. **Longetia**, *Baill. Adans.* vi. 352, *t.* 9.—Flores monoici, apetali. Discus 0. Fl. ♂: Sepala 6, rarius 5, imbricata, concava, exteriora sæpe paullo minora. Stamina ∞ (10–18), receptaculo parum elevato pilosulo affixa, filamentis liberis; antheræ dorsifixæ, loculis extrorsum parallelis contiguis longitudinaliter dehiscentibus. Ovarii rudimentum parvum. Fl. ♀: Ovarium ovoideum v. oblongum, 3-loculare, per anthesin carnosulum, apice in stylos brevissimos crassos obcordatos patentes divisum; ovula in loculis gemina. Capsula ovoidea, subtriquetra, loculicide dehiscens v. in coccos 2-valves dissiliens. Semina strophiolata; albumen carnosum; embryo rectus, cotyledonibus latis planis.—Frutex glaber. Folia opposita, coriacea. Flores parvi, pedicellati, ♂ umbellato-fasciculati, umbel-

lulis in axillis superioribus sessilibus v. pedunculatis, ♀ in media umbella solitarii (v. in axilla propria solitarie pedunculati ?).

Species nobis nota 1, Novo-Caledonica, *Muell. Arg. in DC. Prod.* xv. ii. 244. Huic addidit Baillon, Hist. Pl. v. 250, alteram ex eadem insula oligandram a nobis non visam.

48. **Buræavia,** *Baill. Adans.* xi. 83.—Flores dioici, apetali. Fl. ♂: Sepala 4, imbricata. Stamina ∞ (8–12), receptaculo irregulariter 4–6-gono affixa, filamentis liberis erectis ; antheræ extrorsum 2-rimosæ. Fl. ♀ : Sepala 3–4, brevia, basi crassiuscula, imbricata. Discus annularis, submembranaceus, incisus v. fimbriatus. Ovarium 3-4-loculare ; styli brevissime connati, patentes, crasso-carnosi, medio sulcati, indivisi ; ovula in loculis gemina, sub obturatore magno carnoso fere occulta. Fructus subdrupaceus, exocarpio coriaceo-subcarnoso ab endocarpio in valvas 3–4 solubili, endocarpio duro demum in coccos 2-valves dissiliente. Semina strophiolata ; albumen carnosum ; cotyledones planæ, latæ.—Arbores parvæ, glabræ. Folia opposita, breviter nunc brevissime petiolata, integerrima, coriacea, pennivenia. Flores axillares v. ad nodos defoliatos, ♂ parvi, in racemulis brevibus v. cymis fasciculatis crebris numerosi, ♀ subsessiles v. breviter pedicellati, solitarii v. glomerati. (*Char. fl. ex Baill.*)

Species editæ 2, Novo-Caledonicæ, quarum specimina fructifera tantum nobis adsunt et genus ostendunt *Longetiæ* valde affine et verisimiliter ei adjungendum. Speciei tertiæ specimina nuperrime accepimus a J. Horne in insulis Fiji lecta, omnia fœminea floribus fructibusque *Buræaviæ* v. *Longetiæ* convenientia, nisi stylis in discum planum stigmatosum fere omnino connatis.

49. **Choriophyllum,** *Benth. in Hook. Ic. Pl. t.* 1280.—Flores dioici, apetali. Discus 0. Fl. ♂ : Sepala 4, rarius 5–6, membranacea, lata, valde imbricata. Stamina 4, circa receptaculum v. ovarii rudimentum conicum affixa, sepalis opposita, filamentis liberis exsertis; antheræ dorsifixæ, loculis extrorsum contiguis parallelis longitudinaliter dehiscentibus. Fl. ♀ : Sepala 4, crassa, carnosa, lata, circa ovarium arcte imbricata. Ovarium 3-loculare ; styli distincti, erecti, apice brevissime patentes, crassi, obtusi, indivisi ; ovula in loculis gemina. Capsula in coccos 2-valves a columella persistente dissiliens, endocarpio cartilagineo. Semina in loculis gemina v. abortu solitaria, oblonga, testa crustacea nitida ; albumen carnosum ; cotyledones planæ, latæ.—Arbores glabræ. Folia opposita, breviter petiolata, integerrima, coriacea, tenuiter pennivenia. Racemuli ♂ ad axillas v. nodos vetustos subterni v. prope basin opposite ramosi, folio breviores, floribus parvis secus rhachin in cymulas paucas laxas dispositis. Flores ♀ in spicis sessilibus pauci sessiles.

Species 1, quoad foliorum formam et magnitudinem variabilis, Archipelagi Malayani incola. *Wallich, Cat. Herb. Ind. n.* 7975 ; *Griffith* ; *Maingay* ; *Beccari, n.* 3270, 3305, 3329, 3344.

50. **Toxicodendron,** *Thunb. in Akad. Vetensk. Handl. Stockh.* 1796, 188, *t.* 7. (Hyænachne, *Lamb. Descr. Cinch.* 1797, 52, *t.* 10.)—Flores dioici, apetali. Discus 0. Fl. ♂: Sepala 5–12, brevia, irregulariter imbricata, interioribus sæpe minoribus. Stamina ∞, filamentis brevissimis in receptaculo lato dense conferta ; antheræ majusculæ, erectæ, loculis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum in centro floris minimum v. antheris vix brevius, rarius obsoletum. Fl. ♀ : Sepala interiora exterioribus multo majora. Ovarium villosum, 3-4-loculare; styli (a nobis non visi) 3–4, basi connati, apice patentes, crassi, indivisi, dense papillosi (*ex ic. Lamb.*) ; ovula in loculis gemina. Capsula subglobosa, crassa, dura, in coccos 2-valves dissiliens. Seminum testa crustácea, nitida ; albumen carnosum ; embryo rectus, cotyledonibus latis planis.—Arbusculæ rigide ramosissimæ. Folia opposita v. sæpius verticillata, integerrima, rigide coriacea. Flores axillares, ♂ dense cymulosi cymulis breviter pedunculatis, v. laxius racemosi, ♀ solitarii, breviter pedicellati.

Species 2, Africæ australis incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 480. *Baill. Etud. Euph. t.* 23. *Benth. in Journ. Linn. Soc.* xvii. 214.

51. **Mischodon,** *Thw. in Hook. Kew Journ.* vi. 299, *t.* 10.—Flores dioici, apetali. Fl.

♂: Sepala 5–8, imbricata, sæpe inæqualia. Discus 0. Stamina 5–10, si segmentis isomera iis opposita, filamentis liberis filiformibus aspero-hirtis; antheræ ovatæ, dorsifixæ, loculis parallelis contiguis longitudinaliter dehiscentibus. Ovarii rudimentum parvum, sæpius 3-lobum. Fl. ♀ (a nobis non visi): Discus annularis. Ovarium 3–4-loculare; styli breves, patentes, plani, crassiusculi, obovati, basi brevissime connati; ovula in loculis gemina (*Beddome, ic. et descr.*). Capsula in coccos 2-valves dissiliens, endocarpio duriuscule crustaceo. Semina in coccis abortu sæpius solitaria, ovata, testa crustacea nitida; albumen carnosum; cotyledones latæ, planæ.—Arbor inflorescentia excepta glabra. Folia 3–4-natim verticillata, breviter petiolata, longa, integerrima, coriacea, pennivenia, reticulata. Paniculæ axillares, folio multo breviores, ♂ densæ, floribundæ, floribus in ramulis confertis; ♀ laxiores, paucifloræ.

Species 1, Zeylanica. *Muell. Arg. in DC. Prod.* xv. ii. 1124. *Bedd. Fl. Sylv. t.* 290.

52. **Oldfieldia,** *Hook. Kew Journ.* ii. 184, *t.* 6.—Flores dioici? apetali, ♀ ignoti. Fl. ♂: Calyx brevis, breviter et obtuse 5–7-fidus. Stamina ∞ (4–10), circa discum crassum villosulum breviter lobatum affixa, exteriora lobis perianthii opposita, filamentis liberis; antheræ erectæ, loculis distinctis ovoideis contiguis longitudinaliter sulcatis 2-valvatim dehiscentibus. Ovarii rudimentum 0. Fl. ♀ . . . Capsula globosa, 3-sulca, pericarpio crasso duro in valvas integras medio septiferas loculicide dehiscente. Semina in loculis gemina v. abortu solitaria, oblique obovata, compressa, testa crustacea; albumen carnosum; cotyledones planæ, latissimæ.—Arbor præter inflorescentiam pubescentem glaber. Folia opposita, longe petiolata, digitatim 5–7-foliolata, foliolis petiolulatis integerrimis coriaceis penniveniis. Flores ♂ laxe cymulosi, cymulis ad axillas pedunculatis petiolo brevioribus.

Species 1, Africæ tropicæ occidentalis incola. Genus a Muell. Arg. ex ordine rejicitur ob capsulæ dehiscentiam stricte loculicidam, quod tamen plus minus distincte in variis generibus (e.g. *Agyneia, Baccaurea, Sapio* aliisque) observatur. Flores ♂ fere *Toxicodendri*, ubi etiam folia opposita et capsula, dehiscentia excepta, simillima.

53. **Bischofia,** *Blume, Bijdr.* 1168. (Microelus, *Wight et Arn. in Edinb. New Phil. Journ.* xiv. 298. Stylodiscus, *Benn. Pl. Jav. Rar.* 133, *t.* 29.)—Flores dioici, apetali. Discus 0. Fl.: Sepala 5, imbricata, concava, supra antheras fere cucullata. Stamina 5, filamentis brevibus; antheræ magnæ, loculis parallelis distinctis medium versus affixis longitudinaliter dehiscentibus. Ovarii rudimentum breve, latum. Fl. ♀: Sepala leviter concava, caducissima. Staminodia parva fere glanduliformia interdum adsunt ad basin segmentorum. Ovarium 3- rarius 4-loculare; styli lineares, crassi, integri, a basi papillosi; ovula in loculis gemina. Fructus subbaccatus, globosus, indehiscens, sæpius 3-locularis, exocarpio carnoso, endocarpio pergameneo. Seminum testa crustacea (in vivo extus pulposa?); albumen carnosum; embryo rectus, cotyledonibus planis latis.—Arbor procera. Folia alterna, 3-foliolata, foliolis petiolulatis majusculis sæpius crenatis. Racemi laterales, præsertim in ♂ paniculato-ramosi. Flores ♂ secus rhachin sparsi v. subfasciculati, brevissime pedicellati, ♀ longius pedicellati.

Species 1, per Asiam tropicam Archipelagum Malayanum et insulas maris Pacifici australis late dispersa. *Muell. Arg. in DC. Prod.* xv. ii. 478. *Dcne. in Jacquem. Voy. Bot. t.* 154. *Bedd. Fl. Sylv. t.* 259. *Hook. Ic. Pl. t.* 844. *Wight, Ic. t.* 1880 (*Microelus*).

Fructus in speciminibus siccis variat magnitudine, pedicellorum longitudine, et pericarpio tenuiore v. crassiore, sed formæ suppetentes nequaquam in species diversas distribuendæ videntur.

54. **Piranhea,** *Baill. Adans.* vi. 235, *t.* 6.—Flores dioici, apetali. Fl. ♂: Calycis parvi lobi v. segmenta 4–6, subimbricati, mox aperti. Stamina ∞ (8–15), disco centrali glanduloso-lobato irregulariter affixa, filamentis liberis tenuibus; antheræ parvæ, loculis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Sepala quam in ♂ distinctiora. Staminodia ∞, breviter subulata, sub ovario basi uniseriatim in annulum connata. Ovarium 3-loculare; styli lineares, crassi, recurvi, acutiusculi; ovula in loculis

gemina, strophiola majuscula obtecta. Capsula subglobosa, acuminata, dura, in coccos apice 2-valves dissiliens. Semina in loculis abortu solitaria, vix strophiolata, testa crassiuscule membranacea fere coriacea lævi; albumen carnosum; cotyledones planæ, latæ.—Arbor. Folia alterna, digitatim 3-foliolata, foliolis amplis sub anthesi membranaceis demum coriaceis integerrimis in petiolulum contractis, petiolo communi longo. Racemi v. spicæ interruptæ, in ramis annotinis laterales, simplices, ♂ graciles, ♀ abbreviati. Flores secus rhachin subsessiles, ♂ fasciculati, ♀ sparsi. Bracteæ minutæ v. 0.

Species 1, Brasiliæ borealis incola, *Spruce n.* 1598 *et* 1605, cum fl. ♂ et ♀, et in Guiana anglica, *Parker*, specimen fructiferum.

55. **Uapaca,** *Baill. Etud. Euph.* 595.—Flores dioici, apetali. Involucrum perianthiforme, subglobosum, e bracteis 5–6 imbricatis primum flores obtegentibus demum sæpius reflexis. Fl. ♂: Amentum globosum v. ovoideum in involucro breviter stipitatum, floribus numerosis sessilibus. Calyx minimus, campanulatus v. turbinatus, dentatus v. 4–5-lobus. Discus 0. Stamina 4–5, filamentis distinctis breviter exsertis; antheræ erectæ, loculis contiguis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum apice sæpius dilatatum. Flores ♀ intra involucrum solitarii, sessiles. Perianthium præter involucrum 0. Discus annularis v. breviter cyathiformis, integer v. sinuato-lobatus. Ovarium 3- rarius 2- v. 4-loculare; styli crassi, recurvi, superne dilatati varie ramosi; ovula in loculis gemina. Fructus indehiscens, carnosus, endocarpio parum indurato 3-pyreno. Semina in pyrenis sæpius abortu solitaria, majuscula, a dorso compressa (testa in vivo extus pulposa?); albumen carnosum; embryo rectus, cotyledonibus planis latis.—Arbores ramis validis. Folia alterna, ad apices ramorum plus minus conferta, sæpius obovato-oblonga, integerrima, pennivenia. Involucra in utroque sexu in ramis annotinis v. vetustioribus pedicellata, sparsa.

Species 7, Africæ tropicæ et Madagascariæ incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 489. *Baill. Adans.* xi. 176. *Benth. in Hook. Ic. Pl. t.* 1287. Involucrum floris ♀ ab auctoribus calyx dicitur, nobis omnino involucro ♂ homologum videtur, perianthio proprio in fl. ♂ minimo, in fl. ♀ omnino deficiente.

56. **Aporosa,** *Blume, Bijdr.* 514. (Lepidostachys, *Wall. Cat. Herb. Ind. n.* 6816; *Lindl. Introd. Nat. Syst. ed.* 2, 441. Scepa, *Lindl.* l.c. Tetractinostigma, *Hassk. Hort. Bogor. Descr.* 55.)—Flores dioici, apetali. Discus 0. Fl. ♂: Sepala 3–6, sæpe inæqualia, membranacea, imbricata. Stamina 2–5, filamentis in centro floris liberis elongatis; antheræ parvæ, loculis subglobosis distinctis contiguis v. connectivo crassiusculo separatis, erectiusculis v. primum deflexis, longitudinaliter dehiscentibus. Ovarii rudimentum minutissimum v. 0. Fl. ♀: Ovarium 2–3-loculare; styli breves, patentes, 2-fidi, lobis crassiusculis sæpe laciniatis; ovula in loculis gemina. Drupa fere exsucca, endocarpio crustaceo v. duriusculo, abortu sæpius 1–2-sperma, demum irregulariter rupta v. sub-2-valvis. Semina obovoidea, testa extus (an semper?) pulposa; albumen carnosum; cotyledones planæ, latæ.—Arbores et arbusculæ. Folia alterna, petiolata, integerrima, coriacea, pennivenia. Flores ad axillas spicati v. racemosi, spicis ♂ amentiformibus sæpe fasciculatis, ♀ brevibus laxioribus. Bracteæ latæ, concavæ, in spicis ♂ sæpe subimbricatæ, in ♀ parvæ. Drupæ quam in *Antidesmate* sæpius majores.

Species ad 20, Asiæ tropicæ et Archipelagi Malayani incolæ. *Muell. Arg in DC. Prod.* xv. ii. 469. *Kurz, For. Fl. Brit. Burm.* ii. 361. *Baill. Adans.* xi. 177. *Wight, Ic. t.* 361 (*Scepa*). *Bedd. Fl. Sylv. t.* 286.

Leiocarpus, *Blume, Bijdr.* 581, ad *Aporosam* refertur a Muell. Arg., qui specimina anthentica vidit. Character Blumeanus vix convenit.

Antidesma lunatum, Miq.; Muell. Arg. l.c. 251, ex speciminibus optimis ♂ et ♀ a Maingayo lectis, cum specie affine Borneensi, *Beccari n.* 1213, sunt *Aporosæ* species, foliis magnis rugosis, stipulis amplis late falcatis insignes. Genus cæterum *Baccaureæ* valde affine, differt ovarii rudimento subnullo et quodammodo habitu.

57. **Daphniphyllum,** *Blume, Bijdr.* 1152. (Goughia, *Wight, Ic.* v. 22, *t.* 1878, 1879.

Gyrandra, *Wall. Cat. Herb. Ind. n.* 8020.) — Flores dioici, apetali. Fl. ♂ : Calycis segmenta 3–8, parva, imbricata v. aperta. Stamina ∞ (5–18), filamentis brevibus liberis; antheræ magnæ, erectæ, loculis parallelis adnatis lateraliter 2-valvatim dehiscentibus. Ovarii rudimentum 0. Fl. ♀ : Calyx maris. Disci glandulæ v. squamæ 4–6 v. 0. Ovarium vix perfecte 2-loculare; styli distincti, crassiusculi, recurvo-patentes, indivisi; ovula in loculis gemina. Drupa oliviformis, indehiscens, sæpissime abortu 1-sperma. Seminis testa membranacea; albumen crasso-carnosum; embryo albumine quater ad sexies brevior, cotyledonibus ovatis oblongisve subplanis radicula parum latioribus.—Arbores glabræ. Folia alterna, petiolata, integerrima, coriacea, sæpe angusta, pennivenia. Racemi utrisque sexus axillares, breves, laxiusculi, bracteis minutis v. 0. Flores pedicellati, secus rhachin sparsi.

Species genuinæ 11, Asiæ tropicæ et Archipelagi Malayani incolæ. *Muell. Arg. in DC. Prod.* xvi. i. 1. *Baill. Etud. Euph. t.* 21. *Bedd. Fl. Sylv. t.* 288. His addidit Muell. Arg. speciem ex Africa tropica occidentali quodammodo dubiam, florum ♂ perianthio breviter 4–5-fido nec partito, floribus ♀ ignotis. Idem auctor genus ob embryonem brevem ad ordinem proprium *Daphniphyllaccarum* producit, cui tamen assentiri nequimus. Habitus *Baccaureæ*, antheræ *Toxicodendri*, embryo etsi parvus ei *Phyllanthearum* plurium similior quam *Stenolobiearum*.

58. **Baccaurea,** *Lour. Fl. Cochinch.* 661. (Pierardia, *Roxb. Hort. Beng.* 28, *nomen tantum, descr. a Jack in Trans. Linn. Soc.* xiv. 119, *et Roxb. Fl. Ind.* ii. 254. Adenocrepis, *Blume, Bijdr.* 579. Microsepala *et* Calyptroon, *Miq. Fl. Ind. Bat. Suppl.* 444 *et* 471.) —Flores dioici v. rarius racemi diversi sexus in eadem arbore, apetali. Discus 0 v. rarius parvus. Fl. ♂ : Sepala 4–5, imbricata. Stamina numero sepalorum æqualia v. rarius subdupla, filamentis liberis tenuibus; antherarum loculi parvi, longitudinaliter dehiscentes, contigui v. connectivo crassiusculo separati. Ovarii rudimentum plus minus evolutum, sæpe apice in discum peltatum expansum. Fl. ♀ : Calyx maris. Ovarium 2–5- vulgo 3-loculare; styli (v. stigmata sessilia) breves, crassissimi v. plani, erecti v. patentes, apice sæpius brevissime lobati v. fimbriati; ovula in loculis gemina. Fructus ovoideus obovoideus v. globosus, pericarpio carnoso demum indurato sæpe lignoso indehiscente v. demum loculicide valvato. Semina abortu sæpius pauca v. solitaria, majuscula, testa crassiuscule membranacea v. crustacea, in vivo extus pulposa, in parte inferiore sæpe (an semper?) duplex lacunam includens; albumen carnosum, haud crassum; embryo sæpius leviter incurvum, cotyledonibus latiusculis.—Arbores. Folia alterna, ampla, petiolis sæpe longis basi apiceque subincrassatis, pennivenia, coriacea, integerrima v. leviter undulato-crenata. Flores racemosi, secus rhachin ad axillas bractearum solitarii v. ♂ cymulosi, racemis sæpius in ramis annotinis v. vetustioribus solitariis v. fasciculatis simplicibus v. ♂ subramosis. Pedicelli breves.

Species enumeratæ 33, Indiæ orientalis, Archipelagi Malayani et insularum maris Pacifici incolæ, nonnullæ tamen reducendæ et paucæ addendæ adhuc ineditæ. *Muell. Arg. in DC. Prod.* xv. ii. 457. *Wight, Ic. t.* 1912, 1913 (*Pierardia*). *Bedd. Fl. Sylv. t.* 280.

In *Baccaureis* typicis, sectionem *Pierardiam* constituentibus, fructus indehiscens. In Hedycarpo, *Jack in Trans. Linn. Soc.* xiv. 118, species plures Malayanas includente, pericarpium crassum, durum, demum loculicide dehiscit, dehiscentia tamen omnino eadem ac in pluribus generibus *Euphorbiacearum* et nescimus qua ratione genus ab Endlichero auctoribusque pluribus recentioribus ad *Sapindaceas* transfertur. Stamina 4 tantum sæpe etiam in *Baccaureis* typicis observantur, dehiscentia in speciebus nonnullis tardissima v. inconstans, et *Hedycarpus* pro sectione vix definita *Baccaureæ* habendus est.

Platystigma, *Wall. Cat. Herb. Ind. n.* 7523, est species Silhetensis cujus flores ♀ tantum noti. Habitus *Baccaureæ*. Ovarium 1-loculare, 2-ovulatum. Stigma fere *Hemicycliæ*. Genus est valde dubium, forte in *Baccaurea* includendum.

59. **Cometia,** *Thou. ex Baill. Etud. Euph.* 642; *Hist. Pl.* v. 244.—Flores dioici, apetali. Fl. ♂ : Sepala 3–5, imbricata. Discus 0. Stamina 3–5 in centro floris sub ovarii rudimento apice dilatato (*Baill.*). Ovarii rudimentum 0 (*Muell. Arg.*). Fl. ♀ : Calyx ignotus. Discus annularis. Ovarium 1-loculare; stylus e basi dilatatus suborbicularis, excentricus,

carnosulus, supra papilloso-stigmatosus ; ovula in loculis gemina. Fructus drupaceus, indehiscens, exocarpio crasso carnoso, endocarpio duro. Semen abortu unicum, estrophiolatum ; albumen copiosum ; cotyledones foliaceæ.—Arbusculæ glabræ. Folia alterna, petiolata, integerrima, coriacea, pennivenia. Flores ♂ in amenta ad axillas foliorum glomerata dispositi, bracteis crebris 1–3-floris ; ♀ pauci, in racemos axillares terminalesque dispositi. (*Char. ex Baill.*)

Species 2, Madagascarienses, a nobis non visæ. *Muell. Arg. in DC. Prod.* xv. ii. 445.

60. **Antidesma,** *Linn. Gen. n.* 1110.—Flores dioici, apetali. Fl. ♂ : Calyx alte 3–5-lobus v. partitus, lobis segmentisve imbricatis. Discus e glandulis staminibus alternis distinctis v. subconcretis. Stamina 2–5, lobis calycis opposita ; antheræ in alabastro inflexæ in flore aperto erectæ, loculis ad apices connectivi crassi sæpe curvi distinctis. Ovarii rudimentum parvum. Fl. ♀ : Calyx maris. Glandulæ disci sæpius distinctiores, subplanæ. Ovarium 1-loculare, rarissime hinc inde 2-loculare ; styli 3, brevissimi, sæpius 2-lobi ; ovula in loculo gemina. Drupa parva, sæpius obliqua, indehiscens. Semen abortu unicum (rarissime 2), estrophiolatum ; albumen carnosum ; cotyledones planæ, latæ.—Arbores fruticesve. Folia alterna, sæpe majuscula. Flores parvi, ♂ sæpius minuti, racemosi v. spicati, racemis spicisve sæpius tenuibus, ad axillas solitariis v. in axillis superioribus v. ad apices ramorum paniculato-ramosis. Bracteæ parvæ.

Species editæ ultra 60, sed perplurimæ inter se ægre distinguendæ et in futuro reducendæ, regionum calidiorum orbis veteris incolæ, in Archipelago Malayano numerosæ, ab Africa tropica usque ad Australiam Japoniam et insulas maris Pacifici extensæ, in America desunt. *Tul. in Ann. Sc. Nat. ser.* 3, xv. 182. *Muell. Arg. in DC. Prod.* xv. ii. 248. *Benth. Fl. Austral.* vi. 85. *Kurz, For. Fl. Brit. Burm.* ii. 357. *Gærtn. Fruct.* i. *t.* 39. *Roxb. Corom. Pl. t.* 166 (*Stilago*) *et* 167. *Miq. Fl. Ind. Bat.* i. *t.* 25, 26. *Wight, Ic. t.* 766 *ad* 768, 819 *ad* 821. *Harv. Thes. Cap. t.* 169.

Stilago, *Schreb. Gen. Pl.* 608, genus propositum fuit ad species floribus 3-meris. Minutalia, *Fenzl in Flora*, 1844, 312, est *A. bifrons*, Tul., species a Muell. Arg. in *A. venoso*, Tul., inclusa.

A. acuminatum, Wight, Ic. t. 1991, ex horto Calcuttensi, species videtur *A. pubescenti*, Tul., valde affinis, a Muell. Arg. ex ordine expellitur ob flores ♀ ex icone interdum staminiferis, quod verisimiliter in specimine casu abnormi observatum fuit. In speciminibus nostris stamina in fl. ♀ omnino desunt.

Rhytis, *Lour. Fl. Cochinch.* 660, est, ex Muell. Arg. qui specimen auctoris vidit, *Antidesmatis* species, sed character Loureiri minime convenit. Nomen utique delendum.

61. **Hieronyma,** *Allem. Diss. Rio Janeiro,* 1848, *cum ic.* (Stilaginella, *Tul. in Ann. Sc. Nat. ser.* 3, xv. 240.)—Flores dioici, apetali. Fl. ♂ : Calyx campanulatus, breviter sinuato-3–6-dentatus. Discus cupulatus v. cyathiformis, sæpe sinuato-lobatus. Stamina 2–5, intra discum calycis dentibus opposita, filamentis liberis ; antheræ in alabastro inflexæ, in flore aperto erectæ, loculis in connectivo crasso distinctis at fere contiguis longitudinaliter dehiscentibus. Ovarii rudimentum parvum. Fl. ♀ : Calyx maris. Discus margine subinteger. Ovarium 2-loculare ; styli 2–3, brevissimi, 2-partiti, reflexi ; ovula in loculis gemina. Drupa parva, 2-locularis v. sæpius abortu 1-locularis, exocarpio tenui, endocarpio duro osseo v. fibroso. Semen sæpius unicum, estrophiolatum ; albumen carnosum ; cotyledones planæ, latæ, basi sæpius cordatæ.—Arbores v. frutices elatiores, indumento tenuiter lepidoto v. rarius ferrugineo-tomentoso. Folia alterna, sæpe ampla, integerrima, petiolata, pennivenia ; stipulæ sæpius parvæ. Flores parvi, racemosi, racemis paniculato-ramosis axillaribus v. lateralibus. Bracteæ minimæ. Pedicelli breves, in fl. ♂ sæpius brevissimi.

Species descriptæ 10, Americæ tropicæ incolæ, nonnullæ ægre distinguendæ. *Muell. Arg. in DC. Prod.* xv. ii. 269, *et in Mart. Fl. Bras.* xi. ii. 21. *Tul. in Mart. Fl. Bras.* iv. i. 331, *t.* 87 *ad* 90.

Secretania, *Muell. Arg. in DC. Prod.* xv. ii. 227, planta Cayennensis ad specimen Sagotianum floribus ♂ nondum bene evolutis descripta adhuc valde dubia remanet, forte *Hieronymi* species, neutiquam e characteribus datis pro genere proprio recipienda.

62. **Mæsobotrya,** *Benth. in Hook. Ic. Pl. t.* 1296.—Flores dioici, apetali. Fl. ♂

Calyx 5-fidus, lobis leviter imbricatis. Disci glandulæ 5, staminibus alternæ. Stamina 5, receptaculo lato affixa, lobis calycinis opposita, filamentis liberis; antheræ erectæ, loculis ovoideis distinctis parallelis v. vix basi divergentibus, connectivo parvo. Ovarii rudimentum crassum, hirtellum. Fl. ♀: Calyx maris. Discus hypogynus cupulatus, margine integer. Ovarium 2-loculare; styli breves, crassiusculi, 2-fidi, recurvo-patentes; ovula in loculis gemina. Fructus (in speciminibus nondum maturus) globosus, ut videtur indehiscens, 2-locularis, loculo altero abortu vacuo altero 1-spermo, dissepimento plano membranaceo; pericarpium membranaceo-coriaceum. Semen immaturum orbiculatum, testa crassiuscula.—Frutex (v. arbor ?) glaber v. partibus novellis leviter hirtellis. Folia alterna, petiolata, majuscula, membranacea v. demum coriacea, integerrima, penninvenia; stipulæ minutæ. Flores parvi, racemosi, racemis axillaribus solitariis v. præsertim masculis fasciculatis, utriusque sexus floribundis.

Species 1, Africæ tropicæ incolæ.

63. **Æxtoxicon,** *Ruiz et Pav. Prod.* 131, *t.* 29; *Syst. Veg. Fl. Per. et Chil.* 260. (*Æ*gotoxicon, *Dcne. in Ann. Sc. Nat. ser.* 4, ix. 279.)—Flores dioici, petaliferi, alabastris bractea globosa clausa demum irregulariter fissa deciduaque inclusis. Fl. ♂: Sepala 5, lata, valde imbricata, striata. Petala 5, concava, crenulata, basi contracta, nervo medio prominente. Stamina 5 (rarius 6–7 ?), glandulis disci totidem magnis alterna, filamentis liberis brevibus crassis supra discum incurvis; antheræ erectæ, adnatæ, loculis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum breve. Fl. ♀: Calyx maris. Petala minora (v. 0 ?). Staminodia sæpius adsunt. Ovarium obliquum, 1-loculare; stylus incurvus, apice brevissime 2-fidus; ovula 2, uno tamen sæpe jam in alabastro minuto imperfectoque. Fructus ovoideus, carnosus, pericarpio in sicco indurato haud crasso, indehiscens. Semen unicum, testa membranacea; albumen (in semine unico examinato) carnosum, parce ruminatum; cotyledones orbiculato-cordatæ, dimidium albuminis excedentes.—Arbor, ramulis foliis inflorescentia bracteis ovarioque undique insigniter lepidotis. Folia alterna, breviter petiolata, integerrima, coriacea, pennivenia. Racemi axillares, breves; flores utriusque sexus pedicellati, ♀ in racemo pauci, ♂ numerosiores.

Species 1, Chilensis. *Hook. Ic. Pl. t.* 12. *Baill. Etud. Euph. t.* 27. *A. DC. Prod.* xvi. ii. 641. *Miers, Contrib. Bot.* ii. 125, *t.* 72.

Genus a variis auctoribus ad ordines diversos relatum, nobis rite a Hookero patre in *Euphorbiaceis* inclusum videtur, et a *Celastraceis* ubi collocat Miers longe remotum. Flores tam ♂ quam ♀, præter petalorum præsentiam, fere *Antidesmatis*, indumentum *Hieronymi*.

64. **Hymenocardia,** *Wall. Cat. Herb. Ind. n.* 3549; *Lindl. Introd. Nat. Syst. ed.* 2, 441. (Samaropyxis, *Miq. Fl. Ind. Bat. Suppl.* 464.)—Flores dioici, apetali. Discus 0. Fl. ♂: Calycis segmenta v. lobi 4–5 rarius 6, brevia, membranacea, imbricata, latiuscula. Stamina 4–5, rarius 6, filamentis calycem non excedentibus liberis v. basi in columnam connatis superne patentibus; antheræ magnæ, primum reflexæ, demum sæpius horizontales, loculis distinctis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum breve v. filamentis æquale. Fl. ♀: Sepala distincta, angusta, caducissima. Ovarium 2-loculare, septo contrarie plano-compressum; styli vix basi connati, longi, subteretes, indivisi, dense longeque papillosi; ovula in loculis gemina. Capsula plano-compressa, coccis 2 a columella secedentibus plano-cymbiformibus samaroideis dorso acutis v. sæpius superne v. circumcirca in alam productis, margine interiore post casum hiantibus, cæterum indehiscentibus; pericarpium subcrustaceum, endocarpio tenuissime membranaceo. Semina in coccis sæpius solitaria, plano-compressa, margine interdum anguste alata, testa tenui nitidula v. striata; albumen haud crassum; cotyledones planæ, latæ, tenuissimæ, radicula longiuscula.—Arbores v. frutices elatiores. Folia alterna, petiolata, membranacea v. coriacea, integerrima, pennivenia. Flores sub bracteolis solitarii, ♂ in spicis amentiformibus, ♀ in racemis brevibus laxis; spicæ ♂ sessiles laterales; racemi ♀ laterales v. axillares, per anthesin breves, bracteis pedicellisque brevibus, fructiferi laxi pedicellis elongatis bracteis sæpe in folia excrescentibus, racemis tunc in ramulos foliatos mutatis pedicellis ad axillas solitariis.

Species 5, quarum una a Peninsula Indica usque ad Archipelagum Malayanum extensa, cæteræ Africæ tropicæ incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 476. *Grant in Trans. Linn. Soc.* xxix. *t.* 94. *Oliv. in Hook. Ic. Pl. t.* 1131.

Kurz, in For. Fl. Burm. ii. 395, perperam *Hymenocardiæ* ovula in loculis solitaria tribuit et *Coccoceram plicatam*, Muell. Arg., ad hoc genus transtulit.

65. **Richeria,** *Vahl, Ecl.* i. 30, *t.* 4. (Podocalyx, *Klotzsch in Wiegm. Archiv.* vii. 202. Guarania, *Baill. Etud. Euph.* 598.)—Flores dioici, apetali. Fl. ♂: Sepala 3–4, parva, imbricata. Disci glandulæ distinctæ. Stamina 3–4, filamentis distinctis filiformibus; antheræ parvæ, loculis brevibus distinctis longitudinaliter dehiscentibus. Ovarii rudimentum breve, sæpe villosulum. Fl. ♀: Calyx maris. Discus annularis v. breviter urceolaris. Ovarium 3-loculare; styli breves, superne patentes, crassi, lati, integri v. breviter 2-fidi; ovula in loculis gemina. Capsula in coccos 2-valves dissiliens. Seminum testa subcrustacea; albumen carnosum; embryo rectus, cotyledonibus planis latis.—Arbores. Folia alterna, ampla, coriacea, integerrima, pennivenia. Racemi v. spicæ axillares v. laterales, ♂ tenues, interrupti, floribus minimis secus rhachin glomeratis, glomerulis sessilibus v. stipatis; ♀ breves, densi, floribus subsessilibus sub quaque bractea solitariis. Bracteæ in utroque sexu minimæ.

Species 3, Brasiliæ, Guianæ et Indiæ occidentalis incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 467, *et in Mart. Fl. Bras.* xi. ii. 15, *t.* 13. *Pœpp. et Endl. Nov. Gen. et Sp.* iii. *t.* 226 (*Amanoa*).

Podocalyx in Prodromo pro sectione recipitur, antheris extrorsum nec introrsum birimosis, distinctio tamen nobis effugit. Antherarum loculi dorso appositi nobis videntur leviter introrsum v. demum extrorsum versi in utraque sectione.

66. **Thecacoris,** *A. Juss. Euph. Tent.* 12, *t.* 1.—Flores dioici, sæpius petaliferi. Fl. ♂: Sepala 5, membranacea, imbricata. Petala 5, parva, sub disco affixa, v. 0. Discus patens, 5-lobus, villosulus. Stamina 5, inter lobos disci affixa, sepalis opposita, filamentis liberis; antherarum loculi distincti, subglobosi, a connectivo crassiusculo penduli v. demum erecti. Ovarii rudimentum crassum, vertice subplanum, obtuse 3-lobum. Fl. ♀: Sepala quam in mare angustiora. Discus parum prominens. Ovarium 3-loculare; styli 3, distincti, longiusculi, recurvo-patuli, apice 2-fidi; ovula in loculis gemina. Capsula glabra, depressa, tridyma, in coccos 2-valves dissiliens. Semina perfecte matura non vidimus.—Arbores fruticesve præter inflorescentiam glabri. Folia alterna, sæpius ampla, rigidule membranacea, integerrima. Flores parvi, breviter pedicellati, racemosi, racemis axillaribus simplicibus v. subramosis folio multo brevioribus, utriusque sexus multifloris. Bracteæ parvæ, rarius pedicellis longiores subulatæ.

Species 4, Africæ tropicæ et Madagascariæ incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 246. Speciem typicam Madagascariensem petalis 0 non vidimus. Character supra datus ex speciebus Africanis sæpius petaliferis.

67. **Cyathogyne,** *Muell. Arg. in Flora*, 1864, 536, *et in DC. Prod.* xv. ii. 226.—Flores dioici, apetali. Fl. ♂: Sepala 5, membranacea, imbricata. Discus e glandulis parvis. Stamina 5, sepalis opposita, filamentis liberis; antherarum loculi paralleli, distincti, in alabastro penduli, in flore aperto divergentes v. divaricati vix erecti, longitudinaliter dehiscentes. Ovarii rudimentum in discum cyathiformem membranaceum late 3-lobum breviter stipitatum expansum. Fl. ♀: Calyx fere maris. Ovarium depressum, 3-sulcum, 3-loculare; styli distincti, apice introrsum linea crassa stigmatosa apice 2-fida instructi; ovula in loculis gemina. Capsula . . .—Herba erecta, subsimplex, pallide virens, caule basi duro (perenni ?). Folia alterna, petiolata, majuscula, acuminata, integerrima v. leviter sinuata; stipulæ setaceæ, caducæ. Flores minimi, racemosi, ♂ subsessiles, ♀ evidentius pedicellati, racemis axillaribus filiformibus simplicibus v. parce ramosis. Fructum non vidimus, sed ex ovario parum aucto verisimiliter in coccos 2-valves divellitur.

Species 1, Africæ tropicæ occidentalis incola. *Hook. Ic. Pl. t.* 1278.

68. **Dicœlia,** *Benth. in Hook. Ic. Pl. t.* 1289.—Flores monoici, petaliferi. Discus 0.

Fl. ♂ : Calyx parvus, 5-fidus. Petala 5, valvata, crassa, extus convexa, intus apice crasso-carnosa, infra medium concava, linea elevata centrali quasi in locellos 2 divisa. Stamina 5, petalis alterna, filamentis brevibus distinctis; antherarum loculi majusculi, paralleli, discreti, in alabastro in locellis petalorum contiguorum recepti. Ovarii rudimentum 3–5-fidum, lobis ultra petala in appendices lineares hamatas productis. Fl. ♀ : Calyx alte 5-fidus, petalis paullo brevior. Petala ovata, obtusa, concava, haud incrassata, leviter imbricata. Ovarium subglobosum, 3-sulcum, pubescens, 3-loculare; styli distincti v. vix basi connati, lineares, rigiduli, erecti, indivisi, apice inflexi breviterque stigmatoso-dilatati; ovula in loculis gemina, sub obturatore unico.—Fructus . . . Frutex v. arbor. Folia alterna, petiolata, ampla, tenuiter coriacea, integerrima, glabra, pennivenia. Racemi axillares, foliis breviores, minute puberuli. Flores parvi, pedicellati, secus rhachin dissite fasciculati, fasciculis plerisque androgynis, flore centrali fœmineo, cæteris masculis, v. interdum omnes masculi.

Species unica, Borneensis.

Genus petalorum forma singulari *Galeariea* accedit, differt tamen racemis axillaribus monoicis et ovulis in loculis geminis.

TRIBUS V. GALEARIEÆ.

69. **Galearia**, *Zoll. et Mor. Verz. Zolling, Pfl.* 19. (Bennetia, *R. Br. in Benn. Pl. Jav. Rar.* 249, *t.* 50. Cremostachys, *Tul. in Ann. Sc. Nat. ser.* 3, xv. 259.)—Flores dioici, petaliferi. Discus 0. Fl. ♂ : Calyx parvus, 5-dentatus v. 5-fidus. Petala 5, concava, induplicata v. cucullata, subvalvata. Stamina 10, 2-seriata, filamentis crassiusculis liberis, 5 exterioribus petalis alternis valde inflexis, 5 interioribus brevioribus petalis oppositis v. subinclusis; antherarum loculi paralleli, distincti, nunc laterales æquales contigui, nunc inæquales majore extrorsum late aperto interiore minore, nunc oblongi æquales a connectivo penduli. Ovarii rudimentum staminibus subæquilongum. Fl. ♀ : Calyx minutus. Petala maris. Ovarium 2- rarius 3-loculare; styli breves, patentes, 2-partiti, ramis tenuibus; ovula in loculis solitaria, jam sub anthesi latiora quam longa. Fructus drupaceus, transversè oblongus, exocarpio carnoso, endocarpio crustaceo 2-loculari v. abortu 1-loculari. Semina transversim oblonga, compressa, testa membranacea; albumen carnosum; cotyledones latæ, planæ.—Arbusculæ v. frutices glabri v. tenuiter puberuli. Folia alterna, breviter petiolata, sæpius ampla, integerrima, pennivenia. Racemi terminales, tenues, utriusque sexus elongati floribundi. Flores parvi, ♂ sub bracteis glomerati subsessiles v. longiuscule pedicellati, ♀ sub quaque bractea pauci v. solitarii. Bracteæ minutæ v. subulatæ.

Species descriptæ 12, nonnullæ inter se forte nimis affines, aliæ etsi aspectu similes, quoad antheras facile distinctæ, omnes Indiæ Malaccensis v. Archipelagi Malayani incolæ.—*Muell. Arg. in DC. Prod.* xv. ii. 1036, sub *Bennetia*, nomen tamen anno 1852 (nec 1844) in parte ultima Plantarum Javanicarum editum. *Galearia* jam anno 1846 edita fuit, *Cremostachys* anno 1851. *Kurz, For. Fl. Brit. Burm.* ii. 407.

70. **Microdesmis**, *Planch. in Hook. Ic. Pl. t.* 758, *et Fl. Nig. t.* 26.—Flores dioici, petaliferi. Fl. ♂ : Calyx 5- (rarius 4- v. 6-?) partitus, segmentis leviter imbricatis. Petala totidem, calyce longiora, contorto-imbricata. Stamina 5 v. 10, 1–2-seriata, receptaculo carnoso imposita, seriei exterioris petalis alterna, filamentis liberis; antheræ erectæ, loculis parallelis v. subparallelis distinctis longitudinaliter dehiscentibus. Ovarii rudimentum columnare ovoideum v. 3-fidum. Fl. ♀ : Perianthium maris. Ovarium carnosum, basi minute 2- v. rarius 3-loculare; styli breves, 2-partiti, nunc brevissimi, patentes, papilloso-laceri; ovula in loculis solitaria. Drupa indehiscens, putamine osseo extus rugoso. Semina late ovoidea, testa membranacea v. vix crustacea; albumen carnosum, haud crassum; cotyledones ovatæ, planæ.—Frutices ramis virgatis. Folia alterna, breviter petiolata, integerrima v. breviter dentata, pennivenia, in specie Africana 5-andra minute pellucido-punctata, in Asiatica 10-andra impunctata. Flores minimi, breviter pedicellati, ad axillas fasciculati, ♂ sæpius numerosi, ♀ pauci v. subsolitarii.

Species bene notæ 2, altera 5-andra Africæ tropicæ, altera 10-andra Asiæ tropicæ a Zeylania usque ad Archipelagum et Chinam extensa. *Muell. Arg. in DC. Prod.* xv. ii. 1041. Fructus bene maturus in specie Asiatica sola rite observatus, cui verisimiliter addenda species tertia Borneensis, *Beccari n.* 3713, cujus flores pauci tantum ♂ in specimine nostro adsunt, et PENTABRACHION, *Muell. Arg. in Flora*, 1864, 532, *et in DC. Prod.* xv. ii. 223, ex Africa tropica, cujus specimina ♂ sola adhuc nota, in habitu omnibusque characteribus *Microdesmi* convenit, exceptis petalis calyce paullo brevioribus.

71. **Pogonophora,** *Miers; Benth. in Hook. Kew Journ.* vi. 372.—Flores dioici, petaliferi. Fl. ♂: Calyx parvus, 5-partitus, segmentis imbricatis. Petala 5, calyce longiora, imbricata, intus medio barbata. Stamina 5, calycis segmentis opposita, sub disco crasso depresso affixa, filamentis brevibus liberis; antheræ lineares, apiculatæ, loculis adnatis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum lineare, 3-fidum. Fl. ♀: Perianthium maris. Discus breviter cupulatus. Ovarium 3-loculare; styli basi breviter connati, superne patentes, apice stigmatoso dilatato 2-lobo v. fimbriato; ovula in loculis solitaria. Capsula ovoidea, in coccos 2-valves dissiliens, endocarpio duro. Semina ovoidea, testa crustacea nitida; albumen carnosum; cotyledones planæ, latæ.—Frutex v. arbor debilis, inflorescentia excepta glaber. Folia alterna, petiolata, integerrima, coriacea, pennivenia. Flores parvuli, in racemulis compositis seu paniculis parvis axillaribus, secus rhachin in glomerulos breviter pedunculatos dispositi, ♂ in glomerulis sessiles, ♀ breviter pedicellati. Capsulæ parvulæ.

Species 1, Brasiliæ et Guianæ incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 1040, *et in Mart. Fl. Bras.* xi. ii. 435, *t.* 62. *Baill. Etud. Euph. t.* 19.

72. **Tetrorchidium,** *Pœpp. et Endl. Nov. Gen. et Sp.* iii. 23, *t.* 227.—Flores dioici v. monoici, apetali. Fl. ♂: Calyx parvus, 3-partitus, segmentis latis leviter imbricatis. Discus 0. Stamina 3, calycis segmentis opposita, filamentis brevissimis, in alabastro in massam subglobosam connata, demum vix libera; antheræ subsessiles, erectæ, latæ, introrsum subæqualiter 4-locellatæ, 4-valves. Ovarii rudimentum clavatum antheris æquilongum v. minutum (v. 0 ?). Fl. ♀: Calyx maris. Discus cyathiformis v. in ligulas 3 petaloideas divisus. Ovarium 2–3-loculare; styli breves, plani, crassi, 2-fidi, stellatim patentes, nunc fere in orbem connati; ovula in loculis solitaria. Capsula 2–3-dyma, in coccos 2-valves dissiliens, endocarpio tenuiter crustaceo. Semina globosa, testa crustacea duriuscula extus carnosa; albumen carnosum, haud crassum; cotyledones planæ, latæ.—Arbores fruticesve glabri v. pubescentes. Folia alterna, petiolata, ampla v. mediocria, integerrima v. dentata, pennivenia, petiolo apice sæpe 2-glanduloso. Racemi axillares, tenues, floribus dissitis, ♂ elongati, simplices v. breviter ramosi, floribus parvis subsessilibus; ♀ et androgyni sæpius breviores, simplices, nunc brevissimi v. ad florem unicum pedunculatum reducti.

Species 4, Americæ tropicæ incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 1133, *et in Mart. Fl. Bras.* xi. ii. 511, *t.* 71. Genus valde anomalum, quoad affinitates adhuc dubium. Antheræ fere *Cleidii* v. *Endospermi*, sed staminum situs, ovarii rudimentum, etc., ab illis abhorrent. *T. parvulum*, Muell. Arg., a cæteris habitu differt; pedunculi in specimine nostro Riedeliano omnes breves tenues flore unico ♀, in speciminibus Glaziovianis plures adsunt paullo longiores 2–3-flori, flore terminali ♀, inferioribus 1–2 ♂.

TRIBUS VI. CROTONEÆ.

73. **Elateriospermum,** *Blume, Bijdr.* 620.—Flores monoici, apetali. Fl. ♂: Calyx subglobosus, sepalis 4–5 latis valde imbricatis. Stamina ∞ (10–18), receptaculo villoso crassiusculo imposita, filamentis brevibus liberis; antheræ oblongæ, erectæ, loculis adnatis parallelis longitudinaliter dehiscentibus, connectivo apice glanduliformi coronatæ. Ovarii rudimentum 0 v. minutum. Fl. ♀: Sepala imbricata, caduca. Discus margine elevatus, pubescens, subinteger. Staminodia sæpius ∞, parva, disco introrsum affixa. Ovarium 3-loculare; styli crassi, primum brevissime erecti subconnati, demum parum elongati, apice in stigmata crassa brevia patentia sublobata dilatati; ovula in loculis

solitaria. Capsula magna, in coccos 2-valves dissiliens, exocarpio subcarnoso, endocarpio duro. Semina magna, oblonga, testa crustacea nitida; albumen? membranaceo-papyraceum embryonem includens; cotyledones magnæ, crasso-carnosæ, radicula brevissima ad basin cotyledonum retracta.—Arbor pulcherrima, coma densa oblonga (*Griff.*). Folia alterna, longe petiolata, subcoriacea, integerrima, pennivenia et tenuiter reticulato-venulosa. Cymæ laxe dichotomæ, pedunculis ad apices ramorum v. ad basin innovationum pluribus, paniculam laxam foliis breviorem formantibus. Flos cymæ centralis ♀, sessilis; laterales ♂, haud numerosi. Semina sub-pulposo-arillata dicuntur, quod tamen in speciminibus nostris haud apparet.

Species 1, Peninsulæ et Archipelagi Malayani incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 1131. *Baill. Etud. Euph. t.* 19. *Hook. Ic. Pl. t.* 1294.

74. **Cunuria,** *Baill. Adans.* iv. 287. (Clusiophyllum, *Muell. Arg. in Flora,* 1864, 518.)—Flores dioici, apetali. Fl. ♂: Sepala 5, lata, valde imbricata. Discus 0. Stamina 10, receptaculo valde elevato affixa, filamentis brevibus liberis; antheræ dorsifixæ, loculis subparallelis connectivo latiusculo adnatis longitudinaliter dehiscentibus. Ovarii rudimentum villosulum, integrum, staminibus paullo brevius. Fl. ♀ (a nobis non visi): Perianthium maris. Discus cupuliformis glanduloso-6–8-lobus (*Baill.*) v. 0 (*Muell. Arg.*). Ovarium 3-loculare; styli crassi, 2-fidi, reflexi, ovario adpressi; ovula in loculis solitaria (*Baill.*). Capsula magna, subglobosa, in coccos 2-valves dissiliens, exocarpio carnoso, endocarpio crasso lignoso. Semina magna, ovoidea, testa crustacea; albumen carnosum; cotyledones planæ, latæ.—Arbores vastæ, glabræ. Folia alterna, petiolata, integerrima, coriacea, pennivenia, limbo supra ad basin 2-glanduloso. Pedunculi axillares v. laterales (v. primum terminales?), sæpe 2–3-ni, folio multo breviores, ♂ simplices v. parce ramosi, ramis apice cymam paucifloram ferentibus floribus ternatim sessilibus; ♀ fructus 1–3 gerentes.

Species 2, Brasiliæ borealis incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 1123, *et in Mart. Fl. Bras.* xi. ii. 509, *t.* 14.

Genus, inflorescentia et floribus ♀ in speciminibus nostris imperfecte evolutis, quoad affinitates dubium, ex Spruceo *Heveæ* evidenter proximum, quod etiam ex observationibus nostris comprobari videtur.

75. **Micrandra,** *Benth. in Hook. Kew Journ.* vi. 371. (Pogonophyllum, *Didrichs. in Vidensk. Meddel. Nat. For. Kjöbenh.* 1857, 144.)—Flores monoici (v. interdum dioici?), apetali. Fl. ♂: Sepala 5, valvata v. leviter imbricata. Glandulæ disci staminibus alternæ. Stamina 5, sepalis alterna, circa discum subplanum affixa, filamentis liberis apice in alabastro inflexis demum erectis; antheræ sub anthesi erectæ, breves, adnatæ, loculis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum minutum, in medio disco vix conspicuum. Fl. ♀: Sepala caducissima. Discus annularis, tenuis. Ovarium 3-loculare; styli brevissimi, crassi, lati, retusi, basi subconnati; ovula in loculis solitaria. Capsula globosa, vix in coccos secedens, dehiscentia et semina imperfecte nota.—Arbores proceræ, succo lacteo *Heveæ*. Folia alterna, ampla, indivisa, integerrima, pennivenia, petiolo longiusculo. Flores parvuli, cymulosi, cymulis laxe paniculatis, paniculis terminalibus v. infra folia lateralibus, rarius ad axillas pedunculatis.

Species 2 v. 3 Brasilianæ. *Muell. Arg. in DC. Prod.* xv. ii. 709, *et in Mart. Fl. Bras.* xi. ii. 289, *t.* 42, ubi *M. minor*, Benth., ad varietates *M. siphonioidis* reducitur. Folia præbet *M. elatæ*, Muell. Arg., glandulis baseos in utraque parum conspicuis v. 0, cum floribus *M. siphonioidis*.

76. **Avellanita,** *Philippi in Linnæa* xxxiii. 237.—Flores monoici, (apetali?). Fl. ♂: Calyx in alabastro globosus, per anthesin 5-partitus, segmentis valvatis. Stamina numerosa, in globum coalita, filamentis apice liberis; antherarum loculi globosi. Fl. ♀: Calyx paullo minor quam in mare, 5-partitus, segmentis lineari-lanceolatis. Ovarium globosum, dense puberulum, 3-loculare; styli erecti, longiusculi, indivisi; ovula in loculis solitaria. Capsula depressa, 3-cocca, endocarpio crustaceo-lignoso. Semina subglobosa, estrophiolata, lævia; embryo rectus, cotyledonibus subrotundo-ovatis.—Frutex haud

lactescens. Folia alterna, breviter petiolata, oblongo-lanceolata, integerrima, fere triplinervia, floralia fere verticillata. Flores terminales 3–4, uno ♀, cæteris ♂, bracteis linearibus circumdati. (*Char. ex Philippi.*)

Species 1, in provincia Chilensi Colchagua lecta, a nobis non visa.

77. **Hevea,** *Aubl. Pl. Gui.* 871, *t.* 335. (Siphonia, *Schreb. Gen. Pl.* 656. Micrandra, *R. Br. in Benn. Pl. Jav. Rar.* 237.)—Flores monoici, apetali. Fl. ♂: Calyx in alabastro ovoideus v. globosus, breviter nunc minute 5-lobus, per anthesin apertus, truncatus 5-dentatus v. 5-lobus. Disci glandulæ parum conspicuæ. Stamina 5-10, filamentis in columnam connatis; antheræ circa columnam irregulariter v. regulariter 1–2-seriatim subsessiles, seriei inferioris lobis perianthii alternæ. Ovarii rudimentum columnam terminans, antheris sæpius longius. Fl. ♀: Calyx maris. Ovarium ovoideum, 3-loculare; stigmata crassa, patentia, sub-2-loba, in vertice ovarii v. styli brevis adnata; ovula in loculis solitaria. Capsula magna, in coccos bivalves dissiliens, exocarpio subcarnoso, endocarpio crasso sublignoso. Semina magna, oblonga, lævia, estrophiolata, testa crustacea; albumen 0 v. ad pelliculam tenuem reductum; cotyledones crassæ, carnosæ, æquales, radicula brevi subinclusa.—Arbores proceræ, succo lacteo *Caoutchouc* præbente scatentes. Folia alterna, longe petiolata, 3-foliolata, foliolis petiolulatis integerrimis-penniveniis membranaceis v. coriaceis. Flores parvuli, cymulosi, cymulis paniculatis, flore centrali cujusve cymulæ sæpius ♀, cæteris ♂.

Species 9, Americæ tropicæ regionis Amazonum v. Guianæ incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 717, *et in Mart. Fl. Bras.* xi. ii. 297, *t.* 44. *A. Juss. Euph. Tent. t.* 12. *Baill. Etud. Euph. t.* 14. *Klotzsch in Hayne, Arzneigew.* xiv. *t.* 4, 5. *Collins, Rep. Caoutch. t.* 1 (*ic. plur. sub Siphonia*).

Genus naturalissimum, vix in sectiones dividendum. In *H. guianensi*, Aubl., quæ *Euhevea*, Muell. Arg., alabastra globosa, calyx minute 5-dentatus v. vix altius in lobos divisus, antheræ 5, 1-seriatæ. In *H. peruviana*, Lechl. (adhuc inedita?), e Peruvia orientali, calyx vix altius fissus, et antheræ in floribus examinatis 5, sed in serie minus perfecta disposita. In cæteris speciebus alabastra ovoidea v. acuminata, calyx demum sæpius ad medium lobatus, antheræ nunc 6–7 irregulariter affixæ, nunc 8–10 in verticillos 2 subregulares distantes dispositæ.

78. **Joannesia,** *Velloso, Alograf.* 199, *cum ic.*, *non Pers.* (Anda, *A. Juss. Euph. Tent.* 39, *t.* 12, *non Piso.* Andicus, *Vell. Fl. Flum.* 80; *Ic.* ii. *t.* 86.)—Flores monoici, petaliferi. Fl. ♂: Calyx in alabastro globosus, subclausus, per anthesin late campanulatus, truncatus, brevissime 5-dentatus. Petala sub anthesi calyce multo longiora, valde imbricata. Stamina 7–10, receptaculo conico affixa, exteriora fere ad basin receptaculi petalis opposita, glandulis parvis alternis interdum obsoletis, filamentis brevibus liberis; antheræ erectæ, oblongæ, loculis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum 0 v. rarius hinc inde ad apicem receptaculi 2-fidum Fl. ♀: Calyx maris. Petala caducissima, quam in ♂ angustiora. Squamellæ hypogynæ 5, breves. Ovarium 2-loculare; styli brevissimi, apice incrassati, dentati v. breviter lobati, caducissimi; ovula in loculis solitaria. Drupa ovoidea, exocarpio carnoso demum a basi in valvas 4 secedente, endocarpio lignoso 2-loculari. Seminum testa crustacea, extus carnosula; albumen carnosum; embryo rectus, cotyledonibus latis planis.—Arbor procera, fere a basi ramosa. Folia alterna, longe petiolata, digitatim 5-foliolata, foliolis petiolulatis integerrimis, glandulis ad basin petiolulorum. Flores dichotome cymosi, cymis floribundis ad apices ramorum dense paniculatis, in dichotomiis inferioribus fœmineis, in superioribus masculis, v. rarius cymæ unisexuales.

Species 1, Brasiliana. *Gomez in Mem. Acad. Lisb.* iii., *Mem. Corresp.* 6. *t.* 1. *Muell. Arg. in DC. Prod.* xv. ii. 715, *et in Mart. Fl. Bras.* xi. ii. 296, *t.* 43 (*Johannesia*). *A. St. Hil. Pl. Us. Bras. t.* 54, 55 (*Anda*).

Calycis dentes induplicato-valvati dicuntur, minimi sunt et nisi in prima juventute inter se distantes, in alabastris novellis conniventes subvalvatos nec induplicatos invenimus. Velloso uti Gomez nomen genericum scripsit *Joannesia* nec *Johannesia*.

79. **Jatropha,** *Linn. Gen. n.* 1084.—Flores monoici, sæpius petaliferi. Fl. ♂: Calycis

segmenta v. lobi 5, imbricata. Petala 5, contorto-imbricata, in corollam 5-lobam connata v. libera v. calyce petaloideo 0. Discus integer v. 5-glandulosus. Stamina ∞, receptaculo 2-∞-seriatim affixa, filamentis saltem interioribus plus minus in columnam connatis, 5 exteriora petalis opposita; antheræ ovatæ v. oblongæ, erectæ, loculis parallelis contiguis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Calyx maris. Petala haud raro desunt. Ovarium 2–3- rarius 4-loculare; styli basi connati, superne patentes, in ramos 2 integros v. 2-fidos sæpius breves divisi; ovula in loculis solitaria. Capsula ovoidea v. subglobosa, vertice sæpius subplana, in coccos 2-valves dissiliens, endocarpio crustaceo v. indurato. Semina ovoidea v. oblonga, testa crustacea; albumen carnosum; cotyledones planæ, latæ.—Herbæ elatiores fruticesve, rarius arborescentes, ramis interdum carnosulis, rarius aculeis sparsis v. geminis rectis armatis. Folia alterna, petiolata, indivisa v. (interdum in eadem planta) digitatim 3-∞-lobata v. partita, segmentis integris v. sinuato-pinnatifidis, indumento simplici interdum glanduloso. Stipulæ haud raro in cilia divisæ. Flores ad apices ramorum in paniculas dichotome cymosas dispositi, ♀ sæpius in dichotomiis primariis, cæteris ♂.

Species enumeratæ 68, regionum calidiorum utriusque orbis imprimis Americæ incolæ, extra tropicos in America septentrionali et Africa australi parum extensæ. *Muell. Arg. in DC. Prod.* xv. ii. 1076, *et in Mart. Fl. Bras.* xi. ii. 487, *t.* 68, 69.

Genus inflorescentia pluribusque characteribus *Joannesiæ* potius quam *Manihoto* accedit, facile distinguitur calyce et fructu. In sectiones 3 sequentes sat distinctas dividitur:—

1. *Curcas.* Calyx alte 5-fidus. Petala ultra medium in corollam urceolatam 5-lobam cohærentia. Stamina 10, v. serie interiore imperfecta pauciora. Species Americanæ, quarum una in orbe vetere late culta v. inquilina. *Jacq. Hort. Vind.* iii. *t.* 63. *Wight, Ic. t,* 1169. Curcas, *Adans. Fam.* ii. 356. Castiglionia, *Ruiz et Pav. Prod.* 139, *t.* 37, *et Syst. Veg. Fl. Peruv.* 275. Mozinna, *Orteg. Dec.* 104, *t.* 13. *Benth. Bot. Sulph. t.* 25. *Hook. Ic. Pl. t.* 357. Loureira, *Cav. Ic.* v. 17, *t.* 429, 430. In una specie, *J. spathulata*, Muell. Arg. (*Mozinna*, Ort.), frutex Mexicanus ramis succulentis, panicula sessilis simplex, floribus cum foliis parvis ad nodos pulviniformes fasciculatis, habitum fere *Acidocrotonis* præbens.

2. *Adenoropium.* Calyx alte 5-fidus, sæpe brevis coloratusque. Petala libera v. basi breviter cohærentia. Stamina 10, v. serie interiore imperfecta pauciora. Species plures utriusque orbis, imprimis Americanæ et Africanæ. *Vent. Jard. Malm. t.* 52. *Andr. Bot. Rep. t.* 267. *Salisb. Parad. Lond. t.* 91. *Bot. Mag. t.* 604, 1464, 4376. *Bot. Reg. t.* 746. *Lodd. Bot. Cab. t.* 1604. *Maund, Botanist, t.* 107. Adenoropium, *Pohl, Pl. Bras. Ic.* i. 12, *t.* 9.

3. *Cnidoscolus.* Calyx ♂ petaloideus, tubo sæpius longiusculo, limbo patente 5-lobo, ♀ 5-partitus. Petala 0. Stamina 10–25. Species omnes Americanæ. *Jacq. Hort. Vind. t.* 21. Jussievia, *Houst. Reliq.* 6, *t.* 15. Cnidoscolus, *Pohl, Pl. Bras. Ic.* i. 56, *t.* 49 *ad* 52. Sectio facile pro genere proprio retinenda.

J. Heudelotii, Baill., inter *Adenoropia* in Prodromo recepta, est *Ricinodendron africanum.*

80. **Acidocroton,** *Griseb. Fl. Brit. W. Ind.* 42.—Flores monoici, petaliferi. Fl. ♂: Calyx parvus, patens, alte 5–6-fidus. Petala 5–7, calyce majora, patentia, contorto-imbricata. Stamina ∞ (ad 30), receptaculo disciformi pubescenti imposita, filamentis liberis; antheræ breves, erectæ, loculis distinctis connectivo latiusculo adnatis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Calyx maris. Petala rudimentaria (*Muell. Arg.*) (v. caducissima ?). Ovarium 3-loculare (3–5-loculare, *Muell. Arg.*); styli plani, patentes, crassi, late obovati, retusi, basi brevissime connati; ovula in loculis solitaria. Capsula (a nobis non visa) in coccos 2-valves dissiliens. Semina . . .—Fruticulus ramosissimus aculeis geminis infrastipularibus rectis divaricatis horridus. Gemmæ foliatæ pulviniformes, aculeis breviores, foliis paucis parvis obovatis crassis integerrimis. Flores inter folia pauci, parvuli, subsessiles.

Species 1, Cubensis. *Muell. Arg. in DC. Prod.* xv. ii. 1042. Genus quoad flores ♀ adhuc imperfecte notum, evidenter *Jatrophæ* (*Mozinnæ*) affine. Acidoton, P. Br., species potius quam genus, planta Jamaicensis, huc a Muell. Arg. in DC. l. c. 732 et 924, docente Grisebachio refertur, ab eo tamen rectius l. c. 1042 excluditur, nam descriptio Brownei Hist. Jam. 355 et Elmgrenii in Linn. Amœn. Acad. v. 411, ex speciminibus ♀ solis instructa cum *Acidocrotone* minime convenit, et verisimiliter planta a Linnæo rite in *Adelia* inclusa.

81. **Tritaxis**, *Baill. Etud. Euph.* 342, *t.* 11. (Trigonostemonis *sect.* Tritaxis *et* Antitaxis, *Muell. Arg. in DC. Prod.* xv. ii. 1107.) — Flores monoici? petaliferi. Fl. ♂: Calyx 3-fidus, lobis sæpius brevibus subimbricatis. Petala 5, calyce longiora. Disci glandulæ ad basin columnæ 5. Stamina in verticillos 2 v. 3 circa columnam centralem tenuem disposita, 5 verticilli inferioris prope basin columnæ, 5 verticilli secundi dum adsint in media columna, 2 v. 3 filamentis brevibus columnam terminantibus; antheræ verticillorum inferiorum erectæ, loculis introrsum parallelis longitudinaliter dehiscentibus, staminum terminalium horizontales. Ovarii rudimentum 0. Fl ♀ (a nobis non visi): Calyx et petala maris. Ovarium 3-loculare; styli 2-fidi. Capsulæ cocci 2-valves (*Baill.*).—Arbores fruticesve. Folia alterna, petiolata, integerrima v. dentata, glabra v. subtus puberula. Flores ad apices ramorum dichotome cymosi, ♀ (centralis?) subsessilis, ♂ plures pedicellati parvi.

Species 3 v. 4, Indiæ orientalis et Archipelagi Malayani incolæ. *Benth. in Journ. Linn. Soc.* xvii. 221.

82. **Aleurites**, *Forst. Char. Gen.* 111, *t.* 56.—Flores monoici v. subdioici, petaliferi. Fl. ♂: Calyx junior globosus, clausus, per anthesin in lobos 2–3 valvatim ruptus. Petala 5, calyce longiora. Stamina ∞ (8–20), receptaculo conico affixa, 5 exteriora petalis opposita glandulis parvis alterna, filamentis liberis brevibus v. elongatis; antheræ erectæ, adnatæ, loculis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Perianthium maris. Discus inconspicuus, v. glandulæ minutæ petalis alternæ. Ovarium 2–5-loculare; styli in ramos 2 crassiuscule lineares divisi; ovula in loculis solitaria. Fructus magnus, drupaceus, indehiscens, exocarpio carnoso haud crasso, endocarpio crustaceo v. duro 2–5-loculari v. abortu 1-loculari. Seminum testa crassa, lignosa; albumen crassum, durum; embryo rectus, cotyledonibus latis planis.—Arbores indumento stellari v. subsimplici. Folia alterna, longe petiolata, ampla, basi 5–7-nervia, integerrima v. 3-loba, petiolo apice 2-glanduloso. Flores laxe cymosi, cymis ad apices ramorum paniculatis.

Species editæ 3, Asiæ orientalis et insularum maris Pacifici indigenæ, sectiones 3 formantes, quas facile pro generibus propriis haberes.—*Muell. Arg. in DC. Prod.* xv. ii. 723. *Baill. Etud. Euph. t.* 12.

1. *Camirium.* Alabastra globosa. Stamina 15–20. Pistillum 2-merum. Panicula lata, dense floribunda. Species 1, ex ins. maris Pacifici per regiones tropicas utriusque orbis late dispersa culta v. inquilina. CAMIRIUM, *Gærtn. Fruct.* ii. 194, *t.* 125.

2. *Elæococca.* Alabastra ovoidea. Stamina 8–12, filamentis quam in *Camirio* longioribus, interioribus (an semper?) apice reflexis. Flores in panicula laxa pauciores magni. Pistillum 3–5-merum. ELÆOCOCCA, *A. Juss. Euph. Tent.* 38, *t.* 11. DRYANDRA, *Thunb. Fl. Jap.* 13, *t.* 27. *Correa in Ann. Mus. Par.* viii. *t.* 32. VERNICIA, *Lour. Fl. Cochinch.* 586.

3. *Reutiales.* Species ex ins. Philippinis a nobis non visa, ab *Elæococca* differre dicitur antheris ad 8, extrorsum nec introrsum 2-rimosis.

His verisimiliter addendæ species 2 Americanæ, altera Mexicana *Ervendberg n.* 373, altera Guianensis *Rob. Schomburgk n.* 474, *Rich. Schomburgk n.* 759, quarum flores ♂ tantum noti, qui tamen characteres omnes sectionis *Camirii* ostendunt.

83. **Garcia**, *Rohr in Skrivt. Nat. Hist. Selsk. Kjöbenh.* ii. (1792) 217, *t.* 9.—Flores monoici (v. dioici?), petaliferi. Discus annularis v. in squamellas subdivisus. Fl. ♂: Calyx membranaceus, in alabastro globosus, clausus, per anthesin in lacinias 2–3 valvatim ruptus. Petala 8–12, angusta, longe sericea, calycem superantia, squamellis parvis alterna. Stamina numerosa, receptaculo convexo pilosiusculo affixa, filamentis liberis apice in connectivum continuum incrassatis; antheræ erectæ, loculis adnatis parallelis v. divergentibus longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Calyx maris, cum petalis sæpe numero paucioribus caducissimus. Ovarium 3-loculare; stylus brevis, ramis stigmatosis (v. stylis distinctis) crassis latis patentibus reflexisque emarginato-bifidis; ovula in loculis solitaria. Capsula majuscula, in coccos 2-valves dissiliens, endocarpio duro sublignoso. Semina globosa; embryo . . .—Arbores. Folia alterna, petiolata,

ampla, membranacea, integerrima, pennivenia. Flores ad apices ramorum pauci, breviter pedicellati, in speciminibus nostris 1–3-ni.

Species 1, Indiæ occidentalis, Columbiæ et Americæ centralis incola. *Muell. Arg. in DC. Prod.* xv. ii. 721. *A. Juss. Euph. Tent. t.* 13. *Baill. Etud. Euph. t.* 14.

84. **Croton,** *Linn. Gen. n.* 1083.—Flores monoici v. rarius dioici, sæpius petaliferi. Fl. ♂: Calyx alte v. ad basin divisus in lobos v. segmenta 5 rarius 4 v. 6, valvata v. anguste imbricata. Petala calyci æqualia v. breviora, rarius deficientia. Disci glandulæ v. squamæ nunc calycis basi affixæ v. adnatæ nunc staminibus exterioribus alternæ. Stamina ∞, pauca plurima v. numerosissima, receptaculo affixa, exteriora v. omnia si calycis segmentis isomera iis alterna, filamentis liberis apice in alabastro inflexis per anthesin erectis; antheræ adnatæ, in alabastro filamentorum inflexione pendulæ, sub anthesi erectæ, loculis parallelis introrsum contiguis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Calycis segmenta quam in mare sæpius angustiora, calyx tamen totus interdum post anthesin auctus dilatatusque. Petala quam in mare minora et in speciebus perplurimis minuta rudimentaria v. omnino deficientia. Discus annularis v. e squamulis distinctis ad basin calycis. Ovarium 3-loculare, rarissime 2- v. 4-loculare; styli recurvi, semel v. bis bifidi v. partiti rarius dichotome multifidi; ovula in loculis solitaria. Capsula in coccos 2-valves dissiliens. Semina lævia, strophiola parva; testa crustacea v. indurata; albumen copiosum, carnosum; embryo rectus, cotyledonibus latis planis.—Arbores frutices v. rarius herbæ, habitu valde diverso. Indumentum e pilis stellatis sæpe ferrugineis v. canescentibus v. e squamellis haud raro metallice nitentibus copiosum v. sparsum v. rarius deest. Folia alterna v. rarissime opposita v. sub inflorescentia subverticillata, integerrima dentata v. rarius 3–5-loba, pennivenia v. basi 3–∞-nervia. Glandulæ 2 ad apicem petioli v. ad basin limbi rarius desunt. Flores ad apices ramorum v. rarius in axillis summis spicati v. subracemosi, ♂ sæpius secus rhachin fasciculati pedicellati v. subsessiles, ♀ sessiles, in parte inferiore spicæ sub quaque bractea absque maribus, v. rarius in mediis fasciculis solitarii. Bracteæ parvæ, v. rarius sub fl. ♀ parum auctæ.

Species editæ ad 500, per regiones calidiores utriusque orbis latissime dispersæ, in America extratropica tam australi quam boreali paucæ, in Europa et Asia extratropica desunt. *Baill. Etud. Euph.* 349, *et Adansonia* i, 146, iv. 289. *Muell. Arg. in DC. Prod.* xv. ii. 513, *et in Mart. Fl. Bras.* xi. ii. 83, *Kurz, For. Fl. Brit. Burm.* ii. 371.

Genus in ordine post *Euphorbiam* vastissimum, *Phyllantho* numerosius, sed characteribus essentialibus minus variat, et sat definite limitatur. Habitu valde polymorphum est, sed vix adhuc in sectiones idoneas ab auctoribus dividitur. Klotzsch in variis commentationibus genera ultra 20 separavit, sed pleraque, ad species unicas definita, a botanicis recentioribus haud adoptantur et auctor nunquam totius generis revisionem edidit. Baillon ll. cc. sectiones 22, plerasque sat naturales proposuit, sed conspectus comparativus nobis deest, et species plurimæ postea editæ ægre includuntur. Mueller Argoviensis sectiones 10 admisit, stricto sensu artificiales et quam maxime inæquales. Divisiones ergo sequentes, in Prodromo propositæ in Flora Brasiliensi ulterius elaboratæ clavem exhibent artificialem sed nequaquam sectiones naturales existimandæ:—

1. *Eluteria*, species continet 25, Americanas, Africanas et Mascarenses, petalis fl. ♀ plus minus evolutis, calyce ♂ 5-mero sæpissime valvato. *Muell. Arg. in Mart. Fl. Bras.* xi. ii. *t.* 14, *f.* 1. *Kl. in Hayne, Arzneig.* xiv. *t.* 1, 2. *Benn. in Pharm. Journ. ser.* 2, iv. 145, *cum ic.* CASCARILLA, *Adans. Fam.* ii. 355. Species plurimæ indumento lepidoto sæpe metallico vestitæ sunt, staminibus infra 20; Americanæ petalis fl. ♀ sæpius parvis, in sectione *Argyroglosso*, Baill., Africanæ v. Mascarenses, petalis fl. ♀ sæpius magis evolutis, in sectionibus *Furcaria, Monguia* et *Andrichnia*, Baill., includuntur. KLOTZSCHIPHYTUM, *Baill. Etud. Euph.* 382, est species Mauritiana a Muell. Arg. in *Eluteria* inclusa, sed habitu et staminibus valde numerosis insignis et subsectioni *Cyclostigmati Eucrotonis* multo affinior. Sectio *Eucroton*, Baill. Etud. Euph. 354, characteres offert *Eluteriæ*, sed de speciebus quas sub illa includit silet auctor.

2. *Decapetalon*, species 3 continet, unam Chinensem, alteram Madagascarensem, tertiam Brasiliensem, ab *Eucrotone* distinctas glandulis fl. ♂ (seu potius calycis squamis) inter petala auctis plus minus petaloideis. Specimina non vidimus sed ex descriptione tam habitu quam patria differunt. Species Chinensis, *C. lævigatus*, Vahl, evidenter *Tigliis* approximanda est; Madagascariensis, *C. squami-*

gerus, Baill., ad sectionem suam *Furcariam* pertinet; Brasiliensis, *C. exuberans*, Muell. Arg. in Mart. Fl. Bras. xi. ii. 85, *t.* 15, potius ad *Palamostigma* referenda est.

3. *Decalobus*, in Prodromo definitur ad speciem Guatemalensem nostro sensu tam habitu quam characteribus ad *Julocrotonem* referendam. Lobi accessorii calycis ♀ non sunt lobis primariis regulariter alterni, sed appendices ad basin loborum solitariæ v. 2–3-næ ut in nonnullis aliis speciebus *Julocrotonis* observantur. Huic addidit Muell. Arg. in Mart. Fl. Bras. xi. ii. 86, *t.* 16, speciem alteram a nobis non visam, sed ex icone a priori longe dissimilis est et cum *Eucrotonis* subsectione convenit excepto calyce ♀ inæqualiter irregulariterque 6–10-lobo.

4. *Eucroton*, qualis a Muell. Arg. intelligitur, maximam partem generis includit, ultra 400 species utriusque orbis quibus petala in fl. ♂ evoluta, in fl. ♀ minuta rudimentaria v. 0, calycis segmenta subæqualia et receptaculum fl. ♂ villosum. Sectio quoad habitum cæterosque characteres uti totum genus polymorphum, naturalior evadit si excludas species indumento lepidoto vestitas illasque sub sectionibus *Timandra* (cum *Medea*), *Podostachys*, *Cleodora*, *Cyclostigma*, *Stolidanthus*, *Ocalia* descriptas paucasque alias. Muell. Arg. cæterum sectionem in subsectiones 5 dividit sequentes:—

Subsect. 1. *Eutropia.* Frutices sæpius elati, racemis elongatis, bracteis infimis flores ♀ cum fasciculo marium proferentibus. Species utriusque orbis, pro maxima parte tamen Americanæ, a Muell. Arg, in series 2 distribuuntur secus indumentum lepidotum v. non lepidotum. Series prior *Muell. Arg. in Mart. Fl. Bras.* xi. ii. 87, *t.* 17, inclusa Eutropia, *Klotzsch in Wiegm. Archiv.* vii. 196, ab *Argyroglosso* imprimis inflorescentia distinguitur et bene sectionem propriam constituit. Folia sæpe pellucido-punctata. Stamina infra 20. Series altera, *Cyclostigma*, Muell. Arg. in Mart. Fl. Bras. xi. ii. 91, t. 18 ad 22, indumento non lepidoto molliter v. minute stellato-piloso, staminibus nunc numerosissimis nunc infra 20, in sectiones duas dividi potest: (1) Palamostigma, *Mart. ex Klotzsch in Hook. Lond. Journ.* ii. 49 (Cyclostigma, *Klotzsch in Seem. Bot. Her.* 104) foliis palminerviis; et (2) *Stolidanthus*, Baill., foliis penniveniis.

Subsect. 2. *Lasiogyne*, Muell. Arg. in Mart. Fl. Bras. xi. ii. 117, *t.* 23 ad 25, definitur bracteis racemi unisexualibus inferioribus ♀, superioribus ♂, et calycis ♀ segmentis reduplicativis (hoc charactere nobis vix obvio). In series 2 inter se sat dissimiles dividitur: *Argyroglossum* indumento lepidoto, et *Gonocladium* indumento non lepidoto. Prior cum speciebus pluribus *Eluteriæ* et *Argyrocrotonis*, Muell. Arg., sectionem Americanam *Argyroglossum*, Baill., constituunt, et includit *C. Matourensem*, Aubl. Pl. Gui. t. 338. Series altera polymorpha est; *Gonocladium*, Baill., continet species a *Stolidantho* imprimis inflorescentia distinctas et includit Lasiogynem, *Klotzsch in Pl. Meyen.* 418, et Cleodoram, *Klotzsch in Wiegm. Archiv.* vii. 196, ab auctore disci glandularum absentia definitam. Glandulas describunt Baillon et Mueller, quas ad basin calycis v. interdum altius sparsas invenimus nec receptaculo affixas. His speciebus addidit Muell. Arg. plurimas australes extratropicas parvifolias habitu longe diversas, a Klotzschio et Baillono in *Hendecandro* v. *Codonocalyce*, dispersas. *C. Gardnerianus*, Baill., ex 'Ceara, Gardner n. 944, in herb. Deless.' a Baillono in *Gonocladio*, a Muell. Arg. in *Decarinio*, collocatus, nobis ignotus est. Plantam inter Gardnerianas haud agnovimus, et evidenter sphalma in herbario Delessert latet, nam n. 944 collectionis Gardneri est *Galphimia brasiliensis*, A. Juss.

Subsect. 3. *Cleodora*, Muell. Arg. in Mart. Fl. Bras. xi. ii. 133, *t.* 26 ad 32, non Klotzsch, bracteis ut in *Lasiogyni* unisexualibus, inferioribus ♀ superioribus ♂, distinguitur calycis ♀ segmentis non reduplicativis imbricatis v. subvalvatis. Pariter in series 2 dividitur: *Argyrocroton* indumento lepidoto, et *Medea* indumento non lepidoto. Species pleræque *Argyrocrotonis Argyroglosso* multo affiniores sunt quam speciebus plerisque *Medeæ*. *C. constrictus*, Baill., tamen omnino eadem videtur ac *C. Gardneri*, Muell. Arg., numero Gardneri in schedula herbarii Delessert inscripto verisimiliter errore scriptoris, 3428 pro 3438; n. 3428 verum collectionis Gardnerianæ est *Dorstenia Cayapia*, Vell. var. Series 2, *Medea*, est agmen specierum ultra 150 vinculo artificiali nec affinitate naturali junctarum, et comprehendit genera 6 sequentia a Klotzschio proposita:—

a. Timandra, *Klotzsch in Wiegm. Archiv.* vii. 197. Fruticuli ramosissimi parviflori Brasilienses, indumento stellato scabro haud copioso, inflorescentiis in axillis superioribus sessilibus brevissimis fere occultis, calycibus ex Klotzschio constanter sed certe casu tantum 4-meris, staminibus paucis. Species paucæ sunt, sed cum Medea, *Klotzsch in Wiegm. Archiv.* vii. 198, floribus 5-meris ab auctore distincta, sectionem naturalem formant ab *Eucrotone* facile separandam.

b. Ocalia, *Klotzsch in Wiegm. Archiv.* vii. 195, species continet paucas Brasilienses, caulibus e basi sublignosi herbaceis erectis parum ramosis, indumento stellato-hispido, calyce ♀ ex auctore inæquali, quod vix in speciminibus nostris apparet. Caterva habitu bene distincta. *St. Hil. Pl. Us. Bras. t.* 59.

c. TIGLIUM, *Klotzsch in Pl. Meyen.* 418, *et in Hayne, Arzneig.* xiv. *t.* 3, frutices continet Asiaticas indumento stellato parco v. subnullo, cæterum ab *Eucrotonibus* typicis calycis segmentis imbricatis nequaquam separandos. Klotzsch in Hayne l.c. sub n. 3, in nota a Muell. Arg. incaute prætervisa, species 4 novas ex ins. Philippinarum edidit, quas in Prodromo sub aliis nominibus invenimus, scil.: *Tiglium Cumingii*, Kl., est *Croton leiophyllus*, Muell. Arg.; *T. subincanum*, Kl., est *C. consanguineum*, Muell. Arg.; *T. lanceolatum*, Kl., est *C. Verreauxii*, Baill. var.; et *T. pubescens*, Kl., est *C. luzoniensis*, Muell. Arg.

BARHAMIA, *Klotzsch in Seem. Bot. Her.* 104, suffrutices continet v. frutices Americanos, habitu *Astræis* integrifoliis accedentes, sed charactere nullo certo ab *Eucrotonibus* typicis distinguendos. CROTONANTHUS, *Klotzsch in Linnæa*, xxvi. 634 (absque charactere) est *C. rhamnifolius*, H. B. K., species fruticosa pariter ad *Eucrotonem* pertinens. MYRIOGOMPHUS, *Didrichs. in Vidensk. Meddel. Nat. For. Kjöbenh.* 1857, 142, est *C. fuscus*, Muell. Arg., species Brasiliensis, inflorescentia densa, calycibus glandulis numerosis longe stipitatis instructis, *Julocrotoni* accedens, et cum *C. vestito* aliisque paucis genus LEUCADENIUM, Kl., in herb. plur. format, quod tamen vix pro sectione propria ab *Eucrotone* distinguendum.

CODONOCALYX, *Klotzsch in Baill. Etud. Euph.* 369, species continet humiles Americanas, dense tomentosas, dioicas, habitu *Hendecandræ* similes, sed petala fl. ♂ evoluta.

Subsect. 4. *Podostachys*, species paucas Americanas includit, divisionem sat naturalem ad *Decarinium* accedentem formantes. Herbæ sunt duriusculæ v. suffrutices ramosi, indumento stellato-hirto, racemis intra folia ultima sessilibus, floribus ♀ ad basin capitato-confertis, parte superiore ♂ tenui a floribus ♀ intervallo nudo separata. *Muell. Arg. in Mart. Fl. Bras.* xi. ii. 225, *t.* 33. PODOSTACHYS, *Klotzsch in Wiegm. Archiv.* vii. 193. *C. subferruginea*, Muell. Arg., inflorescentia minus definita et habitu toto, potius *Eucrotoni* nostro sensu limitato transferenda videtur.

5. *Astræa.* Species paucæ Americanæ, quarum una in orbe vetere si inquilina jam late dispersa. Caules e basi v. superne herbacei, indumento stellato. Folia sæpe nec constanter palmatim 3–5-loba. Flores *Eucrotonis* sed receptaculum fl. ♂ fide Muell. Arg. constanter glabrum. *Muell. Arg. in Mart. Fl. Bras.* xi. ii. 233, *t.* 34. *Vell. Fl. Flum. Ic.* x. *t.* 70, 71. *Beauv. Fl. Ow. et Ben. t.* 36. ASTRÆA, *Klotzsch in Wiegm. Archiv.* vii. 194. *Wawra in Pr. Maxim. Reise, Bot. t.* 42.

6. *Quadrilobus.* Est species unica Brasiliensis, a nobis non visa, nec in iconibus depicta, ab *Eucrotone* distincta dicitur, calyce floris ♂ 4-mero (in fl. ♀ 4–5-mero); character minimi valoris, nam flores 4-meri hinc inde observantur in paucis speciebus sectionum diversarum.

7. *Decarinium.* Species Americanæ 42, habitu polymorphæ, ab *Eucrotone* distinctæ calycis ♀ lobis plus minus inæqualibus, lobis 2 majoribus quinto minore nunc minuto v. 0, character sæpe valde incertus et proportio loborum in eadem specie sæpe variabilis. Uti aliæ sectiones majores in series 2 dividitur: *Lamprocroton* indumento lepidoto, *Muell. Arg. in Mart. Fl. Bras.* xi. ii. 244, *t.* 35, 36; et *Geiseleria*, indumento non lepidoto, *Muell. Arg. l.c.* 255, *t.* 37, 38. *L'Hér. Stirp. Nov. t.* 9. *Jacq. Ic. Rar. t.* 194. Priorum species plures includuntur in sect. *Argyroglossum*. Inter *Non-lepidotas* plures fruticosæ dense tomentosæ v. lanatæ calycibus ♀ parum inæqualibus melius cum similibus inter *Eucrotones* associantur; aliæ caule herbaceo v. suffrutescente, indumento stellato-hispido, foliis serratis, spicis brevibus, calyce ♀ magis inæquali habitum peculiarem proferunt, et includunt *C. glandulosum*, Linn., cum paucis affinibus, seu genus DECARINIUM, *Rafin. Neogenyt.* 1 (GEISELERIA, *Klotzsch in Wiegm. Archiv.* vii. 254. BRACHYSTACHYS, *Klotzsch in Hook. Lond. Journ.* ii. 47). Klotzsch *Geiseleriam* a *Brachystachyo* distinxit calyce ♀ 4-mero nec 5-mero, segmentum quintum tamen in eadem specie nunc cæteris fere æquale nunc minutum vix conspicuum et facile prætervisum, et Muell. Arg. genera duo Klotzschyana varietates unius speciei nuncupat.

8. *Heptallon.* Species 3 boreali-Americanæ, herbaceæ, stellato-lanatæ v. tomentosæ, habitu fere *Julocrotonis*, floribus intra folia summa subcapitatis, calyce ♀ ∞- (sæpius 7–8-)partito subvalvato. HEPTALLON, *Rafin. Neogenyt.* 1 (PILINOPHYTUM, *Klotzsch in Wiegm. Archiv.* vii. 255).

9. *Angelandra.* Species 2, boreali-Americanæ, annuæ, dioicæ, ramosæ, habitu *Hendecandræ* affines, indumento tenui stellato-lepidoto, racemis brevissimis laxis, calyce ♂ inæquali, ♀ subæquali. ENGELMANNIA, *Klotzsch in Wiegm. Archiv.* vii. 253, *non Torr. et Gr.* (ANGELANDRA, *Endl. Gen. Suppl.* iv. iii. 91. GYNAMBLOSIS, *Torr. in Rep. Marcy Exped.* 295).

10. *Drepadenium* (melius *Hendecandra*). Species 7, herbaceæ v. suffruticosæ, Americæ borealis v. centralis, dioicæ, ramosæ, sæpius humiles, indumento lepidoto v. substellato incano, racemis brevissimis laxis, calyce in utroque sexu æquali. Petala etiam in maribus 0, dum in cæteris sectionibus in fl. ♂ adsunt. Stamina sæpius 10–11. *Cav. Ic. t.* 6. HENDECANDRA, *Eschsch. in Mem. Acad. Petersb.* 1823 (edit. 1826?), 287. *Hook. et Arn. Bot. Beech. t.* 91. DREPADENIUM, *Rafin. Neogenyt.*

2. ASTROGYNE, *Benth. Pl. Hartw.* 14. His addidit Muell. Arg. in Mart. Fl. Bras. xi. ii. 272, *t.* 39, speciem brasiliensem arboream macrophyllam monoicam grandifoliam, a nobis non visam; ex icone et descr. ab *Hendecandris* boreali-americanas longe distat habitu et characteribus omnibus præter absentiam petalorum in fl. ♂, qua non obstante multo melius *Gonocladiis* Baill. associanda.

ARGYRODENDRON, *Klotzsch in Peters, Mossamb. Bot.* 100, *et ex Muell. Arg. in DC. Prod.* xv. ii. 700, genus spurium e speciebus 2 fictum, altera ad *Crotonem* (*Eutropiam*), altera ad *Combretam* referenda.

TRIDESMIS, *Lour. Fl. Cochinch.* 576, species 2 continet, Chinenses prope Cantonem lectas, ex charactere dato verisimiliter ad *Crotonem* referendas, uti proponit Muell Arg.

85. **Julocroton**, *Mart. Herb. Fl. Bras.* 119. (Heterochlamys, *Turcz. in Bull. Soc. Imp. Nat. Mosc.* 1843, 61. Centrandra, *Karst. Fl. Colomb.* i. 177, *t.* 88.) — Flores monoici, sæpius petaliferi. Fl. ♂: Calyx alte 5-lobus, sæpius inæqualis, lobis majoribus interdum basi v. dorso varie appendiculatis. Petala angusta v. parva. Disci glandulæ nunc staminibus exterioribus nunc petalis alternæ. Stamina 10–11, receptaculo piloso affixa, uno sæpe centrali, filamentis liberis apice in alabastro inflexis per anthesin erectis; antheræ subanthesi erectæ, adnatæ, loculis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Calyx maris, glandulis tamen v. appendiculis sæpe magis conspicuis. Petala parva minuta v. 0. Discus hypogynus dimidiatus, antrorsum reniformis, integer v. 3-lobus v. e glandulis 3 distinctis, rarius annularis et 5-lobus. Ovarium 3-loculare; styli patentes, liberi v. basi breviter connati, semel v. bis bifidi; ovula in loculis solitaria. Capsula in coccos 2-valves dissiliens. Semina strophiolata, testa crustacea; albumen copiosum; embryo rectus, cotyledonibus planis latis. — Frutices suffruticesve tomento stellato sæpe denso mollique vestiti. Folia alterna, integerrima v. denticulata, basi 3–5-nervia. Flores in spicam densam terminalem sæpius cylindraceam intra folia summa sessilem conferti, inferiores ♀, superiores ♂, omnes sessiles v. præsertim ♂ breviter pedicellati. Bracteæ nunc lineari-setaceæ nunc lacero-dissectæ et calycis ♀ lobi majores sæpe lacero-dissecti.

Species descriptæ 20, Americæ tropicæ v. subtropicæ a Brasilia meridionali usque ad Mexicum incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 701, *et in Mart. Fl. Bras.* xi. ii. 275, *t.* 40, 41. *Vell. Fl. Flum. Ic.* x. *t.* 65, 66 (*Croton*).

Genus *Crotoni* valde affine et facile pro sectione illi restituendum. Inflorescentia tamen et sæpe calyx ♀ satis distincti videntur. Baillon et Muell. Arg. situm calycis segmentis quinti axin versus posticum dicunt in *Crotone*, anticum in *Julocrotone*, character nobis valde dubius, nec in speciminibus siccis verificandus, positio calycis in floribus dense glomeratis necessarie variabilis evadit.

Julocroton a Didrichs. in Vidensk. Meddel. Nat. For. Kjöbenh. 1857, 129 in subgenera 2 dividitur, habitu inter se parum diversa: *Eremadenia* floris ♀ disco hypogyno e glandula integra antrorsum reniformi constante, et *Oligonychia* disco antrorsum 3-lobo v. e glandulis 3 sepalis exterioribus basi adnatis composito. In *J. Riedeliano*, Muell. Arg., a nobis non viso, discus floris ♀ æqualiter 5-lobus dicitur. In *Crotone decalobo*, Muell. Arg., qui nobis potius *Julocrotonis* species videtur, discus vix prominens squamellis 5 brevissimis latis sepalorum basibus affixis, 3 exterioribus paullo magis prominulis.

86. **Crotonopsis**, *Mich. Fl. Bor. Amer.* ii. 185, *t.* 46. (Friesia, *Spreng. Syst.* iii. 760. Leptemon, *Rafin. ex Endl. Gen.* 1117.) — Flores monoici, sæpe petaliferi. Fl. ♂: Calycis segmenta 5–3, imbricata. Petala totidem. Glandulæ ad basin calycis. Discus cæterum 0. Stamina in medio flore 4–5, filamentis liberis apice in alabastro inflexis demum erectis; antheræ sub anthesi erectæ, loculis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Calyx maris. Petala 0. Ovarium junius 2–3-loculare; styli breves, patentes, lobati; ovula in quoque loculo solitaria sed jam per anthesin unum solum in ovario perfectum. Capsula parva, indehiscens, abortu 1-locularis, 1-sperma, pericarpio membranaceo. Semen ovoideum, estrophiolatum, testa crustacea; albumen carnosum; embryo rectus, cotyledonibus ovatis planiusculis. — Herba annua, gracilis, dichotome v. subumbellatim ramosa, indumento lepidoto. Folia alterna v. opposita,

integerrima. Flores minuti, ad apices ramorum v. in dichotomiis superioribus breviter spicati, inferiores ♀, superiores ♂. Fructus minimi.

Species 1, Americæ borealis incola. *Muell. Arg. in DC. Prod.* xv. ii. 707.

87. **Eremocarpus,** *Benth. Bot. Sulph.* 53, *t.* 26.—Flores monoici, apetali. Discus 0. Fl. ♂: Sepala 5–6, imbricata. Stamina 6–7, receptaculo piloso affixa, filamentis liberis apice in alabastro inflexis demum erectis; antheræ sub anthesi erectæ, adnatæ, loculis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Sepala uti petala desunt. Ovarium 1-loculare, in stylum longum filiformem indivisum desinens, stigmate ad apicem laterali; ovulum 1. Capsula ovoidea, monococca, 2-valvis, pericarpio chartaceo. Semen estrophiolatum, testa crustacea; albumen carnosum; embryo rectus, cotyledonibus latis planis.—Herba humilis, ramosissima, pilis stellatis undique dense setosa. Folia alterna v. sub ramis opposita v. subverticillata, integerrima, mollia, pennivenia. Flores parvi, ad apices ramorum v. in dichotomiis summis breviter spicati, sessiles v. brevissime pedicellati, inferiores ♀, superiores ♂.

Species 1, boreali-Americana. *Muell. Arg. in DC. Prod.* xv. ii. 708.

88. **Givotia,** *Griff. in Calc. Journ. Nat. Hist.* iv. 388. (Govania, *Wall. Cat. Herb. Ind. n.* 7851, *nomen.*)—Flores dioici, petaliferi. Discus margine integer v. sinuato-lobatus. Fl. ♂: Sepala 5, lata, inæqualia, valde imbricata. Petala 5, calyce sublongiora, in corollam urceolato-globosam 5-lobam diu cohærentia. Stamina ∞ (15–25), in receptaculo lanato-villoso conferta, filamentis liberis brevibus erectis; antheræ ovatæ, prope basin dorsifixæ, loculis distinctis parallelis longitudinaliter dehiscentibus connectivo angusto adnatis. Ovarii rudimentum 0. Fl. ♀: Perianthium maris nisi petala facilius solvenda mox libera. Ovarium 2–3-loculare; styli breves, patentes, 2-fidi; ovula in loculis solitaria. Drupa subglobosa, indehiscens, abortu 1-locularis 1-sperma, exocarpio crasso carnoso, endocarpio duro. Semen globosum, testa crassa ossea 'epidermate tenui'; albumen carnosum; cotyledones planæ, latæ.—Arbor parva, ramulis inflorescentia et foliorum pagina inferiore tomento denso albo stellato indutis. Folia alterna, ampla, late rotundato-cordata, acute sinuato-dentata, basi 5–9-nervia. Flores cymulosi, cymulis racemoso-paniculatis; paniculæ in axillis superioribus v. ad basin innovationum nunc (præsertim ♂) longis laxis, nunc (præsertim ♀) abbreviatis densis v. paucifloris.

Species 1, Indiæ orientalis peninsulæ et Zeylaniæ incola. *Muell. Arg. in DC. Prod.* xv. ii. 1112. *Wight, Ic. t.* 1889.

89. **Ricinodendron,** *Muell. Arg. in Flora*, 1864, 533, *et in DC. Prod.* xv. ii. 1111.—Flores dioici, petaliferi. Fl. ♂: Calyx subglobosus, segmentis 5 latis imbricatis inæqualibus. Petala in corollam globosam apice imbricato-5-lobam cohærentia. Disci glandulæ 5, distinctæ, magnæ, ovatæ, crassæ, erectæ, stamina cingentes. Stamina ∞, receptaculo intra glandulas affixa, filamentis filiformibus liberis basi lanato-villosis apice inflexis; antheræ oblongæ, dorsifixæ, versatiles, loculis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀ (a nobis non visi): Discus hypogynus crassus, integer lobatusve. Ovarium 3-loculare; styli 2-fidi, petaloidei; ovula in loculis solitaria (*Baill.*). Fructus indehiscens, exocarpio carnoso, endocarpio osseo lignoso. Semina estrophiolata; albumen carnosum; cotyledones planæ, latæ (*Muell. Arg.*).—Arbor, ramulis crassiusculis. Folia alterna, longe petiolata, ampla, digitata, segmentis sæpius 5 acuminatis membranaceis penniveniis basi contractis. Stipulæ latæ, reniformes, crenatæ v. laceræ. Flores ♂ parvi, dense cymulosi, cymulis in panicula terminali longa laxa pyramidata racemoso-ramosa numerosis. Calyx tomentosus. Corolla glaberrima vix exserta.

Species 1, Africæ tropicæ incola, ab auctore prius ex floribus fœmineis, habitu et inflorescentia neglectis, in *Jatropha* collocata. *Benth. in Hook. Ic. Pl. t.* 1300.

90. **Manniophyton,** *Muell. Arg. in Flora* 1864, 530, *et in DC. Prod.* xv. ii. 719.—Flores dioici, petaliferi. Fl. ♂: Calyx in alabastro globosus, clausus, per anthesin irregulariter valvatim ruptus. Petala in urceolum latum breviter sinuato-lobatum coalita. Glandulæ 5, pilosæ, staminibus exterioribus petalisque alternæ. Stamina ∞ (12–20), receptaculo

convexo piloso affixa, filamentis liberis ; antheræ erectæ, loculis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀ : Calyx brevis, alte 3-fidus, lobis valvatis mox apertis. Petala 5, libera, valde imbricata, calyce longiora. Discus vix prominens, pilosus. Ovarium rigide pilosum, 3-loculare ; styli 2-partiti, ramis patentibus linearibus crassis ; ovula in loculis solitaria. Capsula majuscula, profunde tridyma, in coccos 2-valves dissiliens, endocarpio crasso duro. Semina nitida, testa crustacea ; albumen carnosum ? embryo . . .—Frutices scandentes, indumento ferrugineo-hispido simplici v. substellato. Folia alterna, longe petiolata, lata, integerrima v. 3–5-loba, basi 5–7-nervia pennivenia et transversim venulosa. Paniculæ racemiformes, longæ, parum ramosæ v. subsimplices, axillares, floribus ♂ secus ramulos sessilibus v. brevissime pedicellatis parvulis glomeratis, ♀ paullo majoribus sparsis longius pedicellatis.

Species (v. unius varietates ?) 3, Africæ tropicæ incolæ. *Benth. in Hook. Ic. Pl. t.* 1267, 1268.

91. **Pausandra,** *Radlkof. in Flora,* 1870, 92, *t.* 2.—Flores dioici ?, petaliferi. Fl. ♂: Calyx campanulatus, brevis, sinuato-5–6-lobus. Petala in corollam 5–6-lobam basi connata, lobis contorto-imbricatis basi ad faucem transversim barbatis. Discus cupularis, truncatus, staminum basin cingens. Stamina intra discum 5–7, si lobis calycinis isomera iis alterna, filamentis liberis erectis; antheræ erectæ, oblongæ, loculis connectivo latiusculo adnatis parallelis subintrorsum longitudinaliter dehiscentibus. Ovarii rudimentum minutum. Fl. ♀ : . . . Capsula tridyma, lævis, in coccos 2-valves dissiliens, endocarpio duriusculo. Semina ovoidea, compressiuscula, testa crustacea nitida ; albumen carnosum ; cotyledones planæ, latæ.—Arbuscula glabra, v. pilis malpighiaceis stellatisve conspersa. Folia alterna, magna, breviter petiolata, dentata, pennivenia. Flores ♂ parvi, in racemos axillares simplices v. paniculato-ramosos dispositi, secus rhachin tomentellam fasciculati v. sparsi, brevissime pedicellati. Capsulæ in specimine unico fructifero secus rhachin racemi brevis paucæ.

Species 1, in America tropica a Brasilia usque ad Nicaraguam extensa. *Muell. Arg. in Mart. Fl. Bras.* xi. ii. 503, *t.* 99.

92. **Trigonostemon,** *Blume, Bijdr.* 600 (*lapsu* Trigostemon).—Flores monoici, petaliferi. Fl. ♂ : Sepala 5, imbricata. Petala 5, calyce longiora. Disci glandulæ 5. Stamina 3 v. 5, filamentis in columnam brevem connatis ; antheræ ad apicem columnæ sessiles, erectæ v. horizontales, loculis extrorsum connectivo crasso adnatis distinctis parallelis divergentibus v. divaricatis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀ : Calyx et sepala maris. Discus sæpius integer. Ovarium 3-loculare ; styli distincti v. basi breviter connati, breviter v. alte 2-fidi ; ovula in loculis solitaria. Capsula tridyma, in coccos 2-valves dissiliens, endocarpio crustaceo. Semina ovoidea v. subglobosa, testa crustacea ; albumen carnosum ; cotyledones planæ, latæ.—Arbores fruticesve. Folia alterna, petiolata v. fere sessilia, interdum ampla, integerrima, pennivenia. Racemi axillares v. rarius terminales, elongati v. abbreviati, interdum ad cymam unicam subsessilem reducti. Flores parvi, sæpius pedicellati, ♂ secus rhachin fasciculati v. subcymosi, ♀ solitarii v. in cymulis ♂ singuli.

Species ad 10, Indiæ orientalis et Archipelagi Malayani incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 1108 (*sect.* 5 *ad* 7). *Baill. Etud. Euph. t.* 11.

Inter sectiones a Muellero distinctas, *Dimorphocalyx* ad genus proprium restituendus videtur. *Cheilosiopsis* omnino *Ostodi* convenit, *T. zeylanicus,* Muell. Arg., est ipsissima *Ostodes minor,* Muell. Arg., *Tritaxis* cum *Antitaxi* pro genere proprio inter *Jatropheas* servandæ. *T. lævigatus,* Muell. Arg., nobis vix *Trigonostemonibus* typicis congener videtur. Collocatur in sectione *Silvæa* floribus ♀ apetalis, sed in flore examinato certe petala calyce vix breviora invenimus. A speciebus typicis differt inflorescentia *Gelonii,* cymis sessilibus oppositifoliis, et antheris intra discum cyathiformem subsessilibus distinctis nec in columna elevatis. Verisimiliter genus proprium format, sed adhuc fructu ignoto haud tute definiendum. Cæteræ species in sectiones 3 distribuendæ :—1. *Eutrigonostemum,* racemis axillaribus, antheris 3 in columna brevi erectis distinctis apice plus minus 2-fidis. *Wight, Ic. t.* 1890. Sect. *Silvæa* et *Eutrigonostemonis* § 2, Muell. Arg. Silvæa, *Hook. et Arn. Bot. Beech.* 211. Athroisma, *Griff. Notul.* iv. 477. 2. *Telogyne,* Muell. Arg., inflorescentia et antheris

Eutrigonostemonis sed numero 5. TELOGYNE, *Baill. Etud. Euph.* 327. 3. *Pycnanthera*, racemis terminalibus antheris 3 ad apicem columnæ brevis sessilibus, loculis connectivum crassum marginantibus. Huc pertinent species 2 Zeylanicæ, *T. diplopetalus*, Thw., antherarum loculis divaricatis transversis, et *T. nemoralis*, Muell. Arg., Bedd. Ic. Pl. Ind. Or. t. 182, antherarum loculis radiantibus.

TYLOSEPALUM, *Kurz ex Teijsm. et Binnend. in Batav. Natuurk. Tijdschr.* xxvi. 50, a Muell. Arg. pro sectione *Codiæi* receptum, nobis characteres potius *Trigonostemonis* ostendere videtur. Specimen nostrum imperfectum. Inflorescentia ut in *Eutrigonostemone* axillaris, sed flores ♂ fasciculati ♀ racemosi dicuntur. Calyx differt segmentis extus basi glandula disciformi notatis. Cætera florum tam ♂ quam ♀ omnino *Eutrigonostemonis*.

93. **Paracroton,** *Miq. Fl. Ind. Bat.* i. ii. 382. — Flores monoici, petaliferi. Fl. ♂: Sepala 5, imbricata. Petala totidem. Disci glandulæ petalis alternæ. Stamina ∞ (15–20), filamentis centralibus monadelphis; antheræ extrorsum 2-rimosæ. Fl. ♀: Ovarium 3-gono-pyramidatum, 3-loculare; styli distincti, 2-fidi; ovula in loculis solitaria. Capsula crassa, lignosa, in coccos 3-valves dissiliens. Semina latiora quam longa, glabra; albumen copiosum; cotyledones latæ, planæ.—Arbor mediocris. Folia alterna, petiolata, lanceolata, repando-serrata, basi 2-glandulosa. Racemi terminales, 3-4-pedales, penduli, pedicellis alternatim fasciculatis. (*Char. ex Miq.*)

Species 1, Javanica, a nobis non visa. *Miq. in DC. Prod.* xv. ii. 1112. Genus ex charactere dato quoad inflorescentiam et semina latiora quam longa *Galeariæ* convenit, sed staminibus ∞ centralibus aliisque notis abunde differt.

94. **Ostodes,** *Blume, Bijdr.* 619. (Desmostemon, *Thw. Enum. Pl. Zeyl.* 278.)—Flores monoici v. dioici, petaliferi. Fl. ♂: Calyx 5-partitus, segmentis latis inæqualibus imbricatis. Petala 5, calyce longiora. Disci glandulæ 5. Stamina ∞ (15–30), receptaculo convexo v. columnari affixa, filamentis firmis v. tenuibus; antheræ juxta basin dorsifixæ, loculis parallelis v. divergentibus connectivo latiusculo adnatis introrsum longitudinaliter dehiscentibus, staminum 2–3 terminalium sæpius horizontales. Ovarii rudimentum 0. Fl. ♀: Perianthium maris. Ovarium 3-loculare; styli breves, patentes, 2-partiti; ovula in loculis solitaria. Capsula subglobosa, 6-costata, pericarpio duro, endocarpio fere osseo, demum in coccos 2-valves dissiliens. Semina ovoidea, testa crustacea (extus in vivo pulposa?); albumen carnosum; cotyledones planæ, latæ. — Arbores fruticesve. Folia alterna, ampla, penninvenia, dentata v. rarius integerrima. Racemi laxi, ad apices ramorum paniculati, sæpe elongati, v. infra folia laterales brevioresque. Flores ♂ secus rhachin v. ramos laxe cymulosi, ♀ in racemo distincti secus rhachin sigillatim sparsi v. rarius in cymulis ♂ solitarii.

Species ad 6, Indiæ Orientalis et Archipelagi Malayani incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 1114. *Bedd. in Trans. Linn. Soc.* xxv. *t.* 27, *in Fl. Sylv. t.* 274, *repetita.*

O. Helferi, Muell. Arg., sectionem *Geloniastrum* formans, floribus ♂ ad axillas fasciculatis, antheris extrorsum 2-rimosis et petalis pubescentibus nobis ignota est, et forte e genere excludenda. Speciebus Prodromi addendæ sunt, præter *Trigonostemonem zeylanicum*, Muell. Arg. ad *O. minorem*, Muell. Arg., referendum, *Trigonostemon macrophyllus*, Muell. Arg., et probabiliter FAHRENHEITIA, *Reichb. et Zoll. in Linnæa* xxviii. 600, ex ins. Baki, nobis non nisi charactere dato notas.

95. **Codiæum,** *Rumph.*; *A. Juss. Euph. Tent.* 33, *t.* 9. (Phyllaurea, *Lour. Fl. Cochinch.* 575.)—Flores monoici, saltem ♂ petaliferi. Fl. ♂: Calyx membranaceus, lobis segmentisve 3–6 sæpius 5, imbricatis. Petala 5–6, parva. Disci glandulæ petalis alternæ. Stamina ∞ (15–30), receptaculo parum elevato affixa, filamentis liberis; antheræ erectæ, loculis connectivum latiusculum marginantibus longitudinaliter dehiscentibus et apice demum confluentibus. Ovarii rudimentum 0. Fl. ♀: Calycis parvi lobi 5, appressi. Petala 0. Discus subinteger. Ovarium 3-loculare; styli distincti v. vix basi connati, patentes v. recurvi, longe subulati, indivisi; ovula in loculis solitaria. Capsula globosa, in coccos 2-valves dissiliens, endocarpio pergameno. Semina (an semper?) strophiolata, testa nitidula crustacea; albumen carnosum; cotyledones planæ, latæ.—Arbores fruticesve glabri. Folia alterna, petiolata, integerrima, coriacea, penninvenia. Racemi elongati, in axillis superioribus solitarii, sæpius unisexuales v. rarius flos ♀ unus alterve in racemo ♂; flores ♂ parvi sub quaque bractea sæpius glomerati, ♀ solitarii.

Species distinguendæ forte 4, insularum maris Pacifici australis, Australiæ et Archipelagi Malayani incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 1119 (sect. *Eucodiæum* et *Synaspisma*). *Bot. Mag. t.* 3051. *Lodd. Bot. Cab. t.* 870. Species typica, ob folia variegata diu in hortis culta, in diariis hortulanorum sub variis nominibus frequenter delineatur.

Codiæum quale in Prodromo definitum stirpes plures nostro sensu heterogeneas includit, et ad sectiones supra citatas reducendum videtur. *Blachiam* et *Baloghiam* pro generibus propriis retinemus, et *Tylosepalum* ad *Trigonostemonem* referrimus.

SYNASPISMA, *Endl. Gen.* 1110, est *C. inophyllum*, Muell. Arg. (*Crozophora peltata*, Labill. Sert. Austr. Caled. t. 75), ab *Eucodiæo* pro sectione distinctum ob calycis segmenta pauciora et racemum ♂ amentiformem. Racemi ♂ etiam in *C. variegato* prima juventute amentiformes sunt, sed in *C. inophyllo* multo tardius elongantur, et bracteæ peltatæ primum imbricatæ sunt.

JUNGHUHNIA, *Miq. Fl. Ind. Bat.* i. ii. 412, est ex Muell. Arg. specimen *Codiæi* floribus mutilatis.

96. **Baloghia,** *Endl. Prod. Fl. Norf.* 84; *Iconogr. t.* 122, 123.—Flores monoici (v. dioici?) petaliferi. Discus margine undulato-lobatus v. e squamellis parvis petalis alternis v. obsoletus. Fl. ♂: Calyx alte 4–6- sæpius 5-fidus, segmentis imbricatis per anthesin patentibus reflexisve. Petala totidem, calyce longiora. Stamina ∞ (10–100), receptaculo convexo v. conico affixa, v. filamentis plus minus in columnam connatis superne liberis crassiusculis exterioribus extrorsum nutantibus; antheræ dorsifixæ, loculis distinctis parallelis extrorsum contiguis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Perianthium maris. Ovarium 3-loculare; styli distincti v. brevissime connati, patentes, alte 2-fidi, ramis simplicibus ∞-fidisve; ovula in loculis solitaria. Capsula globosa, in coccos 2-valves dissiliens. Semina globosa v. oblonga, strophiola parva v. 0, testa crustacea; albumen carnosum; cotyledones planæ, latæ.—Arbores fruticesve glabri. Folia opposita v. alterna, breviter petiolata, coriacea, integerrima, tenuiter pennivenia. Racemi terminales breves, laxi, interdum ad fasciculum reducti, androgyni floribus inferioribus ♀, v. unisexuales. Flores utriusque sexus longiuscule pedicellati, sub bracteis parvis solitarii, quam in *Codiæo* multo majores.

Species ad 9, Novo-Caledonicæ, quarum una etiam in Australia invenitur. *Muell. Arg. in DC. Prod.* xv. ii. 1116 (*Codiæi* sect.). *Benth. Fl. Austral.* vi. 148 (excl. *B. Pancheri*).

In specie typica Endlicheri folia opposita, styli rami integri, et capsula crassa, 6-sulca, exocarpio crasso carnoso, endocarpio duro, tardius dehiscens. In speciebus a Baill. Adans. xi. 74 sub *Codiæi* ect. *Steigeria* enumeratis, quarum 3 examinavimus, folia alterna, styli rami sæpe laceri, capsula minor, tridyma, exocarpio parum carnoso, facile dissiliens. Omnes tamen bene congeneres videntur etsi nostro sensu a *Codiæo* longe distant habitu, inflorescentia, calyce, petalis, antheris et stylis. STEIGERIÆ, *Muell. Arg. in Linnæa*, xxxiv. 215, *et in DC. Prod.* xv. ii. 1121, speciem typicam staminibus 100 et ultra non vidimus, sed ex charactere dato bene a Baillono *Baloghiis* cæteris associatur.

97. **Alphandia,** *Baill. Adans.* xi. 85.—Flores monoici, petaliferi. Discus e glandulis liberis v. in annulum brevem connatis. Fl. ♂: Calyx 5-dentatus, dentibus brevibus obtusis v. longiusculis dentatis valvatis. Petala 5, calyce longiora. Stamina ∞, receptaculo centrali conico inserta, filamentis liberis v. vix ima basi connatis; antherarum loculi apice discreti, cruribusque brevissimis connectivi adnati, extrorsum rimosi. Fl. ♀: Calyx brevis, 5-dentatus v. inæqualiter rumpendus. Petala crassiuscula, demum recurva. Ovarium 3-loculare; styli breves, basi connati, crassi, 2-fidi, intus stigmatosi; ovula in loculis solitaria. Capsula ubi nota majuscula in coccos dorso longitudinaliter carinatos dissiliens. Semina subteretia, lævia, strophiolata; albumen copiosum; cotyledones planæ, latæ.—Arbores parvæ v. frutices parce furfuracei v. resinoso-glandulosi. Folia alterna, petiolata, integerrima, pennivenia. Racemi longiusculi, terminales v. ad folia suprema axillares, simplices v. alterne cymiferi; flores v. cymæ inferiores fœminei, cæteri masculi superiores multo numerosiores. (*Char. ex Baill.*)

Species 2, Novo-Caledonicæ, a nobis non visæ. Ex charactere dato genus a *Baloghia* parum differt calyce dentato nec alte imbricato-lobato et floribus secus rhachin racemi sæpe cymulosis nec sub bractea solitariis.

98. **Fontainea,** *Heckel, Thèse, Montpellier,* 1870, *ex Baill. Adans.* xi. 80; *Hist. Pl.* v. 194.—Flores dioici, petaliferi. Fl. ♂: Calyx late cyathiformis, truncatus v. leviter sinuato-lobatus, demum sæpe fissus. Petala 5-6, calyce multo longiora, crassiuscula, puberula, leviter imbricata. Discus parum prominulus. Stamina ∞ (25–30), receptaculo conico affixa, filamentis liberis v. basi breviter connatis exterioribus apice extrorsum nutantibus; antherarum loculi distincti, extrorsum paralleli, sulco profundo longitudinali dehiscentes. Ovarii rudimentum 0. Fl. ♀ (a nobis non visi): Calyx valvatus inæqualiter ruptus. Petala maris. Discus continuus. Ovarium 3-6-loculare; styli crassiusculi, indivisi; ovula in loculis solitaria. Drupa suboliviformis, indehiscens, endocarpio osseo 2-6-loculare. Semen sæpius unicum perfectum, estrophiolatum; albumen copiosum; cotyledones planæ, latæ.—Frutex v. arbor parva, præter corollam glabra. Folia alterna, breviter petiolata, integerrima, coriacea, pennivenia, reticulata. Racemi in axillis summis breves fere fasciculiformes, floribus paucis longiuscule pedicellatis quam in *Codiæo* multo majoribus. (*Char. fl.* ♀ *et fr. ex Baill. l. c.*)

Species 1, Novæ Caledoniæ et Australiæ orientalis tropicæ incola, a *Muell. Arg. Prod.* xv. ii. 1117 dubie sub *Codiæo* inclusa, a *Baill. Adans.* ii. 214, quo docente a *Benth. Fl. Austral.* vi. 149 ad *Baloghiam* relata. Huic genere inflorescentia habitu et staminibus convenit, sed calyce et fructu bene distincta.

99. **Blachia,** *Baill. Etud. Euph.* 388, *t.* 19.—Flores monoici v. subdioici, saltem ♂ petaliferi. Fl. ♂: Calyx membranaceus, globosus, 4–5-partitus, segmentis imbricatis. Petala 4–5, parva. Disci glandulæ squamiformes, petalis alternæ iisque æquilongæ. Staminæ ∞ (10–20), receptaculo convexo affixa, filamentis liberis; antheræ ovatæ, loculis connectivum marginantibus et apice demum confluentibus. Ovarii rudimentum 0. Fl. ♀: Calycis segmenta lanceolata v. oblonga, post anthesin valde aucta, v. rarius parum aucta reflexaque v. caduca. Petala 0. Discus vix prominens. Ovarium 3–4-loculare; *styli distincti, filiformes,* 2-partiti; ovula in loculis solitaria. Capsula tridyma, calyce foliaceo v. reflexo sæpius stipata, in coccos 2-valves dissiliens, pericarpio haud crasso. Semina oblonga, estrophiolata, testa crustacea nitida; albumen carnosum; cotyledones planæ, latæ.—Frutices glabri, habitu potius *Dimorphocalycis* quam *Codiæi*. Folia alterna v. superiora subopposita, breviter petiolata, membranacea v. vix demum coriacea, integerrima, pennivenia. Racemi terminales, pedunculo gracili. Flores ♂ pedicellis filiformibus ad apicem pedunculi subumbellati v. breviter racemosi; ♀ nunc prope basin pedunculi ♂ solitarii v. fasciculati, nunc ad apices ramorum 2–3-ni absque fl. ♂; pedicelli superne incrassati.

Species 5 v. 6, pleræque Zeylaniæ v. Peninsulæ Indiæ orientalis incolæ, 1 Chinensis. *Benth. in Journ. Linn. Soc.* xvii. 226. *Muell. Arg. in DC. Prod.* xv. ii. 1118 (*Codiæi sect.*). *Wight, Ic. t.* 1874 (*Croton*). Genus certe quoad flores ♂ *Codiæo* accedit, sed habitu inflorescentia et floribus ♀ nobis abunde distinctum videtur.

100. **Dimorphocalyx,** *Thwaites, Enum. Pl. Zeyl.* 278.—Flores dioici (v. interdum monoici?) petaliferi. Fl. ♂: Calyx cupulatus, margine undulatus, 5-dentatus v. breviter 5-lobus, apertus. Petala 5, calyce longiora. Disci glandulæ 5, petalis alternæ. Stamina ∞ (10–20), receptaculo elevato v. plus minus columnari imposita, 5 exteriora petalis opposita, filamentis liberis v. interioribus alte connatis; antheræ prope basin dorsifixæ, loculis parallelis v. divergentibus connectivo crassiusculo adnatis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Calyx 5-partitus, segmentis imbricatis post anthesin valde auctis. Petala maris. Ovarium 3-loculare; styli basi connati, erecti, 2-fidi; ovula in loculis solitaria. Capsula 3-dyma, calycis segmentis valde auctis patentibus stipata, in coccos 2-valves dissiliens, endocarpio crustaceo. Semina ovoidea, testa crustacea; albumen carnosum; cotyledones planæ, latæ.—Arbores glabræ. Folia alterna, petiolata, integerrima, coriacea, pennivenia. Cymæ 2-pauci-floræ, axillares v. terminales, breviter v. longiuscule pedunculatæ.

Species (v. varietates insignes?) 3 v. 4, Indiæ orientalis Peninsulæ, Zeylaniæ et Archipelagi

Malayani incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 1105, ubi ad sectionem *Trigonostemonis* reducitur. *Bedd. in Trans. Linn. Soc.* xxv. *t.* 26, *icon in Fl. Sylv. t.* 273 *repetita sub Trigonostemone.*

Codiæum andamanicum, Kurz, For. Fl. Brit. Burm. ii. 405, cujus specimina etiam accepimus a Malacca, *Griffith*, et Borneo, *Beccari n.* 2214 ♂, 2215 ♀ est *Dimorphocalycis* species.

101. **Sagotia,** *Baill. Adans.* i. 53.—Flores monoici, petaliferi. Discus 0. Fl. ♂: Sepala 5, lata, valde imbricata. Petala 5, longiora, imbricata. Stamina ∞ (ultra 20), in receptaculo ∞-seriatim conferta, filamentis brevissimis cum connectivo complanato lato erecto continuis; antherarum loculi erecti, discreti, paralleli, connectivum introrsum marginantes eoque breviores, longitudinaliter dehiscentes. Ovarii rudimentum 0. Fl. ♀: Sepala 5, angusta, mox aucta. Petala 0 (v. caducissima ?). Ovarium 3-loculare; styli breves, patentes, crassiusculi, 2-partiti; ovula in loculis solitaria. Capsula ovoidea, calycis segmentis persistentibus elongatis stellato-patentibus stipata, in valvas crassiusculas demum sæpe 2-partitas loculicide dehiscens, septis præter alas columellæ subevanidis. Semina ovoidea, testa crustacea nitida; albumen carnosum; cotyledones planæ.—Arbusculæ glabræ. Folia alterna, petiolata, integerrima, pennivenia, interdum ampla. Racemi terminales, sæpius breves, unisexuales v. androgyni basique ♀, rarius utriusque sexus ∞-flori; flores utriusque sexus longiuscule pedicellati.

Species 1 (varietates tamen insignes præbens), Brasiliæ borealis et Guianæ incola. *Muell. Arg. in DC. Prod.* xv. ii. 1113, *et in Mart. Fl. Bras.* xi. ii. 504, *t.* 70.

102. **Cluytia,** *Linn. Gen. n.* 1140 (Clutia). (Altora, *Adans. Fam.* ii. 356.)—Flores dioici, petaliferi. Fl. ♂: Sepala 5, imbricata, patentia. Petala totidem et sæpius longiora. Discus petalifer calycis basi adnatus, margine inter petala glandula v. squamula auctus et basi intus varie glandulifer v. rarius eglandulosus. Stamina 5, filamentis infra apicem columnæ centralis tenuis verticillatis patentibus, columna apice truncata v. leviter dilatata et vertice cava; antheræ breves, dorsifixæ, loculis parallelis contiguis longitudinaliter dehiscentibus. Ovarii rudimentum præter columnæ apicem 0. Fl. ♀: Perianthium maris. Ovarium 3-loculare; styli distincti v. basi brevissime connati, patentes, breviter v. longius 2-fidi; ovula in loculis solitaria. Capsula parva, ovoidea v. subglobosa, in valvas 3 integras v. 2-fidas crassiusculas septicide dehiscens, septis tenuibus liberatis v. columellæ adhærentibus. Semina ovoidea, compressiuscula, strophiolata, testa crustacea nigra nitida; albumen carnosum; cotyledones planæ, latæ.—Frutices v. fruticuli sæpe ericoidei. Folia alterna, integerrima, sæpius parvula. Flores parvi, ad axillas breviter pedicellati, fasciculati, v. ♀ interdum solitarii longiusque pedicellati.

Species editæ 28, Africæ tropicæ et australis incolæ, una diu in hortis culta in ins. Mauritio et forte alibi inquilina videtur. *Muell. Arg. in DC. Prod.* xv. ii. 1044. *A. Juss. Euph. Tent. t.* 6. *Baill. Etud. Euph. t.* 16. *Jacq. Hort. Schœnbr. t.* 250. *Willd. Hort. Berol. t.* 50 *ad* 52. *Jaub. et Spach, Ill. Pl. Or. t.* 465 *ad* 468. *Bot. Mag. t.* 1321, 1945. *Bot. Reg. t.* 779.

Genus nulli arcte affine, habitu et inflorescentia potius *Phyllantheis* quam *Chrozophoreis* accedit, sed stamina centralia et ovarii loculi certe 1-ovulati.

103. **Agrostistachys,** *Dalz. in Hook. Kew Journ.* ii. 41.—Flores dioici, petaliferi. Fl. ♂: Calyx membranaceus, in alabastro globosus, per anthesin in lacinias 2–5 valvatim fissus. Petala 5, rarius 6–8, calyce breviora. Disci glandulæ petalis alternæ. Stamina ad 10 (8–13), receptaculo convexo affixa, filamentis basi subconnatis; antheræ ad apicem filamenti articulati, loculis a connectivo glanduliformi pendulis fere a basi distinctis longitudinaliter dehiscentibus. Ovarii rudimentum in medio flore plus minus evolutum, 2-3-fidum, v. rarius 0. Fl. ♀: Calyx alte 5-fidus rarius 6-fidus, lobis sæpius angustis. Petala calycem superantia, caducissima. Ovarium 3-loculare; styli breves, patentes, crassiusculi, 2-fidi; ovula in loculis solitaria. Capsula sicca v. carnosula, in coccos 2-valves dissiliens, endocarpio crustaceo. Semina in loculis sæpe abortu solitaria, subglobosa, testa crustacea nitidula; albumen crassum, carnosum; embryo rectus v. leviter incurvus, cotyledonibus latiusculis planis.—Frutices elatiores, glabri. Folia alterna, ampla, subsessilia v. basi in petiolum brevem contracta nec unquam basi rotundata,

sinuato-dentata v. integerrima. Spicæ axillares v. supra-axillares. Bracteæ concavæ, sæpe striatæ. Flores ♂ parvi, sub quaque bractea 3-∞, rarius solitarii; subsessiles v. brevissime pedicellati, ♀ solitarii, longius pedicellati.

Species 6 v. 7, Indiæ Orientalis et Africæ tropicæ incolæ. Genera duo sequentia a Muell. Arg. in DC. Prod. xv. ii. 725 et 726 recepta, nostro sensu rite a Baill. Adans. xi. 93, in unum junguntur, sed nomen Dalzellii Wightiano antiquius illi anteponendum est: 1. AGROSTISTACHYS, *Dalz.*, *Bedd. Ic. Pl. Ind. Or. t.* 241, distinguitur bracteis dense imbricatis, spicis pluribus parvis ad axillas v. supra axillas confertis spiculas glumacearum simulantibus, floribus ♂ sub bracteis 1–3. Huc referendæ *A. indica*, Dalz., e Peninsula et Zeylania, spicis distichis, et *A. Gaudichaudi*, Muell. Arg., e Malacca, spicis subteretibus, cui etiam referenda videtur *A. indica* var. *longifolia*, Muell. Arg.; et 2. SARCOCLINIUM, *Wight*, *Ic.* v. 24, *t.* 1887, 1888, spicarum rhachi elongata nunc longissima bracteis distantibus, floribus ♂ sub bractea quaque sæpe ∞. Speciebus 2 in Prodromo definitis adduntur 1–2 ex Archipelago Malayano spicis longissimis, floribus in glomerulis ♂ numerosis. *S. Hookeri*, Muell. Arg., e Zeylania, insignis est foliis stipulisque maximis, capsulis subcarnosis. *A. africana*, Muell. Arg., inter genera duo submedia est, spicis brevibus, bracteæ tamen dissitæ nec imbricatæ. In specie typica *Sarcoclinii*, spicæ interdum breves observantur.

104. **Argithamnia,** *Swartz, Prod.* 39; *et Fl. Ind. Occid.* 335, *t.* 8.—Flores monoici v. rarius dioici, petaliferi. Disci glandulæ petalis alternæ. Fl. ♂: Calycis segmenta 4–5, tenuia v. fere petaloidea, valvata. Petala 4–5, nunc integra calycem superantia, nunc brevia apice dilatata v. divisa. Stamina petalis numero æqualia dupla v. rarius triplo plura, filamentis basi brevissime v. altius in columnam connatis; antheræ ovoideæ v. oblongæ, dorso medio v. prope basin affixæ (in *Philyra* erectæ), loculis parallelis contiguis longitudinaliter dehiscentibus. Ovarii rudimentum ad apicem columnæ brevissimum v. apex inter stamina vix convexus. Fl. ♀: Sepala imbricata. Petala quam in mare sæpius minora, interdum parva, linearia. Ovarium 3-loculare; styli breves, patentes, varie laciniati, lobis angustis; ovula in loculis solitaria. Capsula tridyma, in coccos 2-valves dissiliens, endocarpio crustaceo. Semina subglobosa, nitidula; albumen carnosum; embryo rectus, cotyledonibus latis planis.—Frutices suffrutices v. herbæ perennes, plus minus sericeo-pubescentes v. pilosi, pilis simplicibus v. rarissime pube stellata intermixta. Folia alterna, membranacea v. mollia, integerrima v. paucidentata, rarius serrata. Flores ad axillas breviter v. rarius tenuiter racemosi, sub bracteis solitarii, superiores, rarius omnes ♂ parvi brevissime pedicellati, inferiores v. sæpius unus tamen in spica ♀ vix longius pedicellati. Calyx haud raro sub fructu auctus, herbaceus, segmentis patentibus.

Species editæ 37, Americæ tropicæ et subtemperatæ incolæ, a Chile et Bonaria usque ad Mexicum et civitates australiores Americæ borealis extensæ. *Muell. Arg. in DC. Prod.* xv. ii. 733, *et in Mart. Fl. Bras.* xi. ii. 308 (*Argyrothamnia*).

Genus in Prodromo in sectiones 5 sequentes dividitur, cum sexta (*Speranskia*) quam ad genus proprium restituimus:—

1. *Philyra.* Petala fl. ♂ a columna staminea libera. Stamina circa columnam 4–5, sub apice columnæ verticillata, antheris basifixis. Frutex brasiliensis, glaber, aculeis infrafoliaceis rectis solitariis v. geminis haud raro armatus, racemis brevissimis densis, bracteis rigidis. PHILYRA, *Klotzsch in Wiegm. Archiv.* vii. 199. *Baill. Etud. Euph. t.* 12. Vix non pro genere proprio retinendum.

2. *Ditaxis.* Petala in fl. ♂ basi brevissime columnæ stamineæ adnata. Stamina circa columnam 2- rarius 3-verticillata. Frutices suffruticesve plerique tropici. *Muell. Arg. in Mart. Fl. Bras.* xi. ii. *t.* 46. DITAXIS, *A. Juss. Euph. Tent.* 27, *t.* 7. *Baill. Etud. Euph. t.* 15. *H. B. et K. Nov. Gen. et Sp.* vii. *t.* 639.

3. *Aphora.* Omnia *Ditaxeos* nisi glandulæ disci magis prominulæ. Suffrutices v. herbæ perennes, plerique ex America boreali v. centrali. APHORA, *Nutt. in Trans. Amer. Phil. Soc. ser.* 2, v. 174. SEROPHYTON, *Benth. Bot. Sulph.* 52. STENONIA, *Didrichs. in Vidensk. Meddel. Nat. For. Kjöbenh.* 1857, 146.

4. *Euargithamnium.* Petala libera, integra. Stamina petalis isomera, filamentis vix in columnam elevatis. Species pleræque ex India occidentali.

5. *Chiropetalum.* Petala libera, brevia, dilatata, 2–∞-fida. Stamina petalis isomera, sub apice columnæ elevatæ verticillata. Species austro-Americanæ, pleræque extratropicæ. *Cav. Ic. t.* 557,

f. 2 (*Croton*). CHIROPETALUM, *A. Juss. in Ann. Sc. Nat. ser.* 1, xxv. 21; *Baill. Etud. Euph. t.* 15. DESFONTÆNA, *Vell. Fl. Flum.* 95; *Ic.* ii. *t.* 146. CHLOROCAULON, *Klotzsch in Endl. Gen. Suppl.* iv. iii. 89.

Nomen genericum a Sprengelio futile in ARGOTHAMNIA, a Muellero in ARGYROTHAMNIA mutatur, sed derivatur ex ἀργὸς seu ἄργιος, *albus*, potius quam ex ἄργυρος, *argentum*.

105. **Caperonia,** *St. Hil. Pl. Rem. Bras.* 244. (Cavanilla, *Vell. Fl. Flum.* 226; *Ic.* v. *t.* 102. Lepidococca, *Turcz. in Bull. Soc. Imp. Nat. Mosc.* 1848, i. 588. Androphoranthus, *Karst. Fl. Colomb.* ii. 15, *t.* 108.)—Flores monoici v. rarius dioici, petaliferi. Discus obsoletus. Fl. ♂: Sepala valvata. Petala 5, columnæ stamineæ seu androphoræ intra calycem elevatæ affixa, imbricata. Stamina 10 v. abortu pauciora, circa columnam 2-verticillata; antheræ ovoideæ, loculis connectivo brevi separatis medifixis v. subpendulis longitudinaliter dehiscentibus. Ovarii rudimentum ad apicem columnæ clavatum. Fl. ♀: Sepala imbricata, æqualia v. inæqualia v. interdum lobis exterioribus 1–3 aucta. Petala quam in mare angustiora, interdum obsoleta. Ovarium sessile, 3-loculare; styli breves, lacero-multifidi; ovula in loculis solitaria. Capsula tridyma, sæpe hispida v. echinata, in coccos 2-valves dissiliens. Semina ecarunculata, subglobosa; albumen carnosum; cotyledones planæ, latæ.—Herbæ erectæ, rarius basi suffrutescentes, hispidæ, pilis rigidulis haud raro apice glanduligeris, rarius glabratæ. Folia alterna, breviter petiolata, sæpius serrata, angusta v. rarius ovata, pennivenia, venis primariis sæpius subtus elevatis. Racemi axillares, pedunculati, floribus sub bracteis dissitis solitariis, superioribus ♂ parvis, inferioribus ♀ paucis. Calyx fructifer interdum sub capsula auctus patens.

Species enumeratæ 19, in herbariis valde confusæ et plures certe reducendæ, Americæ et Africæ inter tropicos incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 751, *et in Mart. Fl. Bras.* xi. ii. 317, *t.* 47. *Wawra in Pr. Maxim. Reise, Bot. t.* 43. *Lepidocroton*, Presl, huc ab auctoribus incaute relata, est *Chrozophoræ senegalensis* var. *abyssinica*, forte species distincta, etsi plantæ senegalensi valde affinis.

106. **Pseudocroton,** *Muell. Arg. in Flora*, 1872, 24.—Flores dioici? petaliferi. Disci glandulæ v. lobi petalis alterni. Fl. ♂: Sepala 4, valvata, alabastro 4-costato. Petala 4, calycem subæquantia, lepidota. Stamina ∞ (16–30) filamentis liberis; antheræ oblongæ, in alabastro erectæ, demum recurvæ, loculis parallelis arcte contiguis longitudinaliter dehiscentibus. Ovarii rudimentum columnare, dense lepidotum. Fl. ♀ ignoti.—Frutex v. arbor, ramulis inflorescentia et foliorum pagina inferiore dense lepidotis. Folia alterna, petiolata, oblongo-obovata v. elliptica, coriacea, integerrima, pennivenia, supra nitidula. Racemi ♂ laxe pauciflori, in axillis inferioribus pedunculati v. foliis floralibus summis ad bracteam reductis v. evanidis subpaniculati.

Species 1, Americæ centralis incola. Specimina typica Guatemalensia non vidimus, sed mascula ad Acota in Nicaragua a R. Tate lecta cum charactere dato omnino conveniunt.

107. **Sumbavia,** *Baill. Etud. Euph.* 390. (Doryxylon, *Zoll. in Linnæa*, xxix. 469.)—Flores monoici, petaliferi. Discus obscurus. Fl. ♂: Calyx membranaceus, in alabastro globosus clausus, per anthesin valvatim fissus. Petala 5, brevia. Stamina numerosa, receptaculo convexo eglanduloso affixa, filamentis liberis erectis; antheræ oblongæ, erectæ, dorsifixæ, loculis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Calyx alte divisus, lobis angustis. Petala minuta. Ovarium 3-loculare; styli basi connati, recurvi, indivisi; ovula in loculis solitaria. Capsula, a nobis non visa, in coccos 2-valves dissiliens (*Zoll.*).—Arbores indumento stellari. Folia alterna, petiolata, ampla, 3-nervia, pennivenia, integerrima, basi in una specie breviter peltata. Racemi spiciformes, axillares. Flores ♂ secus rhachin in glomerulos paucifloros sparsi, subsessiles, ♀ hinc inde in glomerulis ♂ solitarii, evidentius pedicellati.

Species 2, Malayanæ, quarum una tantum nobis nota. *Muell. Arg. in DC. Prod.* xv. ii. 727. Genus *Malloto* valde affine, nec differt nisi petalorum præsentia.

108. **Tannodia,** *Baill. Adans.* i. 251, *t.* 7. (Tandonia, *Baill. l. c.* 184.)—Flores monoici,

petaliferi. Fl. ♂: Calyx 5-partitus, valvatus. Petala 5. Disci glandulæ 5, petalis alternæ. Stamina 10, 2-seriata, basi breviter connata, seriei exterioris petalis opposita; antheræ oblongæ, dorsifixæ, loculis staminum exteriorum introrsum, interiorum extrorsum contiguis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Sepala imbricata. Petala 5. Discus membranaceus, cupuliformis. Ovarium 3-loculare; styli basi connati, 2-fidi. Fructus . . .—Frutex inflorescentia pubescente excepta glaber. Folia alterna, petiolata, lata, integerrima, firme membranacea, 3–5-nervia. Racemi tenues, terminales, simplices. Flores utriusque sexus sub quaque bractea terni, breviter pedicellati. Bracteæ basi grosse 2-glandulosæ. (*Char. ex Baill.*)

Species 1, Madagascariensis, a nobis non visa. *Muell. Arg. in DC. Prod.* xv. ii. 728.

109. **Crotonogyne**, *Muell. Arg. in Flora*, 1864, 535, *et in DC. Prod.* xv. ii. 720.—Flores dioici, petaliferi. Fl. ♂: Calyx in alabastro globosus, clausus, per anthesin irregulariter in valvas 2–3 ruptus. Petala 5, calycem æquantia v. superantia. Stamina ∞ (15–20), receptaculo valde elevato crasso affixa, filamentis brevibus liberis; antheræ erectæ, loculis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Calyx 5-fidus, lobis angustis. Petala maris. Ovarium 3-loculare; styli 2-partiti, ramis linearibus indivisis (v. 2-fidis ex Muell. Arg.); ovula in loculis solitaria. Capsula in coccos 2-valves dissiliens, endocarpio crustaceo. Semina . . .—Frutex elatior, indumento sparso lepidoto. Folia alterna, ampla, integerrima, pennivenia, petiolo brevissimo, limbo basi 2-glanduloso. Flores secus pedunculum elongatum axillarem v. lateralem distantes, ♂ parvi, glomerati, subsessiles, ♀ paullo majores, sparsi, pedicello rigido fulti.

Species 1, Africæ tropicæ incola, in speciminibus perfectioribus ulterius examinanda.

110. **Chrozophora**, *Neck. Elem.* ii. 337. (Crozophora, *A. Juss. et Auct. recent.* Tournesolia, *Scop. Introd. ex Muell. Arg.* Lepidocroton, *Presl, Epimel. Bot.* 213.)—Flores monoici, petaliferi. Fl. ♂: Calyx in alabastro ovoideus v. globosus, clausus, per anthesin valvatim 5-partitus. Petala 5, calyci æqualia v. breviora. Discus inconspicuus. Stamina 5–15, filamentis basi in columnam connatis plus minus distincte 1–3-verticillatis; antheræ oblongæ, erectæ, basi v. dorso paullo altius affixæ, loculis parallelis contiguis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Calycis segmenta angusta. Petala angusta, interdum parva setacea v. 0. Glandulæ petalis alternæ, latæ, breves, parum prominulæ. Ovarium 3-loculare; styli erecti v. demum patentes, sæpe crassi, 2-fidi, ramis indivisis; ovula in loculis solitaria. Capsula subcarnosa, tridyma, in coccos 2-valves dissiliens. Semina ecarunculata, testa nitida v. tuberculoso-aspera; albumen carnosum; cotyledones latæ, planæ.—Herbæ ramosissimæ, sæpius diffusæ, rudes, rarius suffrutescentes, indumento stellato-tomentoso v. hispido. Folia alterna, sæpius undulato-dentata et plicato-rugosa. Racemi breves, densi, in axillis superioribus sessiles. Flores sub bracteis solitarii, ♂ in parte superiore conferti breviter v. brevissime pedicellati, ♀ ad basin pauci longius pedicellati, pedicello interdum elongato 2-floro. Capsulæ hispidæ tuberculatæ stellato-tomentosæ v. lepidotæ.

Species enumeratæ 6, in herbariis valde confusæ, nonnullæ revidendæ et forte iterum dividendæ v. reducendæ, regionis Mediterraneæ et Asiæ et Africæ tropicæ incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 746. *A. Juss. Euph. Tent. t.* 7. *Baill. Etud. Euph. t.* 15. *Nees, Gen. Fl. Germ. Monochl. n.* 37. *Reichb. Ic. Fl. Germ. t.* 152. *Sibth. Fl. Græc. t.* 950, 951, (*Croton*). *Delile, Fl. Egypt. t.* 51 (*Croton*). *Vis. Pl. Æg. ac Nub. t.* 7. *Schweinf. Pl. Nilot. t.* 3 ad 5.

Genus a Baillono, Hist. Pl. v. 181, cum *Argithamnio* et *Caperonia* sub nomine *Tournesoliæ* jungitur, cui ægre assentiri possumus. Genera affinia quidem, sed nobis tam habitu et patria quam characteribus bene definita videntur. Nomen, a χρώζω v. χρὼς derivatum, Necker rite *Chrozophora* scripsit, et forte lapsu calami postea in *Crozophora* mutatum fuit.

111. **Speranskia**, *Baill. Etud. Euph.* 388.—Flores monoici, petaliferi. Fl. ♂: Calyx membranaceus, in alabastro globosus, clausus, per anthesin valvatim fissus. Petala 4–5, brevia, lata, rotundata, basi contracta, crassiuscule squamiformia. Glandulæ inter petala minuta. Stamina ∞ (10–15), receptaculo convexo affixa, filamentis liberis;

antheræ terminales, loculis subglobosis connectivo separatis subpendulis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Calycis segmenta angusta. Petala . . . Ovarium 3-loculare; styli 2-fidi, stigmatibus laceris (*Muell. Arg.*); ovula in loculis solitaria. Capsula late tridyma, in coccos 2-valves dissiliens. Semina estrophiolata, globosa; albumen carnosum; cotyledones planæ, latæ.—Caules e rhizomate lignoso herbacei, erecti, parce ramosi. Indumentum simplex. Folia alterna, sessilia, lanceolata, paucidentata. Racemus terminalis. Flores secus rhachin tenuem sub quaque bractea sæpius terni, superiores ♂, inferiores sæpe sub bractea uno ♀ cum 2 ♂.

Species 1, Chinæ borealis incola. Capsula ex Bungeo tuberculata, deest in speciminibus a Bungeo receptis, sed in aliis ex eodem loco pilosula est nec tuberculata. Genus a Muell. Arg. in DC. Prod. xv. ii. 734, ad *Argithamniam* relatum, sed nostro sensu longe differt habitu patria inflorescentia et staminibus.

112. **Manihot,** *Adans. Fam.* ii. 356. (Janipha, *H. B. et K. Nov. Gen. et Sp.* ii. 106, *t.* 109. Mandiocca, *Link, Handb.* ii. 436, *ex Endl.*)—Flores monoici, apetali. Fl. ♂: Calyx sæpe coloratus, campanulatus v. urceolatus, breviter v. alte 5-fidus, lobis imbricatis (an semper ?) contortis. Stamina 10, 2-seriata, inter lobos v. glandulas disci affixa, filamentis liberis tenuibus; antheræ oblongæ, sæpius majusculæ, dorsifixæ, loculis parallelis contiguis longitudinaliter dehiscentibus. Ovarii rudimentum 0 v. in medio disco parvum 3-fidum v. 3-setosum. Fl. ♀: Calyx maris. Discus hypogynus sæpius evolutus, integer v. glandulosus. Ovarium 3-loculare; styli basi breviter connati, patentes, varie dilatati v. lobati; ovula in loculis solitaria. Capsula in coccos 2-valves dissiliens. Semina ovoidea v. oblonga, testa crustacea; albumen carnosum; cotyledones planæ, latæ.—Herbæ elatæ v. frutices rarius arborescentes, sæpius glaucescentes, glabri v. rarius tomentoso-villosi. Folia alterna, petiolata, indivisa v. sæpius digitatim 3–7-lobata v. partita, segmentis petiolulatis v. varie confluentibus membranaceis v. coriaceis penniveniis integerrimis v. sinuato-lobatis. Flores in ordine majusculi, racemosi, sub quaque bractea solitarii. Racemi terminales v. in axillis superioribus, simplices v. subramosi, laxiusculi, floribus superioribus ♂ breviter pedicellatis, ♀ sæpius ad basin racemi 1–3 longius pedicellatis. Bracteæ nunc parvæ nunc foliaceæ, integerrimæ v. margine fimbriatæ.

Species enumeratæ ad 80, omnes Americanæ, pro maxima parte Brasilianæ, paucæ per regiones calidiores usque ad Mexicum dispersæ, 1 v. 2 in variis terris tropicis diu cultæ. *Muell. Arg. in DC. Prod.* xv. ii. 1057, *et in Mart. Fl. Bras.* xi. ii. 438, *t.* 63 *ad* 67. *A. Juss. Euph. Tent. t.* 10 (*Janipha*). *Pohl, Pl. Bras. Ic.* i. 17, *t.* 10 *ad* 48. *Vell. Fl. Flum. Ic.* x. *t.* 80 *ad* 83 (*Jatropha*). *Baill. Etud. Euph. t.* 19. *Hook. Ic. Pl. t.* 530. *Bot. Mag. t.* 3071 (*Janipha*).

Specimina in herbariis sæpe valde imperfecta variationes foliorum male indicant et verisimiliter species plurimæ ab auctoribus descriptæ melius notæ in posterum reducendæ.

113. **Adriana,** *Gaudich. in Freyc. Voy. Bot.* 486, *t.* 116. (Trachycaryon, *Klotzsch in Pl. Preiss.* i. 175.)—Flores dioici, apetali. Discus 0. Fl. ♂: Calyx in alabastro globosus, clausus, per anthesin valvatim 4–5-partitus. Stamina ∞ (numerosa), in receptaculo convexo dense conferta, filamentis brevissimis liberis; antheræ lineares, erectæ, connectivo ultra loculos in acumen seu appendiculam linearem producto, loculis adnatis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Sepala 6–8, sub-2-seriatim imbricata. Ovarium 3-loculare; styli distincti v. basi brevissime connati, 2-fidi, ramis dense papilloso-fimbriatis; ovula in loculis solitaria. Capsula in coccos 2-valves dissiliens. Semina ovoidea, strophiola parva, testa coriacea; albumen carnosum; cotyledones planæ, latæ.—Frutices erecti, glabri v. stellato-tomentosi. Folia alterna v. opposita, petiolata v. subsessilia, 3–5-nervia, grosse dentata, cæterum indivisa v. 3-loba. Spicæ terminales v. ramulo excrescente mox oppositifoliæ, indivisæ, ♂ sæpius elongatæ floribus secus rhachin sessilibus sub quaque bractea 3–6; spicæ ♀ sæpius breves, densæ, intra folia summa sessiles v. brevissime pedunculatæ.

Species 5, Australianæ, a nonnullis ad 2 reductæ v. a Ferd. Mueller in unicum coacervatæ. *Benth. Fl. Austral.* vi. 133. *Baill. Etud. Euph. t.* 8. *Labill. Pl. Nov. Holl. t.* 223 (*Croton*).

114. **Pachystroma**, *Klotzsch in Herb. Berol.*; *Muell. Arg. in Linnæa* xxxiv. 177, *in DC. Prod.* xv. ii. 893, *et in Mart. Fl. Bras.* xi. ii. 387, *t.* 54. (Acantholoma, *Gaudich.*; *Baill. Adans.* vi. 231, *t.* 1.)—Flores monoici, apetali. Discus 0. Fl. ♂: Calyx in alabastro ovoideus, clausus, per anthesin longior, apice valvatim 2-fidus. Stamina 3, filamentis basi in columnam primum ovoideam demum cylindraceam connatis, superne breviter liberis; antheræ magnæ, oblongæ, erectæ, dorsifixæ, connectivis primum dorso cohærentibus et ultra loculos in umbonem brevem productis, loculis parallelis distinctis superne connectivo breviter adnatis basi liberis extrorsum longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Calycis lobi 3, imbricati, sub fructu patentes, rigidi, ineunte anthesi (ex Baill. et Muell. Arg.) ovarium arcte cingentes. Ovarium 3-loculare; styli (a nobis non visi) basi breviter connati, crassi, recurvi, indivisi; ovula in loculis solitaria. Capsula magna, lignosa, in coccos 2-valves dissiliens, receptaculo solo in speciminibus nostris superstante cum columella brevi inter coccos lignoso-incrassato pyramidato-triquetro ad angulos sub-3-cornuto. Semina ovoidea, testa crustacea; albumen carnosum; cotyledones latæ, planæ.—Arbor glabra. Folia alterna, breviter petiolata, coriacea, nitidula, margine plus minus spinoso-dentata v. rarius subintegerrima, penninvenia, venis primariis sat crebris transversis parallelis. Spicæ ♂ terminales, rhachi crassiuscula, floribus parvis sessilibus horizontaliter prominulis crebris at vix glomeratis. Fl. ♀ ad basin spicæ ♂ solitarii (v. gemini ?), pedicello brevissimo crasso fulti. Bracteæ imbricatæ, caducissimæ, spicam juniorem et florem ♀ includentes.

Species 1, Brasiliana. Stamina ex Muell. Arg. 5–6, nos in floribus pluribus a speciminibus variis sumptis semper 3 invenimus sed antherarum loculi in alabastro profunde sulcati antheras distinctas simulant. Flores ♀ examinare nequivimus, descriptiones Bailloni et Muelleri inter se vix quadrant. In icone citata *Acantholomatis* inflorescentia nec speciminibus nec descriptioni Bailloni convenit.

115. **Cephalocroton**, *Hochst. in Flora*, 1841, 370.—Flores monoici, apetali. Fl. ♂: Calyx in alabastro globosus, clausus, per anthesin valvatim 3–4-partitus. Discus 0. Stamina 6–8, filamentis liberis 2-seriatis superne inflexis iterumque sub anthera erectis; antheræ oblongæ, ab initio erectæ, dorsifixæ, loculis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum breve. Fl. ♀: Sepala 5–6, elongata, inæqualia, lacero-pinnatifida. Discus annularis, vix lobatus. Ovarium 3-loculare; styli basi breviter connati, superne patentes, multifidi, laciniis læviusculis; ovula in loculis solitaria. Capsula tridyma, in coccos 2-valves dissiliens. Semina estrophiolata; albumen carnosum; embryo rectus, cotyledonibus planis latis.—Frutices indumento stellato sæpius parco. Folia alterna, petiolata, sæpius dentata, basi 3–5-nervia. Racemi terminales. Flores ♂ ad apicem rhacheos in capitulum subglobosum conferti, ♀ ad basin racemi 1–3 plus minus pedicellati.

Species 2, Africæ tropicæ incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 761 (Sect. *Eucephalocroton*). *Klotzsch in Peters. Reise Mossamb. Bot. t.* 17. *Baill. Etud. Euph. t.* 18.

116. **Adenochlæna**, *Baill. Etud. Euph.* 472. (Centrostylis, *Baill. l. c.* 469.)—Flores monoici, apetali. Discus 0. Fl. ♂: Calyx in alabastro globosus, clausus, per anthesin in segmenta 4 (rarius 5–6 ?) valvatim partitus. Stamina totidem, filamentis liberis erectis v. summo apice breviter inflexis; antheræ terminales, supra medium dorsifixæ, loculis connectivo sæpe latiusculo separatis subpendulis longitudinaliter dehiscentibus. Ovarii rudimentum columnare, tenue v. crassum. Fl. ♀: Sepala 5–8, angusta, integerrima (v. demum glanduloso-dentata ?), valde inæqualia. Ovarium 3-loculare; styli basi in columnam connati, superne patentes, apice 2-fidi, ramis 2–∞-fidis; ovula in loculis solitaria. Capsula tridyma, in coccos 2-valves dissiliens. Semina estrophiolata, subglobosa, testa crustacea; albumen carnosum; cotyledones planæ, latæ.—Frutices v. arbores, indumento stellato sæpius tenui, foliis sæpe glabris. Folia alterna, breviter v. brevissime rarius longiuscule petiolata, basi sæpe cordata, penninvenia et basi sæpe 3–5-nervia. Racemi terminales. Flores ♂ nunc in parte superiore in glomerulos densos globosos conferti, nunc glomerulis ∞ inter se distantibus racemum tenuem formantes. Flores ♀ ad basin racemi pauci, sub bractea solitarii v. 2–3-ni.

Species nobis notæ 3, Indiæ orientalis incolæ, una Zeylanica CEPHALOCROTONIS sect., *Muell. Arg. in DC. Prod.* xv. ii. 762, altera Peninsulæ incola, *Bedd. Fl. Sylv. t.* 261, tertia Silhetensis, SYMPHYLLIA *Baill. Etud. Euph.* 473, *t.* 11. *Muell. Arg. in DC. Prod.* xv. ii. 763. Characteres florum omnino eosdem invenimus, in *A. zeylanica* Thw. inflorescentia abbreviata densa fere *Cephalocrotonis*, sed stamina bene distincta, in *A. indica* Bedd., racemi longiusculi interrupti, in *A.* (*Symphyllia*) *silhetensi* racemi adhuc longiores, florum glomerulis densissime globosis v. ovoideis dissitis et folia fere sessilia. Omnes nobis stricte congeneres videntur etsi tam a *Cephalocrotoni* quam a *Chloradenia* distinctæ. Species Madagascariensis a Baill. et Muell. Arg. descripta nobis ignota est.

117. **Bernardia**, *P. Br. Nat. Hist. Jam.* 361, *absque char. gen.* (Bivonia, *Spreng. Neue Entd.* ii. 116. Tyria, Phædra et Polybæa, *Klotzsch in Endl. Gen. Suppl.* iv. iii. 88. Traganthus, *Klotzsch in Wiegm. Archiv.* vii. 188, *t.* 9. Passæa, *Baill. Etud. Euph.* 507, *t.* 18. Alevia, *Baill. l. c.* 508.)—Flores monoici v. dioici, apetali. Discus 0 v. e glandulis distinctis. Fl. ♂: Calyx in alabastro globosus clausus, per anthesin valvatim 3–4-partitus. Stamina ∞ (3–20), filamentis liberis glandulis minutis sæpe intermixtis; antheræ terminales, erectæ v. rarius in alabastro nutantes, connectivo brevi crassiusculo et loculis distinctis brevibus ante dehiscentiam sulcatis v. 2-globosis quasi cruciatim 4-loculares. Ovarii rudimentum 0. Fl. ♀: Sepala ad 6 (5–9), imbricata. Ovarium 3-loculare; styli brevissimi, erecti, cum carpellis sæpe continui, integri 2-fidi v. laceri; ovula in loculis solitaria. Capsula tridyma, in coccos 2-valves dissiliens, endocarpio crustaceo v. indurato. Semina subglobosa, testa crustacea; albumen carnosum; cotyledones planæ, latæ.—Frutices rarius herbæ, indumento stellato v. simplici. Folia alterna, petiolata v. subsessilia, sæpissime dentata, penninvenia, rarius parva v. angusta integerrimaque, in una specie perpauca v. 0 ramis junceis. Spicæ axillares, nunc utriusque sexus brevissimæ sessiles floribus dense confertis bracteis subimbricatis, nunc præsertim ♂ tenuiores longiusculæ, floribus dissite glomeratis v. ♀ sub bractea quaque solitariis. Flores ♂ sæpius minuti, ♀ interdum bracteolis paucis ab auctoribus nonnullis pro perianthii segmentis exterioribus descriptis stipati. Bracteæ spicæ ♂ sæpius concavæ, glomerulum fere includentes.

Species ad 24, Americæ tropicæ et subtropicæ incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 915, *et in Mart. Fl. Bras.* xi. ii. 390, *t.* 57. ADELIÆ species, *Linn.*; *Baill. Adans.* iv. 372, *t.* 10, 11 (antheris vix accurate delineatis).

Genus antherarum indole facile distinctum, a Muellero in sectiones 6 dividitur, characteribus levioris momenti e glandulis receptaculi staminum numero v. stylis integerrimis v. laceris deductis. Inter genera supra citata *Traganthus* distinguitur caule herbaceo annuo villoso, sed characteres bene *Bernardiæ* conveniunt. Speciebus Prodromi addetur *Ricinella myrciæfolia*, Muell. Arg. in DC. Prod. xv. ii. 729, quæ nobis omnino *Bernardia* videtur, *B. Gardneri*, Muell. Arg., affinis.

118. **Erythrococca**, *Benth. in Hook. Nig. Fl.* 506.—Flores dioici, apetali. Fl. ♂: Calyx tenuiter membranaceus, in alabastro clausus, per anthesin valvatim 3-partitus. Stamina 3–6, filamentis brevibus basi in annulum connatis; antherarum loculi a basi distincti, erecti, subglobosi, ab apice longitudinaliter dehiscentes. Ovarii rudimentum 0. Fl. ♀: Calyx 3-partitus, segmentis angustis. Disci glandulæ 2. Ovarium 2-loculare; styli breves, a basi plumoso-multifidi; ovula in loculis solitaria. Capsula (an semper?) abortu 1-locularis, 1-sperma, globosa, indehiscens, exocarpio tenuiter carnoso, endocarpio crustaceo. Semen . . .—Frutex glaber, ramis tenuibus teretibus aculeis geminis infrastipularibus armatis. Folia breviter petiolata, membranacea, integerrima v. vix dentata. Inflorescentia ad axillas fasciculata, ♂ subcymosa e ramulis ∞ brevibus multifloris sessilibus composita, floribus secus rhachin fasciculatis pedicellatis minutis; fl. ♀ pauci, pedicellis 1-floris in axilla subfasciculatis.

Species 1, Africæ tropicæ incola. *Muell. Arg. in DC. Prod.* xv. ii. 791.

119. **Hasskarlia**, *Baill. Adans.* i. 51.—Flores dioici, apetali. Fl. ♂: Calyx tenuiter membranaceus, 3-partitus, segmentis subvalvatis. Discus 0. Stamina 3, receptaculo affixa, filamentis brevissimis; antheræ erectæ, usque ad basin in locellos 4 demum a basi distinctos erectos obovoideo-globosos latere interiore ab apice dehiscentes divisæ. Ovarii

rudimentum 0. Fl. ♀: Calyx parvus v. 3-partitus; disci hypogyni squamæ 3, petaloideæ, calycis segmentis subæquilongæ iisque alternæ. Ovarium carnosum, 3-loculare; styli plani, dilatati, in orbem patentes, apici ovarii appressi; ovula in loculis solitaria, obturatore magno. Fructus obscure tridymus, in speciminibus nostris immaturus, ex Baill. 3-coccus. —Arbor 40–80-pedalis (*Barter et Mann*), v. frutex 8–15-pedalis (*Welwitsch*), undique glaberrimus. Folia alterna, breviter petiolata, ampla, integerrima, nitidula, pennivenia. Spicæ ♂ axillares laterales v. fere oppositifoliæ, amentiformes, floribus arcte approximatis subsessilibus; pedunculi ♀ axillares v. laterales, breves 1- (v. 2–3-?) flori.

Species 1, Africæ tropicæ incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 774. Genus evidenter *Claoxylo* affine, a Baillono *Tetrorchidio* comparatum, sed stamina sepalis alterna nec opposita, inflorescentia aliique characteres longe distant.

120. **Claoxylon**, *A. Juss. Euph. Tent.* 43, *t.* 14. (Erythrochilus, *Reinw. in Bl. Bijdr.* 614.)—Flores dioici v. rarius monoici, apetali. Discus varius. Fl. ♂: Calyx in alabastro subglobosus, clausus, per anthesin valvatim 3–4-partitus. Stamina sæpius numerosa, receptaculo v. disco centrali affixa, glandulis v. lobis disci varie intermixta, filamentis liberis; antherarum loculi distincti, erecti, obovoidei v. subglobosi, ab apice longitudinaliter dehiscentes. Ovarii rudimentum 0. Fl. ♀: Calyx minus alte divisus, lobis 2–4 (an semper ?) valvatis. Discus margine integer v. lobatus. Ovarium 3- rarius 2-loculare; styli breves, liberi v. basi connati, patentes, indivisi; ovula in loculis solitaria. Capsula in coccos 2-valves dissiliens. Semina estrophiolata, subglobosa, testa crustacea; albumen carnosum; cotyledones latæ, planæ.—Arbores fruticesve glabri v. pube appressa brevi vestiti. Folia alterna, petiolata, sæpius ampla, membranacea v. vix coriacea, integerrima v. dentata, pennivenia. Racemi axillares v. laterales, solitarii v. subfasciculati, foliis breviores. Flores parvi, ♂ secus rhachin fasciculati, ♀ solitarii sparsi.

Species enumeratæ 42, Africæ, Asiæ et Australiæ intra tropicos et ins. maris Pacifici incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 775. *Benth. Fl. Austral.* vi. 129. *Kurz, For. Fl. Brit. Burm.* ii. 395. *Bedd. Ic. Pl. Ind. Or. t.* 231.

Genus in sectiones plures dividit Muell. Arg., imprimis ex dispositione glandularum receptaculi floris ♂; quæ tamen variant fere de specie in speciem et semper minutæ difficillime observantur. Baillon genus totum in *Mercuriali* includit.

121. **Micrococca**, *Benth. in Hook. Nig. Fl.* 503.—Flores monoici v. subdioici, apetali. Fl. ♂: Calyx tenuiter membranaceus, in alabastro clausus, per anthesin valvatim 3-partitus. Stamina ∞ (3–10), receptaculo convexo affixa, glandulis paucis minimis intermixta, filamentis distinctis; antherarum loculi a basi distincti, obovoidei, jam in alabastro erecti, ab apice longitudinaliter dehiscentes. Ovarii rudimentum 0. Fl. ♀: Sepala 3–4, imbricata. Laminæ hypogynæ (an disci lobi ?) 3–4, lineares, coccis alternæ, calyce vix breviores. Ovarium 3- rarissime 4-loculare; styli distincti, subpatentes, breves, lineares, indivisi; ovula in loculis solitaria. Capsula 3–4-cocca, coccis fere a basi distinctis 2-valvibus. Semina globosa, testa crustacea; albumen carnosum; cotyledones planæ, latæ.—Herba annua, erecta, ramosa, basi sæpe indurata. Folia alterna exceptis interdum primordialibus oppositis, petiolata, membranacea, sæpius dentata, pennivenia. Racemi axillares, rhache filiformi. Flores ♂ minuti, fasciculati, in racemis ♂ in quoque fasciculo ∞ breviter pedicellati, in racemis androgynis pauci, sæpius 1–2 in quoque fasciculo cum unico ♀ longius pedicellato. Capsulæ parvæ.

Species 1, in cultis Africæ et Asiæ tropicæ frequens, a *Thwaitesio Enum. Pl. Zeyl.* 271, et a *Muell. Arg. in DC. Prod.* xv. ii. 789 ad *Claoxylon* relata. Antherarum loculi erecti distincti ut in hoc genere, sed habitu et floribus ♀ potius *Mercuriali* accedit, a qua differt foliis alternis, antheris erectis et pistillo sæpius 3-mero. Antheræ ex Muell. Arg. in *Micrococca* introrsum 2-rimosæ sunt, dum in cæteris *Claoxylis* extrorsum 2-rimosas dicuntur, sed hæc distinctio nobis effugit. Baillon *Micrococcam* cum *Claoxylo* aliisque sub *Mercuriali* includit.

122. **Mercurialis**, *Linn. Gen. n.* 1125.—Flores dioici v. casu monoici, apetali. Fl. ♂: Calyx tenuiter membranaceus, in alabastro globosus v. ovoideus, clausus, per anthesin

valvatim 3-partitus. Discus 0. Stamina ∞ (8–20), filamentis liberis receptaculo parvo affixis; antherarum loculi a basi distincti, globosi v. ovoidei, divaricati v. primum penduli demum ascendentes, superne longitudinaliter dehiscentes. Ovarii rudimentum 0. Fl. ♀: Sepala 3 (leviter imbricata?). Laminæ hypogynæ (an disci lobi?) 2, lineari-subulatæ, coccis alternæ. Ovarium 2-loculare, rarius casu 3-loculare; styli vix basi connati, breves, erecti v. divergentes, intus prominenter papillosi, indivisi; ovula in loculis solitaria. Capsula didyma, in coccos 2-valves dissiliens, endocarpio crustaceo. Semina ovoidea v. globosa, lævia v. tuberculata, testa crustacea; albumen carnosum; cotyledones latæ, planæ.—Herbæ annuæ v. rhizomate perenni, rarius basi sublignosæ, glabræ pubescentes v. tomentoso-lanatæ. Folia opposita, sæpius dentata, pennivenia. Racemi axillares, ♂ graciles, floribus supra medium in glomerulos paucos distantes collectis; ♀ in plerisque brevissimi, floribus 1–2 ad axillas subsessilibus, in *M. perenni* longiores, floribus 1–3 in pedunculo communi distantibus.

Species 6, pleræque Europææ, imprimis e regione Mediterranea occidentali, quarum una per varias regiones dispersa sæpe inquilina, altera Asiæ orientali propria. *Muell. Arg. in DC. Prod.* xv. ii. 794. *A. Juss. Euph. Tent. t.* 14. *Baill. Etud. Euph. t.* 9. *Nees, Ic. Gen. Fl. Germ. Monochl. n.* 40. *Reichb. Ic. Fl. Germ. t.* 151, 152. *Moris. Fl. Sard. t.* 110. *Vent. Jard. Cels. t.* 12.

123. **Leidesia,** *Muell. Arg. in DC. Prod.* xv. ii. 792.—Flores monoici, apetali. Discus 0. Fl. ♂: Calyx tenuiter membranaceus, in alabastro clausus, per anthesin valvatim 3-partitus. Stamina ∞ (4–7), filamentis brevibus tenuibus basi hinc inde connatis; antherarum loculi globosi, a basi distincti, demum patenter 2-valves. Ovarii rudimentum 0. Fl. ♀: Calyx 0 v. ad bracteam unicam brevem angustam reductus. Ovarium 2-loculare; styli distincti, lineares, indivisi; ovula in loculis solitaria. Capsula in coccos 2-valves dissiliens, interdum abortu 1-cocca, endocarpio tenuiter crustaceo. Semina subglobosa, testa crustacea; albumen carnosum; cotyledones planæ, latæ.—Herbæ teneræ, annuæ, ramosæ. Folia alterna v. ad ramificationes subopposita, longe petiolata, tenera, ovata v. orbiculata, late dentata v. integerrima. Racemi terminales v. in dichotomiis, rhachi filiformi. Flores ♂ minimi, apicem versus racemi in fasciculos plures dispositi, ♀ ad basin rhacheos pauci, bractea foliacea stipati. Bracteæ et calyces fl. ♂ sæpe setoso-ciliati. Capsulæ parvæ.

Species 2, Africæ australis incolæ. *Benth. in Hook. Ic. Pl. t.* 1284.

124. **Adenocline,** *Turcz. in Bull. Soc. Imp. Nat. Mosc.* 1843, 59, et 1852, ii. 179. (Diplostylis, *Sond. in Linnæa* xxiii. 113.)—Flores monoici, apetali. Fl. ♂: Calyx tenuiter membranaceus, alte 5-lobus, jam ante anthesin apertus, lobis primum valvatis? v. ex Muell. Arg. imbricatis. Glandulæ v. lobi receptaculi inter stamina plura. Stamina ∞ (6–12), filamentis brevibus liberis; antheræ terminales, loculis discretis globosis divaricatis vertice dehiscentibus, anthera effœta quasi 2-valvi. Ovarii rudimentum 0. Fl. ♀: Calyx 5-partitus, ovario sæpe æquilongus, segmentis angustis æqualibus leviter imbricatis. Ovarium 3-loculare; styli tenues, 2-partiti, recurvo-patentes, basi brevissime connati; ovula in loculis solitaria. Capsula parva, tridyma, pericarpio tenui, in coccos 2-valves dissiliens. Semina globosa, testa tenuiter crustacea; albumen carnosum; cotyledones ovatæ, radicula vix duplo latiores.—Herbæ tenues, diffusæ, annuæ v. basi perennes. Folia alterna v. rarius opposita, nunc angusta et integerrima nunc latiora denticulata, membranacea. Flores minimi, ad axillas laxe cymulosi, inflorescentia interdum ad apices ramorum foliis floralibus diminutis fere in racemum abeunte; flores ♂ sæpius plurimi, ♀ pauci ad basin cymularum v. in axillis distinctis.

Species 3 v. 4, Africæ australis incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 1139. *Baill. Etud. Euph. t.* 9, inclusa Paradenocline, *Muell. Arg. l. c.* 1141, quam auctor distinxit antherarum loculis pendulis, quod tamen confirmare nequimus. Antheræ in omnibus speciebus nobis subsimiles videntur. loculis primum suberectis dein divergentibus post dehiscentiam patentibus interdum fere reflexis.

125. **Seidelia,** *Baill. Etud. Euph.* 465, *t.* 9.—Flores monoici, apetali. Discus 0. Fl. ♂: Calyx tenuiter membranaceus, in alabastro depresso-globosus, per anthesin valvatim

3-partitus. Stamina 3, rarius 2, in centro floris segmentis alterna, filamentis basi brevissime connatis; antheræ terminales, loculis distinctis ante anthesin profunde sulcatis fere 2-globosis apice dehiscentibus, anthera aperta cruciatim 4-valvi. Ovarii rudimentum 0. Fl. ♀: Calyx brevis, alte 3-fidus, sub ovario patens. Ovarium 2-loculare; styli breves, tenues, recurvo-patentes; ovula in loculis solitaria. Capsula parva, in coccos 2-valves dissiliens, pericarpio membranaceo. Semina ovoidea, testa crustacea; albumen carnosum; cotyledones ovatæ, radicula vix duplo latiores.—Herba annua, pumila, glabra. Folia alterna, angusta, integerrima. Flores parvi, ad apices ramulorum v. in axillis superioribus cymulosi v. fasciculati, breviter pedicellati, inferiores plures ♀, superiores densius fasciculati ♂.

Species 1, Africæ australis incola, a *Muell. Arg. in DC. Prod.* xv. ii. 947, invita natura *Tragia* inclusa. Genus nobis *Adenoclini* valde affine videtur, etsi floris partium numero et antherarum forma satis distinctum.

126. **Acalypha,** *Linn. Gen. n.* 1082. (Cupameni, *Adans. Fam.* ii. 356.)—Flores monoici v. rarius dioici, apetali. Discus 0. Fl. ♂: Calyx tenuiter membranaceus, in alabastro clausus, per anthesin valvatim 4-partitus. Stamina ∞ (sæpius 8), receptaculo parum elevato affixa, filamentis liberis; antherarum loculi distincti, divaricati, sæpius oblongi v. lineares et in flore aperto sæpissime flexuosi vermiformes. Ovarii rudimentum 0. Fl. ♀: Sepala 3–4, imbricata, nunc minima. Ovarium 3-loculare; styli liberi, filiformes, sæpius in lacinias filiformes divisi, rarius indivisi; ovula in loculis solitaria. Capsula tridyma, sæpius parva, in coccos 2-valves dissiliens. Semina subglobosa, testa crustacea; albumen carnosum; cotyledones latæ, planæ.—Herbæ frutices v. arbores, habitu vario. Folia alterna, sæpius ovata, plus minus dentata, 3–5-nervia v. pennivenia, petiolo sæpius longiusculo. Flores ♂ parvi, sub bracteis parvis glomerati, in spicas amentiformes v. tenues elongatasque dispositi; ♀ intra bracteam demum sæpe auctam foliaceamque solitarii v. 2–4-ni; bracteæ ♀ nunc ad basin spicarum mascularum solitariæ v. paucæ, nunc in spica distincta distantes v. confertæ, nunc laxe paniculatæ v. singulæ pedicello longo capillari fultæ; spicæ ♂ et androgynæ axillares v. rarissime terminales; ♀ nunc uti ♂ axillares v. laterales, nunc terminales, solitarii v. fasciculati.

Species notæ ad 220, per regiones calidiores utriusque orbis late dispersæ, perpaucæ imprimis inter Americanas extratropicæ. *Muell. Arg. in DC. Prod.* xv. ii. 800, *et in Mart. Fl. Bras.* xi. ii. 339, *t.* 53. *Benth. Fl. Austral.* vi. 132. *A. Juss. Euph. Tent. t.* 14 (*Acalypha et Caturus*). *Gærtn. Fruct. t.* 107. *Baill. Etud. Euph. t.* 20. *Cav. Ic. t.* 568 *ad* 570. *Jacq. Hort. Schœnbr. t.* 245 *ad* 246; *Ic. Rar. t.* 620. *Hook. Comp. Bot. Mag. t.* 29. *Wight, Ic. t.* 877. *Seem. Fl. Vit. t.* 58. *Benth. in Hook. Ic. Pl. t.* 1291. *Grant in Trans. Linn. Soc.* xxix. *t.* 96 *ad* 98. *Vahl, Symb. t.* 20. *Benth. Bot. Sulph. t.* 53. *Anders. in Eugen. Resa, Bot. t.* 14. *Pœpp. et Endl. Nov. Gen. et Sp. t.* 224, 225.

Genus bene limitatum et pro maxima parte antheris stylis et bracteis facillime dignoscendum, etsi in paucis speciebus bracteæ parvæ remanent v. styli indivisi v. antheræ vix tortæ. Linostachys, *Klotzsch in Linnæa*, xix. 235 (Gymnalypha, *Griseb. in Bonplandia*, vi. 2) pro sectione in Prodromo admissa, species continet paucas Americanas cum una Asiatica inflorescentia ♀ insignes; paniculæ terminales v. laterales tenuissimæ, rhachi ramulisque capillaceis, bracteis minimis sub fructu haud auctis; spicæ omnino normales. *Jacq. Hort. Vind.* iii. *t.* 47. Species sectionis alterius *Euacalyphæ*, Muell. Arg., maximam partem generis formantes, a Muellero in series plures ordinantur, imprimis ad inflorescentiam et positionem rationemque florum ♂ et ♀. Huc referantur icones omnes supra sub genere citatæ, et inter formas quodammodo abnormes includuntur; Caturus, *Linn. ex Schreb. Gen. Pl.* 677 (Galurus, *Spreng. Syst.* i. 138), species indica, bracteis ♀ sub fructu non auctis; Odonteilema, *Turcz. in Bull. Soc. Imp. Nat. Mosc.* 1848, i. 587, species Brasiliensis quæ ob stylos longos simplices generice distincta fuit, sed character hinc inde in variis speciebus habitu diversis observatur; et Calyptrospatha, *Klotzsch in Peters, Mossamb. Bot.* 96, *t.* 18, species Africana bracteis sub floribus ♀ majusculis in sicco complicatis. In *A. indica*, Linn., speciebusque nonnullis aliis tam Americanis quam gerontogeis spica androgyna superne mascula sæpe terminatur flore parvo longe pedunculato heteromorpho fœmineo v. subhermaphrodito varie obliquo v. recurvo quoad perianthium et ovarium imperfecto sæpius tamen fertili capsula monosperma. In paucis aliis speciebus flores ♀ dimorphi, alii subsessiles normales, alii gracile pedunculati minimi ovario capsulaque fere 3-partitis.

127. **Mareya,** *Baill. Adans.* i. 73.—Flores monoici, apetali. Fl. ♂ : Calyx in alabastro globosus, clausus, per anthesin valvatim 3–4-partitus. Discus 0. Stamina ∞ (10–20), receptaculo convexo glanduloso affixa, filamentis liberis in alabastro flexuosis ; antherarum loculi distincti, oblongi, substipitati, in alabastro penduli, demum flexuoso-ascendentes, apice dehiscentes. Ovarii rudimentum 0. Fl. ♀ : Sepala 4–6, lata, imbricata. Discus explanatus, varie lobatus. Ovarium 3- rarius 4-loculare ; styli distincti, recurvi, indivisi, papilloso-plumosi ; ovula in loculis solitaria. Capsula tridyma, pubescens, in coccos 2-valves dissiliens. Semina lævia ; albumen carnosum ; cotyledones latæ, planæ.—Frutices v. arbusculi. Folia alterna, petiolata, majuscula, integerrima v. obtuse serrata, pennivenia. Spicæ tenues, axillares laterales v. ad apices ramorum confertæ, foliis sæpius longiores. Flores secus rhachin glomerati, nunc omnes in glomerulo ♂, nunc in quoque glomerulo 1 ♀ cum 2 v. ∞ ♂. Capsulæ parvæ.

Species (v. ex Muell. Arg. varietates) 2, Africæ tropicæ incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 792. *Benth. in Hook. Ic. Pl. t.* 1281. Genus *Acalyphæ* valde affine, sed satis differre videtur habitu, staminum numero et floribus fœmineis.

128. **Adelia,** *Linn. Gen. n.* 1137, *pro parte.* (Ricinella, *Muell. Arg. in Linnæa* xxxiv. 153.)—Flores dioici, apetali. Fl. ♂ : Calyx in alabastro clausus, per anthesin valvatim partitus. Disci glandulæ calycis basi adnatæ. Stamina ∞ (8–15), filamentis liberis brevibus ; antheræ versatiles, prope basin dorsifixæ, loculis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀ : Sepala angusta, per anthesin reflexa. Discus explanatus. Ovarium 3-loculare, styli reflexo-patentes, laciniati, lobis angustis ; ovula in loculis solitaria. Capsula tridyma, in coccos 3-valves dissiliens, endocarpio crustaceo. Semina subglobosa, lævia ; albumen carnosum ; embryo rectus, cotyledonibus latis planis. —Frutices præter inflorescentiam glabri v. rarius tomentosi, ramulis interdum apice v. ad axillas spinescentibus. Folia alterna v. ad nodos conferta, membranacea v. chartacea, integerrima, pennivenia, breviter petiolata. Flores parvi, ♂ ad axillas fasciculati, fere sessiles, ♀ solitarii, longiuscule pedicellati.

Species ad 7, Indiæ occidentalis, Americæ centralis et forte Columbiæ (si huc pertinet Fendleri n. 1224) incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 729 (*Ricinella* excl. *R. myricæfolia* ad *Bernardiam* pertinente) *et in Mart. Fl. Bras.* xi. ii. 306. Nomen Linnæanum a Muell. Arg. rejicitur ob prioritatem *Adeliæ* P. Browne, qui vero genus (*Forestieram*) sub hoc nomine non definivit, etsi species ope iconis suæ agnoscenda sit.

129. **Leucocroton,** *Griseb. Erlaut. Pfl. Trop. Amer.* 20.—Flores dioici, apetali. Discus anguste explanatus vix in glandulas divisus. Fl. ♂ : Calyx in alabastro globosus, clausus, per anthesin valvatim 3–5-fidus. Stamina ∞ (6–10) receptaculo convexo affixa, filamentis brevibus liberis ; antheræ dorsifixæ, oblongæ, loculis contiguis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum villosulum. Fl. ♀ : Calyx 5-partitus, sepalis vix valvatis. Ovarium 3-loculare ; styli breves, patentes, crassi, brevissime 2-lobi, lobis breviter radiato-multifidis ; ovula in loculis solitaria. Capsula tridyma, in coccos bivalves dissiliens. Semina subglobosa, testa lævi ; albumen carnosum ; cotyledones latæ, planæ. —Frutices indumento brevi stellulato v. sublepidoto. Folia alterna, coriacea, supra glabra, transversim v. oblique pennivenia, venulosa. Spicæ v. racemi axillares, folio multo breviores. Flores ♂ secus rhachin sessiles v. breviter pedicellati, sub quaque bractea glomerati, ♀ sub bracteis solitarii, secus rhachin pauci, v. uno solo subterminali.

Species genuinæ 2, v. 3, Cubenses. *Muell. Arg. in DC. Prod.* xv. ii. 756. *Wright in Sauv. Fl. Cub.* 129, ubi *L. flavescens latifolius* ad varietatem *L. Wrightii* reducitur, et *L. flavescens angustifolius* pro specie propria bene distinguitur sub nomine *L. revoluti.* His addenda est *L. virens,* Griseb., qui primo aspectu longe differt foliis basi 5-nerviis pube stellata mollibus, sed flores ♀ similiter ad apicem rhacheos solitarii. Flores ♂ nobis desunt.

130. **Chloradenia,** *Baill. Etud. Euph.* 471, *t.* 19. (Adenogynum, *Zoll. in Linnæa* xxviii. 325.)—Flores monoici, apetali. Fl. ♂ : Calyx in alabastro clausus, per anthesin valvatim 3–4-partitus. Discus 0. Stamina 3–5, filamentis liberis superne inflexis ;

antheræ dorsifixæ, versatiles, loculis contiguis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum angustum. Fl. ♀ : Sepala 5–6, demum basi contracta. Disci glandulæ sepalis alternæ. Ovarium 3- rarius 4-loculare; styli basi longiuscule connati, superne liberi, lineares, 2-partiti, ramis indivisis; ovula in loculis solitaria. Capsula tridyma, in coccos 2-valves dissiliens, endocarpio crustaceo. Semina albuminosa, cotyledonibus latis planis.—Frutex indumento stellato sæpius albido. Folia alterna, longe petiolata, ampla, dentata, basi 3–5-nervia, subpeltata, supra glaberrima. Racemi axillares, petiolo sæpius breviores. Flores ♂ ad apicem parvi, in capitulum subglobosum conferti, bracteis parvis angustis, ♀ ad basin capituli solitarii, maribus multo majores, dense tomentosi. Bracteæ in pedunculo sub inflorescentia foliaceæ, parvulæ.

Species nobis nota 1, Javanica. *Muell. Arg. in DC. Prod.* xv. ii. 761, sub *Cephalocrotone*. Species altera, a Blumeo dubie ad *Adiscam* relata, ex descriptionibus longe aliena est, versimiliter rite a Zollingero in Linnæa xxviii. 322 ad *Crotonem* relata.

Genus a *Cephalocrotone* nobis longe differre videtur habitu, inflorescentia axillari, staminum numero, stylorum ramis longis indivisis aliisque notis. Filamenta in hoc et in *Cephalocrotone* a Baillono rite descripta et delineata, a Muellero 'supra insertionem antherarum genuflexo-producta,' dicuntur quod non intelligimus, nam antheras semper ad apicem filamenti inflexi versatiles vidimus.

131. **Cœlodepas,** *Hassk. in Flora* 1857, 531, *et Hort. Bogor. Descr.* 44. (Koilodepas, *Hassk. in litt. ex Bot. Zeit.* 1856, 802.)—Flores dioici v. monoici, apetali. Discus 0. Fl. ♂ : Calyx in alabastro globosus, clausus, per anthesin valvatim 3–4-partitus. Stamina 4–8, uniseriata, filamentis crassis basi v. ultra medium cuneato-dilatatis connatisque superne liberis contractis acutis; antheræ terminales, loculis a connectivo parum distincto introrsum pendulis v. lateraliter divergentibus longitudinaliter dehiscentibus. Ovarii rudimentum e columna staminea breviter protrusum. Fl. ♀ : Calyx cupulatus, ovario appressus, late 4–10-fidus, lobis imbricatis. Ovarium 3-loculare; styli patentes, complanati, 2–∞-fidi, lobis dentatis v. introrsum fimbriato-multifidis; ovula in loculis solitaria. Capsula tridyma, perianthio plus minus aucto stipata, in coccos 2-valves dissiliens. Semina subglobosa, testa crustacea; albumen carnosum; cotyledones latæ, planæ.—Arbores inflorescentia excepta subglabræ. Folia breviter petiolata, oblonga, chartacea, integerrima v. sæpius dentata, penninervia. Spicæ ♂ ad axillas solitariæ v. fasciculatæ, floribus secus rhachin glomeratis. Flores ♀ ad basin spicarum ♂ 1–2, v. in spicas ad axillas solitarias 1–4-floras dispositi, sub quaque bractea solitarii. Capsula stellato-tomentosa.

Species 3, altera Javanica, altera Peninsulæ Indiæ Orientalis incola. *Muell. Arg. in DC. Prod.* xv. ii. 759. *Bedd. Fl. Sylv. t.* 320. *Benth. in Hook. Ic. Pl. t.* 1288. Flores ♂ speciei typicæ in specimine nostro desunt, ex Hassk. filamenta in cupulam 4–6-lobam connata, antheris ex apice introrsum pendulis; in specie inedita e Penang, Wall. Cat. Herb. Ind. n. 9098, filamenta 6–8 basi tantum in cupulam connata superne libera, antheris ut in *C. bantamensi* ex apice introrsum pendulis; in *C. calycino* filamenta superne breviter libera, antherarum loculis lateraliter divergentibus.

132. **Bocquillonia,** *Baill. Adans.* ii. 225.—Flores dioici, apetali. Discus 0. Fl. ♂ ; Calyx membranaceus, in alabastro ovoideus, clausus, per anthesin valvatim 2- rarius 3-partitus. Stamina 2, rarius 3, filamentis basi in columnam connatis superne liberis sæpe inæqualibus; antheræ ovoideæ, dorso prope apicem affixæ, connectivo parvo, loculis distinctis parallelis subextrorsum longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀ : Calyx brevis, segmentis 4-5 imbricatis. Ovarium 3-loculare; styli complanati, lati, crassiusculi, vertici ovarii arcte appressi; ovula in loculis solitaria. Capsula in coccos 2-valves dissiliens, endocarpio duro. Semina oblonga, testa tenuiter crustacea v. submembranacea; albumen carnosum; cotyledones latæ, planæ.—Arbores fruticesve. Folia alterna, coriacea, integerrima v. obscure sinuato-dentata, penninervia. Flores ♂ minuti, numerosissimi, in capitula globosa v. oblonga in ramis annotinis v. vetustioribus sessilia densissime glomerati, ♀ pauciores, pariter in ramis lignosis sessiles v. breviter spicati.

Species 5 v. 6, Novo-Caledonicæ, *Muell. Arg. in DC. Prod.* xv. ii. 894. *Baill. Adans.* xi. 127. Inter illas tamen *B. brevipes*, Muell. Arg., floribus ♂ ignotis adhuc dubia remanet, nam spica

♀ axillari elongata a cæteris speciebus longe differt. Genus characteribus *Alchorneæ* accedit, inflorescentia diversum.

133. **Adenophædra**, *Muell. Arg. in Mart. Fl. Bras.* xi. ii. 385, *t.* 101.—Flores dioici, apetali. Fl. ♂: Calyx in alabastro subglobosus, clausus, per anthesin valvatim 3-partitus rarius 2-partitus. Stamina 3, rarius 2, segmentis alterna, filamentis brevibus crassis basi connatis; antheræ ovatæ, loculis distinctis semiadnatis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Sepala 6, 1-seriatim imbricata, 3 interioribus minoribus. Ovarium 3-loculare; styli in discum stigmatosum obtuse 3-lobum ovarii apici adnatum connati, ovula in loculis solitaria. Capsula depressa, tridyma, in coccos 2-valves dissiliens. Semina globosa, lævia.—Frutex arborescens. Folia alterna, brevissime petiolata, ampla, dentata, tenuiter coriacea, penninvenia. Spicæ tenues, elongatæ, ♂ in axillis superioribus v. ad apices ramorum confertæ, ♀ (terminales ?) simplices. Flores ♂ minimi, secus rhachin dissite glomerati, ♀ sub quaque bractea solitarii, secus rhachin distantes, brevissime pedicellati. (*Char. ex ic. et descr. Muell. Arg.*)

Species 1, Brasiliana, a nobis non visa, olim a Muellero in *Bernardia* inclusa, sed forte *Alchorneæ* affinior, etsi stylo distinctissima. Species altera a Muellero l.c. ad *Adenophædram* relata (*Tragia grandifolia*, Klotzsch, e Guiana) cujus stirps ♂ sola nota est, ex speciminibus nostris characteres ostendit *Berardiæ*, ubi in Prodromo melius collocata fuit, nec *Adenophædræ*.

134. **Caryodendron**, *Karst. Fl. Colomb.* i. 91, *t.* 45. (Centrodiscus, *Muell. Arg. in Mart. Fl. Bras.* xi. ii. 325, *t.* 102.)—Flores dioici, apetali. Fl. ♂: Calycis lobi 3, lati, valvati. Stamina 4–6, circa discum crassum latum affixa, addito interdum uno in centro disci v. receptaculi, filamentis liberis; antheræ ovoideæ, dorsifixæ, loculis contiguis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀ ignoti, et fructus a nobis non visus. Sepala sub fructu (ex *Karst.*) 5–6, imbricata, parum accreta, persistentia. Discus annularis. Fructus majusculus, ovoideo-globosus, endocarpio crasso duro, ex icone loculicide dehiscens, 3- (rarius 2- v. 4-) locularis. Semina in loculis solitaria, albuminosa; cotyledones latæ, planæ.—Arbores glabræ. Folia alterna, breviter petiolata, ampla, integerrima, subcoriacea, penninvenia. Racemi ♂ terminales, longi, parce ramosi, floribus parvis secus rhachin crassiusculam glomerati, subsessiles. Racemi ♀ simplices. Semina magna edulia dicuntur.

Species 2, altera Columbiana a nobis non visa, altera Brasiliana. *Muell. Arg. in DC. Prod.* xv. ii. 765, *et in Fl. Bras. l.c.*

135. **Alchornea**, *Swartz, Prod.* 93; *Fl. Ind. Occid.* 1153, *t.* 24.—Flores dioici v. rarius monoici, apetali. Discus sæpius 0. Fl. ♂: Calyx in alabastro globosus, clausus, per anthesin valvatim 4- (rarius 3- v. 2-) partitus. Stamina 8 v. pauciora (rarius ∞), filamentis liberis v. sæpius basi brevissime in annulum v. columnam connatis; antheræ dorsifixæ, loculis distinctis parallelis v. leviter divergentibus basi sæpe liberis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Perianthii segmenta 3–6, sæpius 4, imbricata. Ovarium 2–3-loculare, rarissime casu 4-loculare; styli distincti, sæpius lineares, indivisi v. rarius 2-fidi; ovula in loculis solitaria. Capsula 2–3-dyma, in coccos 2-valves dissiliens, endocarpio crustaceo. Semina subglobosa, estrophiolata, testa crustacea; albumen carnosum; cotyledones latæ, planæ.—Arbores fruticesve indumento parco rarius molliter villoso. Folia alterna, integerrima v. dentata, pennivenia v. basi 3–5-nervia, et sæpissime basi subtus 2–∞-glandulosa. Spicæ axillares v. laterales, ♂ tenues simplices v. paniculato-ramosæ, floribus parvis secus rhachin glomeratis; spicæ v. racemi ♀ simplices, floribus sub quaque bractea solitariis. Bracteæ utriusque sexus minutæ, sæpius inconspicuæ.

Species normales ad 30, regionum calidiorum utriusque orbis incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 899, *et in Mart. Fl. Bras.* xi. ii. 375, *t.* 56. *Juss. Euph. Tent. t.* 13. *Baill. Etud. Euph. t.* 20; *Adans.* xi. 175. In sectiones sequentes distribuuntur:—

1. *Eualchornea.* Stamina sæpius 6–8, filamentis basi in annulum connatis. Ovarium sæpissime 2-loculare, stylis elongatis indivisis. Species ad 18, una Africana, cæteræ Americanæ. *Pœpp. et Endl. Nov. Gen. et Sp. t.* 221. SCHOUSBŒA, *Schum. Beskr. Pl. Guin.* 449. HERMESIA, *Humb. et*

Bonpl. in Willd. Spec. iv. 809; *Pl. Æquin. t.* 46. *A. sidæfolia*, Klotzsch, a Muell. Arg. pro sectione propria (*Sidalchornea*) separatur ob ovaria 3-locularia cum stylis 2-fidis, quod rarissime at casu tantum in speciminibus typicis Selloanis invenimus, et *A. pycnogyne*, Muell. Arg. in Mart. Fl. Bras. in *Eualchornea* collocata, est certe eadem species.

2. *Cladodes.* Stamina *Eualchorneæ.* Ovarium 3-loculare, stylis indivisis quam in *Eualchornea* sæpius brevioribus. Folia pennivenia, exstipellata. Species 5, Asiaticæ et Africanæ. CLADODES, *Lour. Fl. Cochinch.* 574.

3. *Aparisthmium.* Stamina sæpius 3–4, filamentis basi breviter connatis. Ovarium 3-loculare, stylis breviusculis indivisis v. apice retusis. Folia pennivenia, petiolo apice ut in *Stipellaria* sæpius 2-stipellato. Species 1, Americana. *A. Juss. Euph. Tent. t.* 13 (*Conceveibum cordatum*). APARISTHMIUM, *Endl. Gen. Pl.* 1112.

4. *Stipellaria.* Stamina *Eualchorneæ.* Ovarium 3- v. rarius 4-loculare, stylis sæpius longis indivisis. Folia basi 3–5-nervia, petiolo apice 2-stipellato. Species 5, Asiaticæ. STIPELLARIA, *Benth. in Hook. Kew Journ.* vi. 2. BLEEKERIA, *Miq. Fl. Ind. Bat.* i. ii. 407.

5. *Lautembergia.* Stamina *Eualchorneæ.* Ovarium 3-loculare, stylis 2-partitis. Folia pennivenia. Species 1, Madagascariensis. LAUTEMBERGIA, *Baill. Etud. Euph.* 451 (DIDEROTIA, *Baill. Adans.* i. 274).

6. *Orfilea.* Species 1, Madagascariensis a *Lautembergia* ex descr. distincta glandulis in fl. ♀ perianthii segmentis alternis. ORFILEA, *Baill. Etud. Euph.* 452.

7? *Cœlebogyne.* Fl. ♂ *Eualchorneæ* v. *Cladodis.* Calyx ♀ apertus, late sinuato-4-lobus. Styli breves, lati, complanati, patentissimi. Folia pennivenia, angulato-lobata, lobis spinescentibus. Species Australiana, quarum stirps ♀ in hortis nostris diu culta absque mare fertilis. CŒLEBOGYNE, *J. Sm. in Trans. Linn. Soc.* xviii. 509, *t.* 36. An melius pro genere proprio retinenda? Illi addidit Baillon, Adansonia, vi. 321, Benth. Fl. Austral. vi. 137, speciem ut videtur affinem pariter Australianam, sed stylis erectis parum diversam et floribus ♂ ignotis adhuc quodammodo dubiam.

Muell. Arg. in Prodromo sectionibus *Alchorneæ* addidit genera 2 sequentia polyandra, nobis adhuc non satis nota, sed ex habitu et characteribus datis vix non ad gradum genericum restituenda.

WETRIA, *Baill. Etud. Euph.* 409 (PSEUDOTREWIA, *Miq. Fl. Ind. Bat.* i. ii. 414). Antheræ ad 30. Styli longi, filiformes, basi longiuscule connati, superne 2-partiti. Species 2, Archipelagi Malayani. Ex his specimina ♀ unius tantum vidimus, spica longissima tenui floribus remotis, ♂ nulla nobis adsunt.

PALISSYA, *Baill. Etud. Euph.* 502. Spicæ ♂ breves, amentiformes. Stamina numerosa, parva, disco crasso elevato piloso imposita, filamentis brevibus liberis. Antheræ parvæ, loculis in connectivo crasso distinctis, primum parallelis demum divaricatis. Inflorescentia ♀ in speciminibus nostris imperfecta. Discus hypogynus cupuliformis. Styli 2-partiti. Folia pennivenia. Species 1, Madagascariensis. Nec habitu nec characteribus *Alchorneæ* convenire videtur, et verisimiliter in flore Madagascariensi ad specimina meliora elaboranda iterum separabitur.

Caturus scandens, Lour., a Muell. Arg. in Prodromo ad *Alchorneam* relatus, rectius a Bureau et Seemann ad *Malaisiam* inter *Urticeas* transfertur.

136. **Alchorneopsis,** *Muell. Arg. in Linnæa* xxxiv. 156, *in DC. Prod.* xv. ii. 764, *et in Mart. Fl. Bras.* xi. ii. 327, *t.* 48.—Flores dioici, apetali. Discus 0. Fl. ♂: Calyx in alabastro globosus, clausus, per anthesin valvatim 4-partitus. Stamina 5–6, receptaculo piloso affixa, filamentis liberis apice brevissime inflexis; antheræ erectæ, subbasifixæ, loculis distinctis parallelis connectivo crasso glanduliformi semiadnatis pendulis longitudinaliter dehiscentibus. Ovarii rudimentum glabrum, 3-partitum. Fl. ♀: Calyx alte 4-fidus (imbricatus?), sub ovario patens. Ovarium 3-loculare; styli 3, breves, recurvo-patentes, indivisi; ovula in loculis solitaria. Capsula junior subglobosa, carnosula, matura ignota.—Arbores proceræ, habitu et foliis *Alchorneæ glandulosæ* simillimæ, inflorescentia excepta glabræ. Folia alterna, longiuscule petiolata, integerrima v. vix sinuato-dentata, chartacea, 3-nervia, subtus in axillis nervorum glandulifera. Racemi graciles, axillares v. infrafoliacei, ♂ interdum fasciculati, ♀ pauciores. Flores breviter pedicellati v. subsessiles, ♂ minuti, secus rhachin fasciculati, sub quaque bractea pauci, ♀ sub bracteis solitarii.

Species v. varietates 2, Brasiliæ borealis et Guianæ incolæ. Flores ♀ in sola varietate Guianensi noti.

137. **Lepidoturus**, *Baill. Etud. Euph.* 448.—Flores dioici, apetali. Fl. ♂: Calyx membranaceus, in alabastro globosus, clausus, per anthesin valvatim 4- rarius 3- v. 5-partitus. Discus 0. Stamina 8, filamentis ima basi subconnatis; antheræ oblongæ, erectæ, dorsifixæ, loculis undique contiguis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Sepala 3–5, inæqualia. Discus 0, v. e glandulis 3-4. Ovarium 3-loculare; styli primum connati, demum a basi liberi, plus minus bifidi v. indivisi; ovula in loculis solitaria. Capsula tridyma, in coccos 2-valves dissiliens. Semina strophiolata (*Muell. Arg.*); albumen carnosum; cotyledones latæ, planæ.—Frutices glabri. Folia alterna, petiolata, membranacea, remote dentata, basi 3–5-nervia. Spicæ ♂ amentiformes, in ramis annotinis v. vetustioribus sessiles, bracteis latis concavis subimbricatis diu persistentibus flores solitarios sessiles v. plures breviter pedicellatos foventibus; ♀ pauciflor æ.

Species 4, quarum 3 ex Africa tropica, una e Madagascaria. *Muell. Arg. in DC. Prod.* xv. ii. 898. *Benth. in Hook. Ic. Pl. t.* 1297. Calyces ♂ in specie typica Madagascariensi glabri sub bractea solitarii sessilesque dicuntur, in *L. occidentali* uti in *L. laxifloro* fasciculati sunt, breviter pedicellati et hispiduli. Genus a Baillono ad *Alchorneam* relatum eique valde affine, differt imprimis inflorescentia mascula, et fide Muelleri seminibus strophiolatis.

138. **Conceveiba**, *Aubl. Pl. Gui.* 923, *t.* 353.—Flores dioici, apetali. Discus 0. Fl. ♂: Calyx membranaceus, in alabastro ovoideus, clausus, per anthesin valvatim 3–4-partitus. Stamina ∞ (ultra 30), receptaculo convexo affixa, exteriora nonnulla (5–10 v. rarius 0?) filamentis brevibus erectis, interiora numerosa filamentis elongatis plus minus flexuosis; antheræ erectæ, loculis parvulis subparallelis connectivo lato separatis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Calyx 5–6-partitus, segmentis angustis rigidulis imbricatis; glandulæ totidem magnæ, extus adnatæ, segmentis alternæ. Ovarium 2-loculare; styli basi breviter nunc brevissime connati, superne recurvo-patentes, crassi, retusi v. sub 2-fidi; ovula in loculis solitaria. Capsula magna, globosa, lævis v. 3-costata, in coccos 2-valves dissiliens, pericarpio subsuberoso. Semina a dorso compressiuscula, testa crustacea lævi; albumen carnosum, siccitate durum; cotyledones latæ, planæ.—Arbores glabræ. Folia alterna v. hinc inde subopposita, petiolata, ampla, integerrima v. remote dentata, rigide membranacea v. demum coriacea, pennivenia, venis secundariis transversis, venulis reticulatis. Paniculæ terminales, ♂ amplæ, floribus parvis secus ramulos tenues divaricatos glomeratis, ♀ simpliciores, floribus secus rhachin simplicem crassam seu ramulos breves sparsis, pedicello brevi crasso basi glanduloso-bracteato fultis.

Inter species a *Muell. Arg. in DC. Prod.* xv. ii. 896, *et in Mart. Fl. Bras.* 371, *t.* 55, enumeratas, 3 genuinæ sunt, Brasiliæ borealis et Guianæ incolæ (*C. guianensis*, Aubl., *C. Hostmanni*, Benth., et *C. latifolia*, Benth.). *C. megalophylla*, Muell. Arg., et *C. Martiana*, Baill., jam in Fl. Bras. ad *Alchorneam* transferuntur. *C. africana*, Muell. Arg., est *Neoboutoniæ* species. *C. terminalis*, Muell. Arg. (*Gavarretia*, Baill.), ex solis speciminibus ♀ imperfecte nota est, quæ nec inflorescentiam nec perianthium *Conceveibæ* ostendunt.

139. **Gavarretia**, *Baill. Adans.* i. 185, *t.* 7.—Flores dioici? apetali, ♂ ignoti. Fl. ♀: Calyx campanulatus, truncatus v. obscure sinuato-dentatus, eglandulosus. Discus 0. Ovarium 2-loculare; styli basi breviter connati, 2-partiti v. 2–4-fidi, ramis recurvo-patentibus breviter v. longiuscule papillosis; ovula in loculis solitaria. Fructus . . .—Arbusculæ, inflorescentia minute tomentella excepta glabræ. Folia alterna, breviter petiolata, ampla, integerrima v. obscure dentata, rigide coriacea, pennivenia, venis primariis subtus elevatis. Spicæ terminales, simplices, longiusculæ, apicem versus dense v. interrupte ∞-floræ. Flores singuli ad axillas bractearum parvarum 2-glandulosarum sessiles.

Species 2, Brasiliæ borealis incolæ. Genus floribus ♂ et fructu ignotis quodammodo dubium remanet. Muell. Arg. in DC. Prod. xv. ii. 897, et in Mart. Fl. Bras. xi. ii. 372, ad sectionem *Conceveibæ* reducit, sed inflorescentia et flores ♀ notis essentialibus differunt.

140. **Lasiocroton**, *Griseb. Fl. Brit. W. Ind.* 46.—Flores dioici, apetali. Fl. ♂ (in alabastris nimis juvenilibus observati): Calyx ovoideus, clausus (demum valvatim 5-fidus?). Discus 0. Stamina ∞ (10 v. plura), filamentis liberis; antherarum loculi distincti, contigui, paralleli, longitudinaliter dehiscentes. Ovarii rudimentum 0. Fl. ♀: Calyx parvus, alte 5-fidus, sub ovario patens. Discus hypogynus crassus, pulvinatus, integer. Ovarium 3-loculare; styli brevissimi, crassi, patentes, retusi v. brevissime 2-lobi fimbriatique (si in speciminibus perfecti); ovula in loculis solitaria. Capsula tridyma, tomentosa, in coccos 2-valves dissiliens. Semina globosa, lævia, matura non visa.—Frutex subferrugineo-tomentosus, habitu *Malloti*. Folia alterna, mollia, cordata, vix denticulata, basi 3–5-nervia. Racemi in axillis superioribus solitarii, ♂ breves, sessiles, floribus dense confertis (forte demum elongandi?), ♀ longi, laxi, floribus pluribus distantibus pedicellatis, inflorescentia tota fulvo-tomentosa.

Species 1, Jamaicensis, *Muell. Arg. in DC. Prod.* xv. ii. 955. Species altera sectionem *Argyrocroton* Griseb. formans, e Cuba, *Wright n.* 1993, nec a Muellero nec a nobis visa, ex charactere dato a genere longe aliena est, forte ad *Pseudocrotonem* referenda.

141. **Neoboutonia**, *Muell. Arg. in Seem. Journ. Bot.* ii. 336, *et in DC. Prod.* xv. ii. 892.—Flores dioici, apetali. Discus obscurus. Fl. ♂: Calyx membranaceus, in alabastro globosus, clausus, per anthesin valvatim 2-partitus. Stamina ∞ (16–30), receptaculo convexo affixa, filamentis brevissimis liberis; antheræ oblongæ, erectæ, basifixæ, connectivo interdum glandula minuta coronato, loculis adnatis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Calyx alte 5-fidus, lobis imbricatis. Ovarium 3-loculare; styli breves, distincti, rigidi, 2-partiti, recurvo-patentes; ovula in loculis solitaria. Capsula 3-cocca?—Frutices v. arbores, pilis seu pulvinis minutis stellatis conspersi et interdum pilis rigidioribus hirsuti. Folia alterna, petiolata, ample orbiculari-cordata, vix undulato-crenata, basi 7–9-nervia et transversim venosa. Paniculæ ♂ in summis axillis paniculam amplam terminalem efficiunt, floribus minimis secus ramulos tenues glomeratis subsessilibus; panicula ♀ brevior, floribus majoribus secus ramulos breves sub quaque bractea solitariis. Bracteæ utriusque sexus minimæ.

Species 2, Africæ tropicæ incolæ. Speciei typicæ *N. africanæ*, Muell. Arg. *Benth. in Hook. Ic. Pl. t.* 1298, 1299, addimus *Conceveibam africanam*, Muell. Arg. in DC. Prod. xv. ii. 897 (*N. Mannii* nob.), cujus specimina ♂ sola nota. Habitu, foliis, perianthio et præsertim antheris omnino *Neoboutoniæ* nec *Conceveibæ* convenit.

142. **Cœlodiscus**, *Baill. Etud. Euph.* 293.—Flores dioici, apetali. Discus 0. Fl. ♂: Calyx in alabastro clausus, per anthesin valvatim 3-partitus. Stamina ∞ (ultra 20) circa discum latum supra planum v. concavum interdum elevatum ∞-seriatim affixa, filamentis liberis erectis; antheræ parvæ, erectæ, ovatæ, loculis parallelis connectivo crassiusculo sejunctis v. fere contiguis, longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Calyx 3-partitus, segmentis angustis. Ovarium 3-loculare; styli erecti, crassi, indivisi, dorso tomentosi; ovula in loculis solitaria. Capsula tridyma, ferrugineo-tomentosa v. molliter echinata, in coccos 2-valves dissiliens. Semina subglobosa; albumen carnosum; cotyledones planæ, latæ.—Frutices tomento stellato ferruginei. Folia opposita v. (in specie nobis ignota) alterna, petiolata, subcordata, sæpius remote glanduloso-dentata, basi 5–7-nervia. Racemi axillares. Flores ♂ secus rhachin longiusculam sub quaque bractea glomerati, ♀ ad apicem rhacheos brevis pauci sub quaque bractea solitarii.

Species 4, Indiæ orientalis et Archipelagi Malayani incolæ, quarum duæ solæ typicæ e Penang cum nova Javensi nobis notæ. *Muell. Arg. in DC. Prod.* xv. ii. 758. *Kurz, For. Fl. Brit. Burm.* ii. 392.

Genus et habitu et characteribus *Malloto* valde affine, vix differt receptaculo disciformi in fl. ♂ inter stamina plano v. elevato. Stamina ex Baill. in *C. montano*, ex Muell. Arg. in *C. Thunbergiano* ∞-adelpha, quod in *C. montano* non invenimus, etsi in alabastro filamenta arcte appressa exterioribus jam cæteris majoribus fasciculata appareant; in flore aperto omnia a basi distincta.

143. **Podadenia**, *Thwaites, Enum. Pl. Zeyl.* 273.—Flores dioici, apetali. Discus 0. Fl. ♂: Calyx in alabastro clausus, ovoideo-globosus, acuminatus, per anthesin valvatim 3-4-partitus. Stamina numerosa, receptaculo convexo affixa, filamentis liberis glandulis parvis intermixtis; antherarum loculi distincti, a connectivo prominente acuminato penduli, longitudinaliter dehiscentes. Ovarii rudimentum 0. Fl. ♀: Sepala 4–5, imbricata. Staminodia ∞ (*Muell. Arg.*), in speciminibus examinatis non invenimus. Ovarium 3-loculare; styli basi breviter connati, superne elongati, recurvo-patentes, crassiusculi, indivisi; ovula in loculis solitaria. Capsula carnosa, subglobosa, indehiscens, glandulis magnis stipitatis densissime echinata. Semina abortu 1–2, majuscula, oblonga, in speciminibus nostris immatura; testa (*ex Thw.*) ossea, arillo copioso carnoso (testæ stratu exteriore?) vestita; albumen copiosum.—Arbor ingens, ferrugineo-villosa. Folia alterna, petiolata, ampla, pennivenia. Racemi ad apices ramorum paniculati. Flores pedicellati, ♂ secus ramos fasciculati, in fasciculis numerosi; ♀ sub quaque bractea solitarii. Glandulæ stipitatæ fructus jam in ovario sub anthesi apparent adhuc sessiles v. breviter stipitatæ.

Species 1, Zeylanica. *Muell. Arg. in DC. Prod.* xv. ii. 791. *Bedd. Fl. Sylv. t.* 282. Genus a Baillono ad *Mallotum* reducitur, nobis bene distinctum videtur.

144. **Trewia**, *Linn. Gen. n.* 1239. (Rottlera, *Willd. in Gœtt. Diar. Hist Nat.* i. 8, *t.* 3, *ex ejusd. Sp. Pl.* iv. 834, *non Roxb.*)—Flores dioici, apetali. Discus 0. Fl. ♂: Calyx in alabastro globosus, clausus, per anthesin valvatim 3-4-partitus, segmentis latis concavis sæpius reflexis. Stamina ∞ (ultra 50), receptaculo convexo crassiusculo affixa, filamentis liberis; antheræ prope basin dorsifixæ, oblongæ, loculis contiguis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Sepala 3–5, latiuscula, leviter imbricata, caducissima. Ovarium 2–4-loculare; styli basi connati, superne longe lineares, teretes, indivisi, undique papilloso-hirti; ovula in loculis solitaria. Fructus 2–4-locularis, indehiscens v. loculicide dehiscens, pericarpio plus minus carnoso, endocarpio tenuiter crustaceo. Semina ovoidea, testa dura; albumen carnosum; cotyledones planæ, latæ.—Arbores sæpe a basi ramosæ, ligno molli. Folia opposita, petiolata, lata, integerrima, 3–5-nervia. Racemi ♂ laterales, ante folia evoluti, longi, laxi, floribus majusculis breviter pedicellatis sub quaque bractea solitariis. Flores ♀ in pedunculo axillari solitarii v. ∞ racemosi.

Species 2, Indiæ orientalis incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 953. *A. Juss. Euph. Tent. t.* 9, *f.* 29 c (*Rottlera*). *Baill. Etud. Euph. t.* 18. *Wight, Ic. t.* 1870, 1871. *Klotzsch in Pr. Waldem. Reise, Bot. t.* 23. *Bedd. Fl. Sylv. t.* 281.

In specie typica per totam Indiam vulgatissima, pedunculi ♀ longi 1-flori v. rarius hinc inde 2–3-flori, fructus globosus pollicem fere diametro, 4- rarius 3-locularis, pericarpio crasso carnoso; ramuli novelli inflorescentia et folia sæpius plus minus tomentosa. Species altera (*T. polycarpa* nobis) peninsulæ Indiæ Orientalis, cujus flores ♂ non vidimus, glabrior est, racemis ♀ ∞-floris, ovario 2-loculari, fructu ad 4 lin. lato, pericarpio tenuiore loculicide 2-valvi. Huc pertinent specimina ♀ in Wight, Ic. t. 1871, et Bedd. Fl. Sylv. t. 281, delineata. Tetragastris, *Gærtn. Fruct.* ii. 130, *t.* 109, ex fructu quodam originis incertæ in seminario horti Amstelodamensis servato illustrata, a Willdenowio ad *Trewiam* relata fuit, quem secuti sunt Baillon et Muell. Argoviensis, sed descriptio et icon Gærtneri nequaquam conveniunt, et *Tetragastris* jam a Kunthio Ann. Sc. Nat. ser. 1, ii. 353, ut videtur recto jure, ad *Hedwigiam* Sw. refertur (cfr. supra i. 326). Lindley, Introd. Nat. Syst. ed. 2, 174, discordia descriptionum fructus commotus, et nota Kunthii prætermissa, ordinem proprium proposuit (Trewiaceæ), quem tamen postea, Veg. Kingd. 275, neglexit.

145. **Coccoceras**, *Miq. Fl. Ind. Bat. Suppl.* 455. Flores dioici, apetali. Discus 0. Fl. ♂: Calyx in alabastro globosus, clausus, per anthesin valvatim 3-4-partitus. Stamina ∞ (15–20), receptaculo parum elevato imposita, filamentis liberis; antheræ prope basin dorsifixæ, loculis distinctis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Calyx 5-partitus, segmentis lanceolatis leviter imbricatis. Ovarium 3-loculare; styli basi vix connati, patentes, papilloso-hispidi v. fere laciniati; ovula in loculis solitaria. Capsula depressa, duriuscula, angulis 3 nunc costiformibus prominulis nunc in appendices corniformes horizontaliter productis, demum loculicide 3-valvis. Semina

subglobosa v. compressiuscula, lævia, strophiolata, testa crustacea; embryo . . . .— Arbores habitu *Malloti*. Folia alterna, petiolata, integerrima v. sinuato-dentata, basi 3-nervia, pennivenia et transversim venulosa. Racemi elongati, axillares v. subterminales, ♂ juniores amentiformes, floribus numerosis secus rhachin glomeratis fere sessilibus; ♀ laxi, pedicellis longiusculis secus rhachin dissitis.

Species 3, Archipelagi et Peninsulæ Malayanæ incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 950. Genus *Malloto* valde affine, differt imprimis fructu et inflorescentia ♀.

146. **Mallotus,** *Lour. Fl. Cochinch.* 635. (Rottlera, *Roxb. Corom. Pl.* ii. 36, *t.* 168.)— Flores dioici v. rarius monoici, apetali. Discus 0 v. in fl. ♀ evolutus. Fl. ♂: Calyx in alabastro globosus, clausus, per anthesin valvatim 3–4-partitus. Stamina ∞ (30–300), receptaculo parum elevato imposita, filamentis liberis; antheræ prope basin dorsifixæ, loculis distinctis parallelis connectivo lato separatis v. connectivo parvi longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Calyx alte v. breviter 3–5-lobus v. subspathaceus, lobis valvatis v. vix imbricatis, v. 5- (rarius ∞ ?) partitus segmentis imbricatis. Ovarium 3-loculare v. rarissime 2- v. 4-loculare; styli distincti v. basi connati, recurvo-patentes, indivisi, intus fimbriati v. prominenter papillosi; ovula in loculis solitaria. Capsula globosa v. tridyma, rarius didyma, in coccos 2-valves dissiliens. Semina ovoidea v. globosa, testa crustacea; albumen carnosum; cotyledones planæ, latæ.—Arbores fruticesve. Folia alterna v. in paucis speciebus opposita, petiolata, lata, sæpe ampla, integerrima dentata v. late 3-loba, interdum peltata, basi 3–7-nervia v. undique pennivenia, prope basin supra sæpe 2-glandulosa. Spicæ simplices v. paniculato-ramosæ, axillares v. ad apices ramorum paniculatæ. Flores ♂ sæpius parvi, breviter pedicellati, secus rhachin glomerulati, ♀ pauciores, sub quaque bractea solitarii, breviter v. longius pedicellati. Capsulæ tomentosæ glanduloso-lepidotæ v. processibus mollibus sparsim v. densissime echinatæ.

Species ad 70, inter tropicos orbis veteris vigentes, in India orientali et Archipelago Malayano usque ad Australiam numerosæ, in Africa pauciores. *Muell. Arg. in DC. Prod.* xv. ii. 956. *Benth. Fl. Austral.* vi. 139. *Kurz, For. Fl. Brit. Burm.* ii. 379. *Bak. Fl. Maurit.* 319. *Thunb. Fl. Jap. t.* 28, 29 (*Croton*). *Sieb. et Zucc. Fl. Jap. t.* 79 (*Rottlera*). *Wight, Ic. t.* 1873 (*Rottlera*) *et t.* 1886 (*Claoxylon*). *Bedd. Fl. Sylv. t.* 289; *Ic. Pl. Ind. Or. t.* 232.

Genus tam habitu quam inflorescentia et etiam floribus sat polymorphum, sed characteres e floribus deducti male cum habitu conveniunt, et sectiones nullæ bonæ adhuc propositæ. Interea genera sequentia, a variis auctoribus ad species singulas stabilita a Muellero ad *Mallotum* reducta sunt.

Echinus, *Lour. Fl. Cochinch.* 633, eodem tempore ac *Mallotus* editus, a Baillono Adans. vi. huic male substituitur. Si revera *Echinus trisulcus*, Lour., ut docet Mueller, eandem plantam refert ac *Mallotus chinensis* (quod dubitamus), pessime descripta fuit, nam calyx ♂ squamiformis dicitur, ovatus, acutus, incurvus, terminatus laciniis variis inæqualibus linearibus, et pistillum 2-merum. Character autem Loureirianus *Malloti* sui optime *Rottleram*, Roxb., refert.

Boutonia, *Boj. Hort. Maurit.* 282 (Cordemoya, *Baill. Adans.* i. 255), quoad speciem Bojerianam alternifoliam a *Mallotis* typicis nequaquam differre videtur. Species altera oppositifolia a Baill. Etud. Euph. 401 addita, nobis ignota est.

Adisca, *Blume, Bijdr.* 609, species plures includit floribus monoicis nec dioicis, cæterum omnino normales.

Melanolepis, *Reichb. et Zoll. in Linnæa* xxviii. 324, est *M. moluccanus*, Muell. Arg., ab auctoribus pro genere distinctus ob discum floris ♀ evolutum et pistillum 2-merum. Species plures in eadem sectione disco ♀ evoluto a Muell. Arg. coacervatæ valde differunt habitu, pistillo 3–4-mero, &c. Sub *M. Porteriano* species 2 includuntur quoad flores ♂ (qui soli Muellero noti fuerunt) simillimæ, n. 9093, Wall. Cat. Herb. Ind., stylorum columna elongata, et n. 9094, Wall. l.c. stylis a basi distinctis. Stylanthus, sectio v. genus, Reichb. et Zoll. in Linnæa xxviii. 312, stylo columnari distincta, nequaquam retinenda.

Blumeodendron, *Kurz, For. Fl. Brit. Burm.* ii. 391, est *Elateriospermum Tokbrai*, Bl., arbor foliis coriaceis plerisque 2–3-natim verticillatis insignis, a Muellero ad sectionem *Malloti* reducitur, capsula magna extus fibroso-carnosa intus lignosa, seminibus testa extus carnosa spurie arillatis.

Axenfeldia, *Baill. Etud. Euph.* 419, est *M. muricatus* Muell. Arg., foliis plerisque oppositis cujusve paris inæqualibus et inflorescentia *Claoxyli*, quapropter sub *Claoxylo* delineatur in Wight,

Ic. t. 1886. HANCEA, *Seem. Bot. Her.* 409, *t.* 96, est *M. Hookerianus*, Muell. Arg., foliis pariter oppositis altere tamen nano stipuliformi et inflorescentia simpliciore, floribus ♂ sub quaque bractea solitariis. Characteres cæteri omnino *Malloti*. Spicæ ♂ amentiformes a Baillono descriptæ et a Wightio delineatæ ex Muell. Arg. monstruosæ sunt, in speciminibus nostris non obviæ. PLAGIANTHERA, *Reichb. et Zoll. in Linnæa* xxviii. 321 (ECHINOCROTON, *F. Muell. Fragm. Phyt. Austral.* i. 31), includit species nonnullas oppositifolias antherarum loculis connectivo latiusculo separatis.

Mallotus barbatus, Muell. Arg., *M. macrostachyus*, Muell. Arg., speciesque aliæ paucæ in sectionibus diversibus dispersæ, a cæteris differunt capsulis stricte globosis nec tridymis.]

Mappa capensis, Baill., ob antherarum formam a Muell. Arg. ad *Mallotum* translata, differt habitu, inflorescentia, staminibus 2–3, floribus ♀ et fructu, et in his omnibus *Macarangæ* (*Eumacarangæ*) convenit.

Mallotus diademus, Muell. Arg. (*Melanolepis*, Miq.), floribus fructuque ignotis, folia peculiaria et glandulas *Endospermi chinensis* ostendit, et est verisimiliter ei congener.

DIPLOCHLAMYS, *Muell. Arg. in Flora*, 1864, 539, *et in DC. Prod.* xv. ii. 1023, a *Malloto* non differt nisi floris ♀ calyce 8–10-partito, segmentis imbricatis sub-2-seriatis. Species unica Malaccensis a Baillono Hist. Pl. v. 196, bene sub *Malloto* inclusa.

Mallotus subpeltatus, Muell. Arg. (*Rottlera rhynchophylla*, Miq.), insignis est spicis axillaribus v. lateralibus tam ♂ quam ♀ brevissimis ad flores in ♂ sæpe solitarios in ♀ 2–3 in caule subsessiles reductis, stylis longissimis tenuibus. Stamina numerosa in receptaculo convexo dense conferta filamentis liberis omnino *Malloti*.

147. **Cleidion**, *Blume, Bijdr.* 612. (Redia, *Casar. Nov. Stirp. Bras. Dec.* 51. Psilostachys, *Turcz. in Bull. Soc. Imp. Nat. Mosc.* 1843, 58. Lasiostyles, *Presl, Bot. Bem.* 149. Tetraglossa, *Bedd. in Madras Journ. Sc. ser.* 2, vi. 70.)—Flores monoici v. dioici, apetali. Fl. ♂: Calyx in alabastro globosus, clausus, per anthesin valvatim 3–4-partitus. Stamina ∞ (ultra 20) receptaculo convexo v. conico dense conferta, filamentis liberis; antheræ dorsifixæ, connectivo latiusculo sæpius breviter ultra loculos producto, loculis lateralibus transverse didymis, quasi 4-loculares, locellis cujusve loculi superpositis demum confluentibus. Ovarii rudimentum 0. Fl. ♀: Sepala 3–4, rarius 5, imbricata. Ovarium 2–3-loculare; styli tenues, basi sæpius breviter connati, alte 2-fidi, ramis longis filiformibus; ovula in loculis solitaria. Capsula majuscula v. parvula, 2–3-dyma, in coccos 2-valves dissiliens v. abortu 1-cocca. Semina subglobosa, testa coriacea; albumen carnosum; cotyledones planæ, latæ.—Arbores glabræ. Folia alterna, petiolata, ampla, sæpius dentata, pennivenia. Racemi ♂ axillares, elongati, floribus parvulis sparsis v. glomeratis. Flores ♀ in pedunculo longo axillari solitarii v. gemini, inter se distantes. Capsulæ læves.

Species ad 13, Americæ, Africæ, et Asiæ tropicæ et insularum maris Pacifici incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 984, *et in Mart. Fl. Bras.* xi. ii. 418, *t.* 59. *Baill. Adans.* xi. 129; *Etud. Euph. t.* 9 (*Cleidion*) *et t.* 21 (*Redia*). *Bedd. Fl. Sylv. t.* 272.

Species Asiatica pro sectione distincta a cæteris separatur ob pistillum 2-merum nec 3-merum, variat tamen sæpe etiam 3-merum. *C. verticillatum*, Baill., racemis ♂ capituliformibus floribusque ♀ terminalibus sessilibus v. brevissime pedunculatis vix congener videtur. *C. Vielliardii* var. *vitiensis*, Muell. Arg. (*Macaranga leptostachya*, Muell. Arg.), rite ad *Cleidion* refertur, sed nobis a forma typica Novo-Caledonica specifice distinctissimum videtur. *C. ulmifolium*, Muell. Arg., ex ins. Loo-Choo, referenda videtur ad *Macarangam*, cujus antheras et stylos ostendit. Speciem novam huic generi affinem, legit Pearce in Monterico (Boliviæ?), cujus specimina ♂ tantum nobis adsunt, differt caule alte scandente, foliis integerrimis 3-nerviis, sed calyx valvatim 4-partitus et stamina ad 20 antheris 4-locellatis omnino *Cleidii*; alteram legit Tate in Nicaragua pariter dubiam floribus ♀ ignotis; in stirpe ♂ habitus calyx et stamina ad 20 *Cleidii*, sed antherarum loculi indivisi. Speciem Africanam legit Mann in montibus Cameroon a *C. gabonico*, Baill., forte distinctam.

148. **Macaranga**, *Thou. Gen. Nov. Madag.* 26.—Flores dioici v. rarius monoici, apetali. Discus 0. Fl. ♂: Calyx in alabastro globosus, clausus, per anthesin valvatim 3–4-partitus. Stamina nunc pauca (1–3), nunc sæpius ∞ (10–30), filamentis brevibus liberis; antheræ terminales, breves, ad normam loculis didymis v. 2-locellatis quasi 4-loculares, 4-valves, rarius plures v. omnes 3-locellatæ 3-valves, v. (in *M. capensi*) loculis ut in *Malloto* indivisis.

Ovarii rudimentum 0. Fl. ♀: Calyx truncatus v. breviter dentatus, per anthesin late cupulatus v. oblique spathaceus. Ovarium 2-3-loculare v. abortu 1-loculare, rarissime 3-loculare v. (in *Pachystemone*) 4-6-loculare; styli sæpius breves, crassiusculi, erecti v. subpatentes, indivisi, basi breviter connati v. liberi, rarius elongati tenuesque v. in massam brevem obtusam v. disciformem connati; ovula in loculis solitaria. Capsula in coccos 2-valves dissiliens, v. si 1-locularis tardius v. vix dehiscens. Semina globosa, testa crustacea; albumen carnosum; cotyledones planæ, latæ.—Arbores fruticesve. Folia alterna, petiolata, sæpe ampla, integerrima dentata v. 4-loba, basi sæpe 3–7-nervia et peltata v. late cordata, interdum pennivenia basi obtusa v. acuta. Spicæ v. racemi axillares v. laterales, simplices v. subramosi v. ad apices ramorum paniculati. Flores ♂ intra bracteas ∞, parvi, secus rhachin glomerati, ♀ sub quaque bractea pauci v. solitarii. Bracteæ sæpe flores amplectentes, integræ v. fimbriatæ.

Species ad 80, Asiæ et Africæ tropicæ et australis, insularum Mascarensium v. maris Pacifici et Australiæ incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 988. *Benth. Fl. Austral.* vi. 144. *Kurz, For. Fl. Brit. Burm.* ii. 386.

Genus *Malloto* affine, quoad characteres polymorphum et limitibus nullis certis ab illo separatum, etsi charactere uno alterove et habitu haud difficile distinguendum. In sectiones sequentes apud auctores nonnullos genera propria dividitur:—

1. *Eumacaranga.* Stamina ∞, antheris ad normam 4-valvibus. Pistillum sæpissime ad carpellum unicum perfectum reductum, capsula 1-cocca globosa. Folia et styli varia. *Wight, Ic. t.* 685 (*Urtica*, Roxb.), 817 (*Mappa*), 1883, 1949. *Bedd. Fl. Sylv. t.* 287. MECOSTYLIS, *Kurz ex Teijsm. et Binnend. in Batav. Natuurk. Tijdschr.* xxvii. 44.

2. *Mappa.* Stamina sæpius ∞, antheris omnibus ad normam 4-valvibus v. paucis 3-valvibus intermixtis. Pistillum sæpissime 2-merum, rarius hinc inde 3-merum. Folia et styli varia. *Wight, Ic. t.* 1884 (*Claoxylon*). MAPPA, *A. Juss. Euph. Tent.* 44, *t.* 14. *Wight, Ic. t.* 816.

Sectio *Dimorphanthera*, Muell. Arg., verisimiliter in *Mappa* includenda. Species 2 continet inter se sat dissimiles, foliis non peltatis, stipulis in unam oppositifoliam caducissimam connatis. Specimina ♀ tantum vidimus, characteribus omnino *Mappæ*. Flores ♂ in una adhuc ignoti, in altera ex Muell. Arg. antheræ 3-valves cum 4-valvibus mixtæ.

3. *Pachystemon.* Flores ♂ minimi, clavati, intra bracteam densissime glomerati, staminibus 1–2, antheris 3-valvibus. Ovarium 4–6-loculare; styli breves, erecti, basi connati. Capsula depressa, supra plana sæpeque margine cornuta. Folia peltata, sæpe 3-loba. PACHYSTEMON, *Blume, Bijdr.* 626. *Wight, Ic. t.* 1949. Sectio facile pro genere proprio admittenda. Habitu tamen *Mappis* peltatifoliis accedit.

Mappa capensis, Baill. (*Mallotus capensis*, Muell. Arg.), habitu, inflorescentia, floribus ♀ et fructu *Eumacarangæ* convenit. Stamina 2–3 fere *Pachystemonis*, etsi antheræ stricte 2-loculares *Malloti*.

Mappa macrophylla, A. Gray, e Samoa, est species a *Macaranga macrophylla*, Muell. Arg., e Fiji, calyce ♀ stylisque distinctissima. Flores ♂ utriusque nobis desunt.

149. **Ricinus,** *Linn. Gen. n.* 1085.—Flores monoici, apetali. Discus 0. Fl. ♂: Calyx membranaceus, in alabastro globosus, per anthesin valvatim 3–5-partitus. Stamina numerosa (interdum usque ad 1000), filamentis repetito-ramosissimis conferta; antherarum loculi distincti, subglobosi, divaricati, separatim filamento affixi, longitudinaliter dehiscentes. Ovarii rudimentum 0. Fl. ♀: Calyx (sæpius an semper?) spathaceo-fissus, caducissimus. Ovarium 3-loculare; styli breves v. longiusculi, 2-fidi v. rarius indivisi, patentes, plus minus plumosi; ovula in loculis solitaria. Capsula tridyma, in coccos 2-valves dissiliens. Semina ovoidea, testa crustacea; albumen carnosum; cotyledones planæ, latæ.—Herba elata annua, v. in regionibus calidioribus frutex arborescens, glabra, sæpe glauca. Folia alterna, ampla, peltata, palmatim 7–∞-loba, lobis serratis. Racemi ad apices ramorum subpaniculati, floribus majusculis, superioribus ♂ confertis, inferioribus ♀ breviter pedicellatis. Capsulæ læves v. echinatæ.

Species 1, quoad capsulas et semina valde variabilis, originis probabiliter Africanæ, nunc per regiones calidiores utriusque orbis latissime dispersa, sæpe inquilina sed forte in America uti in Asia et Africa indigena. *Muell. Arg. in DC. Prod.* xv. ii. 1017, *et in Mart. Fl. Bras.* xi. ii. 420, *t.* 60. *Gærtn. Fruct. t.* 107. *Baill. Etud. Euph. t.* 10, 11. *Jacq. Ic. Rar. t.* 195, 196. *Hayne,*

Arzneig. x. *t.* 48. *Reichb. Iconogr. Exot. t.* 153 *ad* 155. *Nees, Gen. Fl. Germ. Monochl. n.* 38. *Sibth. Fl. Græc. t.* 952. *Bot. Mag. t.* 2209. *Andr. Bot. Rep. t.* 430.

150. **Homonoia,** *Lour. Fl. Cochinch.* 636. (Lumanaja, *Blanco, Fl. Filip.* 821. Hæmatospermum, *Wall. Cat. Herb. Ind. n.* 7953 *ad* 7955.)—Flores dioici v. rarius flores ♂ perpauci in racemo ♀, apetali. Discus 0. Fl. ♂: Calyx in alabastro globosus, clausus, per anthesin valvatim 3-partitus. Stamina numerosa; antheræ in filamentis repetiter ramosis dense confertæ, loculis subglobosis divaricatis in filamento sessilibus, connectivo obscuro. Ovarii rudimentum 0. Fl. ♀: Sepala 5–8, angusta, imbricata, inæqualia, caducissima. Ovarium 3-loculare; styli indivisi, patentes, papilloso-plumosi, vix basi connati: ovula in loculis solitaria. Capsula parva, globosa, in coccos 2-valves dissiliens, endocarpio haud crasso. Semina ovoidea, testa crustacea duriuscula extus tenuiter carnosa; albumen carnosum; cotyledones planæ, latæ.—Frutices in speciebus typicis virgato-ramosi, glabri v. puberuli. Folia alterna, angusta et integerrima v. brevia dentataque, subcoriacea, subtus plus minus glanduloso-lepidota. Spicæ axillares v. ad nodos defoliatos, utriusque sexus densifloræ v. abbreviatæ et paucifloræ. Capsulæ canopuberulæ, non echinatæ.

Species 3 v. 4, Indiæ orientalis et Archipelagi Malayani incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 1022. *Wight, Ic. t.* 1868, 1869 (*Adelia*).

Spathiostemon, *Blume, Bijdr.* 621, species Javanica a nobis non visa, huc a Baillono et Muellero relata, differre videtur capsulis multo majoribus valide conico-muriculatis et habitu alieno si revera specimina ♀ *Mallotum subpeltatum* simulant. Genus a *Malloto* distinguitur filamentis ut in *Ricino* ramosissimis et quoad species typicas habitu.

151. **Cheilosa,** *Blume, Bijdr.* 613.—Flores dioici, apetali. Fl. ♂: Calycis segmenta 5, subæqualia (inæqualia, *Baill.*), crassiuscula, leviter imbricata. Disci glandulæ minutæ. Stamina 5–10, exteriora segmentis calycinis alterna, filamentis liberis; antheræ breves, loculis ovoideo-globosis parallelis connectivo disjunctis. Ovarii rudimentum obovoideum v. obtuse 2–3-fidum. Fl. ♀ (a nobis non visi): Calycis segmenta inæqualia. Discus margine denticulatus. Ovarium 3-loculare; styli basi brevissime connati, recurvi, apice 2-fidi; ovula in loculis solitaria. Capsula subglobosa, 6-sulca, in coccos dissiliens (*Baill.*). Semina albuminosa; cotyledones magnæ, latæ (*Muell. Arg.*).—Arbor procera, glabra. Folia alterna, petiolata, integerrima v. apice sinuato-dentata, pennivenia. Racemi ♂ laxi, axillares v. laterales, foliis breviores. Flores parvi, breviter pedicellati, secus rhachin fasciculati, sub quaque bractea 2–4. Bracteæ minutæ.

Species 1, Javanica. *Muell. Arg. in DC. Prod.* xv. ii. 1122. *Baill. Etud. Euph.* 420.

152. **Endospermum,** *Benth. Fl. Hongk.* 304.—Flores dioici, apetali. Fl. ♂: Calyx in alabastro juniore globosus, subclausus, jam ante anthesin apertus, breviter et inæqualiter 4-dentatus, subvalvatus. Disci lobi breves. Stamina ∞ (6–10), receptaculo elevato subconico affixa, filamentis brevibus; antheræ loculis distinctis didymis subæqualiter 4-valves. Ovarii rudimentum minutum v. 0. Fl. ♀: Calyx 5-dentatus. Ovarium 2- v. rarius 3-loculare; styli in discum planum patentem brevissime 3-lobum connati; ovula in loculis solitaria. Fructus didymus, in coccos 2 indehiscentes secedens, epicarpio tenui, endocarpio indurato v. crustaceo, columella nulla relicta. Semina globosa, testa reticulato-rugosa, albuminosa; embryonem perfectum non vidimus.—Arbores habitu *Macarangæ.* Folia petiolata, rotundato-cordata v. peltata, integerrima, coriacea, subtus tenuiter tomentosa, basi 3–5-nervia, sæpeque basi 2-glandulosa et interdum glandula inter ramos venarum majorum. Racemi axillares v. laterales, utriusque sexus longiusculi simplicesque. Flores ♂ parvi, subsessiles, secus rhachin glomerati, ♀ sub quaque bractea solitarii.

Species 3, Chinæ australis et Archipelagi Malayani incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 1131.

Capellenia; *Teijsm. et Binnend. Dissert. Buitenzorg,* 1866, *cum ic.*, arbor Moluccana, ex ic. et descr. videtur *Endospermi* species, *E. malaccensi,* Muell. Arg., affinis, sed folia peltata, et glandula

prope petioli insertionem ut in *E. chinense.* Flores ♂ interdum casu hermaphroditi evadunt ex auct.

153. **Cephalomappa,** *Baill. Adans.* xi. 130.—Flores monoici, apetali. Discus 0. Fl. ♂ in capitulum conferti: Calyx turbinatus, truncatus, breviter 2–5-fidus, lobis valvatis extus dense glanduloso-verrucosis. Stamina 2–4, filamentis basi breviter connatis pilosisque longe exsertis apice inflexis; antheræ dorsifixæ, loculis parallelis connectivo adnatis basi liberis longitudinaliter dehiscentibus. Ovarii rudimentum 0 (v. ex Baill. breve et tenue). Fl. ♀: Sepala 5–6, imbricata, caducissima. Ovarium 3-loculare; styli breves, crassiusculi, basi connati, superne recurvo-patentes, incisi v. 2-fidi, introrsum dense papillosi; ovula in loculis solitaria. Fructus . . .—Frutex v. arbor, indumento stellato ferrugineo. Folia alterna, petiolata, integerrima, pennivenia. Racemi ad axillas sæpe 2–3 superpositi, breves v. ad apices ramorum paniculati. Florum ♂ capitula globosa fere moriformia, terminalia v. pauca secus rhachin v. ramos paniculæ pedunculata. Flores ♀ sæpius solitarii, infra capitula mascula breviter pedunculati.

Species 1, Borneensis.

154? **Cladogynos,** *Zipp.*; *Span. in Linnæa*, xv. 349.—Flores monoici, apetali. Discus . . . Fl. ♂ capitato-congesti: Calyx coloratus, tomentosus, 2–3-partitus, subvalvatus. Stamina 4, filamentis basi in centro floris connatis; antheræ introrsum 2-rimosæ. Fl. ♀: Calyx amplus, foliaceus, 6-fidus. Ovarium 3-loculare; styli basi connati, ramosi, glanduloso-plumosi; ovula in loculis solitaria. Capsula 3-cocca.—Frutex erectus, albido-tomentosus. Folia petiolata, subpeltata, repando-dentata, sub-3-loba, subtus reticulata tomentosa. Capitula ♂ unibracteata. Flores ♀ longe pedunculati, calyce persistente. (*Char. ex Spanoghe.*)

Species 1, ins. Timor et Celebes incola, a nobis non visa.

155? **Calpigyne,** *Blume, Mus. Bot. Lugd. Bat.* ii. 193. Flores monoici, apetali. Discus . . . Fl. ♂ glomerati: Calyx rotatus, 4-fidus, laciniis subvalvatis alternis brevioribus. Stamina 4, filamentis brevibus basi in centro floris connatis; antheræ dorsifixæ, loculis introrsum dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Calyx turbinatus, ovarium arcte cingens. Ovarium 3-loculare; styli basi brevissime connati, patentissime 2-fidi, eroso-lacerati; ovula in loculis solitaria. Fructus . . .—Frutex erectus, furcato-ramosissimus, ramulis novellis stellato-tomentosis. Folia alterna, breviter petiolata, oblonga, integerrima v. superne remote serrulata, pennivenia, inter venas transversim reticulata, coriacea, glabra v. subtus ad costam tomentella. Spicæ (utriusque sexus?) axillares et terminales, filiformes. (*Char. ex Blume.*)

Species 1, Celebes et Borneo incola, a nobis non visa.

156? **Cocconerion** (*sphalmate* Cocconerium, *supra in Conspectu*), *Baill. Adans.* xi. 87.—Flores dioici, apetali (♂ tamen ignoti). Fl. ♀: Sepala 5, valvata. Discus 0. Ovarium 2–3-loculare; styli bis terve 2-fidi, lineares; ovula in loculis solitaria. Capsula 2–3-cocca. Semina glabra, strophiolata; albumen copiosum; cotyledones planæ, latæ.—Arbores fruticesve, succo lacteo, ramis crassis nodosis. Folia verticillata (6–10-nata), subsessilia v. breviter petiolata, lanceolata, integerrima, coriacea, pennivenia. Flores ♀ in axillis solitaria, cum foliis verticillata. (*Char. ex Baill.*)

Species 2, Novo-Caledonicæ, a nobis non visæ. Genus floribus masculis ignotis dubium remanet. Folia verticillata et sepala fœminea stricte valvata cæterum in *Crotoneis* apetalis haud observantur.

157. **Chætocarpus,** *Thwaites in Hook. Kew Journ.* vi. 300, *t.* 10. (Regnaldia, *Baill. Adans.* i. 187.)—Flores dioici, apetali. Discus 4–10-lobatus v. integer. Fl. ♂: Sepala 4–5, valde imbricata. Stamina ∞ (5–20), filamentis basi in columnam connatis superne breviter liberis; antheræ oblongæ, dorsifixæ, loculis connectivo laxiusculo adnatis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum ad apicem columnæ villosulum, 3-fidum. Fl. ♀: Calyx maris. Ovarium 3-loculare; styli distincti, incurvo-erecti,

2-partiti, ramis introrsum papilloso-fimbriatis; ovula in loculis solitaria. Capsula subglobosa, echinato-setosa v. tuberculosa, in coccos 2-valves dissiliens, endocarpio duro. Semina ovoidea v. subglobosa, testa crustacea nigra nitida; albumen carnosum; cotyledones planæ, latæ.—Frutices glabri v. puberuli, habitu fere *Phyllanthi* sect. *Glochidiæ.* Folia alterna, breviter petiolata, integerrima, coriacea, pennivenia. Flores parvi, ad axillas dense glomerati.

Species 4 v. 5, quarum 2 Indiæ orientalis et Archipelagi Malayani, 2 v. 3 Americæ tropicæ incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 1122, *et in Mart. Fl. Bras.* xi. ii. 507, *t.* 100. *Bedd. Fl. Sylv. t.* 284.

Calyx in speciebus Asiaticis 4-merus, in Americanis (sect. *Amanoella*, Baill. Adans. xi. 94) 5-merus, sed characteres cæteri et habitus omnino conveniunt. Fructum ad species Asiaticas descripsimus, sed idem dicitur in Americanis; inter has includenda sunt specimina Guianensia, *Rob. Schomburgk, coll.* 1, *n.* 928, *et coll.* 2, *n.* 776 (*Rich. Schomburgk, n.* 1519).

158. **Mettenia,** *Griseb. Fl. Brit. W. Ind.* 43.—Flores dioici, apetali. Fl. ♂ (nec ab auctoribus recentioribus nec a nobis visi): Calyx tubulatus, minutus, irregulariter 3-fidus, pubescens, laciniis ovatis obtusis. Filamenta 7, in columnam calyce longiorem inferne villosam connata, apice libera, 3 media longiora, antheræ didymæ (*Swartz*). Fl. ♀: Sepala 5, lata, pubescentia, valde imbricata (0 ex Swartz). Discus hypogynus margine laciniatus. Ovarium 3-loculare; styli distincti, crassiusculi, 2-partiti; ovula in loculis solitaria. Capsula globosa, dense tuberculoso-echinata, in coccos 2-valves v. potius in valvas 2-partitas dissiliens. Semina ovoideo-globosa, strophiolata, in columella 3-alata diu persistentia, testa crustacea nitida; embryo . . . —Frutices v. arbores præter inflorescentiam glabri. Folia alterna, breviter petiolata, ovata, integerrima, coriacea. Flores ♀ pubescentes, ad axillas foliorum superiorum fere ad bracteas reductorum fasciculati, racemum terminalem basi foliatum formantes.

Species ut videtur 2, altera Swartziana fruticosa Cubensis, nobis e solo specimine fructifero Wright n. 1973 nota, altera Jamaicensis, arborea, e speciminibus ♀ florentibus fructiferisque descripta, *Muell. Arg. in DC. Prod.* xv. ii. 1255. Genus evidenter *Chætocarpo* valde affine cui forte melius notum jungendum.

159. **Gelonium,** *Roxb. in Willd. Spec. Pl.* iv. 831. (Suregada, *Roxb., nomen tantum*; *Willd. in Ges. Nat. Fr. Berl. Neue Schrift.* iv. 206. Erythrocarpus, *Blume, Bijdr.* 604. Ceratophorus, *Sond. in Linnæa,* xxiii. 120.)—Flores dioici v. rarius monoici, apetali. Fl. ♂: Sepala 5, lata, valde imbricata. Discus obsoletus. Stamina ∞ (10–60), in receptaculo convexo dense conferta, filamentis filiformibus liberis; antheræ oblongæ, juxta basin dorsifixæ, loculis parallelis contiguis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Sepala 5, quam in mare angustiora, imbricata. Discus margine membranaceus, interdum staminodiorum rudimenta brevia gerens. Ovarium 2–3-loculare; styli breves, patentes, brevissime 2-fidi v. laceri; ovula in loculis solitaria. Fructus globosus, sub-3-queter, endocarpio duro 3-loculari, indehiscente v. tardius loculicide fisso v. in coccos demum secedente. Seminum testa crustacea, extus in vivo pulposo-carnosa; albumen carnosum; cotyledones planæ, latæ.—Arbores parvæ v. frutices glabri. Folia alterna, breviter petiolata, subcoriacea, integerrima v. rarius paucidentata. Stipulæ connatæ, caducissimæ, annulum prominulum ad nodum relinquentes. Flores parvi, glomerato-cymulosi, glomerulis oppositifoliis sessilibus v. brevissime pedunculatis.

Species 13, Asiæ calidioris et Africæ tropicæ et australis incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 1127. *A. Juss. Euph. Tent. t.* 10. *Wight, Ic. t.* 1867. *Bot. Mag. t.* 3231. Nomen *Suregada,* Roxb., a Baillono Adans. xi. 92, *Gelonio* præpositum, ab auctore speciminibus in variis herbariis adscriptum, ab ipso tamen nec in Horto Benghalensi nec in aliis suis operibus receptum a Willdenowio mox rejectum fuit et a Jussieuo Muellero aliisque rite neglectum.

160. **Baliospermum,** *Blume, Bijdr.* 603.—Flores monoici, apetali. Fl. ♂: Sepala 4–5, membranacea, lata, imbricata. Discus membranaceus, integer v. in glandulas divisus. Stamina ∞ (10–30), receptaculo convexiusculo affixa, filamentis tenuibus

liberis; antheræ terminales, loculis adnatis nunc connectivo angusto contiguis distinctis, nunc connectivum latius marginantibus apice confluentibus. Ovarii rudimentum minutum v. 0. Fl. ♀: Sepala 5–6, interdum dentata. Discus integer. Ovarium 3–4-loculare; styli breves, crassiusculi, recurvi, breviter 2-fidi; ovula in loculis solitaria. Capsula sæpius tridyma, in coccos 2-valves dissiliens, endocarpio duriusculo haud crasso. Semina ovoidea, testa crustacea; albumen carnosum; cotyledones planæ, latæ.—Frutices v. caules e basi lignescente herbacei erecti. Folia alterna, breviter v. longius petiolata, membranacea v. subcoriacea, irregulariter sinuato-dentata v. sublobata, pennivenia et basi interdum 3–5-nervia. Racemi axillares, nunc breves densi, florum fasciculis confertis, nunc elongati laxique v. subpaniculati. Flores ♂ parvi, cymulis v. fasciculis secus rhachin plus minus dissitis, ♀ singuli ad basin racemi sub bracteis solitarii v. varie in fasciculis ♂ mixti, quam ♂ longius pedicellati.

Species bene notæ 4, Indiæ orientalis incolæ. *Muell. Arg. in. DC. Prod.* xv. ii. 1125. *Kurz, For. Fl. Brit. Burm.* ii. 410. *Wight, Ic. t.* 1885. *Dcne. in Jacquem. Voy. Bot. t.* 155.

161? **Phyllobotryum,** *Muell. Arg. in Flora*, 1864, 534, *et in DC. Prod.* xv. ii. 1231.—Flores dioici? apetali, ♀ ignoti. Fl. ♂: Perianthium calycinum, 5–6-partitum, segmentis valde imbricatis, bracteis 3 segmentis similibus stipatum (involucratum, *Muell. Arg.*). Discus 0. Stamina ∞ (20–30 v. ex Muell. usque ad 50), receptaculo convexo affixa, filamentis liberis apice in connectivum dilatatis; antherarum loculi ad apicem connectivi divaricati, supra longitudinaliter dehiscentes, post dehiscentiam aperti quasi transversim 2-valvati. Ovarii rudimentum 0. Fructus . . .—Arbuscula glabra, ramulis crassiusculis. Folia alterna, breviter petiolata, ampla, longe oblonga, acuminata, integerrima v. vix dentata, pennivenia, stipulis rigidulis angustis persistentibus. Racemi ♂ breves, folii costæ in pagina superiore adnati, floribus secus rhachin dissitis paucis sessilibus.

Species 1, Africæ tropicæ occidentalis incola. Genus floribus fœmineis ignotis valde dubium est. Baillon in ovario quodam parum evoluto placentas 3 parietales vidit, et plantam ad *Bixaceas* refert, quod tamen examine ulteriore confirmandum. Habitu species nonnullas *Agrostistachyos* refert (inflorescentia adnata excepta) nec nostro sensu ullo modo *Phyllonomo* comparandum.

162. **Erismanthus,** *Wall. Cat. Herb. Ind. n.* 8011.—Flores monoici, apetali. Discus 0. Fl. ♂ (in alabastro juniore): Calycis parvi segmenta 5, valde imbricata. Stamina ∞ (ad 12), filamentis liberis; antheræ erectæ, loculis parallelis adnatis longitudinaliter rimosis. Ovarii rudimentum 0. Fl. ♀: Sepala 5, magna, foliacea, valde inæqualia, imbricata. Ovarium 3-loculare; styli basi in columnam tenuem villosam connati, superne patentes 2-fidi; ovula in loculis solitaria. Capsula junior 3-cocca videtur, matura ignota.—Frutex v. arbor glaber v. partibus novellis patentim pilosis. Folia opposita, subsessilia, basi oblique cordata fere dimidiata, ampla, dentata, rigidule membranacea, pennivenia; stipulæ angustæ, rigidæ. Spicæ ♂ juniores amentiformes, oblongæ, densæ, ad axillas subsessiles reflexæque, bracteis angustis imbricatis alabastra obtegentibus. Fl. ♀ solitarii, longe pedunculati.

Species 1, ins. Penang incola. *Muell. Arg. in DC. Prod.* xv. ii. 1138. Genus quoad flores ♂ et fructus adhuc imperfecte notum, sed nulli proxime affine videtur.

163. **Epiprinus,** *Griff. Notul.* iv. 487.—Flores monoici, apetali. Discus 0. Fl. ♂: Calyx in alabastro globosus, membranaceus, clausus, per anthesin in lobos 2–4 valvatos irregulariter fissus. Stamina ∞ (8–15), filamentis liberis longiusculis basi incrassatis supra medium abrupte inflexis apice tenuibus; antheræ magnæ, oblongæ, dorsifixæ, jam in alabastro erectæ, loculis parallelis contiguis longitudinaliter dehiscentibus. Ovarii rudimentum crassum, sub-3-lobum. Fl. ♀: Calycis segmenta 6, sub anthesi lanceolata, reduplicato-valvata, basi brevissime connata, post anthesin aucta; squamæ totidem exteriores, bracteiformes v. glanduliformes, segmentis alternæ et pluries breviores, caducæ. Ovarium breve, 3-loculare; styli in columnam longam crassam connati, apice breviter liberi, patentes, breviter 2-fidi et laceri; ovula in loculis solitaria. Capsula magna, subglobosa, obscure tridyma, in coccos 2-valves dissiliens, endocarpio crasso duro sublignoso.

Semina subglobosa, testa tenuiter crustacea; albumen et embryo in speciminibus visis imperfecta.—Frutex v. arbuscula glabra. Folia alterna, ad apices ramorum subconferta, exteriora longe petiolata, ampla, integerrima, coriacea, pennivenia; floralia minora, subsessilia, conferta. Spicæ v. racemi ad apices ramorum v. in summis axillis plures, indivisi. Flores ♂ in parte superiore numerosi, conferti, subsessiles; ♀ in parte inferiore plures, dissiti, breviter pedicellati. Racemi fructiferi (parte ♂ delapsa?) laxi, pedicellis magis evolutis. Capsulæ calycis segmentis valde auctis foliaceis quasi involucratæ.

Species 1, Malaccensis. *Muell. Arg. in DC. Prod.* xv. ii. 1024.

164. **Pycnocoma,** *Benth. in Hook. Nig. Fl.* 508.—Flores monoici, apetali. Discus 0. Fl. ♂: Calyx in alabastro ovoideus, clausus, per anthesin valvatim 3–5-partitus, segmentis reflexis. Stamina ∞ (sæpe ultra 50), receptaculo crasso elevato undique inter stamina glanduloso-lobato imposita, filamentis elongatis liberis in alabastro sæpius flexuosis; antheræ parvæ, terminales, loculis apici leviter incrassato filamenti adnatis subparallelis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Sepala 5, imbricata. Ovarium breve, 3-loculare; styli basi in columnam carnosam connata, superne liberi, erecto-patentes, indivisi, subteretes, apice stigmatoso leviter dilatato, rarius inferius stigmatosi; ovula in loculis solitaria. Capsula junior 3-dyma v. horizontaliter 3-cornuta, matura ignota.—Frutices v. arbusculæ. Folia ampla, subsessilia, ad apices ramulorum conferta (v. in specie inedita secus ramos sparsa), basi longe angustata, integerrima, pennivenia. Racemi in axillis superioribus folio multo breviores, indivisi. Flores sub bracteis ovatis solitarii, ♀ sæpius terminalis, inferiores ♂ v. bracteæ inferiores vacuæ.

Species notæ 8, quarum 4 ex Africa tropica characterem supra datum præbentes, 4 Mascarenses a nobis non visæ. *Muell. Arg. in DC. Prod.* xv. ii. 951.

165. **Ramelia,** *Baill. Adans.* xi. 132.—Flores monoici, apetali. Fl. ♂: Calyx minimus, valvatim 2–3-partitus. Stamina 2–3, centralia, sepalis alterna, filamentis liberis incurvis; antheræ introrsum 2-rimosæ. Fl. ♀: Sepala 4–6, inæqualia, crassiuscula, imbricata. Ovarium calyce longius, 3- rarius 4-loculare; styli in columnam basi integram obconicam superne infundibuliformem 3- rarius 4-lobam connati, lobis subpetaloideis intus et margine stigmatosis; ovula in loculis solitaria. Capsula 3- rarius 4-cocca. Semina parce strophiolata; embryo albumine brevior et angustior.—Frutex. Folia alterna, spurie verticillata, simplicia, pennivenia. Spicæ unisexuales, laterales et terminales, ♂ filiformes remote glomeruligeræ. Flores ♀ secus rhachin in axillis bractearum sepalis similium et basi in glandulas 2 minutas incrassatarum solitarii, bracteolis 2 stipati. (*Char. ex Baill.*)

Species 1, Novo-Caledonica, a nobis non visa.

166. **Astrococcus,** *Benth. in Hook. Kew Journ.* vi. 327.—Flores monoici, apetali. Fl. ♂: Sepala 4, valvata. Discus 0 v. e lobis 4 crasso-carnosis. Stamina 4, sepalis alterna (rarius 6–∞?) circa receptaculum crassiusculum affixa, filamentis liberis erectis; antheræ ovatæ, basifixæ, loculis parallelis contiguis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Sepala sæpius 5, angusta, imbricata. Discus 0. Ovarii carpella 3, vix basi brevissime connata, stellato-radiantia; styli in columnam crassam oblongam apice cavam integerrimam v. 6-dentatam coaliti; ovula in carpellis solitaria, horizontalia. Capsulæ cocci stellato-patentes, obovoidei v. oblongi, varie muricati v. 2-cornuti, demum a columna centrali dissilientes, 2-valves. Semina subglobosa, testa crustacea; albumen crassum, carnosum; cotyledones latæ, planæ.—Arbusculæ v. frutices graciles, pube tenui in foliis perparca. Folia alterna v. ad apices ramulorum conferta, brevissime petiolata, leviter dentata, membranacea v. coriacea. Racemi graciles, axillares v. laterales. Flores parvuli, breviter pedicellati, ♂ sub bracteis 1–3-ni, ♀ sub bracteis solitarii in parte inferiore racemi, cum uno sæpissime ad apicem racemi subterminali.

Species 2, Brasiliæ borealis incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 766, *et in Mart. Fl. Bras.* xi. ii. 329, *t.* 49. *Baill. Etud. Euph. t.* 21, *et Adans.* v. 307. Disci fl. ♂ lobi in *A. cornuta*, Benth., sub

filamentis crassissimi, valde prominentes, in *A. coriacea*, Benth., desunt nisi cum basi crassiuscula filamentorum confusi.

167. **Angostylis,** *Benth. in Hook. Kew Journ.* vi. 328.—Flores monoici (v. dioici ?), apetali. Discus 0. Fl. ♂: Sepala 4, rarius 3, valvata, herbacea, crassiuscula, intus papillosa. Stamina ∞ (15–25), receptaculo conico fere columnari affixa, filamentis brevibus; antheræ erectæ, basifixæ, loculis distinctis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Sepala 5, angusta, imbricata. Ovarium 3-loculare; styli in columnam cavam seu urceolum angustum apice breviter 6-lobum coalita; ovula in loculis solitaria. Capsula tridyma, urceolo stylari coronata, in coccos subglobosos 2-valves dissiliens, exocarpio molliter muricato, endocarpio crustaceo. Semina subglobosa, ecarunculata; albumen carnosum; cotyledones planæ, latæ.—Arbor gracilis v. frutex elatior multicaulis, pube tenui in foliis evanida. Folia alterna, in ramulis conferta, subsessilia, ampla, denticulata, pennivenia. Flores quam in affinibus majores, ♂ ad nodos ramorum annotinorum v. vetustiorum 2–3-ni, pedicellati, ♀ in axillis foliorum solitarii, pedicello longiore rigidiore.

Species 1, Brasiliæ borealis incola. *Muell. Arg. in DC. Prod.* xv. ii. 767, *et in Mart. Fl. Bras.* xi. ii. 332, *t.* 50. *Baill. Etud. Euph. t.* 9.

168. **Sphærostylis,** *Baill. Etud. Euph.* 466, *t.* 21.—Flores monoici, apetali. Discus 0. Fl. ♂: Calyx valvatim 3-partitus. Stamina 3, sepalis alterna, filamentis brevibus in centro floris in columnam connatis; antheræ in summa columna erectæ, demum subreflexæ, loculis introrsum contiguis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Sepala 5–6, valvata v. leviter imbricata. Ovarium 3-loculare; styli in massam globosam 3-sulcam ovario multo majorem connati, summo apice brevissime liberi 2-partitique; ovula in loculis solitaria. Capsula 3-cocca. Semina globosa, lævia.—Frutex scandens. Folia alterna, petiolata, ovata, 3-nervia. Racemi spiciformes, axillares terminalesque. Flores sub quaque bractea solitarii, plerique ♂, inferiores pauci ♀. (*Char. ex Baill.*)

Species 1, Madagascariensis, a nobis non visa. *Muell. Arg. in DC. Prod.* xv. ii. 768. Genus ex charactere dato *Plukenetiæ* valde affine, sepalis ♂ staminibusque 3 filamentis connatis parum distinctum.

169. **Plukenetia,** *Linn. Gen. n.* 1080.—Flores monoici, apetali. Discus 0. Fl. ♂: Calycis segmenta 4–5, valvata. Stamina ∞ (8–30), receptaculo carnoso convexo conico elongato v. subgloboso affixa, filamentis brevibus liberis; antheræ breves, erectæ, loculis sejunctis subglobosis v. interdum didymis parallelis v. divergentibus longitudinaliter dehiscentibus. Ovarii rudimentum 0, v. rarius (in *P. tamnoide*) in centro floris filiforme apice capitellatum. Fl. ♀: Sepala imbricata. Ovarium 3- v. sæpius 4-loculare; styli in columnam carnosam cylindraceam v. globosam cavam apice dentatam v. breviter lobatam connati; ovula in loculis solitaria. Capsula carnosula v. sicca, subglobosa v. depresso-3–4-loba, in coccos 2-valves dissiliens. Semina globosa, interdum uno latere 3-costata, testa crustacea; albumen carnosum; cotyledones latæ, planæ.—Frutices suffruticesve scandentes, plus minus volubiles (excepta *P. conophora*, Muell. Arg.). Folia alterna, petiolata, sæpe cordata, 3–5-nervia et pennivenia, integerrima v. dentata. Racemi axillares supra-axillares v. laterales, interdum fere oppositifolii altius tamen quam folia affixi. Flores pedicellati, ♂ sæpius minuti subfasciculati rarius majores, ♀ in parte inferiore racemi pauci v. ad basin solitarii et rigidius pedicellati.

Species ad 12, regionum calidiorum utriusque orbis incolæ, in Australia tamen desunt. *Muell. Arg. in DC. Prod.* xv. ii. 769, *et in Fl. Bras.* xi. ii. 333. Facile in sectiones sequentes distribuendæ:—

1. In *Plukenetia* typica Dominicana, stylorum columna longissima, tenuis, apice radiatim 4-loba, capsula depressa 4-loba, lobis carinatis fere appendiculatis. *Plum. Ic. t.* 226, *icon in Lam. Illustr. t.* 788 *repetita.* Hæc sola species sectionem *Euplukenetiam* formare debet.

2. Pterococcus, *Hassk. in Flora*, 1842; *Beibl.* ii. 41. Ceratococcus, *Meissn. Gen. Pl. Comm.* 369

(SAJORIUM, *Endl. Gen. Suppl.* iii. 98. HEDRAIOSTYLUS, *Hassk. Cat. Hort. Bog.* 234), species plures continet tam Americanas quam Africanas et Asiaticas stylorum columna crassissima obovoidea v. globosa, capsula ut in *Euplukenetia* depresso-4-loba rarius 3-loba, lobis obtusis v. dorso herbaceo-appendiculatis. Huc pertinent, præter speciem Asiaticam et duas Africanas, *P. penninervia*, Muell. Arg., et *P. verrucosa*, Sm., a Muell. Arg. in *Euplukenetia* inclusæ.

3. *Angostylidium*, Muell. Arg., est species Africana, fruticosa, elata et gracilis, sed non scandens. Stamina numerosa. Ovarium minimum, 4–5-merum, ad basin columnæ stylaris ovario ipso triplo saltem longioris cylindraceæ apice in lobos 4–5 latos breves divisæ.

4. *Cylindrophora*, Muell. Arg., est species Peruviana a nobis non visa, ex char. dato *Angostylidio* affinis.

5. FRAGARIOPSIS, *St. Hil. Morphol.* 426 (*Fl.* ♂); *Baill. Etud. Euph.* 497, *t.* 12, 13; *Muell. Arg. in DC. Prod.* xv. ii. 773, *et in Mart. Fl. Bras.* xi. ii. 336, *t.* 52 (ACCIA, *St. Hil. l. c.* 499, *fl.* ♀. BOTRYANTHE, *Klotzsch in Wiegm. Archiv.* vii. 190, *t.* 9. VIGIA, *Vell. Fl. Flum. Ic.* ix. *t.* 128, *ex ic. rudi*), est species Brasiliensis, quoad ovarium interdum nec semper 3-merum, stylorum columna elongata cylindracea crassiuscula, capsula ante maturitatem subglobosa carnosa fere *Anabænæ*, sed in fl. ♂ receptaculum crassius globosum, filamentis brevissimis fere immersis, ovarii rudimento 0. Capsula immatura adhuc carnosior, matura nobis ignota. Antheræ omnino generis. Racemi fere omnes oppositifolii nisi paullo altius affixi, quod casu tantum observatur in cæteris speciebus.

6. ANABÆNA, *A. Juss. Euph. Tent.* 46, *t.* 15; *Muell. Arg. in Mart. Fl. Bras. t.* 51 (*Plukenetiæ sect.*), est species Brasiliensis distincta imprimis ovarii rudimento filiformi apice capitellato in fl. ♂ sæpissime evoluto, ovario in fl. ♀ 3-mero, capsula ante maturitatem carnosula fere globosa v. obscure didyma, matura tamen in coccos 2-valves solvitur.

In specie adhuc inedita e Monterico Americæ meridionalis (extratropicæ?) *Pearce*, caules decumbentes videntur, folia obovata pennivenia breviter petiolata, flores monoici racemulis lateralibus oppositifoliis v. fere axillaribus, stamina numerosa dense capitata. Ovarium ad normam generis 4-loculare, stylo carnoso ovoideo-globoso.

Specimen e colonia Tovar Venezuelæ, *Moritzi, n.* 1661, plantam exhibet glaberrimam *Plukenetiæ* valde affinem, nisi revera congenerem. Folia ampla, obovali-oblonga, membranacea, pennivenia, petiolo apice prominule 2-glanduloso. Flores dioici, axillares, ♂ omnino *P. obovatæ*, in racemum petiolo multo breviorem dispositi, ♀ in pedunculo solitarii. Ovarium 2-loculare, stylo depresso pulvinato quam ovarium ipsum minore.

170. **Acidoton**, *Swartz, Prod.* 83; *Fl. Ind. Occid.* 952, *t.* 18.—Flores monoici, apetali. Discus 0. Fl. ♂: Sepala 3–5 (sæpius 4), valvata. Stamina ∞ (ultra 30), receptaculo crasso carnoso elevato imposita, filamentis brevibus liberis; antheræ ovatæ, loculis parallelis distinctis extrorsum v. sublateraliter dehiscentibus. Ovarii rudimentum 0, receptaculo in centro cavo. Fl. ♀: Sepala 5–6, angusta, imbricata. Ovarium breve, 3-loculare; styli basi in columnam crassam connati, superne breviter patentes, integri v. vix 2-fidi; ovula in loculis solitaria. Capsula tridyma, in coccos 2-valves dissiliens, endocarpio duro. Semina subglobosa, testa crustacea; albumen carnosum; cotyledones planæ, latæ.—Arbuscula laxe ramosa, inflorescentia capsulisque pilis brevibus urentibus indutis, cæterum glabriuscula. Folia alterna, breviter petiolata, integerrima, coriacea, pennivenia. Rami sæpius unisexuales, inflorescentia axillari. Spicæ v. fasciculi ♂ breves, sessiles, floribus longiuscule pedicellatis. Spicæ ♀ longiores, floribus secus rhachin distantibus sub quaque bractea solitariis fere sessilibus.

Species 1, Jamaicensis. *Muell. Arg. in DC. Prod.* xv. ii. 914. *Baill. Etud. Euph. t.* 18.

171. **Platygyne**, *Mercier in Ser. Bull. Bot.* 168. (Acanthocaulon, *Klotzsch in Endl. Gen. Suppl.* iv. iii. 88.)—Flores monoici, apetali. Discus 0. Fl. ♂: Sepala 5, rarius 4, valvata, per anthesin reflexa. Stamina 5, rarius 4 v. 6–8, receptaculo elevato crasso dense villoso imposita, exteriora sepalis alterna, filamentis brevibus summo apice subrecurvis; antheræ ovatæ, loculis distinctis parallelis contiguis extrorsum v. sublateraliter dehiscentibus. Ovarii rudimentum 0, receptaculo intra stamina glabrato. Fl. ♀: Sepala 6, rarius 5 v. 7, angusta, imbricata. Ovarium breve, villosum, 3-loculare; styli multo majores, in columnam crassam concavam connati, superne breviter patentes, crassi, papilloso-villosi, retusi; ovula in loculis solitaria. Capsula tridyma, in coccos 2-valves

dissiliens, endocarpio duriusculo. Semina globosa, testa crustacea; albumen carnosum; cotyledones planæ, latæ.—Frutex volubilis, pilis urentibus conspersus v. hispidus. Folia alterna, brevissime petiolata, sæpius angusta, dentata, pennivenia. Inflorescentiæ ad apices ramorum sessiles, mox oppositifoliæ v. laterales (interdum axillares ?). Flores ♂ pedicellati, fasciculati, subcymosi; ♀ sessiles, solitarii v. gemini.

Species 1; Cubensis, *Muell. Arg. in DC. Prod.* xv. ii. 913. *Baill. Etud. Euph. t.* 4.

172. **Tragia**, *Linn. Gen. n.* 1048.—Flores monoici, apetali. Fl. ♂: Calyx in alabastro globosus v. rarius obovoideus, per anthesin valvatim 3–5-partitus. Discus 0 v. obscurus. Stamina sæpius 3, interdum 2 v. 1, in paucis speciebus ∞ (usque ad 60), filamentis liberis v. plus minus connatis; antheræ ovatæ v. oblongæ, dorso v. fere ad basin affixæ, loculis parallelis contiguis longitudinaliter dehiscentibus. Ovarii rudimentum 0 v. minutum. Fl. ♀: Sepala 6 v. rarius pauciora v. 7–8, imbricata, integra v. pinnatifida. Ovarium 3-loculare; styli basi v. sæpe ultra medium in columnam coaliti, apice liberi patentes indivisi; ovula in loculis solitaria. Capsula tridyma, in coccos 2-valves dissiliens, endocarpio crustaceo. Semina globosa, estrophiolata, testa crustacea; albumen carnosum; cotyledones latæ, planæ.—Herbæ perennes v. suffrutices scandentes v. volubiles, rarius caulibus brevioribus ascendentibus, pilis sæpe urentibus præsertim in fructibus hispidæ v. echinatæ, rarius undique glabratæ. Folia alterna, petiolata, dentata, rarius 2–3-loba, basi sæpe cordata et 3–5-nervia. Racemi terminales oppositifolii v. axillares, sæpissime androgyni, floribus ♂ in parte superiore ♀ in inferiore, v. rarius 2-fidi, ramo longiore ♂ breviore ♀. Flores sæpius sub quaque bractea solitarii, in paucis speciebus ♂ glomerati.

Species ad 50, per regiones calidiores utriusque orbis late dispersæ, extra tropicos usque ad Africam australem et Americæ borealis civitates australiores extensæ. *Muell. Arg. in DC. Prod.* xv. ii. 927, *et in Mart. Fl. Bras.* xi. ii. 403, *t.* 58. *Kurz, For. Fl. Brit. Burm.* ii. 398. *A. Juss. Euph. Tent. t.* 15. *Jacq. Ic. Rar. t.* 190. *Schweinf. Rel. Kotsch. t.* 34. *Beauv. Fl. Ow. et Ben. t.* 54. *Cav. Ic. t.* 557. *Pœpp. et Endl. Nov. Gen. et Sp. t.* 223. *Vell. Fl. Flum. Ic.* x. *t.* 6, 8, 10.

Genus naturale, stylo columnari *Plukenetiæ* affine, facile distinguitur antheris, styli columna minus carnosa et pilis sæpe urentibus capsulam sæpius obtegentibus, multum variat staminum numero et filamentorum indole, et a Muellero in sectiones 13 dividitur. Ex his *Eutragia* et *Ratiga* ex America perianthii segmentis integris, et *Pagira* ex orbe vetere segmentis sæpe pinnatifidis, specierum maximam partem includunt et characteribus levioris momenti nec habitu separantur. Stamina 3 v. interdum 2 v. 1, filamentis liberis v. basi connatis. Flores etiam ♂ sub quaque bractea sæpissime solitarii. Huc pertinent icones omnes supra citatæ. Genera tamen sequentia a variis auctoribus proposita, et in Prodromo ad sectiones reducta, pleraque monotypica a typo generico plus minus decedunt.

Leptobotrys, *Baill. Etud. Euph.* 478, *t.* 2, est *T. urens*, Linn., species boreali-Americana sæpe nec semper 2-andra, filamentis basi breviter connatis. Variat spicis brevibus v. ut in icone citata longis gracillimisque.

Agirta, *Baill. Etud. Euph.* 463, est species Madagascariensis a nobis non visa, floribus sub quaque bractea glomerulatis, antherarum connectivo ultra loculos producto, sepalis floris ♀ valvatis.

Lassia, *Baill. Etud. Euph.* 464, *t.* 4, est species Madagascariensis a nobis non visa, staminibus 3, filamentis in columnam connatis antherarum loculis divaricatis ex icone fere horizontalibus ad apicem columnæ extrorsum sessilibus.

Leucandra, *Klotzsch in Wiegm. Archiv.* vii. 188, stabilita fuit ad speciem Brasiliensem herbaceam v. suffruticosam 4-andram. Huic addit Muell. Arg. species nonnullas habitu normali generis, staminibus 4–8.

Bia, *Klotzsch in Wiegm. Archiv.* vii. 189, species continet 4, Americæ australis, habitu normali, staminibus 10–20, et includit etiam Leptorhachin, *Klotzsch, l. c.*

Zuckertia, *Baill. Etud. Euph.* 495, *t.* 4, est species Mexicana a nobis non visa, alabastris ♂ clavatis, staminibus ad 40, antheris majusculis dorsifixis minute apiculatis.

Ctenomeria, *Harv. in Hook. Lond. Journ.* i. 29, est species Austro-Africana, floribus ♂ in genere majusculis, staminibus 40–60, filamentis tenuissime capillaribus, antheris in genere longis. Sepala floris ♀ ut in pluribus aliis pinnatifida. In Prodromo xv. ii. 925, pro genere proprio cum specie valde dissimili (*Leptorhachi*, Kl.), associatur, in flore Brasiliensi iterum ad *Tragiam* reducitur.

173. **Cnesmone,** *Blume, Bijdr.* 630 (err. typ. Cnesmosa), *et in Fl. Jav. Præf.* 6.—Flores monoici, apetali. Discus 0. Fl. ♂: Calyx in alabastro globosus, clausus, per anthesin valvatim 3-fidus, tubo depresso ore subcontracto, lobis latis. Stamina in fundo calycis 3, lobis alterna, vix e tubo exserta, filamentis liberis crassis; antheræ prope basin dorsifixæ, connectivo crasso ultra loculos in appendicem linearem supra antheram reflexam producto, loculis discretis subparallelis subextrorsum longitudinaliter dehiscentibus. Ovarii rudimentum 0 v. obscurum. Fl. ♀: Sepala 3, demum aucta, integerrima. Ovarium breve, 3-loculare; styli carnosi, basi in massam brevem latam connati, pro maxima parte liberi, incurvo-erecti, crassi, margine introrsum processibus seu papillis crassis fimbriati fere pinnatifidi; ovula in loculis solitaria. Capsula tridyma, in coccos 2-valves dissiliens. Semina globosa; testa crustacea (extus in vivo pulposa quasi arillata?); albumen carnosum; cotyledones latæ, planæ.—Frutex alte scandens, undique plus minus fulvo-villosus, habitu *Tragiæ* at rudis. Folia alterna, petiolata, denticulata, penninervia, basi sæpe cordata. Stipulæ latæ, persistentes. Racemi terminales v. oppositifolii, floribus sub quaque bractea solitariis brevissime pedicellatis, superiores ♂ ebracteolati, inferiores 1–∞ ♀, bracteolis 2 stipati.

Species 1, Indiæ orientalis et Archipelagi Malayani incola. *Muell. Arg. in DC. Prod.* xv. ii. 926. *Baill. Etud. Euph. t.* 4.

174. **Dalechampia,** *Linn. Gen. n.* 1081.—Flores monoici, apetali. Discus 0. Fl. ♂: Calyx membranaceus, in alabastro globosus, per anthesin valvatim 4–6-partitus. Stamina ∞ (sæpius 20–30, rarius plura v. pauciora), filamentis in receptaculo convexo v. plus minus in columnam crassam elevato breviter liberis v. alte in columnam tenuiorem coalitis; antheræ erectæ, loculis contiguis parallelis sæpe didymis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Calyx 5–12-partitus, segmentis imbricatis sæpe linearibus pinnatifidis fimbriatisve, rarius lanceolatis integerrimis. Ovarium 3–4-loculare; styli in columnam longam sæpe carnosam apice obtusam v. dilatatam oblique v. æqualiter excavatam integram v. breviter radiato-lobatam connati; ovula in loculis solitaria. Capsula 3–4-dyma v. angulata, in coccos 2-valves dissiliens, endocarpio crustaceo v. indurato. Semina globosa v. ellipsoidea, estrophiolata; albumen carnosum; cotyledones planæ, latæ.—Frutices suffruticesve, sæpius volubiles et interdum alte scandentes, glabri v. pilis simplicibus hirsuti v. tomentosi. Folia alterna, petiolata, integra 3–5-loba v. digitatim 3–5-foliolata, penninervia basique sæpius 3–7-nervia. Racemi sæpius in capitula contracti, ad axillas sessiles v. pedunculati, bracteis 2 maximis sæpe coloratis venosisque integris v. 3-lobis involucrati, rarius laxiores bracteis haud v. vix auctis. Flores in capitulo sessiles v. breviter pedicellati, exteriores v. inferiores ♀, sub quaque bractea sæpe 3-ni, interiores v. superiores ♂ sub quaque bractea 3–∞. Adsunt etiam interdum in capitulo massæ 2–3 carnoso-ceraceæ multicristatæ, quæ flores steriles nuncupantur. Capsulæ variant parvæ globoso-3-dymæ, v. magnæ duræ angulatæ, calyce aucto sæpe stipatæ.

Species ad 60, per regiones calidiores utriusque orbis late dispersæ, pleræque tamen Americanæ. *Muell. Arg. in DC. Prod.* xv. ii. 1233, *et in Mart. Fl. Bras.* xi. ii. 635, *t.* 88 *ad* 91. *Baill. Etud. Euph. t.* 3, 4. *Endl. Atakta, t.* 20, 21. *Wight, Ic. t.* 1881, 1882. *Wawra, in Pr. Maxim. Reise, Bot. t.* 6.

Cremophyllum, *Scheidw. in Bull. Acad. Sc. Brux.* ix. i. 23, est planta humilis in horto Bruxellensi e seminibus Mexicanis enata (nec Brasiliana ut perperam a Muell. Arg. citatur), evidenter *D. Roezleanæ*, Muell. Arg. (Bot. Mag. t. 5640, Regel Gartenfl. t. 532) valde affinis et forte forma depauperata, caule erecto, foliis longis fere sessilibus penniveniis. His evidenter affinis est *D. magnoliæfolia*, Mart., e Brasilia. Præter habitum characteribus nullis definitis a cæteris separandæ videntur, etsi plantæ Mexicanæ insignes sunt massis cristatis in capitulo valde evolutis. Illis pertinere videtur specimen Mexicanum e Teapa, *Linden, n.* 1614.

Rhopalostylis, *Klotzsch in herb. plur.* est *D. micrantha*, Pœpp. et Endl. Nov. Gen. et Sp. iii. 19, *t.* 222, species inflorescentia laxa insignis, bracteis vacuis non auctis nec flores involucrantibus.

D. Houllettiana, Baill. Etud. Euph. 486, t. 3, f. 31, 32, species Brasiliana nobis ignota, ex icone a

genere longe differt disco hypogyno evoluto ovario 4-loculari et stylo filiformi apice integerrimo subulato.

175. **Mabea,** *Aubl. Pl. Gui.* 867, *t.* 334.—Flores monoici, apetali. Discus 0. Fl. ♂: Calyx parvus, membranaceus, prima juventute globosus subclausus, longe ante anthesin apertus, 3–5-lobus. Stamina ∞ (12–50), receptaculo convexo v. conico affixa, filamentis brevissimis; antherarum loculi subintrorsum adnati, paralleli v. divergentes, longitudinaliter dehiscentes. Ovarii rudimentum 0. Fl. ♀: Calyx 5–6-partitus, segmentis imbricatis sæpe valde inæqualibus. Ovarium 3-loculare; styli in columnam longam coaliti, superne liberi tenues indivisi; ovula in loculis solitaria. Capsula globosa v. tridyma, in coccos 2-valves dissiliens, endocarpio duro. Semina ovoidea, strophiolata, testa crustacea; albumen carnosum; cotyledones planæ, latæ.—Arbores coma diffusa v. sæpius frutices sarmentosi v. alte scandentes. Folia alterna, oblonga v. angusta, integerrima v. denticulata, penninervia. Racemi terminales, floribundi, sæpe compositi, singuli v. plures in paniculam dispositi. Bracteæ sæpius glandulis 2 magnis stipatæ. Flores ♂ numerosi, antheris supra calycem dense confertis globulosi, sub quaque bractea sæpius plures fasciculati, v. in racemulum secundarium ebracteatum dispositi; ♀ ad basin racemi pauci, sub quaque bractea solitarii, pedicellati.

Species enumeratæ 16, plures inter se simillimæ, Americæ tropicæ imprimis Brasiliæ et Guianæ incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 1148, *et in Mart. Fl. Bras.* xi. ii. 517, *t.* 73, 74. *Baill. Etud. Euph. t.* 13.

176. **Homalanthus,** *A. Juss. Euph. Tent.* 50, *t.* 16 (Omalanthus). (Duania, *Noronh. ex Hassk. Hort. Bogor.* 233, *nomen tantum.* Carumbium, *Reinw. in Syll. Pl. Soc. Ratisb.* ii. 6, *prius in Blume, Cat. Hort. Buitenz.* 105, *nomen tantum.*)—Flores monoici, apetali. Discus 0. Fl. ♂: Calyx compressus, brevis, latus, 2-partitus, segmentis planis sibimet appressis margine leviter imbricatis. Stamina ∞ (6–50), filamentis brevissimis; antheræ calycem superantes, loculis brevibus v. subglobosis, dorso contiguis divaricatis vertice 2-valvatim dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Calyx 2–3-fidus, haud compressus. Ovarium 2- v. rarius 3-loculare; styli lineares, divergentes, indivisi; ovula in loculis solitaria. Capsula didyma, carnosa, indehiscens v. vix in coccos dorso 2-valves secedens. Semina ovoidea, strophiola carnosa interdum semen semitegente, testa crustacea; albumen carnosum; cotyledones planæ, latæ.—Arbores fruticesve glabri. Folia alterna, petiolata, lata, sæpius subtriangularia v. rhomboidea, integerrima, subtus sæpius glauca v. canescentia, penninervia v. vix basi 3–5-plinervia. Racemi terminales, floribus ♂ numerosis sub quaque bractea pluribus parvis, ♀ sub quaque bractea solitariis ad basin racemi paucis v. rarius ad apices ramorum absque racemo ♂.

Species 7 v. 8, Archipelagi Malayani Australiæ et insularum maris Pacifici incolæ. *Baill. Etud. Euph. t.* 8. *Muell. Arg. in DC. Prod.* xv. ii. 1143 (*Carumbium,* excl. sect. *Pimeleodendron*). *Benth. Fl. Austral.* vi. 149 (*Carumbium*). *Bot. Mag. t.* 2780.

Dibrachion, *Regel, Gartenfl.* xv. (1866) 100, *t.* 504, species ex ins. Philippinarum a nobis non visa, foliis peltatis distinctissima, ex icone tamen et descriptione auctoris rite a Muellero ad *Carumbium* (*Homalanthum*) refertur, et huic generi restituenda est Wartmannia, *Muell. Arg. in Linnæa* xxxiv. 218, *et in DC. Prod.* xv. ii. 1147, ab auctore ob seminum strophiolam parvam separata, de cujus natura cfr. Baill. Adans. vi. 348. Embryo *H. populifolii* in icone Bot. Mag. l. c. minimus delineatur, in seminibus tamen a nobis examinatis dimidium albuminis longe superat.

177. **Pimeleodendron,** *Hassk. Hort. Bogor. Descr.* 68. (Stomatocalyx *et* Carumbii *sect.* Pimeleodendron, *Muell. Arg. in DC. Prod.* xv. ii. 1142, 1143.)—Flores dioici? apetali, ♀ ignoti. Fl. ♂: Calyx compressus, brevis, latus, lobis 2 brevissimis planis sibimet appressis. Discus 0. Stamina ∞ (12–15), intra marginem perianthii serie simplici disposita (ob calycis formam 2-serialia apparent), filamentis brevissimis; antheræ terminales, latæ, truncatæ, loculis extrorsum adnatis divergentibus longitudinaliter dehiscentibus. Ovarii rudimentum 0.—Arbores fruticesve glabri. Folia alterna v. ad apices ramorum conferta petiolis valde inæqualibus apice tumidis, ovata v. oblonga, integerrima, coriacea, penni-

venia. Racemi ♂ simplices v. ramosi, infra folia laterales v. nonnulli axillares. Flores apicem versus rhacheos sparsi, pedicellis brevibus rigide patentibus. Bracteæ caducissimæ.

Species 2 v. 3, Archipelagi Malayani incolæ. Speciem typicam Amboinensem non vidimus, sed descriptio fusior Hasskarlii quoad characteres genericos omnino *Stomatocalyci*, Muell. Arg., convenit. Specimina Borneensia a Muell. Arg. cum Malaccensibus juncta, nobis specifice differre videntur. Baillon, Hist. Pl. v. 229, genus totum in *Carumbio* (*Homalantho*) includit, nobis tamen, quoad plantam ♂ quæ sola nota, differre videtur habitu, inflorescentia et staminibus.

178. **Senefeldera,** *Mart. Herb. Fl. Bras.* 269.—Flores monoici, apetali. Discus 0. Fl. ♂: Calyx parvus, longe ante anthesin apertus, breviter lateque 3–5-lobus v. lateralis subinteger. Stamina ∞ (3–12), receptaculo elevato affixa, filamentis brevissimis; antheræ subsessiles, erectæ, loculis extrorsum parallelis contiguis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Calyx alte 3-fidus v. 3-partitus, segmentis imbricatis. Ovarium 3-loculare; styli in columnam brevem crassam connati, superne recurvo-patentes, crassiusculi, indivisi; ovula in loculis solitaria. Capsula tridyma, in coccos 2-valves dissiliens, endocarpio duriusculo. Semina ex Muell. Arg. strophiolata, in speciminibus nostris estrophiolata, irregulariter subglobosa, testa tenuiter subcrustacea; albumen carnosum; cotyledones planæ, latæ.—Arbores tenues, glabræ. Folia alterna, petiolata, ampla, coriacea, integerrima, pennivenia. Spicæ ad apices ramorum paniculatæ, sæpius rubentes. Bracteæ breves, latæ. Flores ♂ sub quaque bractea paucæ, pedicello basi articulato brevissimo v. bracteam superante; ♀ in parte inferiore spicæ v. paniculæ ramorum sub quaque bractea solitarii, breviter pedicellati.

Species 4, Brasilianæ. *Muell. Arg. in. DC. Prod.* xv. ii. 1153, *et in Mart. Fl. Bras.* xi. ii. 529, *t.* 75. *Baill. Etud. Euph. t.* 9.

In *S. inclinata*, Muell. Arg., et in specie nova a Traillio in eadem regione Amazonica lecta, flores ♂ ad apicem pedicelli rhachin versus inclinati, perianthio valde obliquo quasi dimidiato integerrimo squamulam latam formante extrorsum suberecto, sed characteres cæteri et habitus omnino specierum typicarum e Brasilia Janeiriensi.

179. **Trisyngyne,** *Baill. Adans.* xi. 136.—Flores monoici, apetali. Fl. ♂: Calyx tubulosus, membranaceus, apice 4–5-dentatus. Stamina 15–20, centralia, filamentis liberis subulatis erectis; antheræ lineares, subapiculatæ, basifixæ, demum exsertæ, introrsum 2-rimosæ. Fl. ♀: Sepala ? 2, parva, libera. Ovarium 2-loculare. Styli in columnam crassitudine ovarii cylindraceam erectam alte connati, apice recurvi, indivisi, intus stigmatosi; ovula in loculis solitaria (descendentia ?). Fructus . . .—Frutices. Folia alterna, petiolata, integerrima, pennivenia. Flores e gemma axillari v. folio delapso laterali oriundi, ♂ in cymulas pedunculatas sæpius 3-floras dispositi, singuli in axilla squamæ scariosæ inserti. Flores ♀ altius ramulo tenui inserti, alterne glomerulati, glomerulis 3-floris extus bracteis bracteolisque cinctis; glandulæ 2, compressæ, ad glomerulum laterales. (*Char. ex Baill.*)

Species 2, Novo-Caledonicæ. Genus adhuc imperfecte notum, forte ex ordine expellendum.

180. **Omphalea,** *Linn. Gen. n.* 1039. (Duchola, *Adans. Fam.* ii. 357. Omphalandria, *P. Br. Hist. Jam.* 335. Ronnowia, *Buch. Pl. Nouv. Découv.* 6, *t.* 4. Hecatea, *Thou. Hist. Veg. Isles Afr.* 27, *t.* 5. Hebecocca, *Beurl. in K. Vetensk. Akad. Stockh. Handl.* 1854, 146.)—Flores monoici, apetali. Discus obscurus v. 0. Fl. ♂: Sepala 4–5, parva, lata, valde imbricata. Stamina 2–3, filamentis in columnam brevissimam connatis; antherarum connectiva crassa, lata, in massam peltatam pileiformam margine 2–3-lobam connata, loculis ad peripheriam dissitis, juxta margines loborum extrorsum adnatis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Calyx fere maris. Ovarium 2–3-loculare, in columnam stylarem crassam pubescentem obtusam v. brevissime 2–3-lobam abiens; ovula in loculis solitaria. Fructus crassus, 2–3-dymus, extus carnosus, endocarpio duro indehiscente v. demum in coccos 2-valves dissiliens. Semina subglobosa, estrophiolata; albumen crassum, carnosum; cotyledones latæ, planæ.—Frutices volubiles

v. alte scandentes, rarius arbores diffusæ. Folia alterna, petiolo apice 2-glanduloso, sæpius ampla, integerrima, pennivenia, et basi sæpe 3-5-nervia. Flores cymulosi, cymulis ♂ v. cum flore centrali ♀ androgynis, secus ramos paniculæ terminalis dispositis. Bracteæ in axi paniculæ sub cymulis sæpe elongatæ, subfoliaceæ, lineari-spathulatæ, petiolatæ.

Species 8, quarum una Madagascariensis, cæteræ Americæ tropicæ incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 1135, *et in Mart. Fl. Bras.* xi. ii. 514, *t.* 72. *Baill. Etud. Euph. t.* 7. *Aubl. Pl. Gui. t.* 328. *Lodd. Bot. Cab. t.* 519.

Semina matura non vidimus et character supra ex Baill. et Muell. Arg. datus. Buchoz l. c. embryonem describit globosum e cotyledonibus 2 crassis constantem et pellicula tenui involutum.

181. **Ophthalmoblapton,** *Fr. Allem. Tract. Rio Jan.* 1849, *cum ic.*—Flores monoici, apetali. Discus 0. Fl. ♂: Calyx parvus, vertice depressus, in alabastro clausus, per anthesin apice brevissime 2–3-lobus v. altius valvatim fissus. Stamen 1, e fundo calycis, filamento exserto; anthera erecta, loculis parallelis contiguis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Sepala 6, ovata, crassiuscula, sub-2-seriatim imbricata. Ovarium 3-loculare, in stylum longum crassum columnarem superne crassum et breviter 3-lobum abiens; ovula in loculis solitaria. Capsula depressa, tridyma, in coccos 2-valves dissiliens, exocarpio tenui, endocarpio osseo. Semina ovoidea, testa crustacea extus celluloso-spongiosa; albumen carnosum; cotyledones planæ, latæ.—Arbores proceræ. Folia alterna, ad apices ramorum conferta, petiolo longo apice tumido, ampla, integerrima v. parce dentata, coriacea, pennivenia. Spicæ ♂ axillares v. infra folia laterales, breves, bracteis brevissimis latis; flores sub quaque bractea ∞, arcte sessiles et subconfluentes, collateraliter 1–3-seriatim radiantes. Flores ♀ ad basin spicarum v. ad nodos distinctos solitarii v. pauci, sessiles v. pedicello brevi crasso fulti.

Species 3 v. 4, Brasilianæ. *Muell. Arg. in DC. Prod.* xv. ii. 1155, *et in Mart. Fl. Bras.* xi. ii. 532, *t.* 103. Flores ♂ haud rite examinare potuimus, sed optime ab Allemao illustrati sunt. *O. pedunculare,* Muell. Arg., a cæteris speciebus differt habitu, foliis breviter petiolatis minus coriaceis et ex descriptione Muelleri notis pluribus aliis et forte e genere excludenda est. Specimen nostrum jam defloratum est.

182. **Hippomane,** *Linn. Gen. n.* 1088. (Mancinella, *Tuss. Fl. Antill.* iii. 21, *t.* 5, *ex Muell. Arg.*)—Flores monoici, apetali. Discus 0. Fl. ♂: Calyx parvus, membranaceus, breviter 2–3-fidus, lobis imbricatis. Stamina 2, filamentis in columnam demum breviter exsertam connatis, apice brevissime liberis; antheræ erectæ, loculis ovoideis contiguis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Calyx parvus, alte 3-fidus. Ovarium ∞ (6–9-) loculare; styli breves, basi in columnam connati, superne breviter liberi recurvi indivisi stellato-patentes; ovula in loculis solitaria. Drupa majuscula, indehiscens, carne crassa, endocarpio crassissimo osseo ∞-loculari. Semina (a nobis non visa) estrophiolata; albumen carnosum; cotyledones planæ, latæ.—Arbor glabra, succo copioso lacteo vehementer venenoso. Folia alterna, longe petiolata, lata, integerrima v. leviter serrata, pennivenia, reticulata. Spicæ terminales, rhachi crassiuscula. Bracteæ dissitæ, basi utrinque glandula peltata instructæ. Flores ♂ sub quaque bractea 3–∞, subsessiles; ♀ sub bracteis infimis solitarii pariter subsessiles; in spicis nonnullis deficientes v. tardius evoluti.

Species 1, in maritimis Indiæ occidentalis, Americæ centralis et Columbiæ crescens. *Muell. Arg. in DC. Prod.* xv. ii. 1200. *A. Juss. Euph. Tent. t.* 16. *Baill. Etud. Euph. t.* 6. *Nutt. Sylv.* i. *t.* 60. *Regel Gartenfl. t.* 510.

183. **Maprounea,** *Aubl. Pl. Gui.* 895, *t.* 342. (Ægopricon, *Linn. f. Suppl.* 63.)—Flores monoici, apetali. Discus 0. Fl. ♂: Calyx parvus, membranaceus, breviter 3-lobus, lobis imbricatis. Stamina 2, rarius 1 v. 3, per anthesin exserta, filamentis in columnam connatis apice brevissime liberis; antheræ erectæ, loculis ovoideis contiguis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Calyx brevis, 3-lobus. Ovarium 3-loculare; styli in columnam connati, apice breviter liberi, patentes, indivisi;

ovula in loculis solitaria. Capsula globosa, vix tridyma, in coccos 2-valves dissiliens, columella sæpissime cum coccis decidua. Semina oblique obovoidea, superne oblique sub strophiola magna carnosa depressa, testa crustacea extus glanduloso-foveolata (v. lævi?); albumen carnosum (perfectum non vidimus); cotyledones planæ, latæ.—Frutices glabri, ramosissimi. Folia alterna, petiolata, parvula, ovata, integerrima, pennivenia et reticulato-venulosa, subtus sæpe secus costam v. venas primarias glandulis depressis 2–5 instructa. Spicæ ♂ dense capituliformes, ovoideæ v. subglobosæ, ad apices ramorum pedunculatæ, solitariæ v. in pedunculo ramoso paucæ. Bracteæ parvæ, imbricatæ, basi glandulosæ. Flores minimi, sub quaque bractea terni, sessiles. Flores ♀ 1–3 in pedunculo infra spicam ♂ v. in ramo ipso pedicellati, sub bractea parva solitarii.

Species 3, Americæ et Africæ inter tropicos incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 1190, *et in Mart. Fl. Bras.* xi. ii. 542, *t.* 81. *A. Juss. Euph. Tent. t.* 17. *Gærtn. Fruct. t.* 138 (*Ægopricon*). *Sm. Ic. ined. t.* 42 (*Ægopricon*). *Baill. Etud. Euph. t.* 7. *A. St. Hil. Pl. Us. Bras. t.* 65.

Genus naturalissimum inflorescentia facile distinctum. Seminum sub strophiola depressionem in generibus affinibus nunquam observavimus.

184. **Stillingia,** *Linn. Mant. n.* 1279.—Flores monoici, apetali. Discus 0. Fl. ♂: Calyx parvus, tenuiter membranaceus, brevissime et late 2–3-fidus. Stamina 2, rarissime 3, filamentis liberis exsertis; antherarum loculi ovoideo-globosi, distincti, contigui, paralleli, longitudinaliter dehiscentes. Ovarii rudimentum 0. Fl. ♀: Calyx 3-partitus v. rudimentarius v. 0. Ovarium 2–3-loculare; styli basi breviter in columnam connati, superne patentes breves v. longiusculi indivisi; ovula in loculis solitaria. Capsula 2–3-dyma, in coccos 2-valves dissiliens, columellam nullam reliquens, sed, pericarpii basi inter coccos persistente, receptaculum divaricato-3-cornutum induratum remanet. Semina subglobosa, strophiolata v. estrophiolata, testa crustacea; albumen carnosum; cotyledones planæ, latæ.—Frutices glabri. Folia alterna v. rarius opposita, breviter petiolata, integerrima v. glanduloso-denticulata. Spicæ terminales, simplices, bracteis brevibus latis 2-glandulosis. Flores ♂ sub quaque bractea sæpius 3, subsessiles, ♀ sub bracteis inferioribus solitarii, sessiles v. brevissime pedicellati, in spica pauci v. interdum spica omnino ♂.

Species enumeratæ 13, Americæ borealis et australis, ins. Mascarensium et maris Pacifici incolæ, nonnullæ tamen adhue dubiæ. *Muell. Arg. in DC. Prod.* xv. ii. 1156, *et in Mart. Fl. Bras.* xi. ii. 538, *t.* 76.

Genus quale a Muellero definitum certe *Sapio* valde affine, sed character e receptaculo post coccos delapsos indurato-3-cornuto absque columella persistente in ordine singularis est, in *S. sylvatica*, Linn., ex America boreali, et in *S. lineatæ* ex ins. Mascariensium insignis, in *S. dichotomæ*, Muell. Arg., e Brasilia minus prominens, nec in ullo alio genere nisi in nimis affini *Adenopeltide* observatur.

Gymnostillingia, *Muell. Arg. in Linnæa* xxxii. 89, *et in DC. Prod.* xv. ii. 1163, species 2 e Mexico et America centrali, ab auctore distinguitur perianthio ♀ (præter bracteam et bracteolas) 0 et seminibus estrophiolatis, sed etiam in specie typica *Stillingiæ* (*S. sylvatica*), calycis ♀ segmenta intra bracteam sæpe rudimentaria v. vix ulla, et seminum strophiola characterem nullum certum præbet.

Stillingia heterodoxa, Muell. Arg., e Brasilia, fruticulus stellato-tomentosus, spicis gracilibus axillaribus, perianthiis ♂ 3-partitis, floribus ♀ ignotis, charactères *Sebastianeæ* v. *Excœcariæ* potius quam *Stillingiæ* præbet.

Stillingia lineata var. *densiflora*, Baker, Fl. Maurit. 314, ex ins. Seychelles, est *Excœcariæ* species nova, inflorescentia floribus et fructu omnino *E. Agallochæ*, sed folia multo majora coriacea nitidaque *Stillingiæ lineatæ*.

185. **Sapium,** *P. Br., Hist. Jam.* 338. (Triadica, *Lour. Fl. Cochinch.* 610. Stillingfleetia, *Boj. Hort. Maurit.* 284. Carumbium, *Kurz, For. Fl. Brit. Burm.* ii. 411, *non Reinw.*)—Flores (an semper?) monoici, apetali. Discus 0. Fl. ♂: Calyx parvus, membranaceus, breviter et inæqualiter dentatus v. lobatus, apertus v. subimbricatus, demum sæpe ad basin valvatim 2–3-fissus. Stamina 2 v. 3, filamentis liberis; antherarum loculi ovoidei, distincti, contigui, paralleli, longitudinaliter dehiscentes. Ovarii rudimentum 0.

Fl. ♀: Calyx 3-fidus v. fere 3-partitus. Ovarium 2-3-loculare; styli distincti v. basi breviter connati, recurvo-patentes, indivisi; ovula in loculis solitaria. Capsula plus minus carnosa v. pulposa, in speciebus normalibus demum loculicide dehiscens, nec in coccos 2-valves dissiliens. Semina globosa, estrophiolata, in columella 3-alata post capsulam apertam sæpissime persistentia, testa crustacea extus sæpe pulposa; albumen carnosum; cotyledones planæ, latæ.—Arbores fruticesve sæpius glabri. Folia alterna, petiolata, integerrima v. rarius dentata, penninervia, petiolo apice sæpe 2-glanduloso. Spicæ v. racemi terminales, solitarii v. in una specie ∞ paniculati. Flores ♂ sub quaque bractea sæpius 3, ♀ ad basin spicæ plures, sub quaque bractea solitarii, in spica solitarii v. 0. Bracteæ parvæ, sæpe basi utrinque glanduliferæ.

Species ad 25, per regiones calidiores utriusque orbis late dispersæ. *Muell. Arg. in DC. Prod.* xv. ii. 1202, *et in Mart. Fl. Bras.* xi. ii. 612, *t.* 84, 85 (*Excæcariæ* sect.). *Baill. Etud. Euph. t.* 5, 6. *Nutt. Sylv. t.* 62 (*Stillingia*). *Miq. Stirp. Surin. t.* 29. *A. Rich. Fl. Cub. t.* 69 (*Stillingia*).

Genus a Muellero et nuper a Baillono *Excæcariæ* adjunctum, sed nobis ab eo distinctius videtur quam *Sebastiania* aliaque a Muellero retenta. Calyx ♂ non 3-partitus *Stillingiæ*, et capsula constanter diversa. Præter species typicas quarum pistillum in Asiaticis sæpius 2-merum in Americanis 3-merum, *E. abyssinica* et *E. Manniana*, Muell. Arg. (forte unius varietates) flores et fructus omnino *Sapii* ostendunt.

S. indicum, Willd.; Wight, Ic. t. 1950, perianthio ♂ omnino *Sapii*, ab hoc genere uti ab omnibus affinibus differt fructu; capsula magna, globosa, dura, tandem in coccos clausos secedit, columella nulla persistente. *Sclerocroton ellipticum*, Hochst., species Africana in Prodromo ad *S. indicum* relata, ex speciminibus nostris cum fructu juniore ab illo longe differt, nec rite ab *Excæcaria reticulata*, Muell. Arg., distinguimus.

Falconeria, *Royle, Illustr. Himal. Pl.* 354, *t.* 84A (98); *Wight, Ic. t.* 1866, species v. varietates 2 includit, floribus ♂ *Sapii*, spicis unisexualibus utriusque sexus longis multifloris, fructu baccato, endocarpio in pyrenas 2 indehiscentes demum secedente, columella ut videtur persistente; fructus tamen fere omnes in speciminibus integri remanent. Hæc uti *S. indicum* nostro sensu multo melius sub *Sapio* quam sub *Excæcaria* militat.

Conosapium, *Muell. Arg. in Linnæa*, xxxii. 87, *et in DC. Prod.* xv. ii. 1154, species Madagascariensis a nobis non visa, a Baillono cum *Sapio* ad *Excæcariam* relata, ex charactere dato in omnibus cum *Sapio* convenit exceptis stylis a latere compressis. Stamina 3, centralia, receptaculo conico-acutato affixa dicuntur, quod vix differt a staminum filamentis basi connatis specierum nonnullarum aliarum. Fructu ignoto genus adhuc dubium remanet.

186. **Bonania**, *A. Rich. Fl. Cub.* iii. 201, *t.* 68.—Flores monoici (v. rarius dioici?) apetali. Discus 0. Fl. ♂: Calyx membranaceus, ore truncatus v. breviter lateque 2-3-lobus. Stamina 2, rarius 3, filamentis liberis brevibus; antheræ parvæ, loculis distinctis ovoideis contiguis parallelis. Ovarii rudimentum 0. Fl. ♀: Calyx alte 3-fidus. Ovarium 3-loculare; styli distincti v. vix basi connati, tenues, recurvo-patentes, indivisi; ovula in loculis solitaria. Capsula globosa, subtridyma, pericarpio carnoso in valvas 2-partitas potius quam in coccos dissiliens, columella persistente alata. Semina globosa, estrophiolata, columellæ sæpe adhærentia; embryo . . .—Fruticuli ramosissimi, glabri. Folia alterna, breviter petiolata, sæpe parvula, integerrima v. sæpius glanduloso-dentata v. serrulata. Racemi axillares, tenues. Flores ♂ sub quaque bractea sæpius 3, subsessiles, ♀ ad basin spicæ v. in alia axilla solitarii, sessiles v. pedicellati.

Species 6, Cubanæ, *Griseb. Cat. Pl. Cub.* 19, pleræque ad *Excæcariam* relatæ. *Muell. Arg. in DC. Prod.* xv. ii. 1212.

Genus quoad characteres *Sapio* valde affine sed habitu et inflorescentia longe differt. In speciebus typicis, *B. cubana*, A. Rich., *B. emarginata*, A. Rich., et *B. myricifolia* (*Excæcaria myricifolia*, Griseb.; Wright, n. 2007), flos ♀ ad basin spicæ ♂ in axilla arcte sessilis; in *Sapio adenodonte*, Griseb., *Excæcaria erythrosperma*, Griseb., et in specie inedita *Wright, n.* 3705, flos ♀ longe pedicellatus in eadem axilla ac spica ♂ v. in ramo (an in planta?) diverso. Hæ omnes characteres *Bonaniæ* ostendunt. In *Excæcaria Sagræi*, Muell. Arg. (Wright, n. 2006), cui errore quodam synon. *E. myreiæfolia*, Griseb., adducitur, spica terminalis videtur et capsula in coccos secedere et forte vera est *Excæcariæ* species, etsi calycis ♂ segmenta vix soluta videantur.

187. **Ditta**, *Griseb. in Mem. Amer. Acad. ser.* 2, viii. 160.—Flores dioici?, apetali, ♂

ignoti. Fl. ♀: Calyx minutus v. 0. Ovarium 2-loculare; styli 2, brevissimi, crassi, patentes, 2-lobi; ovula in loculis solitaria. Fructus in coccos (2-valves?) secedens v. abortu 1-coccus, pericarpio haud crasso. Semina globosa, testa aspera; embryo . . . —Frutex resinosus. Folia alterna, breviter petiolata, parvula, oblongo-lanceolata, coriacea, pennivenia, glandulis marginalibus subdentata. Flores ♀ parvi, ad axillas sessiles, solitarii v. gemini.

Species 1, Cubensis. *Muell. Arg. in DC. Prod.* xv. ii. 1138. Genus floribus masculis ignotis quoad affinitates valde incertum. Habitus *Bonaniæ*, sed styli valde diversi.

188. **Sebastiania,** *Spreng. Neue Entd.* ii. 118, *t.* 3. (Gussonia, *Spreng. l. c.* 119, *t.* 2.) —Flores monoici, apetali. Discus 0. Fl. ♂: Calyx minimus, membranaceus, jam ante anthesin apertus, inæqualiter 3–5-lobus v. partitus. Stamina 2 v. 3, rarissime 4, filamentis brevibus liberis v. vix basi connatis; antherarum loculi distincti, ovoidei, contigui, paralleli, longitudinaliter dehiscentes. Ovarii rudimentum 0. Fl. ♀: Calyx 3-partitus v. 3-lobus, ovario brevior. Ovarium 3-loculare, styli patentes v. revoluti, liberi v. basi brevissime connati, indivisi; ovula in loculis solitaria. Capsula tridyma v. subglobosa, in coccos 2-valves a columella centrali dissiliens, endocarpio crustaceo. Semina oblonga v. subglobosa, strophiolata, testa lævi; albumen carnosum; cotyledones planæ, latæ.—Frutices sæpius tenues, rarius herbæ. Folia alterna, sæpius parvula v. angusta, integerrima v. minute serrulata, vix coriacea, pennivenia. Racemi graciles, terminales v. simul axillares v. laterales. Flores ♂ minimi, sæpius sub quaque bractea 2–3, breviter pedicellati v. subsessiles; ♀ ad basin racemi v. in caule paullo inferius pauci sæpius singuli, distinctius pedicellati; racemi tamen interdum omnino ♂. Bracteæ minimæ, sub fl. ♀ utrinque glanduliferæ v. eglandulosæ.

Species ad 40, quarum una inter tropicos orbis veteris incola, una in civitatibus australioribus Americæ borealis reperitur, cæteræ omnes Americanæ tropicæ imprimis Brasilianæ, ex his tamen una etiam in Africa tropica occidentali invenitur. *Muell. Arg. in DC. Prod.* xv. ii. 1165, *et in Mart. Fl. Bras.* xi. ii. 545, *t.* 77 *ad* 80, exclusis tamen speciebus nonnullis ad *Gymnanthem* referendis.

Genera plurima in Prodromo cum *Gymnanthi*, Swartz, sub nomine Sprengeliano juncta, ibidem a *Stillingia* distinguuntur capsulæ columella persistente receptaculo non 3-cornuto, ab *Excœcaria* seminibus strophiolatis, melius tamen naturæ consentire videtur si *Gymnanthem* excludimus, et genera sequentia sola pro sectionibus retinemus. Genus ita reformatum *Excœcariæ* quam maxime affine, calyce et capsula conforme, differt inflorescentia ad normam (non tamen constanter) terminali et seminibus strophiolatis.

1. Dimrysinia, *Rafin. Neogenet.* 2. Species boreali-Americana (*S. ligustrina*) habitu fere *Stillingiæ*, characteribus omnino *Microstachyos* nisi perianthium fl. ♂ magis evolutum late et inæqualiter 3–5-lobum. Capsulæ cocci læves.

2. Microstachys, *A. Juss. Euph. Tent.* 48, *t.* 15. (Cnemidostachys, *Mart. Nov. Gen. et Sp.* i. 66, *t.* 40 *ad* 44, *antea in Reise* 206 *nomen tantum.* Elachocroton, *F. Muell. in Hook. Kew Journ.* ix. 17). Rami sæpius tenues. Spicæ terminales v. oppositifoliæ. Capsulæ cocci sæpius tuberculis 2 v. paucis muricati. *Vahl, Ecl. t.* 19 (*Tragia*). *Karst. Fl. Columb. t.* 117 (*Microstachys*). *Wawra in Pr. Maxim. Reise, Bot. t.* 44 (*Cnemidostachys*).

3. Sarothrostachys, *Klotzsch. in Wiegm. Archiv.* vii. 185. Spicæ pleræque tenues, breves, ad axillas ∞ fasciculatæ, nonnullæ tamen ad apices ramorum hornotinorum solitariæ terminales. Calyx ♂ omnino *Microstachyos*. Capsulæ cocci læves. Species paucæ Brasilianæ quarum una etiam in Africa tropica. *Wawra in Pr. Maxim. Reise, Bot. t.* 45.

4. Adenogyne, *Klotzsch in Wiegm. Archiv.* vii. 183. Spicæ terminales cum nonnullis axillaribus. Calyx ♂ quam in præcedentibus magis obliquus et inæqualis, late 2–3-fidus v. fere partitus, vix tamen unilateralis. Capsulæ cocci læves. Ramuli sæpe spinescentes. Species Americanæ tropicæ.

5. *Eusebastiania.* Spicæ terminales. Calycis ♂ segmenta 3, angusta v. acuminata v. brevissime basi sæpius dilatata et leviter connata, interdum fimbriata, semper parva non unilateralia. Capsulæ cocci læves. Species Americanæ tropicæ. Sprengel l. c. bracteas flores ♂ subtendentes pro calycibus descripsit et distinxit *Sebastianiam*, bracteis basi extus 2-glandulosis, et *Gussoniam*, bracteis eglandulosis.

189. **Excœcaria,** *Linn. Gen. n.* 1102. (Commia, *Lour. Fl. Cochinch.* 605.)— Flores dioici v. rarius monoici, apetali. Discus 0. Fl. ♂: Calycis segmenta 3 rarius 2, parva, distincta, subæqualia, angusta v. latiora et imbricata. Stamina 2–3, filamentis liberis; antherarum loculi distincti, ovoidei, paralleli, contigui, longitudinaliter dehiscentes. Ovarii rudimentum 0. Fl. ♀: Calyx 3-fidus v. 3-partitus. Ovarium 3-loculare; styli basi breviter connati, recurvo-patentes, indivisi; ovula in loculis solitaria. Capsula tridyma, in coccos 2-valves a columella persistente dissiliens, endocarpio crustaceo parum indurato. Semina globosa, estrophiolata, testa crustacea; albumen carnosum; cotyledones planæ, latæ.—Arbores fruticesve glabri. Folia alterna v. opposita, breviter v. longiuscule petiolata, integerrima v. parce dentata, sæpe coriacea, pennivenia, ampla v. mediocria. Racemi axillares laterales v. interdum simul subterminales, in axillis haud raro fasciculati, rarius fere omnes terminales. Flores ♂ sub quaque bractea solitarii v. rarius terni, sæpius breviter pedicellati, pedicello basi 2-bracteolato, ♀ ad basin racemi ♂ 1–2 v. sæpius in racemis distinctis pauci. Bracteæ parvæ, in spica ♂ juniore sæpe dense imbricatæ.

Species descriptæ fere 30 sed plurimæ reducendæ videntur, Asiæ et Africæ tropicæ et subtropicæ, ins. Mascarensium et Australiæ incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 1213 (*sect.* 5 *ad* 7). *Benth. Fl. Austral.* vi. 152. *Kurz, For. Fl. Brit. Burm.* ii. 413. *Wight, Ic. t.* 1865. *Klotzsch in Pr. Waldem. Reise, Bot. t.* 21 (*Stillingia*).

Spirostachys, *Sond. in Linnæa* xxiii. 106 (*Excœcaria africana* et *E. melanosticta*, Muell. Arg.), nobis videtur ipsissima *E. Agallocha*, Linn., species typica dioica, foliis alternis, inflorescentia axillari, calycis ♂ segmentis angustis, et ab hac *Stillingia lineata* var. *densiflora*, Baker, non nisi foliis differt. In *E. oppositifolia* et in *E. cochinchinensi*, Lour. ex Muell. Arg., a qua *E. quadrangularis*, Muell. Arg., non differre videtur, folia alterna, spicæ axillares simulque subterminales et flores ♀ interdum adsunt ad basin spicæ ♂. In *E. japonica*, Muell. Arg., *E. acerifolia*, F. Didrichs. (sect. *Protaxanthus*, Didrichs. in Vidensk. Meddel. Nat. For. Kjöbenh. 1857, 129), et *E. reticulata*, Muell. Arg. (Sclerocroton, *Hochst. in Flora* 1845, 85), folia alterna, spicæ pleræque subterminales, et præsertim in *E. japonica*, calycis segmenta latiora sed a basi distincta imbricataque et capsula in coccos dissiliens omnino *Excœcariæ* nec *Sapii*.

Species Americanas a Muellero in Fl. Bras. ad *Euexcœcariam* relatas in herbariis nostris haud agnovimus. *E. potamophila* ex ic. in Mart. Fl. Bras. xi. ii. t. 80, vix non *Sebastianæ* species est.

Tænosapium, *Muell. Arg. in DC. Prod.* xv. ii. 1200, est species Madagascarjensis, a nobis non visa, prius ab auctore in *Excœcaria* inclusa et iterum ad hoc genus a Baillono relata, a cæteris *Excœcariis* separata ob stylos ut in *Conosapio* a latere valde compressis. Fructu ignoto genus adhuc dubium remanet.

190. **Gymnanthes,** *Sw. Prod. Fl. Ind. Occid.* 95. (Excœcaria, *Griseb. Fl. Brit. W. Ind.* 50; *Cat. Pl. Cub.* 20, *excl. sect.* Gymnosopsis.)—Flores monoici v. rarius dioici. Perianthium rudimentarium v. 0. Discus 0. Fl. ♂: Stamina 2, rarius 3, filamentis liberis v. basi breviter connatis; antheræ erectæ, ovoideæ, loculis parallelis contiguis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Ovarium 3-loculare; styli liberi v. basi brevissime connati, recurvi, indivisi; ovula in loculis solitaria. Capsula tridyma, in coccos 2-valves a columella persistente dissiliens. Semina globosa, strophiolata v. rarius nuda, testa crustacea; albumen carnosum; cotyledones planæ, latæ.—Frutices glabri. Folia alterna, petiolata, integerrima, coriacea, pennivenia. Racemi axillares v. ad nodos vetustos, rarius simul terminales, solitarii v. fasciculati. Bracteæ parvæ, nunc minutæ v. obsoletæ, sæpe basi introrsum præsertim sub fl. ♀ bracteolis v. glandulis 2 comitatæ. Flores ♂ sæpius 1–3-ni, intra bracteam pedicellati, bractea rarius pedicello adnata; ♀ ad basin racemi 1–2 v. in racemo distincto ∞, sub quaque bractea solitarii.

Species ad 10, Indiæ occidentalis incolæ, quarum 1 v. 2 etiam in America australi tropica inveniuntur, pleræque a Grisebachio l. c. in *Excœcaria*, a Muell. Arg. in DC. Prod. xv. ii. 1175, in *Sebastiania* inclusæ, ab utroque genere satis distinctæ videntur calyce ♂ omnino deficiente v. rarius ad squamellam minutissimam reducto. In fl. ♀ interdum vix certum est an squamellæ 3 minutæ inæquales pro bractea cum bracteolis ut in *Gymnostillingia*, Muell. Arg., v. pro perianthio rudimentario habendæ.

Excœcaria (*Dactylostemon*) *polyandra*, Griseb., a Muellero ex ordine rejecta ob florem herma-

phroditum semel observatum, nobis videtur vera *Gymnanthis* species, fasciculo florum diandrorum ab auctore pro flore unico polyandro descripto. Filamenta sæpius a basi libera, cujusve floris vix distincta, interdum tamen per paria plus minus coalita sunt, et in fasciculis nonnullis magis evolutis bractea 2-glandulosa sub pare adest. Flos hermaphroditus a Muellero Prod. p. 1225 descriptus est forte fasciculus florum magis evolutus flore centrali fœmineo.

191. **Actinostemon,** *Klotzsch in Wiegm. Archiv.* vii. 184. (Dactylostemon, *Klotzsch l.c.* 181.)—Flores monoici, apetali. Discus 0. Fl. ♂: Calyx 0. Stamina ∞ (usque ad 16 rarius 2–3), filamentis liberis; antheræ ovoideæ, erectæ, loculis distinctis parallelis contiguis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Calyx 0 v. e squamellis 1–3 minutis. Ovarium 3-loculare; styli basi in columnam tenuem brevem v. longiusculam connati, superne liberi, recurvo-patentes, indivisi; ovula in loculis solitaria. Capsula in coccos 2-valves dissiliens, collumella persistente. Semina subglobosa, strophiolata, testa crustacea; albumen carnosum; cotyledones planæ, latæ.—Frutices glabri v. gemmis innovationibusque sericeis. Folia alterna, breviter petiolata, vix v. demum coriacea, integerrima, pennivenia. Racemi terminales v. axillares, solitarii v. pauci, e gemmis squamis siccis imbricatis deciduis obtectis oriundi. Flores ♂ minimi, pedicello filiformi fulti, sub bracteis minimis sæpius 2–3-ni; ♀ solitarii, longe pedicellati.

Species enumeratæ 24, Americæ tropicæ imprimis Brasiliæ incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 1192 *ad* 1199, *et in Mart. Fl. Bras.* xi. ii. 591 *ad* 611, *t.* 82, 83.

Genus habitu, gemmis floriferis squamatis, sæpeque stylo, facile distinctum, cæterum *Gymnanthi* valde affine. Mueller Arg. *Dactylostemon* ab *Actinostemone* distinguit calyce ♀ evidentius evoluto et embryone transverso nec verticali, calyx tamen semper minutus v. rudimentarius in utraque serie specierum evolvitur v. deest. Semina raro in herbariis adsunt, plura tamen *Dactylostemonis verticillati*, Kl., examinavimus ubi embryonem sæpius transversum invenimus, interdum vero valde obliquum, et hic solus character haud sufficiens videtur ad genera cæterum simillima separanda.

192. **Adenopeltis,** *Bert.*; *A. Juss. in Ann. Sc. Nat. ser.* 1, xxv. 24.—Flores monoici, apetali. Discus 0. Fl. ♂: Calyx 0. Stamina 2, rarius 3, filamentis basi breviter connatis; antheræ erectæ, loculis ovoideis parallelis contiguis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Calyx 0. Ovarium 3-loculare; styli liberi v. vix basi connati, patentes, tenues, indivisi; ovula in loculis solitaria. Capsula tridyma, in coccos 2-valves dissiliens, columellam nullam relinquens, sed pericarpii basi inter coccos persistente, receptaculum divaricato-3-cornutum induratum remanet. Semina subglobosa, estrophiolata, testa crustacea; albumen carnosum; cotyledones planæ, latæ.—Frutex glaber, *Stillingiæ* simillimus. Folia alterna, breviter petiolata, glanduloso-denticulata, pennivenia. Spicæ terminales v. in axillis superioribus simplices, bracteis latis basi intus 2-glandulosis. Flores ♂ sub quaque bractea solitarii v. rarius 2–3-ni, subsessiles; ♀ ad basin spicæ 1–2 sub bracteis solitarii, glandulæ ad bracteas ♂ peltatæ, stipitatæ, basi nudæ v. parce fimbriatæ, ad bracteas ♀ fimbriato-multifidæ.

Species 1, Chilensis, vix a *Stillingia* distinguenda floribus etiam ♂ perianthio omnino orbatis. *Muell. Arg. in DC. Prod.* xv. ii. 1164. *Baill. Etud. Euph. t.* 7.

193. **Colliguaja,** *Molin. Hist. Chil. ed. angl.* i. 291 (*male*).—Flores monoici, apetali. Discus 0. Fl. ♂: Calyx e squamellis 1–2 minutis v. sæpius 0. Stamina 2–3, filamentis brevibus liberis; antheræ ovatæ, loculis contiguis parallelis longitudinaliter 2-valvibus. Ovarii rudimentum 0. Fl. ♀: Calycis squamellæ 2–3, parvæ, bracteolas simulantes. Ovarium 3-loculare; styli basi breviter connati, superne patentes, lineares, crassiusculi; ovula in loculis solitaria. Capsula tridyma, in coccos 2-valves a columella 3-alata dissiliens, endocarpio duro. Semina subglobosa, testa crustacea indurata; albumen carnosum; cotyledones latæ, planæ.—Frutices habitu *Stillingiæ*. Folia alterna v. passim opposita, brevissime petiolata, integerrima v. glanduloso-denticulata v. serrulata, coriacea, venis præter costam parum conspicuis. Racemi terminales. Flores ♂ ad quamque bracteam ∞, ob pedunculum bracteæ adnatum bracteæ ipsæ inserti videntur, alii sessiles uno sæpe pedicellato florem unicum polyandrum simulant, sæpe tamen ut in *Gymnanthe polyandra* (*Excœcaria*, Griseb.) squamellæ minutæ 1–2 adsunt sub filamentis floris pedicellati. Flores

♀ ad basin racemi 1-2 sæpius nec semper adsunt sessiles, sub bractea solitarii. Capsula majuscula.

Species 5, Americæ australis extratropicæ incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 1226, *et in Mart. Fl. Bras.* xi. ii. 631, *t.* 85. *Hook. Bot. Misc. t.* 39, 40. *Deless. Ic. Sel.* iii. *t.* 88. *Baill. Etud. Euph. t.* 7.

194. **Dalembertia,** *Baill. Etud. Euph.* 545, *t.* 5, *et Adans.* xi. 124.—Flores monoici, apetali. Discus 0. Fl. ♂: Calyx 0 v. ad squamellam unicam (bracteam?) reductus. Stamen 1; antheræ loculi distincti, adnati, contigui, paralleli, longitudinaliter dehiscentes. Ovarii rudimentum 0. Fl. ♀: Sepala 3, parva, imbricata, basi 2-glandulosa (bractea cum bracteolis?). Ovarium 3-loculare; styli basi in columnam connati, superne recurvi indivisi; ovula in loculis solitaria. Capsula tridyma, in coccos 2-valves a columella persistente dissiliens, endocarpio duro. Semina globosa, estrophiolota, testa crustacea; albumen et embryo normalia?—Suffrutices glabri v. pilis simplicibus vestiti. Folia alterna, petiolata, rhombea, repando-dentata v. lobata, rarius subintegerrima, basi 3-5-nervia. Racemi terminales, pedunculati, floribus ♂ ∞ (ternatim pedicellatis?), ♀ ad basin racemi masculi v. in ramo diverso solitariis.

Species 4, Mexicanæ. *Muell. Arg. in DC. Prod.* xv. ii. 1225. Ex his *D. platanoides,* Baill., sola nobis adest floribus fœmineis et fructu. Char. fl. ♂ ex Baill, l. c.

195. **Hura,** *Linn. Gen. n.* 1087; *Hort. Cliff. t.* 34.—Flores monoici, apetali. Discus 0. Fl. ♂: Calyx membranaceus, breviter cupulatus, margine truncatus denticulatus. Stamina ∞ (8-20), filamentis cum connectivis continuis in columnam crassam apice depressam loculos superantem connatis; antherarum loculi distincti, extrorsum adnati, paralleli, in verticillos 2-4 infra apicem columnæ dispositi, longitudinaliter dehiscentes. Ovarii rudimentum 0. Fl. ♀: Calyx coriaceus, late cupulatus, truncatus, integerrimus, ovarium laxe cingens. Ovarium 5-20-loculare; styli in columnam longam carnosam alte connati, apice radiato-patentes, indivisi; ovula in loculis solitaria. Capsula magna, depressa, coccis verticillatis lignosis demum a columella crepitu dissilientibus. Semina a latere compressa, estrophiolata, testa crustacea; albumen carnosum; cotyledones latæ, planæ.—Arbores proceræ. Folia alterna, petiolata, lata, crebre penninvenia et transversim venulosa. Spicæ ♂ ad apices ramorum pedunculatæ, oblongæ, crassæ, floribus sessilibus confertis sub quaque bractea solitariis. Bracteæ membranaceæ, primum alabastrum involventes clausæque, per anthesin irregulariter ruptæ. Flores ♀ in axillis summis v. sub spica ♂ solitarii, pedicello crasso fulti.

Species 2 v. 3, Americanæ tropicæ, quarum una inter tropicos orbis veteris diu culta interdum inquilina dicitur. *Muell. Arg. in DC. Prod.* xv. ii. 1229, *et in Mart. Fl. Bras.* xi. ii. 632, *t.* 86. *Baill. Etud. Euph. t.* 6.

196. **Algernonia,** *Baill. in Ann. Sc. Nat. ser.* 4, ix. 198; *Etud. Euph.* 546, *t.* 2. (**Tetraplandra,** *Baill. in Ann. l. c.* 200; *Etud. Euph.* 549, *t.* 5.)—Flores monoici, apetali. Discus 0. Fl. ♂: Sepala 3, minima, imbricata (an bractea cum bracteolis?). Stamen 1, filamento basi v. supra basin articulato (an infra articulationem pedicellus dicendum?); antheræ loculi distincti, connectivo crassiusculo lateraliter adnati in alabastro, profunde sulcati subdidymi, in flore aperto sæpius longitudinaliter 2-partiti, anthera aperta in loculos 4 cruciatim æquidistantes longitudinaliter dehiscentes divisa (an stamina 2 filamentis in columnam connatis antheris circa apicem sessilibus 2-locularibus?); rarius in flore aperto anthera unica 2-locularis. Ovarii rudimentum 0. Fl. ♀: Calyx 3-fidus v. 3-partitus, lobis segmentisve latis imbricatis. Ovarium 3-loculare; styli in columnam connati, superne recurvo-patentes, papillosi v. fimbriati, indivisi; ovula in loculis solitaria. Capsula medio circumcirca horizontaliter angulata v. varie alata, matura nobis ignota, ex Muell. Arg. in coccos 2-valves dissiliens, seminibus subglobosis lævibus estrophiolatis. —Frutices glabri. Folia alterna, longiuscule v. breviter petiolata, in ramulis sæpe conferta, integerrima v. parce dentata, pennivenia, nitidula et siccitate sæpe fuscescentia. Spicæ ♂ terminales, tenuiter amentiformes. Bracteæ membranaceæ longitudinaliter

adnatæ, supra flores juniores arcte clausæ, per anthesin irregulariter longitudinaliter ruptæ. Flores (i.e. stamina) sub quaque bractea exserti ad 3, secus rhachin superpositi. Flores ♀ ad basin spicæ 1–2, intra bracteam basi 2-glandulosam solitarii, subsessiles, bracteolis 2 sæpius stipati.

Species 4, Brasilianæ. *Muell. Arg. in DC. Prod.* xvi. ii. 1230, *et in Mart. Fl. Bras.* xi. ii. 536, *t.* 87, *et* 534, *t.* 104 (*Algernonia et Tetraplandra*).

Tetraplandra ab *Algernonia* ab auctoribus distinguitur anthera 4-locellata. Specimina nostra, sat numerosa, fere omnia spicas ♂ nondum apertas proferunt, et in his omnibus utriusque generis antheras similes vidimus, 2-loculares apparent, loculis vix distincte in locellos divisis. In uno solo specimine *A. brasiliensis* stamina bene exserta vidimus, antheris cruciatim 4-locellatis, in altero specimine *A. obovatæ*, Muell. Arg., antheræ subexsertæ, aliæ 4-locellatæ aliæ 2-locellatæ. Spicarum ♂ structura alterius in vivo scrutanda. Genus interea in integrum servatum naturalissimum est et bracteis aliisque notis facillime distinguendum.

197. **Pera,** *Mutis in K. Vetensk. Akad. N. Handl. Stockh.* v. (1784), 299, *t.* 8. (Perula, *Schreb. Gen. Pl.* 703.)—Flores dioici v. rarius monoici, apetali, ∞ in involucris calyciformibus globosis per anthesin latere hiantibus v. valvatim 2-fidis inclusi. Discus 0. Fl. ♂: Calyx parvus, valvatim 2–3-fidus v. rudimentarius v. 0. Stamina 2–6, filamentis ima basi v. alte connatis; antheræ basi v. altius dorsifixæ, loculis parallelis contiguis longitudinaliter dehiscentibus. Ovarii rudimentum intra flores ♂ 0, sed interdum cum floribus ♂ in involucro 3–4. Fl. ♀: Calyx 0, nisi ad squamellam minutam reductus. Ovarium 3-loculare; stylus brevissimus; stigmate crassiusculo peltato disciformi v. obtuse 3-lobo in vertice ovarii subsessili; ovula in loculis solitaria. Capsula globosa v. pyriformis, pericarpio duro, in valvas 3 2-fidas dehiscens, septis præter columellam centralem 3-alatam evanidis. Semina ovoidea v. obovato-compressa, testa crustacea nitida nigra; albumen crasso-carnosum; cotyledones planæ, latæ.—Arbores fruticesve glabri v. pubescentes. Folia alterna, breviter petiolata, integerrima, coriacea, pennivenia. Involucra sæpius pisiformia, ad axillas foliorum v. ad nodos vetustos glomerata, breviter pedicellata v. subsessilia, ad apicem pedicelli 1–2-bracteolata. Flores in involucro sessiles, 2–4 v. interdum ♂ 6–8.

Species descriptæ 20, Americæ tropicæ incolæ. *Muell. Arg. in DC. Prod.* xv. ii. 1025, *et in Mart. Fl. Bras.* xi. ii. 423, *t.* 61.

Klotzsch in Wiegm. Archiv. vii. 178 genus in 4 dividit, scil.:—1. Schismatopera (*P. distichophylla*), involucro ♂ 1-bracteato ovarii rudimenta 3–4 cum floribus ♂ includente, filamentis in columnam tenuem connatis apice breviter liberis. 2. Pera (*P. arborea*), involucro ♂ 2-bracteato ovarii rudimenta 3–4 cum floribus ♂ includente, filamentis brevibus planis liberis. 3. Spixia, *Leandr. Sacram. in Denkschr. K. Acad. Wiss. Munch.* vii. 231, *t.* 13 (*P. Leandri*) involucro ♂ 2-bracteolato ovarii rudimenta cum floribus ♂ includente, filamentis tenuibus basi breviter connatis. 4. Peridium, *Schott in Spreng. Syst. Cur. Post.* 410, involucris ♂ ovarii rudimentorum orbatis. Hæc genera admittit Mueller Argoviensis pro sectionibus, cum sectione nova *Diplopera*, specie a nobis non visa, involucris perfecte androgynis; et *Peridium* in sectiones 2 dividit; *Neopera*, Griseb., perianthio in floribus ♂ evoluto, et *Peridium* perianthio omnino deficiente.

Inter species Prodromi v. Fl. Brasiliensis, *P. echinocarpa*, Baill. Adans. v. 223, a nobis non visa, et specimine fructifero sola nota, est forte *Chætocarpi* species. *P. decipiens*, Muell. Arg., ad *P. bicolorem* restituenda, nam specimina eadem a Rob. Schomburgkio numeribus 685 et 686, et a fratre Rich. Schomb. numeribus 1070 et 1071, designata fuerunt. Sub *P. distichophylla* statio 'Ceara, *Gardner n.* 918' error est pro 'Guiana, *Schomburgk n.* 918.'

Semina a Klotzschio exalbuminosa dicuntur cotyledonibus crassis carnosis, a Baillonio ad normam albuminosa cotyledonibus latis planis. Matura in herbariis perrara sunt, duo tantum (*P. Leandri*) examinavimus, in uno albumen perfectum carnosum bipartibile invenimus, embryonem tamen haud deteximus; in altero albumen et embryonem statu perfecto vidimus. Plura *P. glabratæ* aperimus adhuc immatura, sed embryo jam intra albumen adhuc tenuius formatus fuit.

Ordo CLII. BALANOPSEÆ.

Flores dioici, ♂ in spicis amentaceis sparsi, breviter pedicellati v. subsessiles. *Perianthium* (v. bracteola ?) ad apicem pedicelli e squama unica unilaterali. *Stamina* ∞ (2–12 sæpius 5–6) filamentis brevissimis v. 0. *Antheræ* in toro subsessiles, ovatæ, loculis 2 parallelis dorso contiguis, rima longitudinali latiuscule 2-valvibus, connectivo interdum in acumen minutum producto. *Ovarii* rudimentum 0 v. rarius in flore terminali minutum, 2-partitum. Fl. ♀, intra involucrum e bracteis ∞-seriatim imbricatis solitarii, sessiles. *Perianthium* 0. *Ovarium* sessile, placentis 2 parietalibus imperfecte 2-loculare; apice in stylos 2 fere ad basin 2-partitos desinens, ramis stigmatosis longe subulatis flexuosis. *Ovula* in quaque placenta 2, collateralia, a basi erecta, anatropa, funiculis brevibus supra micropylem in obturatorem dilatatis. *Drupa* involucro persistenti insidens, ovoidea v. oliviformis, 2-pyrena v. abortu 1-pyrena; epicarpium subcoriaceum, nitidum; mesocarpium succulentum; pyrenæ, si duæ, facie plana sese applicitæ, dorso convexæ, duriusculæ v. osseæ. *Semina* in quaque pyrena solitaria, a basi erecta, subsessilia, pyrenæ conformia; testa membranacea. *Albumen* carnosum. *Embryo* albumine paullo brevior, rectus, cotyledonibus late ovatis v. oblongis planis tenuibus v. crassiuscule carnosis, radicula tereti infera.

Arbores fruticesve. Folia alterna v. sparsa, sæpe subverticillatim approximata, coriacea, integerrima v. rarius leviter denticulata, pennivenia. Stipulæ 0. Amenta mascula et flores fœminei in ramulis annotinis v. vetustioribus infra folia sparsa, sessilia. Bracteæ squamiformes, ∞-seriatim imbricatæ, ad basin amenti ♂ minimæ, caducissimæ, sub flore ♀ ab exterioribus in interiores gradatim increscentes, sub fructu v. post drupas delapsas persistentes; bracteæ præterea minutæ glanduliformes in rhachi amenti ♂ plures. Bracteola ad quemque florem a Baillono memorata nobis potius, uti supra, perianthii rudimentum videtur.

Species 6 v. 7, omnes Novo-Caledonicæ.

Ordo e genere unico constans, a Baillono dubie ad *Castaneas* suas (*Cupuliferas*) relatus, characteribus pluribus essentialibus abhorret. Nobis *Euphorbiaceis* multo affinior videtur. Flores masculi omnino *Daphniphylli*; ovula in loculis ovarii gemina collateralia, funiculi obturator, fructus drupaceus, embryo in albumine carnoso rectus, stylorum conformatio et habitus conveniunt, sed a toto ordine differt ovulis seminibusque a basi erectis nec ab apice pendulis.

1. **Balanops,** *Baill. Adans.* x. 117, 337; *Hist. Pl.* vi. 237, *f.* 207 *ad* 213.—Genus unicum. Character ordinis.

Species uti supra 6 v. 7, quarum examinavimus flores ♂ in sp. 2, fructus in sp. 3. Flores fœmineos non vidimus, eorum characteres ex descr. Bailloni excerpsimus.

Ordo CLIII. URTICACEÆ.

Ulmaceæ, Celtideæ, Moreæ, Artocarpeæ, Urticaceæ et Cannabineæ, Endl. Gen. 275 ad 286. Urticaceæ, Moraceæ et Artocarpaceæ, Lindl. Veg. Kingd. 260 ad 271; et Ulmaceæ, Lindl. l.c. 580. Ulmaceæ, Baill. Hist. Pl. vi. 137.

Flores unisexuales v. rarius polygami, regulares v. reductione irregulares. *Perianthium* simplex, calycinum, sæpius parvum, lobis segmentisve imbricatis valvatisve, v. in flore ♀ sæpe subclausum foramine terminali parvo, v. arcte adnatum v. 0. *Discus* hypogynus obscurus v. 0. Fl. ♂: *Stamina* tot quot perianthii lobi iisque opposita et interdum basi adnata, rarissime lobis pauciora v. aliquanto plura; filamenta inter se libera v. rarissime basi connata. *Antheræ* ovatæ v. oblongæ, basifixæ v. sæpius prope basin dorsifixæ, loculis

2 distinctis oblongis v. curvulis, parallelis v. leviter divergentibus, rima longitudinali extrorsum lateraliter v. introrsum dehiscentibus. *Ovarii* rudimentum 0 v. plus minus evolutum. Fl. ♀: *Staminodia* rara. *Ovarium* superum v. in paucis generibus plus minus inferum, uniloculare, e carpello unico constans. *Stylus* primum terminalis, mox tamen carpello oblique accreto sæpius excentricus v. fere lateralis, indivisus 2-fidus v. 2-partitus; stigma unicum, in stylo indiviso terminale v. obliquum v. plus minus uno latere decurrens, in stylo diviso ramos ambos introrsum a basi continuiter vestiens. *Ovulum* unicum v. rarissime altero mox abortiente comitatum, nunc basi v. prope basin affixum, erectum v. adscendens, orthotropum v. brevissime amphitropum, nunc apice v. sub apice affixum, pendulum, anatropum v. breviter amphitropum, micropyle semper supera. *Fructus* indehiscens, monospermus, sæpius parvus, nunc achænium siccum carnosulum v. succulentum liberum v. perianthio inclusum v. adnatum, nunc drupa libera, nunc fructus plures receptaculo carnoso plus minus immersi v. id obtegentes in syncarpium connati v. arcte conferti. *Semen* erectum, pendulum, v. lateraliter affixum, pericarpio subconforme, testa membranacea v. rarissime crustacea. *Albumen* 0, v. tenue embryonem involvens, rarius copiosius carnosum unilaterale v. inter plicas embryonis intrusum. *Embryo* nunc rectus v. curvus, cotyledonibus æqualibus carnosis, radicula brevi v. minima supera, nunc plus minus curvus, cotyledonibus varie inæqualibus v. plicatis v. involutis, radicula supera v. sursum incurva incumbente.

Arbores frutices v. herbæ, habitu vario. Folia alterna v. rarius opposita, integerrima dentata lobata v. palmatim partita nec pinnata et rarissime pinnatifida. Stipulæ nunc laterales distinctæ, nunc in unam intrapetiolarem connatæ, gemmam terminalem sæpe includentes, mox deciduæ cicatricem transversam v. annularem relinquentes, rarius in generibus paucis oppositifoliis utrinque in unam interpetiolarem connatæ. Inflorescentia primaria centripeta, axillaris v. ad nodos vetustos, nec unquam terminalis; ultima ad normam centrifuge cymulosa, interdum vero cymulis ad florem unicum reductis undique centripeta. Cymulæ dum plurifloræ in glomerulos seu capitula confertæ v. laxe 2-3-chotomæ, in pedunculo axillari solitariæ v. secus rhachin simplicem v. ramosam plures sessiles v. pedicellatæ, in spicam densam v. interruptam, in racemum v. in paniculam dispositæ, v. interdum flores in receptaculo carnoso densissime conferti cymulis vix v. non distinguendis. Bracteæ sæpius parvæ v. 0, interdum vero 2–4 v. plures ad basin glomeruli v. capituli imbricatæ. Bracteolæ sub quoque flore sæpius minimæ v. 0, interdum conspicuæ v. etiam flores occultantes.

Species bene notæ vix ultra 1500, per regiones calidiores temperatasque utriusque orbis late dispersæ, et tribus nostræ, ab auctoribus nonnullis pro ordinibus propriis habitæ, omnes utrique orbi communes sunt, *Ulmeæ* et *Cannabineæ* pleræque extratropicæ, *Urticeæ* etiam plurimæ et paucæ inter *Celtideas* et *Moreas* extra tropicos vigent, pleræque tamen ex his tribubus, et *Artocarpeæ* et *Conocephaleæ* fere omnes, inter tropicos limitatæ sunt.

Ordo optime limitatus, nulli inter *Polypetalas* arcte affinis. Weddell cum *Tiliaceis* comparat, sed nostro sensu characteribus primariis perianthii andrœcii et gynœcii longe distat. Inter *Monochlamydeas Euphorbiaceis* propius accedit, pro maxima parte tamen differt staminibus segmentis lobisve perianthii isomeris iisque oppositis, pistillo monocarpico, albumine tenui v. 0. Hi characteres tamen hinc inde etiam in *Euphorbiaceis* adsunt, etsi non omnes in eodem genere. Stamina perianthii segmentis opposita et isomera in pluribus *Phyllantheis*, pistillum monocarpicum in *Eremantho* et in *Macarangis* nonnullis, semen exalbuminosum v. albumine tenui in *Actephila, Discocarpo, Hevea, Simmondsia*, aliisque. *Urticaceæ* nonnullæ, imprimis e tribubus 1 ad 4, ab auctoribus pluribus dicarpicæ dicuntur, stylis 2 plus minus distinctis, ovario abortu 1-loculari; nostro sensu tamen stylus semper unicus, sed more stylorum plurium *Euphorbiacearum* sæpe alte 2-fidus, ramis a basi stigmatosis nec stigmata distincta ferentibus.

FORMÆ ABNORMES.

Flores fertiles nonnulli v. plerique hermaphroditi in *Ulmeis*, in generibus pluribus e *Celtideis*, et interdum in *Parietaria*.

Stamina ∞ in *Ampelocera* et *Thelygono*, in quoque flore solitaria in *Forskohlieis* et in generibus pluribus *Artocarpearum*, numerosa squamis intermixta nec in flores distinctos segregata, capitulum

formantia in *Pseudolmedia Castilloa* et *Parartocarpo*; spicam in *Sahagunia* et *Clarisia*. Antheræ lineares in *Thelygono*.

Stylus latus, plano-compressus, cum ovario continuus in *Phyllestyle*, fere basilaris in *Thelygono*. Pistilla abortiva florum ♂ filiformia longe exserta stylos perfectos simulantia in *Helicostyle*.

Albumen sat copiosum carnosum in *Tremis* paucis, in *Parasponia*, *Cannabineis*, *Moro*, *Bosquiea*, *Sceptrocnide*, *Distemone?*, *Cypholopho*, *Parietaria*, *Thelygono*, et hinc inde in speciebus perpaucis aliorum generum.

CONSPECTUS TRIBUUM.

* *Ovulum pendulum.*

Tribus I. Ulmeæ. Flores plerique hermaphroditi, *gemmis floriferis in ramis annotinis aphyllis* rarius demum in ramum foliatum excrescentibus. Antheræ ab initio erectæ. Fructus non drupaceus. Embryo rectus, cotyledonibus planis v. longitudinaliter complicatis.

Tribus II. Celtideæ. Flores unisexuales v. nonnulli hermaphroditi, ad axillas cymosi v. solitarii. Antheræ ab initio erectæ. Fructus drupaceus. Embryo curvus, cotyledonibus varie plicatis v. involutis.

Tribus III. Cannabineæ. Flores dioici, masculi paniculati, fœminei sessiles. Antheræ ab initio erectæ. Achænium parvum.

Tribus IV. Moreæ. Flores unisexuales. Antheræ in alabastro reversæ, filamentis inflexis.

Tribus V. Artocarpeæ. Flores unisexuales, masculi v. utriusque sexus in receptaculo carnoso numerosi, rarissime racemosi. Antheræ ab initio erectæ.

** *Ovulum erectum, orthotropum.*

Tribus VI. Conocephaleæ. Flores unisexuales. Antheræ 4–5, ab initio erectæ. Arbores fruticesve.

Tribus VII. Urticeæ. Flores unisexuales v. rarissime pauci hermaphroditi. Antheræ 1–5, in alabastro reversæ, filamentis inflexis. Embryo rectus.

Tribus VIII. Thelygoneæ. Flores unisexuales. Antheræ ∞, ab initio erectæ. Herbæ. Embryo curvus.

Succus in tribubus 4, 5 et 6 sæpius, in cæteris nunquam (v. rarissime?), lactescens. Tribus omnes in utroque orbe terrarum vigent. Genera herbacea in *Cannabineis*, *Urticeis*, et *Thelygoneis* adsunt, perpauca in *Moreis*, nulla in cæteris tribubus.

CONSPECTUS GENERUM.

Tribus I. Ulmeæ. Arbores inermes. Gemmæ floriferæ ad nodos ramorum annotinorum sessiles, fasciculum prodeuntes aphyllum v. rarius demum in ramum foliatum excrescentem. Flores in fasciculo inferiores sæpius masculi, superiores, rarius omnes, fertiles sæpissimeque hermaphroditi. Staminum filamenta recta v. vix apice inflexa, antheris jam in alabastro erectis. Ovarium sessile v. stipitatum; stylus plus minus excentricus, ramis stigmatosis 2 subæqualibus indivisis; ovulum ex apice pendulum, anatropum v. brevissime amphitropum. Fructus compressus, apice obliquus, siccus v. tenuiter carnosus, sæpe alatus v. appendiculatus. Embryo rectus, cotyledonibus æqualibus latis planis v. longitudinaliter complicatis.

1. Ulmus. Fructus stipitatus, ala lata cinctus. Cotyledones planæ. Folia serrata.—*Utriusque orbis hemisph. bor.*

2. Holoptelea. Fructus stipitatus, ala lata cinctus. Cotyledones longitudinaliter complicatæ. Folia arboris adultæ integerrima.—*Ind. or.*

3. Phyllostylon. Ovarium sessile, cum stylo lato plano-compresso falcato v. late divaricato-bilobo continuum. Folia serrata.—*Brasilia.*

4. Planera. Fructus exalatus, undique subcarnoso-muricatus. Cotyledones planæ. Folia serrata. Florum fasciculi post anthesin in ramum foliatum excrescentes.—*Amer. bor.*

Tribus II. Celtideæ. Arbores rarius frutices, inermes v. spinis axillaribus armatæ. Flores in ramis hornotinis axillares, cymosi fasciculati v. fertiles solitarii, unisexuales v. fertiles hermaphroditi. Staminum filamenta recta v. vix apice inflexa, antheris jam in alabastro erectis. Ovarium sessile v. rarius stipitatum; stylus centralis (v. in *Zelkova* excentricus), ramis stigmatosis 2 subæqualibus indivisis v. rarius divisis; ovulum apice v. sub apice affixum, pendulum, anatropum v. brevissime amphitropum. Fructus globosus v. ventricosus, drupaceus, endocarpio duro. Embryo curvus, cotyledonibus varie plicatis incurvis v. involutis, radicula sursum incumbente v. ascendente.

* *Flores fertiles sæpe hermaphroditi. Cotyledones latissimæ.*

5. Zelkova. Perianthium ♂ breviter lobatum. Stylus excentricus. Fructus dorso sæpius carinatus, interdum carinam versus attenuatus. Folia a basi pennivenia; stipulæ laterales, liberæ.—*Creta, Asia temp. occid et or.*

6. Ampelocera. Perianthium 4–5-fidum. Stamina 10–16. Stylus centralis. Drupa globosa, exalata. Cotyledones contortuplicatæ. Folia a basi pennivenia.—*Chile, Cuba.*

7. Celtis. Perianthii ♂ segmenta imbricata. Stylus centralis. Fructus æqualis, exalatus. Folia basi 3-nervia; stipulæ laterales, liberæ.—*Utriusque orbis reg. temp. et trop.*

8. Pteroceltis. Perianthii ♂ segmenta imbricata. Stylus centralis. Fructus æqualis, ala lata cinctus. Folia basi 3-nervia; stipulæ laterales, liberæ.—*Mongolia v. China bor.*

** *Flores fertiles sæpe hermaphroditi. Embryo involutus, cotyledonibus angustis.*

9. Trema. Perianthii ♂ segmenta induplicato-valvata. Stylus centralis. Folia trinervia; stipulæ laterales, liberæ.—*Utriusque orbis reg. calid.*

10. Parasponia. Perianthii ♂ segmenta valde imbricata. Stylus centralis. Folia trinervia; stipulæ in unam intrapetiolarem connatæ.—*Archip. Malay., ins. Pacif.*

*** *Flores omnes unisexuales. Embryo involutus, cotyledonibus angustis.*

11. Aphananthe. Perianthii ♂ segmenta valde concava fere induplicata. Folia 3-nervia; stipulæ laterales, liberæ.—*Archip. Malay., Austral., Japonia.*

12. Gironniera. Perianthii ♂ segmenta valde imbricata. Folia a basi pennivenia; stipulæ in unam intrapetiolarem connatæ v. arcte convolutæ.—*Zeylania, Archip. Malay., China, ins. Pacif.*

13. Chætacme. Perianthii ♂ segmenta induplicato-valvata. Folia a basi tenuiter pennivenia; stipulæ in unam oppositifoliam caducissimam connatæ.—*Afr. austr. et trop.*

Tribus III. Cannabineæ. Herbæ erectæ v. scandentes. Flores dioici, axillares, masculi paniculati, fœminei sessiles conferti v. strobilacei. Staminum filamenta brevia, antheræ erectæ. Ovarium bractea obtectum; stylus centralis 2-partitus, ramis filiformibus; ovulum pendulum. Achænium parvum, siccum.

14. Humulus. Caulis alte scandens, foliis oppositis. Spicæ fructiferæ strobiliformes, bracteis membranaceis laxe imbricatis. Embryo spiraliter involutus.—*Hemisph. bor. reg. temp.*

15. Cannabis. Caulis erectus, foliis alternis v. imis oppositis digitatim dissectis. Achænia bracteis obtecta, ad axillas conferta. Embryo curvus, cotyledonibus crasso-carnosis subæqualibus rectis.—*Asia centr., alibi culta v. inquilina.*

Tribus IV. Moreæ. Arbores fruticesve sæpius lactescentes v. rarius herbæ. Flores unisexuales, inflorescentia nunc fere *Celtidearum* nunc *Artocarpearum*. Staminum filamenta in alabastro inflexa, antheris reversis, per anthesin elastice porrecta, exserta, antheris erectis. Stylus sæpius excentricus, indivisus v. 2-fidus, parte stigmatosa v. ramis stigmatosis filiformibus; ovulum apice v. sub apice affixum, pendulum, anatropum v. breviter amphitropum. Fructus varius.

Subtribus 1. Fatoueæ. *Cymulæ axillares, laxiusculæ, masculæ v. androgynæ. Flores ♀ solitarii v. in cymulis androgynis pauci.*

16. Pseudostreblus. Cymulæ pleræque masculæ, rarius androgynæ. Flores ♀ sæpius solitarii. Perianthii ♀ segmenta valde imbricata, ovarium arcte cingentia. Cotyledones latæ, contortuplicatæ. Arbores. Folia integerrima, a basi pennivenia.—*Khasiya, Penang.*

17. Bleekrodia. Cymulæ pleræque androgynæ. Perianthium ♀ tubulosum, 4-dentatum, ovarium includens. Cotyledones carnosæ, altera crassiuscula, altera minima squamiformi. Arbores. Folia integerrima, a basi pennivenia.—*Madagasc., Borneo.*

18. Fatoua. Cymulæ densæ, androgynæ. Perianthii ♀ segmenta 5, valvata. Cotyledones latæ, æquales. Herba. Folia serrata, sub-3-nervia.—*Archip. Malay., Austral. trop., ins. Pacif., China, Japonia.*

Subtribus 2. Strebleæ. *Flores ♂ capitati spicati v. racemosi, ♀ solitarii v. in pedunculo 2–4 pedicellati.*

19. Taxotrophis. Flores ♂ breviter racemoso-spicati, bracteis minimis. Perianthii ♀ segmenta ovario et fructu breviora. Cotyledones (an semper ?) contortuplicatæ. Frutices sæpe spiniferi. Folia pennivenia, parce dentata.—*Zeylania, Archip. Malay.*

20. PHYLLOCHLAMYS. Flores ♂ capitato-spicati, spica bracteis ∞ involucrata. Perianthii ♀ segmenta foliacea, ovario et fructu multo longiora. Cotyledon altera crassissima alteram minimam includens. Frutices v. arbores sæpius spiniferi. Folia paucidentata, penninervia.—*Ind. or., Timor.*

21. STREBLUS. Flores ♂ capitato-glomerati, capitulo 2-bracteato. Perianthii ♀ segmenta valde imbricata, ovarium includentia. Cotyledon altera crassissima alteram parvam includens. Arbor v. frutex inermis. Folia subdentata, penninervia.—*Asia trop.*

22. MAILLARDIA. Flores ♂ minimi, densissime cylindraceo-spicati, bracteis peltatis obtecti. Perianthium ♀ basi adnatum, ovatum, minute 4-dentatum, bracteis 2–3-seriatis stipatum. Cotyledon altera crassissima alteram parvam includens. Arbor inermis. Folia integerrima, coriacea, crebre et parallele penninervia.—*Ins. Borbonia.*

Subtribus 3. Broussonetieæ. *Flores ♂ spicati racemosi v. capitati, ♀ globoso-capitati. Ovarium perianthio inclusum.*

* *Perianthium ♀ breviter v. vix dentatum. Genera gerontogea.*

23. MALAISIA. Spicæ ♂ densiusculæ. Capitula ♀ parvula. Perianthium ♀ vix dentatum. Fructus solitarii v. pauci, receptaculo multibracteato majores. Cotyledon altera crassissima alteram minimam includens. Frutices inermes. Folia subintegerrima, a basi penninervia.—*Archip. Malay., Austral. trop., ins. Pacif.*

24. BROUSSONETIA. Spicæ ♂ amentiformes. Capitula ♀ parvula. Perianthium ♀ dentatum. Fructus e perianthio exsertus, crasse stipitatus. Cotyledones æquales. Arbores inermes. Folia basi 3-nervia, integra v. 3–5-loba, serrulata.—*Archip. Malay., Asia or., alibi inquilina.*

25. AILÆANTHUS. Spicæ ♂ longæ, angustæ, densæ. Capitula ♀ parvula. Perianthium ♀ dentatum. Fructus perianthium non excedens. Cotyledones latæ, valde corrugato-plicatæ. Arbores inermes. Folia integerrima v. serrulata, a basi penninervia.—*Zeylania, ins. Philippin.*

26. PLECOSPERMUM. Capitula utriusque sexus globosa, parvula. Perianthia ♀ vix dentata, fructifera carnosa v. succulenta, in syncarpium globosum concreta v. arcte conferta. Frutices spiniferi. Folia integerrima, a basi penninervia.—*Ind. or., Afr. trop. or.*

** *Perianthium ♀ alte 4-fidum v. partitum. Genera Americana v. Africana.*

27. BAGASSA. Spicæ ♂ cylindraceæ, densissimæ. Capitula ♀ majuscula. Perianthia ♀ 4-fida, fructifera carnosula receptaculo carnoso insidentia, in pseudosyncarpium globosum densissime conferta. Cotyledones æquales. Arbores inermes. Folia *opposita*, lata, 3-nervia, integra v. 3-loba.—*Guiana, Bras. bor.*

28. CHLOROPHORA. Spicæ ♂ amentiformes. Capitula ♀ globosa v. oblonga. Perianthia ♀ 4-fida v. 4-partita, fructifera carnosula, receptaculo carnoso insidentia, in pseudosyncarpium globosum v. oblongum densissime conferta. Cotyledones æquales. Arbores inermes v. spiniferæ. Folia integerrima v. dentata, a basi penninervia.—*Amer. et Afr. trop.*

29. MACLURA. Racemi ♂ breves, laxi. Capitula ♀ majuscula. Perianthia ♀ alte 4-fida, fructifera receptaculo carnoso plus minus immersa, in syncarpium magnum globosum alte concreta. Cotyledones æquales. Arbor spinifera. Folia integerrima, a basi penninervia.—*Amer. bor.*

Subtribus 4. Eumoreæ. *Flores utriusque sexus spicati, spicis (interdum in eodem genere) brevibus densissimis v. elongatis laxisque. Arbores v. frutices inermes.*

* *Perianthii ♀ segmenta 4, distincta, valde imbricata.*

30. PACHYTROPHE. Spicæ amentiformes. Perianthia fructifera succulenta, fructum includentia. Ovulum placentæ valde dilatatæ affixum. Folia integerrima, crebre et parallele penninervia.—*Madagasc.*

31. PARATROPHIS. Spicæ laxæ, breves v. longæ. Perianthia ♀ minima, sub fructu exserto persistentia. Cotyledones latissimæ, contortuplicatæ. Folia crenata v. subintegerrima, penninervia.—*Nov. Zel., ins. Pacif. et Philippin.*

32. PSEUDOMORUS. Spicæ ♂ amentiformes, breves v. longæ, ♀ breves, densæ. Perianthia ♀ parva, sub fructu exserto persistentia. Cotyledones carnosæ, majore minorem fovente. Folia integerrima v. denticulata, a basi penninervia.—*Australia, ins. Norfolk.*

33. MORUS. Spicæ breves v. longæ. Perianthia fructifera succulenta, fructum includentia.

Cotyledones æquales. Folia dentata, basi 3-nervia, integra v. 3-loba.—*Utriusque orbis hemisph. bor. et mont. trop.*

34. AMPALIS. Spicæ breves. Perianthia fructifera carnosa, fructum includentia. Cotyledones æquales. Folia integerrima, a basi pennivenia.—*Madagasc.*

** *Perianthium ♀ tubulosum, ore 4-dentato.*

35. TROPHIS. Spicæ ♂ laxæ v. interruptæ, ♀ breves pauciflores. Perianthium ♀ basi ovario adnatum, fructiferum pericarpio arcte concretum.—*Ind. occid., Amer. trop. Andin., Mexico.*

Subtribus 5. Dorstenieæ. *Flores ♂ in receptaculo lineari explanato v. turbinato densissime conferti, ♀ in eodem receptaculo solitarii rari v. numerosi.*

36. SLOETIA. Receptaculum lineare, uno latere nudum, cæterum floribus ♂ densissime obtectum, spicam cylindraceam formans. Flores ♀ masculis majores, hinc inde inter mascula sparsi, v. spicæ omnino ♂. Perianthium ♀ 4-partitum. Arbor inermis. Folia integerrima, pennivenia.—*Archip. Malay.*

37. DORSTENIA. Receptaculum explanatum, rarius in lacinias lineares divisum, floribus utriusque sexus in stratum carnosum superficiem vestientem connatis.—Herbæ perennes v. frutices parvi inermes. Folia varia.—*Amer. et Afr. trop.; cum una specie Asiatica.*

38. TRYMATOCOCCUS. Receptaculum junius cylindraceum v. turbinatum, fructiferum urceolato-globosum. Flos ♀ in fundo unicus, ♂ ad oram receptaculi marginales numerosi. Perianthium ♀ cum receptaculo arcte concretum, ore parvo dentato. Arbores fruticesve inermes. Folia integerrima, pennivenia.—*Amer. et Afr. trop.*

Tribus V. Artocarpeæ. Arbores fruticesve sæpissime lactescentes. Flores unisexuales, parvi v. minuti, in receptaculo carnoso unisexuali v. androgyno sæpissime numerosi denseque conferti v. ♀ solitarii, in generibus paucis ultimis laxius spicati v. racemosi. Staminum filamenta recta v. vix apice inflexa, antheris jam in alabastro erectis. Stylus sæpius excentricus, indivisus v. 2-fidus, stigmate vario; ovulum apice v. sub apice affixum, pendulum, anatropum v. breviter amphitropum. Fructus sæpe receptaculo carnoso sepulti.

Subtribus 1. Ficeæ. *Receptacula carnosa globosa v. obovoidea, ore parvo introrsum bracteato, flores numerosos arcte includentia. Folia varia. Embryo curvus cotyledonibus variis.*

39. FICUS. Receptacula etiam fructifera clausa, sæpissime androgyna, rarius floribus dioicis unisexualia.—*Reg. calid. utriusque orbis.*

40. SPARATTOSYCE. Receptacula demum rupta, varie explanata, floribus dioicis.—*Nov. Caledon.*

Subtribus 2. Brosimeæ. *Receptacula androgyna, floribus ♂ numerosis, ♀ in centro receptaculi unico. Folia a basi pennivenia. Embryo ubi notus ut in* Olmedieis.

41. BROSIMUM. Flores ♂ superficiem exteriorem receptaculi globosi obtegentes, perianthio cupulato v. a receptaculo vix distincto. Stamen 1 (rarius 2?). Floris ♀ perianthium nullum distinctum. Ovarium receptaculo inclusum, semiadnatum.—*Amer. trop.*

42. LANESSANIA. Flores ♂ apicem explanatum receptaculi anguste turbinati obtegentes, perianthio tubuloso. Stamina 2, rarius 3. Floris ♀ perianthium nullum distinctum. Ovarium in fundo receptaculi adnatum.—*Bras. bor.*

43. BOSQUIEA. Flores ♂ faciem interiorem receptaculi campanulati v. obconici obtegentes, perianthio 0. Stamina bracteolis intermixta. Floris ♀ perianthium nullum distinctum. Ovarium in fundo receptaculi adnatum.—*Afr. trop. Madagasc.*

44. SCYPHOSYCE. Flores ♂ in fundo receptaculi parvuli tubuloso-cupulati ∞-seriatim inclusi, perianthio anguste tubuloso. Stamen 1. Floris ♀ perianthii segmenta 2 distincta, semet et ovarium liberum involventia.—*Afr. trop.*

Subtribus 3. Olmedieæ. *Receptacula unisexualia, bracteis ∞-seriatim imbricatis involucrata. Folia a basi pennivenia. Embryo rectus, cotyledonibus non plicatis, radicula parva supera.*

* *Flores ♀ in receptaculo suo solitarii, ♂ numerosi.*

45. ANTIARIS. Perianthii ♂ segmenta et stamina 4 rarius 3. Ovarium et fructus receptaculo adnata, absque perianthio distincto.—*Ind. or., Archip. Malay.*

46. OLMEDIA. Perianthii ♂ lobi v. segmenta et stamina 4. Perianthium ♀ ovoideum v. globosum, foramine parvo pertusum, ovarium et achænium includens.—*Amer. austr. trop.*

47. PSEUDOLMEDIA. Stamina numerosa, squamis numerosis intermixta nec in perianthiis distinctis inclusa. Perianthium ♀ ovoideum v. tubulosum, foramine parvo pertusum, ovarium et achænium includens.—*Ind. occid., Amer. trop. andin. et centr.*

** *Flores utriusque sexus in receptaculis suis numerosi v. plures.*

48. CASTILLOA. Stamina numerosa, squamis numerosis intermixta, nec in perianthiis distinctis inclusa. Perianthium ♀ ovoideum, 4-lobum, e receptaculo exsertum. Ovarium inclusum, hinc adnatum. Perianthia fructifera receptaculo insidentia nec concreta.—*Amer. centr., Cuba.*

49. HELICOSTYLIS. Perianthii ♂ segmenta et stamina 4. Perianthium ♀ basi receptaculo immersum concretumque, limbo 4-partito. Ovarium inclusum, hinc adnatum. Perianthia fructifera cum receptaculo in syncarpium ∞-locellatum plus minus concreta.—*Reg. Amazon., Guiana.*

50. PEREBEA. Perianthii ♂ segmenta et stamina 4. Perianthium ♀ tubulosum, 4-dentatum. Ovarium inclusum, fere undique adnatum. Perianthia fructifera carnosa, arcte conferta at distincta.—*Amer. trop.*

51. NOYERA. Flores ♂ ignoti. Perianthii limbus 4–6-dentatus v. ad basin in segmenta 4–6 divisus. Ovarium inferum, receptaculo sepultum. Perianthia fructifera superne aucta carnosaque et distincta. Achænia locellis receptaculi inclusa et fere undique adnata.—*Bras. bor., Guiana.*

Subtribus 4. Euartocarpeæ. *Inflorescentiæ unisexuales, basi nudæ v. bracteis 3–4 stipatæ, capituliformes spiciformes v. rarius racemiformes, v. ♀ rarius unifloræ. Folia a basi pennivenia, rarius pinnatifida.*

52. HELIANTHOSTYLIS. Capitula ♂ globosa, pistillis sterilibus filiformibus longe exsertis. Flores ♀ solitarii, globosi, carnosi.—*Bras. bor.*

53. CUDRANIA. Capitula utriusque sexus globosa, perianthii segmentis staminibusque 4. Ovarium inclusum, liberum. Perianthia fructifera carnosula, in pseudosyncarpium conferta nec concreta. Frutices sæpe spiniferi.—*Asia trop.*

54. TRECULIA. Capitula utriusque sexus globosa (magna), receptaculo bracteis multifidis flores includentibus undique obtecto. Perianthii ♂ dentes v. lobi et stamina 2–4. Perianthium ♀ 0. Fructus syncarpio v. pseudosyncarpio 1–∞-seriatim inclusi.—*Afr. trop.*

55. PARARTOCARPUS. Capitula utriusque sexus globosa (parvula). Stamina in ♂ bracteolis peltatis intermixta absque perianthio. Perianthium ♀ e bracteolis emersum, tubuloso-clavatum, foramine parvo. Ovarium inclusum, liberum.—*Borneo.*

56. ARTOCARPUS. Capitula utriusque sexus globosa oblonga v. crasse cylindracea, interdum magna. Perianthia ♂ 2–4-mera, 1-andra, ♀ tubulosa, basi receptaculo immersa concretaque. Syncarpium perianthiorum apicibus distinctis areolatum v. echinatum v. perianthiis omnino concretis continuum.—*Asia trop., ins. Pacif., Afr. trop.?, alibi inquilina.*

57. BATOCARPUS. Spicæ ♂ ignotæ. Capitula ♀ globosa, perianthiis confertis carnosis truncatis ovarium liberum includentibus, fructiferis cum receptaculo continuis in syncarpium carnosum dense confertis.—*Columbia.*

58. SAHAGUNIA. Spicæ ♂ anguste cylindraceæ, staminibus cum bracteolis receptaculum lineare hinc nudum cæterum densissime obtegentibus. Capitula ♀ globosa, perianthiis ovoideis ovarium liberum includentibus, fructiferis in receptaculo parvo prominentibus distinctis.—*Amer. trop. a Brasilia ad Mexicum.*

59. CLARISIA. Spicæ ♂ anguste cylindraceæ, staminibus cum bracteolis receptaculum lineare hinc nudum cæterum densissime obtegentibus. Flores ♀ racemosi, secus rhachin gemini, pedicellati, perianthio ovoideo basi adnato. Ovarium inferum.—*Bras., Peruvia.*

60. BALANOSTREBLUS. Spicæ ♂ anguste cylindraceæ, perianthiis 4-meris 4-andris receptaculum lineare hinc nudum cæterum densissime obtegentibus. Flores ♀ racemosi, perianthio ovoideo basi adnato. Ovarium semi-inferum.—*Ind. or.*

61. SOROCEA. Racemi v. spicæ utriusque sexus laxi, floribus dissitis sessilibus v. pedicellatis. Perianthia ♂ 4-mera, 4-andra, ♀ basi adnata, ovoidea. Ovarium inferum.—*Amer. trop. a Brasilia ad Mexicum.*

Tribus VI. Conocephaleæ. Arbores fruticesve sæpius lactescentes. Flores unisexuales

dense spicati glomerato-capitati v. rarius dissiti, spicis capitulisque ♂ in pedunculo ∞ sæpius numerosis, ♀ paucioribus solitariisve. Staminum filamenta recta v. vix apice inflexa, antheris jam in alabastro erectis. Perianthium ♀ foramine minuto pertusum v. rarius 4-fidum. Stylus indivisus stigmate penicillato peltato v. lineari; ovulum basi v. prope basin affixum, erectum, orthotropum v. breviter amphitropum.

Tribus *Artocarpeas* cum *Urticeis* arcte connectens. Flores ♂ priorum, ♀ et fructus potius *Urticearum*.

62. Cecropia. Flores utriusque sexus densissime cylindraceo-spicati, spicis intra bracteam spathiformem deciduam 2–60. Folia peltata, radiatim 7–13-loba v. partita.—*Amer. trop.*

63. Myrianthus. Inflorescentia ♂ repetito-ramosissima, floribus in ramulis ultimis breviter oblongo-spicatis. Capitula ♀ solitaria, globosa. Folia argute dentata, indivisa v. 3–5-partita v. lobata.—*Afr. trop.*

64. Musanga. Inflorescentia ♂ repetito-ramosissima, floribus in ramulis ultimis globoso-capitatis. Flores ♀ minuti, numerosissimi, in massam ovatam v. obovatam conferti. Folia radiatim ∞-partita.—*Afr. trop.*

65. Coussapoa. Capitula utriusque sexus globosa, ♂ parvula sæpius dichotome paniculata; ♀ solitaria v. pauca, sæpe majora. Stigma capitato-penicillatum. Folia indivisa, integerrima, penninervia v. 3-nervia.—*Amer. trop.*

66. Conocephalus. Capitula utriusque sexus globosa, ♂ sæpius parva confertim paniculata, ♀ solitaria v. pauca, majora v. magna. Stigma lineare. Folia indivisa, integerrima, penninervia v. rarius 3-nervia.—*Ind. or., Archip. Malay.*

67. Pourouma. Inflorescentia utriusque sexus cymosa, floribus ♂ in cyma glomerulatis ♀ dissitis. Ovulum lateraliter supra basin affixum, ascendens micropyle supera. Fructus sæpius pro ordine magni, erecti, distincti. Folia indivisa v. palmatim 3–5-fida v. partita.—*Amer. trop.*

Tribus VII. Urticeæ. Herbæ frutices v. rarius arbores. Flores unisexuales rarissime (in *Parietaria*) polygami, glomerati sparsi v. in receptaculo carnosulo v. explanato conferti, rarius in involucro pauci v. solitarii, glomerulis floribusve ad axillas cymosis paniculatis v. confertis sessilibusque. Staminum filamenta in alabastro inflexa antheris reversis, per anthesin porrecta exserta antheris erectis; antheræ ovatæ. Stylus indivisus, stigmate capitato-penicillato v. plus minus elongato; ovulum basi v. juxta basin affixum, erectum v. adscendens, orthotropum v. brevissime amphitropum. Achænium parvum.

In hujus tribus ordinatione Monographiam egregiam Weddellii (Parisiis 1856) in Prodromo Candolleano perfectam fere undique secuti sumus. Cystolithæ, a Weddellio præcipue commentatæ, in hac tribu præ aliis conspicuæ, in *Fleurya* et in *Procridibus* plurimis lineares sunt, in *Myriocarpo* insigniter radiantes, in generibus cæteris punctiformes v. hinc inde oblongæ v. fusiformes, vix tamen in eodem genere semper conformes.

Subtribus 1. Urereæ. *Herbæ frutices v. rarius arbores, pilis urentibus v. stimulis sæpissime armati. Flores cymulosi, ♂ 4–5-meri rarius 2–3-meri, ovarii rudimento evoluto. Perianthium ♀ 2–5-lobum v. partitum, ab achænio liberum.*

Excepta: Perianthium ♀ in *Hesperocnide* et rarissime in *Urera* more *Bœhmeriearum* tubulosum, ore contracto minute dentato.

* *Achænium rectum. Stipulæ laterales, liberæ.*

68. Urtica. Herbæ foliis oppositis. Perianthium ♀ 4-partitum, segmentis exterioribus minoribus. Stigma penicillato-capitatum.—*Orbis utriusque reg. temp. et subtrop.*

69. Hesperocnide. Herbæ annuæ, foliis oppositis. Perianthium ♀ subclausum, ovarium et achænium arcte includens. Stigma penicillato-capitatum.—*Amer. bor., ins. Sandw.*

70. Nanocnide. Herbæ annuæ, foliis alternis. Perianthium ♀ 4-partitum, segmentis exterioribus latioribus carinatis. Stigma penicillato-capitatum.—*Japonia et ins. Asiæ or.*

** *Achænium obliquum. Stipulæ (excepta* Obetia*) intra petiolum plus minus connatæ. Folia alterna.*

71. Obetia. Arbores fruticesve. Perianthii ♀ segmenta 4, membranacea, interioribus majoribus circa fructum auctis. Stigma oblongum. Cymæ ♂ laxæ, ♀ capitatæ sessiles.—*Madagasc.*

72. Fleurya. Herbæ annuæ. Perianthii ♀ segmenta 4 æqualia v. inæqualia, achænio

breviter exserto sæpius reflexo. Stigma ovatum v. lineare. Florum glomeruli racemoso-spicati v. paniculati.—*Utriusque orbis reg. trop., Afr. austr.*

73. Sceptrocnide. Herba elata. *Stamina segmentis perianthii ♂ alte adnata.* Perianthii ♀ segmenta 2 ovata plana, 2 minuta. Stigma lineare. Florum glomeruli longe racemosi v. subpaniculati.—*Japonia.*

74. Laportea. Frutices arbores v. herbæ perennes. Perianthii ♀ lobi 4 æquales v. inæquales, fructiferi immutati sub achænio sæpe reflexi persistentesque. Stigma filiforme. Florum glomeruli paniculati, rarius racemosi.—*Amer. bor., Mexico, Afr. et Asia trop., ins. Pacif., Australia.*

75. Urera. Frutices rarius suffrutices. Perianthium ♀ 4-lobum, fructiferum carnosulum, achænium includens v. eo brevius. Stigma penicillato-capitatum. Florum glomeruli paniculati.—*Amer. et Afr. trop., ins. Mascar. et Pacif.*

76. Gyrotænia. Frutices v. arbores. Perianthium ♀ 4-lobum, parvum, fructiferum immutatum, sub achænio persistens. Stigma penicillato-capitatum. Flores dense glomerato-spicati, rhachi fructifera carnosa.—*Ind. occid.*

77. Girardinia. Herbæ elatæ. Perianthium ♀ ovoideo-tubulosum, 2–3-dentatum; demum spathaceo-fissum. Stigma subulatum. Florum glomeruli spicati v. subpaniculati, spica ♀ pilis stimulisve longis crebrisque horridæ.—*Asiæ et Afr. trop.*

Subtribus 2. Procrideæ. *Herbæ rarissime basi frutescentes pilis innocuis. Flores glomerati cymosi capitati v. in receptaculo discoideo conferti, ♂ 4–5-meri, rarius 2–3-meri, ovarii rudimento evoluto. Perianthium ♀ 3–5-partitum, ab achænio liberum. Staminodia sæpe adsunt.*

* *Folia opposita, æquilatera v. vix inæquilatera.*

78. Pilea. Perianthium ♀ 3-partitum, segmento uno majore, fructiferum vix v. parum auctum, achænio incluso v. exserto. Stigma breviter penicillatum. Cymæ capituliformes v. laxæ ramosæ.—*Utriusque orbis reg. trop. exclusa Australia.*

79. Achudenia. Perianthium ♀ æqualiter 5-partitum, fructiferum laxum, achænium includens. Stigma sessile, villosiusculum. Herbæ teneræ. Cymæ laxæ, longe pedunculatæ.—*Java, Japonia.*

80. Lecanthus. Perianthium ♀ inæqualiter 3-partitum, fructiferum laxum, achænio brevius. Stigma penicillatum. Flores in receptaculo discoideo conferti.—*Ind. or.*

** *Folia perfecta specie alterna, disticha, obliqua, latere superiore minore, addito sæpius altero nano subopposito, rarius æquilatera.*

81. Pellionia. Perianthium ♀ 4–5-partitum, fructiferum achænium vestiens. Stigma sessile, penicillatum. Cymæ sessiles v. pedunculatæ, densissimæ v. laxiores, rhachi non dilatata.—*Asia trop., ins. Pacif.*

82. Elatostema. Perianthium ♀ parvum v. 0, fructiferum non auctum. Stigma sessile, penicillatum, evanidum. Flores receptaculo demum explanato discoideo v. lobato insidentes.—*Afr. et Asia trop., Japonia.*

83. Procris. Perianthium ♀ parvum v. 3–4-partitum, fructiferum carnosum achænium vestiens v. sub achænio minimum. Flores ♂ glomerati, ♀ capitati, receptaculo subgloboso carnoso insidentes.—*Afr. et Asia trop., ins. Mascar. et Pacif.*

Subtribus 3. Bœhmerieæ. *Frutices arbores v. rarius herbæ, pilis innocuis. Flores glomerati capitati v. sparsi, exinvolucrati, ♂ 4–5-meri, rarius 2–3-meri, ovario rudimento evoluto. Perianthium ♀ tubulosum, ore contracto, achænium includens v. brevius et appressum v. 0.*

* *Perianthium fructiferum membranaceum v. siccum, achænium liberum includens.*

84. Bœhmeria. Caules basi v. undique frutescentes, foliis oppositis v. alternis. Florum glomeruli sessiles, ad axillas conferti v. secus rhachin sparsi v. in ramis paniculæ plus minus dissiti. Stigma filiforme, persistens.—*Utriusque orbis reg. trop., Chile, Amer. bor., Japonia.*

85. Chamabaina. Herba diffusa, foliis oppositis. Florum glomeruli axillares. Stigma ovatum, persistens.—*Ind. or.*

86. Pouzolsia. Herbæ v. basi plus minus frutescentes, foliis alternis v. rarissime oppositis. Florum glomeruli axillares v. in spicam simplicem terminalem basi vix foliatam dispositi. Flores ♂ 4–5-meri, rarius 3-meri. Stigma filiforme, deciduum.—*Afr. et Asia trop., in Amer. trop. paucæ.*

87. Distemon. Herba foliis alternis. Florum glomeruli in spicam simplicem terminalem dispositi. Flores ♂ 2-meri, rarius 3-meri. Stigma lineare, deciduum. —*Ind. or.*

** *Perianthium fructiferum plus minus carnosum, achænium liberum v. vix adnatum includens.*

88. Cypholophus. Arbores fruticesve, foliis oppositis. Florum glomeruli densissime globosi, ad axillas v. nodos defoliatos arcte sessiles. Perianthium fructiferum ore contracto dentatum. Stigma lineare, recurvum, persistens.—*Archip. Malay., ins. Pacif.*

89. Touchardia. Frutices foliis maximis alternis. Florum glomeruli dense globosi in pedunculo ramoso pauci. Perianthii ♀ lobi 4, 2-seriatim imbricati. Stigma brevissime oblongum.—*Ins. Sandw. aliæque maris Pacifici.*

90. Sarcochlamys. Frutex foliis alternis angustis rugosis subtus niveis. Florum glomeruli interrupte v. dense spicati. Perianthium fructiferum oblique accretum, hinc gibbum, ore contracto dentatum. Stigma parvum, penicillatum.—*Ind. or., Archip. Malay.*

91? Poikilospermum. Frutex foliis alternis magnis integerrimis. Inflorescentia dichotome cymosa. Perianthium ♀ obconicum ore minuto, fructiferum carnosum, achænium exserens. Stigma capitellatum.—*Amboina.*

92. Neraudia. Frutices foliis alternis. Florum glomeruli dense globosi, ad axillas arcte sessiles. Perianthium fructiferum ore contracto dentatum, achænio incluso basi carnoso-annulato. Stigma lineare, deciduum.—*Ins. Sandw.*

93. Pipturus. Frutices v. arbores foliis alternis. Florum glomeruli ad axillas conferti v. secus rhachin spicæ v. ramos paniculæ sessiles. Perianthium fructiferum carnosum, ore minuto, achænio incluso subadnato. Stigma lineare, deciduum.—*Ins. Mascar., Archip. Malay., ins. Pacif.*

*** *Perianthium ♀ ovario arcte adnatum.*

94. Villebrunea. Frutices v. arbores foliis alternis. Florum glomeruli capituliformes, ad axillas sessiles v. plures laxe cymosi. Perianthium fructiferum tenuiter subcarnosum. Stigma sessile, ciliato-penicillatum.—*Ind. or., Archip. Malay., Japonia.*

95. Debregeasia. Frutices foliis alternis. Florum glomeruli ad axillas sessiles v. plures cymosi. Perianthium fructiferum succulentum. Stigma penicillatum.—*Ind. or., Archip. Malay., Japonia.*

**** *Perianthium ♀ minutum v. 0.*

96. Leucosyke. Frutices v. arbusculæ foliis alternis. Florum glomeruli globosi, ad axillas solitarii v. brevissime racemosi nec cymosi. Perianthium ♀ sub fructu parvum. Stigma penicillatum.—*Archip. Malay., ins. Pacif.*

97. Maoutia. Frutices foliis alternis. Florum glomeruli parvi, paniculati. Perianthium ♀ minutum v. 0. Stigma penicillatum.—*Ind. or., Archip. Malay., ins. Pacif.*

98. Myriocarpa. Frutices foliis alternis. Flores secus rhachin longam filiformem numerosissimi. Perianthium ♀ (præter bracteolas 2 in stipite) 0. Stigma oblique oblongum.—*Amer. trop.*

99. Phenax. Suffrutices v. frutices tenues. Florum glomeruli ad axillas sessiles, bracteis ferrugineis prominulis. Perianthium ♀ 0. Stigma elongatum.—*Amer. trop, Mauritius, Malacca (inquilina?).*

Subtribus 4. Parietarieæ. *Herbæ suffrutices v. rarius frutices, pilis innocuis. Folia integerrima. Involucra e bracteis 2–6 connatis v. liberis, flores 1–3 v. rarius ∞ includentia.*

100. Parietaria. Herbæ sæpius diffusæ. Cymulæ axillares, 3–8-floræ, androgynæ, floribus fertilibus interdum hermaphroditis a bracteis involucrantibus liberis. Stigma penicillatum, breve v. lineare.—*Utriusque orbis reg. temp., intra trop. paucæ.*

101. Gesnouinia. Arbuscula. Involucra secus ramos paniculæ glomerulata, 3-flora, flore centrali ♀ achænioque tubo involucri inclusis.—*Ins. Canar.*

102. Helxine. Herba diffusa. Involucra 1-flora, ad axillas solitaria.—*Corsica, Sardinia.*

103. Rousselia. Herba diffusa. Flores ♂ brevissime laxeque racemosi, exinvolucrati, ♀ in eadem axilla gemini, bracteis 2 involucrati.—*Ind. occid.*

104. Hemistylis. Frutices. Flores ♂ glomerato-spicati, exinvolucrati, ♀ gemini, bracteis 2 involucrati, involucris ad basin spicarum ♂ paucis v. in panicula distincta numerosis.—*Amer. trop. andina.*

Subtribus 5. Forskohleeæ. *Herbæ pilis innocuis, floribus ad axillas confertis involucratis v. nudis. Perianthium ♂ irregulare, hinc fissum stamine unico absque rudimento ovarii, ♀ tubulosum, achænium includens v. 0.*

105. Forskohlea. Involucra in axillis plura, androgyna, 3–6-partita, intus dense lanata.—*Hispania, Africa, Asia occid.*

106. Droguetia. Involucra in axillis solitaria v. plura v. in spicam terminalem disposita, androgyna, campanulata, breviter dentata.—*Afr. trop. et austr., Madagasc., Ind. or.*

107. Australina. Flores ad axillas glomerati, exinvolucrati.—*Afr. austr., Australia.*

Tribus VIII. Thelygoneæ. Herba annua. Flores unisexuales, ad axillas fasciculati. Perianthium 2-partitum. Stamina ∞. Stylus indivisus ovulum erectum, incurvum. Nux subglobosa. Semen hippocrepiforme.

108. Thelygonum. Genus unicum.—*Reg. Mediterr.*

GENERA EXCLUSA V. DUBIA.

Aporosa, Bl., olim *Artocarpeis* ascripta, est **Euphorbiacea,** supra, p. 282.

Bruea, Gaudich. in Freyc. Voy. Bot. 511, frutex Bengalensis, pro genere proprio *Pouroumearum* propositus, est verisimiliter stirps sub alio nomine bene nota sed ex charactere manco nequaquam recognoscenda. A botanicis Parisiensibus qui de hoc ordine tractarent sub silentio præteritur.

Gynocephalium, Bl., est *Phytocrene*, Wall., supra i. 354 inter **Olacineas** enumerata.

Gunnera, Linn., ab Endlichero *Urticaceis* approximata, est **Halorageа,** supra, i. 676.

Haynea, Schum. et Thonn, Beskr. Guin. Pl. 406, ex Africa tropica, ab Endlichero *Pileæ* adscripta, a Weddellio rejicitur, nam folia alterna dicuntur, longe petiolata, grosse crenata, flores ♂ 5-meri, perianthia ♀ 4-fida, characteres a *Pilea* alieni. Cæterum characteres omnes *Urticearum*, exceptis stylis 3 raro 1 (an rite observatis ?). Genus adhuc valde dubium remanet.

Vanieria, Lour. Fl. Coch. 564, quoad speciem Cochinchinensem, est forte *Cudrania* v. *Plecospermum*, sed character ad rite determinandum haud sufficit, et specimina non vidimus.

Tribus I. Ulmeæ.

1. **Ulmus,** *Linn. Gen. n.* 316.—Flores polygami, plerique hermaphroditi, plures tamen ♂ cum v. absque rudimento ovarii, in ramo annotino fasciculati. Perianthium laxe campanulatum, 4–8- (sæpius 5-) fidum, lobis imbricatis. Stamina 4–8, sæpius 5, filamentis erectis demum exsertis; antheræ glabræ. Ovarium sessile v. sæpius stipitatum, compressum; stylus brevis, alte 2-fidus v. fere 2-partitus, ramis a basi introrsum stigmatosis; ovulum sub apice affixum, pendulum, breviter amphitropum. Fructus compressus, siccus, oblique ovatus, undique cinctus ala lata membranacea radiatim reticulato-venosa a basi stipitis usque ad apicem ramorum styli extensa; pericarpium chartaceum v. tenuiter crustaceum. Semen sub apice affixum, pendulum, plano-compressum; albumen 0; embryo rectus, cotyledonibus planis æqualibus, radicula parva supera.—Arbores inermes. Folia alterna, disticha, serrata, pennivenia, hyeme decidua v. subperennantia; stipulæ laterales, scariosæ, caducissimæ. Florum fasciculi ad nodos defoliatos v. in axillis foliorum persistentium ramorum annotinorum solitarii, sessiles, novelli squamis imbricatis obtecti, cæterum aphylli. Flores in fasciculo numerosi, nunc fere omnes ☿, nunc plerique ♂.

Species ad 16, per regiones temperatas hemisphærii borealis late dispersæ, in Asia usque ad montes intratropicales extensæ. *Planch. in DC. Prod.* xvii. 154, ubi genus post Spachium in sectiones sequentes dividitur:—

1. *Oreoptelea.* Perianthium vix ad medium lobatum. Fructus ala margine ciliata. Folia decidua. Pedicelli floribus longiores. *Reichb. Ic. Fl. Germ. t.* 666. *Mich. N. Am. Sylv. t.* 126, 127. *Torr. Fl. N. York, t.* 96. Chætoptelea, *Liebm. in Vidensk. Meddel. Nat. Foren. Kiobenh.* 1850, 54, *et in K. Dansk. Vidensk. Selsk. Skrift. ser.* 5, ii. 336.

2. *Dryoptelea.* Perianthium vix ad medium lobatum. Fructus glabri. Folia decidua. Pedicelli breves. *Reichb. Ic. Fl. Germ. t.* 660 *ad* 665. *Nees, Gen. Fl. Germ. Monochl. n.* 34. *Pall. Fl. Ross. t.* 48. *Brand. For. Fl. t.* 51. *Mich. N. Am. Sylv. t.* 128, 129.

3. *Microptelea.* Perianthium ultra medium partitum. Fructus glabri. Folia in ramis annotinis subpersistentia. Pedicelli varii. *Jacq. Hort. Schœnbr. t.* 262. *Wall. Pl. As. Rar t.* 200. *Nutt. Sylv. Amer. t.* 11. MICROPTELEA, *Spach in Ann. Sc. Nat. ser.* 2, xv. 358.

2. **Holoptelea,** *Planch. in Ann. Sc. Nat. ser.* 3, x. 259, *et in DC. Prod.* xvii. 163.—Flores polygami, plerique hermaphroditi, plures tamen ♂ cum v. absque rudimento ovarii, in ramis annotinis fasciculati. Perianthium 4–8-partitum, segmentis angustis imbricatis sæpe inæqualibus. Stamina tot quot segmenta v. aliquanto plura (segmento uno alterove minuto v. deficiente potius quam staminibus seriei interioris evolutis?), filamentis erectis; antheræ latæ (an semper?) puberulæ. Ovarium stipitatum, compressum; stylus brevis, 2-fidus, ramis a basi stigmatosis; ovulum sub apice affixum, pendulum, anatropum. Fructus compressus, siccus, oblique ovatus, undique cinctus ala lata membranacea radiatim reticulato-venosa a basi stipitis usque ad apices ramorum styli extensa; pericarpium tenue chartaceum. Semen sub apice affixum, plano-compressum, testa membranacea; albumen 0; embryo fere rectus, cotyledonibus latissimis æqualibus tenuibus longitudinaliter complicatis, radicula supera inter cotyledones breviter retracta. —Arbor. Folia alterna, disticha, integerrima v. (ex specimine Edgeworthii) plantæ junioris serrata, pennivenia, annua; stipulæ laterales, parvæ, scariosæ, caducissimæ. Florum fasciculi ad nodos defoliatos ramorum annotinorum solitarii, sessiles, esquamati v. squama una alterave parva caducissima stipati.

Species 1, Indiæ orientalis incola. *Roxb. Corom. Pl. t.* 78 (*Ulmus*). *Wight, Ic. t.* 1968 (*lapsu calami* Holopetala), *et f.* 2, 3 *et* 6, *quoad perianthii segmenta male*).

3. **Phyllostylon,** *Capanema in litt.*—Flores polygami, fertiles hermaphroditi, masculi tamen numerosi cum v. absque rudimento ovarii, in ramis annotinis fasciculati. Perianthium 5–8-partitum, segmentis angustis tenuibus inæqualibus leviter imbricatis. Stamina numero segmentorum sæpius pauciora, inæqualia, filamentis brevibus erectis; antheræ glabræ. Ovarium sessile, plano-compressum; stylus cum ovario continuus, planus, late falcatus v. sæpius inæqualiter divaricato-bilobus, margine superiore stigmatosus; ovulum ex apice pendulum. Fructus . . .—Arbor inermis. Folia alterna, breviter petiolata, serrata, pennivenia, decidua, fere *Planeræ*, novella pubescentia; stipulæ parvæ, laterales, distinctæ, cordato-lanceolatæ. Florum fasciculi in ramis annotinis defoliatis sessiles, squamis paucis imbricatis stipati, aphylli. Flores in fasciculo inferiores masculi absque rudimento, superiores secus rhachin ramosque fasciculi subgemini ovario rudimento plus minus evoluto, summi ovario perfecto præditi. Rami foliiferi ut videtur tardius evoluti. Fructus juniores in speciminibus vix ex ovario aucti, perfecti nobis desunt.

Species 1, *P. brasiliensis*, Capan., in Brasiliæ maritimis prope Rio Janeiro crescens, ubi *Pao Branco* dicitur (*Capanema*).

4. **Planera,** *Gmel. Syst. Nat.* ii. 150.—Flores polygami, plerique hermaphroditi, inferiores pauci masculi cum v. absque rudimento ovarii, in ramo annotino fasciculati. Perianthium campanulatum, ad medium 4–5-fidum, lobis imbricatis. Stamina 4–5, filamentis tenuibus rectis exsertis; antheræ glabræ. Ovarium stipitatum; stylus excentricus, brevis, alte 2-fidus, ramis linearibus introrsum a basi stigmatosis; ovulum sub apice affixum, pendulum, breviter amphitropum. Fructus oblique ovatus, compressus, dorso carinatus, cæterum undique carnoso-muricatus; pericarpium crassiusculum, fere carnosum. Semen plano-compressum, testa membranacea; albumen 0; embryo rectus, cotyledonibus latis tenuibus planis æqualibus integris, radicula brevi supera.—Arbor inermis. Folia alterna, disticha, breviter petiolata, serrata, pennivenia; stipulæ laterales, liberæ, caducæ. Florum fasciculi ad nodos defoliatos ramorum annotinorum more *Ulmi* solitarii, sessiles, primum aphylli, squamis paucis imbricatis basi obtecti, post anthesin in ramos foliatos producti, fructibus parvis ad axillas foliorum inferiorum solitariis geminisve breviter pedicellatis. Flores ♂ a speciminibus nostris jam delapsi, ex auctoribus pauci sunt, ad basin fasciculi v. ramuli floriferi.

Species 1, Americæ borealis civitatum australiorum incola, ibidem ex Michaux rara. *Planch. in DC. Prod.* xvii. 167. *Mich. N. Amer. Sylv.* iii. *t.* 130.

Genus quoad fructum et embryonem omnino *Ulmearum* etsi inflorescentia inter illas et *Celtideas* subintermedium.

TRIBUS II. CELTIDEÆ.

5. **Zelkova,** *Spach in Ann. Sc. Nat. sér. 2,* xv. 356. (Abelicea, *Baill. Hist. Pl.* vi. 185.) —Flores monoici, v. fertilibus rarius staminigeris polygami, in ramis hornotinis subsessiles. Fl. ♂: Perianthium late campanulatum, margine sinuatum v. breviter lateque 4–5-lobum. Stamina 4–5, filamentis erectis brevibus; antheræ majusculæ, demum exsertæ. Ovarii rudimentum 0 v. rarius evolutum. Flores fertiles ♀ v. rarius ☿: Perianthium quam in masculis altius lobatum, lobis imbricatis. Staminodia 0 v. plus minus evoluta, rarius stamina perfecta. Ovarium sessile; stylus ad basin 2-partitus, ramis brevibus a basi introrsum stigmatosis (v. rarius ima basi nudis?); ovulum fere ab apice pendulum, breviter campylotropum. Fructus subdrupaceus, irregulariter oblique subglobosus v. carinatus, stylo excentrico breviter subrostratus, dorso carinatus, cæterum lævis v. nervosus; exocarpium membranaceum v. tenuiter carnosum; endocarpium plus minus induratum sæpe latius quam longum et apice medio impressum. Semen latum, compresso-concavum, ab apice pendulum v. fere horizontale, testa crassiuscule membranacea rugosa; albumen 0; embryo curvulus, semini subconformis, cotyledonibus sibimet applicitis latis subæqualibus tenuibus v. crassiusculis, apice (an semper?) emarginatis v. late 2-lobis, radicula brevi supera v. ascendente.—Arbores. Folia alterna, sessilia v. brevissime petiolata, serrata v. crenata, pennivenia, annua; stipulæ liberæ, tenues, angustæ, caducæ. Flores præcoces in ramis hornotinis sessiles v. brevissime pedicellati, ♂ infra folia v. ad axillas foliorum infimorum per 2–5 glomerati, ♀ (v. ☿ ?) superiores ad axillas solitarii, axillis foliorum summorum sterilibus. Fructus parvi.

Species genuinæ fructu ventricoso irregulariter subgloboso 3; una Cretica, altera Caucasico-Caspica, tertia Japonica. *Planch. in DC. Prod.* xvii. 165. *Pall. Fl. Ross. t.* 60 (*Rhamnus*). *Wats. Dendrol. Brit.* ii. *t.* 106 (*Planera*). His tamen haud inepte addidit Baill. Hist. Pl. l. c. HEMIPTELEAM, *Planch. in Compt. Rend. Acad. Par.* 1872, *ex eod. in DC. Prod.* xvii. 164, e China. Habitus idem nisi ramulis hinc inde abbreviatis valide spinescentibus. Inflorescentia tanquam nota et flores (a nobis non visi) ex descr. differentiam nullam præbent. Fructus ex speciminibus nostris valde compressus, exocarpio vix carnosulo carinam versus valde attenuato plano, nervo carinali tamen marginato nec alato; endocarpium ut in *Zelkovis* genuinis induratum et curvulum. Semen perfectum ignotum, sed ex loculi forma ei *Zelkovæ* simile.

Abelicea, Belli, a Baillono citata, est nomen specificum nec genus ad normam Linneanam stabilitum. *Abelicea,* Endl., est sectio *Planeræ* minime admittenda, *Micropteleam* cum *Zelkova* includens. Nomen Spachianum pro genere nostro ab illo bene definitum jure prioritatis gaudet. Genus cæterum fructu aliisque notis potius ad *Celtideas* quam ad *Ulmeas* pertinet, *Planera* autem *Ulmo* ipsi affinior est.

6. **Ampelocera,** *Klotzsch in Linnæa,* xx. 541.—Flores polygami, hermaphroditi aut ovarii abortu masculi, axillares. Perianthium cyathiforme, alte 5-fidum, laciniis ovatis concavis margine dentatis imbricatis. Stamina 10, perianthii laciniis opposita, filamentis filiformibus exsertis. Ovarium ovatum; stylus 2-partitus, ramis stigmatosis subulatis indivisis divaricatis; ovulum sub apice affixum, pendulum, micropyle supera. Drupa baccata. Semen arcuatum.—Arbor inermis, ramis squarrosis. Folia alterna, membranacea, remote serrata, pennivenia; stipulæ laterales, liberæ. Flores articulati, racemosi, racemis axillaribus, plerumque gemmis corymbosis tegmentis aridis circumdantibus. (*Char. ex Klotzsch.*)

Species typica Peruviana, a nobis non visa, generis adhuc quodammodo dubii, a Planchonio ex ordine excluditur. Nota plura cum *Celtide* conveniunt, sed stamina ∞ et folia pennivenia discrepant. Huic addidit Grisebach, Cat. Pl. Cub. 57, speciem Cubensem foliis integerrimis, racemis brevibus paucifloris fere ad glomerulum reductis. Perianthium alte divisum in lacinias 4 suborbiculatas membranaceas leviter imbricatas. Stamina usque ad 16 serie subsimplici conferta. Styli rami a

basi continue stigmatosi; ovulum ab apice pendulum. Drupa globosa, exocarpio haud crasso carnoso v. succulento, endocarpio crustaceo duriusculo. Semen globosum, pendulum, testa membranacea; albumen 0; cotyledones carnosæ valde undulato-contortuplicatæ, radicula ascendente (in semine examinato) nec infera ut a Grisebachio dicitur.

7. **Celtis,** *Linn. Gen. n.* 1143.—Flores polygami, fertiles hermaphroditi v. rarius fœminei, masculi cum v. absque rudimento ovarii, in ramis hornotinis cymosi fasciculati v. fertiles solitarii. Perianthium alte v. fere ad basin 5- rarius 4-partitum, segmentis imbricatis. Stamina 5, rarius 4, filamentis erectis v. vix incurvis demum exsertis; antheræ ovatæ. Torus sæpius dense pilosus, vix tamen in discum expansus. Ovarium sessile; stylus centralis, 2-partitus, ramis plumoso-stigmatosis divergentibus indivisis 2-fidisve; ovulum ab apice pendulum, anatropum. Drupa succulenta, ovoidea v. globosa, interdum 2-carinata, æqualis, endocarpio osseo sæpius rugoso. Semen subconforme, testa membranacea; albumen 0 v. perparcum; embryo curvus, cotyledonibus latissimis sibimet applicitis concavo-subcucullatis v. transverse subplanis et incurvo-replicatis, interdum corrugatis, radicula sursum incurva incumbente v. cotyledonibus amplexa. —Arbores fruticesve inermes v. spinosi. Folia alterna, annua v. perennantia, serrata v. integerrima, pennivenia et 3- (rarius 4–5-) nervia, basi sæpe obliqua; stipulæ laterales, liberæ. Cymulæ masculæ v. androgynæ laxæ v. fasciculiformes, axillares v. ad basin innovationum; flores fertiles in axillis superioribus solitarii v. pauci, longius pedicellati.

Species enumeratæ ultra 70 bene tamen distinctæ vix 50, per regiones temperatas tropicasque utriusque orbis late dispersæ pleræque in hemisphærio boreali. *Planch. in DC. Prod.* xvii. 169, ubi in sectiones 4 sequentes distribuuntur:—

1. *Euceltis.* Arbores inermes. Folia decidua, serrata v. rarius integerrima. Cymæ masculæ v. androgynæ fasciculiformes. Flores fertiles plerique in axillis superioribus solitarii longe pedicellati. Styli rami stigmatosi lineares, indivisi. Species extratropicæ hemisphærii borealis, v. paucæ montanæ tropicæ.—*Reichb. Ic. Fl. Germ. t.* 667. *Wats. Dendrol. Brit. t.* 105, 147. *Jaub. et Spach, Ill. Pl. Or. t.* 400. *Wight, Ic. t.* 1970. *Dcne. in Jaquem. Voy. Bot. t.* 152. *Brand. For. Fl. t.* 50. *Bedd. Fl. Sylv. t.* 312. *Mich. N. Amer. Sylv. t.* 114. *Nutt. N. Amer. Sylv. t.* 39, 40.

2. *Sponioceltis,* species 2 continet, alteram Indiæ occidentalis alteram Indiæ orientalis, in omnibus *Euce̊lti* convenientes, nisi cymis masculis laxioribus, fertilibus plurifloris.

3. *Solenostigma.* Arbores v. frutices inermes. Folia sæpius perennantia, coriacea, integerrima. Cymæ masculæ v. androgynæ laxe multifloræ, floribus fertilibus tamen interdum solitariis. Styli rami stigmatosi sæpissime (vix semper) apice dilatati bifidi v. etiam bis bifidi. Species gerontogeæ pleræque tropicæ. *Wight, Ic. t.* 1969. Solenostigma, *Endl. Prod. Fl. Norf.* 41. *Blume, Mus. Bot. Lugd. Bat.* ii. 66, *t.* 33.

4. *Momisia.* Arbores fruticesve spinis axillaribus sæpissime armati. Folia integerrima v. serrata. Cymæ sæpe multifloræ, breviores tamen densioresque quam in *Solenostigmate.* Styli rami stigmatosi lineares, 2-fidi. Species omnes Americanæ tropicæ v. subtropicæ. *Torr. Bot. Emory Exped. t.* 50. *Miq. in Mart. Fl. Bras.* iv. i. *t.* 62, 63. Mertensia, *H. B. et K. Nov. Gen. et Sp.* ii. 30, *t.* 103. Momisia, *Dumort. Anal. Fam.* 17.

Species Africana inermis in Prodromo ad *Momisiam* relata, quæ sectio *Momisiopsis,* Blume, Mus. Bot. Lugd. Bat. ii. 69, t. 36, nobis melius ad *Solenostigma* referenda videtur.

8. **Pteroceltis,** *Maxim. in Bull. Acad. Sc. Petersb.* xviii. 292; *Mel. Biol.* ix. 26, *cum ic.* —Flores monoici (polygami?), masculi in ramis hornotinis fasciculati, fertiles ignoti, fructus in axillis solitarii. Fl. ♂: Perianthium 5-partitum, segmentis valde imbricatis. Stamina 5, filamentis erectis. Ovarii rudimentum 0. Fructus supra perianthii cicatricem stipitatus, subglobosus, ala cinctus lata transverse reticulato-venosa a basi stipitis usque ad stylum extensa; exocarpium tenue, endocarpium osseum. Semen pendulum, testa tenuiter membranacea; albumen parcissimum; embryo curvus, cotyledonibus latis sibimet applicitis bis complicatis et transverse undulato-subcorrugatis, radicula incumbente incurvo-ascendente.—Arbor v. frutex inermis. Folia alterna, petiolata, serrata, 3-nervia; stipulæ deciduæ. Florum ♂ fasciculi in axillis inferioribus sessiles, squamis paucis stipati. Fructus in axillis superioribus solitarii, longe pedunculati. (*Char. ex ic. et descr. Maxim.*)

Species 1, Mongoliæ v. Chinæ borealis incola, a nobis non visa. Genus in omnibus *Celti* convenire videtur, excepto fructu more *Ulmi* stipitato et ala lata cincto.

9. **Trema,** *Lour. Fl. Cochinch.* 562. (Sponia, *Comm. ex Dcne. Herb. Tim. Descr.* 170.) —Flores monoici subdioici v. fertilibus sæpe staminigeris polygami, ad axillas cymosi. Fl. ♂ : Perianthium 5- rarius 4-partitum, segmentis induplicate-valvatis v. vix leviter imbricatis. Stamina 5, rarius 4, filamentis brevibus erectis. Ovarii rudimentum 0 v. plus minus evolutum. Fl. fertiles : Perianthii segmenta subplana, leviter imbricata, v. ubi stamina adsint plus minus concava v. induplicata. Ovarium sessile ; stylus centralis, alte v. usque ad basin divisus, ramis stigmatosis linearibus crassiusculis interdum basi ovario adnatis, stigmate tamen semper continuo ; ovulum sub apice affixum, pendulum. Torus utriusque sexus sæpius pilosus. Drupa parva, æqualis, ovoidea v. subglobosa, styli ramis involutis sæpius coronata ; exocarpium plus minus succulentum ; endocarpium durum. Semen subconforme, testa membranacea ; albumen carnosum, sæpius parcum ; embryo curvus v. fere involutus; cotyledonibus angustis sibimet applicitis, radicula incumbente ascendente.—Arbores v. frutices elatiores, inermes. Folia alterna, sæpius disticha, breviter petiolata, serrata, pennivenia et basi trinervia ; stipulæ laterales, liberæ, sæpius parvæ, caducæ. Cymæ ad axillas subsessiles, masculæ et fertiles in axillis v. stirpibus distinctis v. rarius androgynæ. Fructus parvi, perianthio persistente sæpius stipati.

Species enumeratæ fere 30, plurimæ tamen inter se vix distinguendæ et verisimiliter ad 20 reducendæ, per regiones tropicas et subtropicas utriusque orbis late dispersæ. *Planch. in DC. Prod.* xvii. 195 (*Sponia*). *Blume, Mus. Bot. Lugd. Bat.* ii. 58, *t.* 32. *Brongn. in Duperr. Voy. Bot. t.* 47, 48 (*Celtis*). *Wight, Ic. t.* 602, 603 (*Celtis*), *t.* 1971, 1990 (*Sponia*). *Bedd. Fl. Sylv. t.* 311 (*Sponia*). *Miq. Stirp. Surin. t.* 57 (*Sponia*).

10. **Parasponia,** *Blume, Mus. Bot. Lugd. Bat.* ii. 65, *t.* 35.—Flores polygami, fertiles hermaphroditi v. fœminei, masculi cum v. absque rudimento ovarii, ad axillas cymosi. Perianthium omnium 5-partitum, segmentis latis valde imbricatis. Stamina 5, filamentis brevibus erectis v. apice leviter inflexis ; antheræ ovatæ. Ovarium sessile ; stylus centralis, ad basin divisus, ramis stigmatosis linearibus crassiusculis ; ovulum sub apice affixum, pendulum. Torus pilosus. Drupa parva, æqualis, ovoidea v. subglobosa, styli ramis involutis coronata ; exocarpium succulentum ; endocarpium durum. Semen subconforme, testa membranacea ; albumen carnosum ; embryo involutus, cotyledonibus angustis sibimet applicitis, radicula incurvo-ascendente.—Arbores inermes, habitu *Tremæ*. Folia alterna, disticha, breviter petiolata, serrata, pennivenia et basi trinervia ; stipulæ in unam intrapetiolarem gemmam terminalem obtegentem et caducissimam connata v. arcte convoluta. Flores minimi, cymulis parvis omnibus axillaribus. Ovarii rudimentum in fl. ♂ interdum magnum clavatum vertice plano-concavum vidimus, interdum vero omnino deesse videtur.

Species 2, Archipelagi Malayani et insularum maris Pacifici incolæ. *Planch. in DC. Prod.* xvii. 194.

11. **Aphananthe,** *Planch. in Ann. Sc. Nat. ser.* 3, x. 265, *et in DC. Prod.* xvii. 207.—Flores monoici, masculi dense cymosi, fœminei solitarii. Fl. ♂ : Perianthium 5- rarius 4-partitum, segmentis obtusis concavis v. induplicato-cucullatis plus minus imbricatis. Stamina 5, rarius 4, filamentis rectis vix apice inflexis ; antheræ oblongæ. Ovarii rudimentum 0 v. inter pilos tori obscurum. Fl. ♀ : Perianthii segmenta angustiora, imbricata. Ovarium sessile ; stylus centralis, 2-partitus, ramis stigmatosis linearibus crassiusculis ; ovulum sub apice affixum, pendulum. Drupa ovoidea v. subglobosa, æqualis, exocarpio succulento, endocarpio duro. Semen conforme, testa membranacea ; albumen tenue v. 0 ; embryo involutus, cotyledonibus angustis sibimet applicitis, exteriore majore, radicula incurvo-ascendente.—Arbores fruticesve inermes. Folia alterna, petiolata, serrata, prominule pennivenia et basi 3-nervia ; stipulæ laterales, liberæ. Cymæ ♂ in axillis infimis v. ad basin innovationum præcoces, floribundæ. Flores ♀ in axillis superioribus tardius evoluti, solitarii, pedunculati.

Species 2, altera typica in ins. Philippinis et Australia crescens, foliis coriaceis, ramorum sterilium sæpe spinoso-dentatis lobatisve, segmentis perianthii ♂ latis valde imbricatis. *Hook. Ic. Pl. t.* 1174. Altera, japonica, differt foliis membranaceis, segmentis perianthii ♂ angustioribus fere cucullatis minus imbricatis, sed a Planchonio rite ad *Aphananthem* reducta videtur. HOMOIOCELTIS, *Blume, Mus. Bot. Lugd. Bat.* ii. 64, *t.* 34. Species tertia Prodromi, *A. cuspidata*, Planch., folia stipulas floresque potius *Gironnieræ* quam *Aphananthis* præbet.

12. **Gironniera,** *Gaudich. Voy. Bonite, t.* 85. (Nematostigma, *Planch. in Ann. Sc. Nat. ser.* 3, x. 265, *lapsu calami* Nemostigma. Helminthospermum, *Thw. in Hook. Kew Journ.* vi. 301, *t.* 9.)—Flores dioici, ad axillas cymosi v. fœminei solitarii. Fl. ♂: Perianthium 5-partitum, segmentis latis obtusis valde imbricatis. Stamina 5, filamentis brevibus erectis apice leviter incurvis; antheræ ovatæ, erectæ. Ovarii rudimentum pilosum. Fl. ♀: Perianthii segmenta quam in mare angustiora, acuta. Ovarium sessile; stylus centralis, alte 2-fidus, ramis stigmatosis longe filiformibus papillis minimis; ovulum sub apice pendulum. Drupa ovoidea v. subglobosa, sæpissime compressiuscula et 2-carinata; exocarpium carnosum v. succulentum; endocarpium durum, haud crassum. Semen (perfectum non vidimus) endocarpio subconforme, testa membranacea; albumen 0 v. sat copiosum; embryo contortus.—Arbores v. frutices inermes, glabri v. appresse pilosi. Folia alterna, breviter v. brevissime petiolata, integerrima v. leviter serrata, a basi pennivenia, sæpe ampla; stipulæ intrapetiolares convolutæ basi sæpius connatæ, gemmam terminalem includentes, caducissimæ. Cymæ axillares, nunc densæ sessilesque, nunc laxiores, floribus secus ramos dissitis v. masculis glomeratis; inflorescentia fœminea varia.

Species 7 v. 8, Zeylaniæ, Archipelagi Malayani, Chinæ australis et ins. maris Pacifici incolæ. *Planch. in DC. Prod.* xvii. 205. *Blume, Mus. Bot. Lugd. Bat.* ii. *t.* 25. *Bedd. Fl. Sylv. t.* 313.

Specimina nostra fructifera sat numerosa fructibus aspectu maturis prædita, sed semina perfecta frustra quæsivimus; nec a Planchonio nec a Blumeo nec a Baillono descripta, et icon et descriptio Thwaitesii cum icone Gaudichaudiano non conveniunt. Verisimiliter genus in sectiones 2 sequentes distinctas dividendum: 1. *Nematostigma*, floribus utriusque sexus cymosis, albumine (ex Gaudich.) sat copioso. Huc pertinent *G. nervosa* et *G. subæqualis*, Planch., et *G. celtidifolia*, Gaudich. 2. *Galumpita*, pedunculis fœmineis in axillis solitariis longiusculis 1–2-floris, albumine (ex Thwaitesio) 0. Huc pertinere videntur *G. rhamnifolia*, Blume, *G. parvifolia*, Planch., *G. reticulata*, Thw., quæ GALUMPITA, *Blume, Mus. Bot. Lugd. Bat.* ii. 73, a Planch. in DC. Prod. xvii. 209 ad *Aphananthem* relata, a Kurzio in For. Fl. Brit. Burm. ii. 470, ad *Gironnieram* rite revocata, *G. lucida*, Kurz, l. c., et verisimiliter *G. nitida*, Benth., cujus flores ♀ adhuc ignoti.

13. **Chætacme,** *Planch. in Ann. Sc. Nat. ser.* 3, x. 340, *et in DC. Prod.* xvii. 209.—Flores monoici, masculi cymosi, fœminei ad axillas solitarii. Fl. ♂: Perianthium 5-partitum, segmentis induplicato-valvatis obtusis. Stamina 5, filamentis brevibus erectis; antheræ oblongæ. Ovarii rudimentum oblongum. Fl. ♀: Perianthii segmenta quam in mare angustiora, leviter imbricata. Ovarium sessile; stylus centralis, 2-partitus, ramis stigmatosis tenuibus elongatis; ovulum ab apice pendulum. Drupa globosa, exocarpio crasso denso in sicco duro, endocarpio tenuiter osseo. Semen parvum, globosum, testa membranacea intra plicas embryonis intrusa; albumen cæterum 0; embryo curvus, cotyledone altera magna lata crasso-carnosa inflexa alteram parvam (in semine examinato imperfectam) includente, radicula brevi ascendente.—Frutex elatior, ramosissimus, glaber, spinis axillaribus v. lateralibus solitariis geminisve plus minus armatus. Folia alterna, breviter petiolata, integerrima, coriacea, tenuiter pennivenia; stipulæ in unam oppositifoliam gemmam terminalem includentem mox deciduam connatæ. Cymæ ♂ densæ, subsessiles, sæpius floribundæ. Fructus in axillis breviter pedunculati.

Species 1, in Africa australi imprimis orientali late dispersa, etiam intra tropicos a Welwitschio in Angola, a Schweinfurthio in terra Niam-niam lecta. *Harv. Thes. Cap. t.* 25.

TRIBUS III. CANNABINEÆ.

14. **Humulus,** *Linn. Gen. n.* 1116. (Lupulus, *Gærtn. Fruct.* i. 358, *t.* 75.)—Flores dioici, penduli, masculi paniculati, fœminei spicati. Fl. ♂: Perianthium 5-partitum, seg-

mentis distinctis imbricatis. Stamina 5, filamentis brevissimis erectis; antheræ oblongæ, loculorum rima sæpe brevi. Ovarii rudimentum 0. Fl. ♀: Perianthium tenuissime membranaceum, ovario arcte applicitum eoque sæpius brevius, margine integrum. Ovarium sessile; stylus centralis, 2-partitus, ramis stigmatosis filiformibus caducissimis; ovulum ab apice pendulum. Achænium late ovatum, compressiusculum, perianthio persistente sæpe glanduloso indutum; pericarpium crustaceum. Semen pericarpio conforme, testa membranacea; albumen (integumenti superficies interior, *Gærtn.*) album, carnosum; embryo spiraliter involutus, cotyledonibus angustis sibimet applicitis, radicula brevi ascendente.—Herbæ volubiles alte scandentes, pilis reversis asperæ. Folia opposita, petiolata, lata, membranacea, serrata, 5–7-nervia, nunc cordata indivisaque, nunc sæpius palmatim 3–7-loba; stipulæ laterales, liberæ, diu persistentes. Paniculæ axillares, superiores sæpe paniculam terminalem foliatam formantes, masculæ laxe ramosæ, floribus breviter pedicellatis pendulis; paniculæ fœmineæ e spicis paucis pedunculatis pendulis strobiliformibus. Bracteæ in spica fructifera persistentes, auctæ, latæ, membranaceæ, coloratæ, laxe imbricatæ, achænia parva ad axillas sessilia occultantes.

Species 2, quarum una diu culta per regiones temperatas utriusque orbis latissime dispersa, altera Chinæ, Japoniæ insularumque adjacentium incola. *A. DC. Prod.* xvi. i. 29. *Reichb. Ic. Fl. Germ. t.* 656. *Nees, Gen. Fl. Germ. Monochl. n.* 31. *Hayne, Arzneigew.* viii. *t.* 36. *Berg. Off. Gew. t.* 27*b*. *Seem. Bot. Her. t.* 98.

Seminis albumen ab omnibus auctoribus negatur, nobis tamen a testa bene distinctum videtur, embryonem undique includens etsi intus læve nec intra plicas intrusum.

15. **Cannabis,** *Linn. Gen. n.* 1115.—Flores dioici, masculi breviter paniculati, fœminei ad axillas conferti intra bracteas sessiles. Fl. ♂: Perianthium 5-partitum, segmentis distinctis imbricatis. Stamina 5, filamentis brevissimis erectis; antheræ oblongæ. Ovarii rudimentum 0. Fl. ♀: Perianthium tenuissime membranaceum, ovario arcte applicitum eoque brevius, integrum, interdum vix distinguendum v. plane 0. Ovarium sessile; stylus centralis, 2-partitus, ramis stigmatosis filiformibus rectis caducissimis; ovulum ab apice pendulum. Achænium compressiusculum, perianthio tenuissimo vix separabili plus minus involutum; pericarpium crustaceum. Albumen carnosum, unilaterale, circa radiculam sat copiosum; embryo curvatus, cotyledonibus crasso-carnosis latis subæqualibus sibimet applicitis, radicula iis æquilonga recurvo-ascendente incumbente.—Herba erecta, elata. Folia alterna v. ima opposita petiolata, in segmenta 5–11 lanceolata serrata palmatim divisa, superiora rarius ad segmenta 1–3 reducta; stipulæ laterales, liberæ. Paniculæ ♂ foliis multo breviores, floribus fasciculatis breviter pedicellatis ut in *Humulo* pendulis. Flores ♀ ad axillas inter bracteas foliaceas conferti, singuli bractea ∞-nervi basi convoluta apice patente arcte inclusi. Perianthium verum haud facile observatum sæpe prætervisum.

Species 1, in Asia centrali ut videtur indigena, in variis regionibus temperatis tropicisve diu culta nunc sæpe inquilina. *A. DC. Prod.* xvi. i. 30. *Reichb. Ic. Fl. Germ. t.* 655. *Nees, Gen. Fl. Germ. Monochl. n.* 30 (*perianthio omisso*). *Schnitzl. Ic. t.* 95. *Hayne, Arzneigew.* viii. *t.* 35. *Berg. Off. Gew. t.* 19 B.

Albumen semper carnosum circa radiculam sat copiosum invenimus et in iconibus pluribus citatis bene depictum, etsi ab auctoribus ipsis uti ab omnibus fere botanicis negatur.

Tribus IV. Moreæ.

16. **Pseudostreblus,** *Bur. in DC. Prod.* xvii. 219.—Flores monoici, ♂ dense irregulariter cymosi, ♀ in pedunculo discreto v. in cymula ♂ solitarii. Fl. ♂: Perianthii segmenta 5, orbiculata valde imbricata. Stamina 5, filamentis in alabastro inflexis, per anthesin porrectis exsertis; antheræ magnæ. Ovarii rudimentum parvum, lineare. Fl. ♀: Perianthii segmenta 4, orbiculata, valde imbricata, ovarium arcte includentia, bracteis 4 parvis stipata. Ovarium subglobosum, rectum; stylus terminalis, alte 2-fidus, ramis stigmatosis longe linearibus subæqualibus; ovulum apice lateraliter affixum, pendulum.

Fructus immaturus perianthii segmentis valde auctis inclusus, maturus indescriptus nobisque deest.—Arbores proceræ, lactescentes, inermes, glabræ. Folia alterna, brevissime petiolata, majuscula, integerrima, pennivenia; stipulæ parvæ, laterales, caducæ. Flores ♂ (in specie typica) in cymulas irregulares ad axillas sessiles v. breviter pedunculatas dense conferti at distincti. Flores ♀ sæpe in eodem ramo at in axillis diversis solitarii, breviter pedunculati, et interdum flos ♀ adest in media cymula mascula.

Species bene nota 1, in Khasiya Indiæ orientalis detecta, altera tamen congener videtur e Penang et Singapore, *Wall. Cat. Herb. Ind. n.* 7425, florum ♂ cymula densiore fere capituliformi, rhachi v. receptaculo subcarnoso. His verisimiliter valde affinis nisi stricte congener est CALIUS, Blanco, *Fl. Filip.* 698; *Bur. in DC. Prod.* xvii. 698, arbor lactescens in insulis Philippinis frequens, in herbariis nostris non agnota. Ex charactere dato a *Pseudotreblis* nostris non differt nisi foliis serratis, florum fasciculis longius pedunculatis androgynis, et perianthio utriusque sexus 4-mero.

17. **Bleekrodia,** *Blume, Mus. Bot. Lugd. Bat.* ii. 87, *t.* 28.—Flores monoici, in cymas axillares androgynas dispositi. Fl. ♂: Perianthium breviter 4–5-fidum, lobis valvatis. Stamina 4, filamentis in alabastro inflexis, per anthesin porrectis exsertis. Ovarii rudimentum lineare. Fl. ♀: Perianthium tubulosum, superne contractum, breviter 4-dentatum. Ovarium rectum v. parum obliquum, inclusum; stylus excentricus, filiformis, 2-fidus, ramis stigmatosis tenuibus æqualibus v. inæqualibus; ovulum ab apice pendulum. Fructus (a nobis non visus) perianthio tenuissimo inclusus, drupaceus; exocarpium basi crassum, superne tenuissimum, parte crassa 2-loba; endocarpium chartaceum. Semen subglobosum, testa tenuissima; albumen 0; embryo subglobosus, cotyledonibus carnosis, altera crassissima basi depressa, altera in depressione minima squamiformi; radicula minima, cotyledoni parvæ incumbens, incurvo-ascendens.—Arbusculæ lactescentes. Folia alterna, brevissime petiolata, acuminata, integerrima, pennivenia; stipulæ laterales, deciduæ. Cymæ axillares, in specie Madagascariensi parvæ, densæ, bracteis parvis scariosis, flore ♀ unico, masculis pluribus; in specie Borneensi a nobis non visa laxæ. (*Char. fruct. ex Blume, et Bureau.*)

Species 2, altera Madagascariensis, altera Borneensis. *Bur. in DC. Prod.* xvii. 255.

18. **Fatoua,** *Gaudich. in Freyc. Voy. Bot.* 509; *Voy. Bonite, t.* 84.—Flores monoici, in cymas axillares androgynas subcapitatas dispositi. Fl. ♂: Perianthium alte 4-fidum, lobis valvatis. Stamina 4, filamentis in alabastro inflexis, per anthesin porrectis exsertis. Ovarii rudimentum parvum, conicum. Fl. ♀: Perianthium sub-6-partitum, segmentis angustis valvatis. Ovarium obliquum; stylus sublateralis, filiformis, longe stigmatosus, indivisus v. dente v. ramo brevi instructus; ovulum ex apice pendulum. Achænium perianthio persistente inclusum, oblique globosum, leviter compressum; pericarpium tenuiter crustaceum. Semen conforme, testa membranacea; albumen 0; embryo incurvus, cotyledonibus latis æqualibus, radicula longa incumbente incurvo-ascendente.—Herba diffusa v. ascendens, basi interdum indurescens, habitu *Urticearum*. Folia alterna, petiolata, dentata, pennivenia et subtrinervia; stipulæ laterales, deciduæ. Cymæ subcapitatæ, parvæ, densæ, rhachi leviter dilatata ramosissima. Bracteæ parvæ, exteriores subinvolucrantes. Flores utriusque sexus in quaque cyma plures, ♀ in dichotomiis, ♂ ramulos terminantes.

Species 1, Archipelagi Malayani, Australiæ tropicæ, insularum maris Pacifici et Asiæ orientalis usque ad Japoniam incolæ. *Bur. in DC. Prod.* xvii. 256. *Blume, Mus. Bot. Lugd. Bat. t.* 38.

19. **Taxotrophis,** *Blume, Mus. Bot. Lugd. Bat.* ii. 77, *t.* 26.—Flores dioici, ♂ breviter racemoso-spicati, ♀ in pedunculo solitarii v. pauci. Fl. ♂: Perianthium 4-partitum, segmentis ovatis valvatis. Stamina 4, filamentis in alabastro inflexis, per anthesin porrectis exsertis. Ovarii rudimentum apice dilatatum, sinuatum. Fl. ♀: Perianthii segmenta 4, imbricata, persistentia; fructu breviora. Ovarium ovoideum, per anthesin rectum, mox uno latere valde auctum; stylus 2-partitus, primum subcentralis, post anthesin fere lateralis, ramis stigmatosis subulatis subæqualibus; ovulum sub stylo lateraliter affixum, pendulum. Fructus e perianthio exsertus, oblique subglobosus; pericarpium basi oblique carnoso-incrassatus, apice tenuis. Semen obliquum, testa rigidule membranacea; albumen 0; embryo subglobosus; cotyledones latæ, carnosæ, valde

contortuplicatæ (v. crassissimæ inæqualesque ?); radicula inflexa, ascendens.—Arbusculæ fruticesve glabri, spinis axillaribus paucis armati. Folia alterna, breviter petiolata, parce serrata v. crenata, pennivenia et reticulata; stipulæ parvæ, connatæ, gemmam obtegentes, caducissimæ. Inflorescentiæ axillares; spicæ ♂ breves, densiusculæ, floribus brevissime pedicellatis subfasciculatis, bracteis ad basin fasciculorum minimis. Pedunculus ♀ longiusculus, floribus 1–4 longe pedicellatis; bracteæ sub pedicellis parvæ v. minutæ et in pedunculo 1-floro bracteæ inferiores adsunt 1–2 vacuæ.

Species 3 v. 4. Zeylaniæ, Malaccæ et Archipelagi Malayani incolæ. *Bur. in DC. Prod.* xvii. 215, 216 (*Diplocos et Taxotrophis*). *Wight, Ic. t.* 1692 (fig. *infera sinistra*).

Genus a *Streblo* facile distinguitur inflorescentia mascula et stylo post anthesin fere laterali, in genera 2 in Prodromo dividitur: Diplocos, *Bur.*, pedunculo fœmineo ∞-floro, semine usque ad medium albumine impleto et cotyledonibus contortuplicatis, et Taxotrophis, pedunculo fœmineo 1-floro, semine exalbuminoso cotyledonibus crasso-carnosis, et sub *Diploco* specimina Zeylanica Thwaitesii et Birmanica Griffithii n. 4659, et icon Wightii, citantur. In specimine Thwaitesiano nostro fructus immaturi sunt quales a Wightio delineati, pericarpio basi crasse carnoso v. succulento, semine adhuc imperfecto. Specimina Griffithiana quoad folia et flores ♂ iis *T. javanicæ*, Blum., simillima sunt; in his semina bene matura albumen nullum ostendunt, et cotyledones plicatæ omnino ut delineavit Thwaites, qui de albumine silet. Specimina nostra plantæ javanicæ Blumei mascula sunt, et fructum non vidimus. In icone Blumeana embryo delineatur cotyledonibus crasso-carnosis omnino *Phyllochlamidis*, quæ ab auctore in genere suo *Taxotrophi* includitur, et forte hanc speciem nec *T. zeylanicam* refert.

20. **Phyllochlamys,** *Bur. in DC. Prod.* xvii. 217.—Flores dioici, ♂ capitato-spicati, ♀ in pedunculo solitarii. Fl. ♂: Perianthium 3–4-partitum, segmentis ovatis concavis imbricatis. Stamina 3–4, filamentis in alabastro inflexis, per anthesin porrectis exsertis. Ovarii rudimentum apice dilatatum. Fl. ♀: Perianthii segmenta 3–4, per anthesin ovario longiora, fructifera valde aucta, foliacea, acuminata. Ovarium ovoideum, per anthesin rectum, mox uno latere valde auctum; stylus 2-partitus, primum subcentralis, post anthesin fere lateralis, ramis stigmatosis subulatis subæqualibus; ovulum sub stylo lateraliter affixum, pendulum. Fructus perianthio foliaceo obtectus eique multo brevior, oblique subglobosus; pericarpium basi oblique carnoso-incrassatum, apice tenuius. Semen obliquum, testa membranacea; embryo membrana tenuissima (albumine ?) inclusus, globosus, cotyledone altera crassissime carnosa 2-fida alteram parvam includente, radicula parva sursum inflexa.—Arbores fruticesve glabri, spinis ramulos terminantibus v. brevibus lateralibus armati. Folia alterna, brevissime petiolata, paucidentata v. subintegerrima, pennivenia; stipulæ laterales, liberæ. Spicæ ♂ ad axillas subsessiles, brevissimæ, bracteis ∞ ferrugineis sepalis æqualibus similibusque stipatæ. Flores ♀ ad axillas solitarii, pedunculo fructifero longiusculo.

Species bene nota 1, in Peninsula Indiæ orientalis, Zeylania et Timor crescens. Epicarpuri species, *Dcne. Herb. Tim. Descr. in Ann. Mus. Par.* iii. *t.* 21. *Wight, Ic. t.* 1692 (*fig. superior et inferior dextra*). Huic forte addendus frutex Penangianus, *Wall. Cat. Herb. Ind. n.* 7519, cujus specimina ♂ tantum adsunt, iis *P. spinosi* similia nisi foliis minoribus apice retusis nec acuminatis.

Genus *Taxotrophi* valde affine, et ei a Blumeo adsociatum, differt tamen inflorescentia ♂, perianthio ♀ et embryone.

21. **Streblus,** *Lour. Fl. Cochinch.* 614. (Epicarpurus, *Blume, Bijdr.* 488.)—Flores dioici, ♂ capitato-glomerati, ♀ in pedunculo solitarii. Fl. ♂: Perianthium 4-partitum, segmentis latis imbricatis. Stamina 4, filamentis in alabastro inflexis, per anthesin porrectis exsertis. Ovarii rudimentum apice dilatatum. Fl. ♀: Perianthii segmenta 4, valde imbricata, ovarium arcte includentia, bracteis sæpius 3 subsimilibus stipata. Ovarium rectum, apice retusum; stylus centralis, alte 2-fidus, ramis stigmatosis elongatis subæqualibus; ovulum ab apice pendulum. Fructus subglobosus, rectus, perianthii segmentis paullo auctis laxe obtectus, stylo terminali; pericarpium membranaceum nec incrassatum. Semen globosum, testa membranacea; albumen 0; embryo globosus, cotyledone altera maxima crasso-carnosa 2-loba alteram parvam et radiculam sursum inflexam includente.—Arbor v. frutex ramosissimus, inermis, glaber, ramulis brevioribus sæpe rigescentibus. Folia alterna, breviter petiolata, subdentata, rigidula, scabra,

pennivenia; stipulæ laterales, parvæ, deciduæ. Capitula ♂ subglobosa uti flores ♀ pedunculata, pedunculis utriusque sexus ad axillas solitariis v. 2–4-nis. Bracteæ sub capitulo ♂ 2; bracteolæ in capitulo ∞, parvæ.

Species 1, Asiæ tropicæ a Zeylania et Peninsula Indica usque ad Archipelagum Malayanum et Chinam australem incola. *Bur. in DC. Prod.* xvii. 218. *Blume, Mus. Bot. Lugd. Bat.* ii. *t.* 30. *Wight in Hook. Journ. Bot.* i. *t.* 121 (*Trophis*), *et Ic. t.* 1961 (*Epicarpurus*).

ALBRANDIA, *Gaudich. in Freyc. Voy.* 509 a Decaisneo Herb. Tim. Descr. 172 ad *Epicarpurum* refertur, in Prodromo prætermissa est.

22. **Maillardia,** *Frappier et Duchartre in Maill. Not. Ile Réun. Annexe* P.—Flores dioici, ♂ densissime spicati, ♀ solitarii. Fl. ♂: Perianthium 4-fidum v. 4-partitum, lobis segmentisve latis concavis imbricatis. Stamina 4, filamentis in alabastro inflexis, per anthesin porrectis exsertis. Ovarii rudimentum pilosum. Fl. ♀ bracteis 2–3-seriatim imbricatis involucrati: Perianthium ovoideum, ovario basi adnatum, ore minute 4-dentato foramine parvo pervio. Ovarium semi-adnatum, inclusum; stylus 2-partitus, ramis stigmatosis elongato-subulatis æqualibus, ovulum ex apice pendulum. Drupa globosa, subdepressa, apiculata, e perianthio cum ovario coadunato confecta. Seminis integumentum duplex, crustaceum, fragile (an potius endocarpium crustaceum, seminis testa membranacea?); albumen 0; cotyledones valde inæquales, altera conglobata maxima quasi complicata alteram minimam appressam planam fovente, radicula brevissima supera recta.—Arbor lactescens, inermis. Folia alterna, disticha, petiolata, integerrima, coriacea, nitida, pennivenia, costa venisque primariis transversis parallelis subtus prominentibus; stipulæ lineari-lanceolatæ, semet amplectentes, caducissimæ. Spicæ ♂ ad axillas solitariæ v. geminæ, longiusculæ, demum tenuiter cylindraceæ, floribus numerosissimis minimis sessilibus densissime confertis bracteis peltatis obtectis, rhachi longitrorsum uno latere anguste denudata. Flores ♀ ad axillas solitarii, pedunculati. Fructus ruber, cerasiformis. (*Char. fl. ex descr. Duchartre.*)

Species 1, ins. Borboniæ (La Réunion) incola. *Bur. in DC. Prod.* xvii. 220. Genus evidenter spicas ♂ *Sloetiæ* ostendit, sed differt uti *Pseudostreblus* a *Bleekrodia* floribus ♀ a spicis ♂ segregatis. Specimen a Museo Parisiensi communicatum fructum unicum fert absque floribus.

23. **Malaisia,** *Blanco, Fl. Filip.* 789, *ed.* 2, 543. (Dumartroya, *Gaudich. Voy. Bonite, t.* 97. Cephalotrophis, *Blume, Mus. Bot. Lugd. Bat.* ii. 75, *t.* 27.)—Flores dioici, ♂ cylindraceo-spicati, ♀ globoso-capitati, receptaculo parvo. Fl. ♂: Perianthium 3-partitum, rarissime 4-partitum, segmentis valvatis. Stamina 3, rarissime 4, filamentis in alabastro inflexis per anthesin porrectis exsertis. Ovarii rudimentum parvum. Fl ♀: Perianthium urceolatum, ore contracto vix denticulato. Ovarium rectum, inclusum; stylus centralis, alte 2-fidus, ramis stigmatosis filiformibus; ovulum sub apice affixum, pendulum. Capitula fructifera parum aucta. Achænium perianthio tenuiter carnosulo arcte inclusum; pericarpium tenuiter coriaceo-carnosum. Semen conforme, testa membranacea, pericarpio plus minus adhærente; albumen 0 v. perparcum v. rarius partim incrassatum et inter fissuram cotyledonis majoris intrusum; embryo globosus v. ovoideus, cotyledone altera crasso-carnosa, uno latere fissa sub-2-loba, alteram parvam plicatam radiculamque amplectens.—Frutex inermis, tortuoso-ramosus v. scandens, præter inflorescentiam canotomentosam glaber. Folia alterna, breviter petiolata, integerrima v. obscure dentata, scabriuscula v. supra lævia, subtus prominenter pennivenia et reticulata; stipulæ laterales, parvæ, deciduæ. Spicæ ♂ densiusculæ, breviter pedunculatæ, simplices v. rarius parce ramosæ. Capitula ♀ parva, pedunculata, bracteolis carnosulis arcte contiguis canotomentosa, pedunculis ad axillas solitariis v. pluribus fasciculatis; flores ♀ inter bracteolas immersi, 1–2 tantum sæpius fertiles, cæteris capituli sterilibus. Receptaculum fructiferum parum auctum, globosum v. oblongum, bracteolis minimis carnosis obtusis quasi lobatum. Fructus sæpius in quoque capitulo 1–2, glaberrimi, læves, receptaculo ipso majores.

Species 1, Archipelagi Malayani, Australiæ tropicæ et insularum maris Pacifici incola, quoad folia et inflorescentiam simplicem v. ramosam valde variabilis. *Bur. in DC. Prod.* xvii. 221.

Seemann in Fl. Vit. 256, hoc genus ad CATURUM '*Lour. non Linn*,' refert, et species 9 distinguit. Loureiro tamen nullum genus sub hoc nomine condidit, sed hanc plantam perperam ad *Caturum*, Linn., retulit et characterem Linneanum (ad *Acalyphæ* speciem pertinentem) transcripsit. Nomen igitur Blancoi jure prioritatis gaudet, et species omnes a Seemannio citatæ rite a Bureau pro unius varietatibus habentur.

24. **Broussonetia**, *Vent. Tabl. Regn. Veget.* iii. 547.—Flores dioici, ♂ cylindraceo-spicati, ♀ globoso-capitati. Fl. ♂: Perianthium 4-fidum v. 4-partitum, lobis segmentisve membranaceis valvatis. Stamina 4, filamentis in alabastro inflexis, per anthesin porrectis exsertis. Ovarii rudimentum parvum. Fl. ♀: Perianthium ovoideum v. tubulosum, 3-4-dentatum. Ovarium inclusum, stipitatum; stylus subulatus, indivisus, fere a basi stigmatoso-puberulus; ovulum sub apice lateraliter affixum, pendulum. Capitula fructifera globosa, perianthiis persistentibus bracteisque intermixtis arcte confertis tomentoso-villosis. Fructus stipite elongato crassiusculo e perianthio protrusus; exocarpium basi carnosum cum stipite continuum, superne attenuatum, stylo excentrico coronatum; endocarpium in parte superiore seminiforme, crustaceum, rugosum. Semen endocarpio conforme, testa submembranacea ei arcte appressa subadnata; embryo recurvus, albumine partim immersus, cotyledonibus æqualibus oblongis, radicula incurvo-ascendente incumbente.—Arbores lactescentes. Folia alterna, petiolata, molliter rugosa et villosa, serrulata, indivisa v. 3-loba rarius 5-loba, pennivenia et basi 3-nervia; stipulæ laterales, membranaceæ, deciduæ. Spicæ ♂ amentiformes et capitula ♀ globosa ad axillas v. nodos defoliatos solitaria, breviter pedunculata.

Species 2 v. 3, Archipelagi Malayani, Chinæ et Japoniæ incolæ, quarum una in variis regionibus diu culta. *Bur. in DC. Prod.* xvii. 224 (excl. *B. luzonica* quæ *Allæanthi* species). *Correa de Serre in Ann. Mus. Par.* viii. *t.* 34. *Ser. Descr. et Cult. Mur. t.* 26. *Blume, Mus. Bot. Lugd. Bat.* ii. *t.* 40. *Baill. Adans.* i. *t.* 8. *Andr. Bot. Rep. t.* 488. *Bot. Mag. t.* 2358.

STENOCHASMA, *Miq. Pl. Jungh.* i. 45 e Sumatra, a nobis non visum, e planta fœminea sola notum est et dubium remanet an ad *Moreas* an ad *Artocarpeas* referendum sit. Flores fœminei descripti *Parartocarpo* accedere videntur, sed folia 3-nervia villosa, petiolis pedunculisque longiusculis potius *Broussonetiam* indicant, a qua fructu (immaturo?) incluso recedit.

25. **Allæanthus**, *Thwaites in Hook. Kew Journ.* vi. 302, *t.* 9.—Flores dioici, ♂ dense et anguste cylindraceo-spicati, ♀ globoso-capitati. Fl. ♂: Perianthium 4-fidum, lobis leviter imbricatis. Stamina 4, filamentis in alabastro inflexis, per anthesin porrectis exsertis. Ovarii rudimentum parvum. Fl. ♀: Perianthium tubulosum, 4-dentatum. Ovarium inclusum, sessile, rectum; stylus sub anthesi terminalis, subulatus, indivisus et fere a basi stigmatosus v. rarius ramo brevi auctus; ovulum sub apice lateraliter affixum, pendulum. Capitula fructifera globosa, perianthiis persistentibus bracteisque intermixtis arcte confertis tomentoso-villosis. Achænium sessile, perianthio inclusum apice obliquum, stylo sublaterali; pericarpium tenuiter coriaceum, maturum interdum dehiscens. Semen conforme, testa membranacea; albumen 0; embryo recurvus, cotyledonibus latis valde corrugato-plicatis, radicula incumbente ascendente.—Arbores lactescentes. Folia alterna, petiolata, ex ovato lanceolata, integerrima v. serrulata, a basi pennivenia nec 3-nervia; stipulæ laterales, membranaceæ, deciduæ. Spicæ ♂ quam in *Broussonetia* multo longiores (interdum pedales et ultra) angustiores densioresque, ad axillas v. ad nodos defoliatos uti capitula ♀ solitariæ, breviter pedunculatæ.

Species 2, altera Zeylanica, *Bur. in DC. Prod.* xvii. 223. *Bedd. Fl. Sylv. t.* 305, altera ins. Philippinarum incola, *Morus luzonica*, Blanco, a Bureau in Prodromo ad *Broussonetiam* relata, sed ex speciminibus Cumingianis a Bureau citatis, quoad folia, flores et spicas ♂, flores ♀ et fructus, omnino *Allæanthi* nec *Broussonetiæ* species.

26. **Plecospermum**, *Tréc. in Ann. Sc. Nat. ser.* 3, viii. 124, *t.* 4.—Flores dioici, utriusque sexus globoso-capitati. Fl. ♂: Perianthium alte 4-fidum, lobis latis concavis imbricatis. Stamina 4, filamentis in alabastro inflexis, per anthesin porrectis exsertis. Ovarii rudimentum parvum, piloso-lanatum. Fl. ♀: Perianthia carnosa, arcte conferta v. in massam carnosam ∞-locularem connata, ore cujusve perianthii minimo 4-dentato fere

clauso. Ovarium inclusum, rectum; stylus filiformis, indivisus, longe stigmatosus, e foramine perianthii exsertus; ovulum sub apice lateraliter affixum, pendulum. Syncarpium globosum v. latius et subdidymum, e perianthiis carnosis arcte confertis v. conferruminatis compositum. Achænia in toto syncarpio perpauca, sæpius 1–2 perfecta, ovoideo-globosa, parum obliqua; pericarpium coriaceum, parietibus loculi (perianthio) arcte adhærens. Semen conforme, testa membranacea (semel carnoso-incrassatam vidimus); albumen 0; embryo subglobosus, cotyledone altera maxima crasso-carnosa alteram parvam plicatam includente, radicula brevi sursum incurva.—Arbores v. frutices glabri, spinis validis axillaribus v. lateralibus armati. Folia alterna, integerrima, penninvenia; stipulæ minimæ. Pedunculi axillares, breves, sæpius gemini. Bracteolæ in capitulo flores subtendentes, v. in capitulo ♀ 0 v. a perianthiis non distinguendæ.

Species 2, quarum typica Indiæ orientalis incola. *Bur. in DC. Prod.* xvii. 233. *Wight, Ic. t.* 1963. Huic tamen addenda videtur pro sectione floribus fœmineis distinguenda, Cardiogyne, *Bur. in DC. Prod.* xvii. 232, jam in *Journ. Linn. Soc.* ix. 229, a Kirkio memorata, sub nomine *Cudraniæ* speciei novæ. Frutex est v. arbuscula, in Africa tropica orientali ad fl. Zambesi et in Zanguebaria frequens, lignum tinctorium præbens. Habitus folia spinæ inflorescentia utriusque sexus et flores ♂ omnino *Plecospermi spinosi.* Specimina nostra omnia mascula sunt; in capitulis tamen fœmineis a Bureau descriptis perianthia bracteis intermixta et nullo modo connata, apice 4-loba, dum in *Plecospermo spinoso* perianthia fœminea jam sub anthesi alte connata sunt, apice solo hemisphærico distincta et mox in syncarpium carnosum omnino concreta bracteis haud conspicuis. Ovarium in *Cardiogyne* ex Bureau obovatum v. obcordatum est; in *P. spinoso* latum obtusissimumque vidimus nec nisi abortivum angustum ut in icone Treculiana. Fructus *Cardiogynis* nec a Bureau nec a nobis visus, ex schedis Kirkianus syncarpium est succulentum, et edule. Genus *Plecospermum* sæpe in herbariis cum *Cudrania* confunditur, et habitu foliis inflorescentiaque simillimum est, sed floribus utriusque sexus fructuque facile dignoscitur.

27. **Bagassa,** *Aubl. Pl. Gui. Suppl.* 15, *t.* 376. (Laurea, *Gaudich. Voy. Bonite, t.* 88.) —Flores dioici, ♂ densissime cylindraceo-spicati, ♀ globoso-capitati. Fl. ♂: Perianthium minimum, 4-partitum, segmentis apice concavis leviter imbricatis. Stamina 4, filamentis in alabastro summo apice inflexis, antheris reversis, per anthesin porrectis exsertis. Ovarii rudimentum subulato-acuminatum. Fl. ♀: Perianthium masculo multo majus, tubulosum, apice 4-fidum. Ovarium inclusum, liberum; stylus terminalis, exsertus, 2-partitus, ramis stigmatosis filiformibus; ovulum sub apice affixum, pendulum. Perianthia fructifera subcarnosa, receptaculo carnoso subgloboso imposita, in pseudosyncarpium majusculum subglobosum arcte conferta at distincta. Achænium inclusum, apice obliquum, stylo sublaterali; pericarpium rigide membranaceum. Semen sub apice lateraliter affixum, testa membranacea; albumen parcum v. 0; cotyledones carnosulæ, æquales, radicula supera hilum versus incurva.—Arbores proceræ, lactescentes. Folia opposita, cujusve paris sæpius inæqualia, petiolata, lata, cordata, integra v. late 3-loba, integerrima v. crenulata, basi 3-nervia; stipulæ utrinque in unam interpetiolarem connatæ. Inflorescentiæ axillares, breviter pedunculatæ, ♂ geminæ, ♀ (an semper?) solitariæ. Flores ♂ minimi, numerosissimi, rhachin spicæ seu receptaculum lineare carnosulum undique densissime obtegentes, bracteolis perianthio brevioribus. Filamentorum inflexio minus distincta quam in cæteris *Moreis*, antheræ tamen in alabastro bene reversæ. Pseudosyncarpia ultra pollicem diametro, perianthiis fructiferis basi carnosis receptaculum undique obtegentibus nec immersis.

Species 2 v. 3 Guianæ gallicæ et Brasiliæ borealis incolæ. Species typica *B. guianensis*, Aubl., foliis rugosis 3-lobis crenulatis nobis sola nota est ex icone Aubletiana et speciminibus Sagotianis plantæ ♀; speciei alterius pariter Guianensis, *B. Sagotianæ*, Bur., specimina ♂ et ♀ examinavimus in Museo Parisiense servata et nobis a cl. Bureau benevole commodata, mascula jam a Gaudichaudio depicta et a Weddellio in DC. Prod. xvi. i. 235[14], sub nomine *Laureæ* descripta et *Urticeis* anomalis adscripta, fœminea a Sagotio aliisque in Guiana lecta. A specie Aubletiana differunt foliis integerrimis vix rugosis subtus pallidis v. subcanescentibus. Speciem verisimiliter tertiam legit Spruce in vicinis Para, inter illas quasi mediam, sed flores et fructus desunt. Genus pluribus characteribus *Chlorophoræ* accedit, et evidenter ad *Moreas* pertinet, etsi quoad folia et stipulas in ordine distinctissimum.

28. **Chlorophora,** *Gaudich. in Freyc. Voy. Bot.* 509.—Flores dioici, ♂ cylindraceo-spicati, ♀ globoso- v. oblongo-capitati. Fl. ♂: Perianthium 4-partitum, segmentis latis obtusis leviter imbricatis. Stamina 4, filamentis in alabastro inflexis, per anthesin porrectis exsertis. Ovarii rudimentum minutum. Fl. ♀: Perianthium alte 4-fidum v. 4-partitum, segmentis apice incrassatis concavis imbricatis. Ovarium inclusum, obliquum; stylus sublateralis, filiformis, longe stigmatosus, indivisus v. ramo breviore instructus; ovulum lateraliter affixum, descendens. Perianthia fructifera subcarnosa, in pseudo-syncarpium globosum v. oblongum arcte conferta at solubilia. Achænium perianthio æquale v. subexsertum, ovatum, compressum, apice valde obliquum; pericarpium coriaceum. Semen conforme, testa membranacea; albumen 0; embryo incurvus, cotyledonibus ovatis æqualibus, radicula incumbente ascendente.—Arbores lactescentes, spinis raris axillaribus v. lateralibus armatæ v. inermes. Folia alterna, petiolata, integerrima v. dentata, pennivenia; stipulæ laterales, caducæ. Inflorescentiæ utriusque sexus ad axillas breviter pedunculatæ, solitariæ. Spicæ ♂ amentiformes, densæ, longiusculæ, bracteis parvis. Capitula ♀ nunc exacte globosa, nunc oblongo-cylindracea, crassa. Bracteæ perianthii segmentis similes iisque æquilongæ, interdum apice intus glandulis 2 incrassatæ.

Species 2, altera Americæ tropicæ, altera Africæ tropicæ, incola. *Bur. in DC. Prod.* xvii. 228 (*Macluræ sect.*). *Vell. Fl. Flum. Ic.* x. *t.* 22 (*Morus*).

Genus pluribus notis *Allæanthio* affinius quam *Macluræ*, ab hoc valde differt inflorescentia maris, floribus fœmineis et syncarpio imperfecto. Species Americana *C. tinctoria*, Gaud., a Miquelio in Mart. Fl. Bras. iv. i. 154, t. 51 ad 53, in species 6 divellitur quas Bureau iterum sub *Maclura tinctoria* junxit. Huic pseudosyncarpium globosum rarius parum elongatum, rhachi seu receptaculo carnoso oblongo. In specie Africana, *G. excelsa* (*Morus excelsa*, Welw. in Trans. Soc. Linn. xxvii. 69, t. 23. *Maclura excelsa*, Bur.) pseudosyncarpium bis terve longius quam latum, cæterum characteres exhibet omnino *Chlorophoræ* nec *Mori* nec *Macluræ*. *Broussonetia brasiliensis*, Mart., a Miq. in Mart. Fl. Bras. iv. i. 158, t. 54, ad *Macluram* relata, solum nota est e stirpe mascula in herb. Mart. servata, quæ floribus globoso-capitatis, ex icone receptaculum globosum obtegentibus, nec *Macluræ* nec *Chlorophoræ* convenit, et quoad genus dubia remanet.

29. **Maclura,** *Nutt. Gen. Pl. N. Amer.* ii. 233; *N. Amer. Sylv.* i. *t.* 37, 38.—Flores dioici, ♂ laxe racemulosi, ♀ dense globoso-capitati. Fl. ♂ (a nobis non visi): Perianthium 4-partitum, segmentis valvatis. Stamina 4, filamentis in alabastro inflexis per anthesin porrectis exsertis. Ovarii rudimentum? Fl. ♀: Perianthium alte 4-fidum, lobis inæqualibus lineari-clavatis crassis concavis arcte appressis. Ovarium inclusum, sessile, obovoideum; stylus filiformis, longe stigmatosus, indivisus v. ramo breviore instructus; ovulum ex apice pendulum. Perianthia fructifera aucta, carnosa, alte in syncarpium magnum globosum extus rugosum arcte concreta, nec facile seorsum nec a receptaculo distinguenda. Achænia parva, in syncarpio sæpe pauca perfecta, in fundo perianthiorum occulta; pericarpium coriaceum. Semen conforme; albumen 0; embryo recurvus, cotyledonibus oblongis subæqualibus, radicula incumbente ascendente.—Arbor lactescens, spinis axillaribus v. supra-axillaribus (pedunculis abortivis?) armata. Folia alterna, petiolata, integerrima, pennivenia; stipulæ laterales, caducæ. Inflorescentiæ ad axillas solitariæ, breviter pedunculatæ. Syncarpia matura viridi-flavescentia, ad 2 poll. diametro. (*Char. fl.* ♂ *ex Ser. et Nutt.*)

Species 1, Americæ borealis regionis Arkansanæ incola. *Bur. in DC. Prod.* xvii. 227, *excl.* § 2. *Lambert, Pinus*, ii. *t.* 12. *Seringe, Not. Maclure, Lyon*, 1837, *cum ic. bona, Descr. et Cult. Mur.* *t.* 27. *Blume, Mus. Bot. Lugd. Bat.* ii. *t.* 37.

30. **Pachytrophe,** *Bur. in DC. Prod.* xvii. 234.—Flores dioici, utriusque sexus cylindraceo-spicati. Fl. ♂: Perianthium 4-partitum, segmentis ovatis obtusis concavis leviter imbricatis (valvatis, *Bur.*). Stamina 4, filamentis in alabastro inflexis, per anthesin porrectis exsertis. Ovarii rudimentum quadratum. Fl. ♀: Perianthii segmenta 4, lata, rotundata, valde imbricata. Ovarium obliquum, subglobosum; stylus parum excentricus, fere ad basin 2-partitus, ramis stigmatosis filiformibus subæqualibus; ovulum a placenta valde dilatata dorso sub apice affixum, pendulum. Fructus (a nobis non visus) perianthii segmentis succulentis et baccam simulantibus involutus; pericarpium extus carnosum, intus pergameneum, placenta sub originis styli indurata. Semen subglobosum, testa

membranacea; cotyledones foliaceæ, plicatæ, radicula supera longa.—Frutices teneri, glabri, ramosissimi, inermes. Folia alterna, petiolata, abrupte acuminata, integerrima, pennivenia, venis primariis fere transversis crebris; stipulæ in unam intrapetiolarem connatæ. Spicæ utriusque sexus amentiformes, breves, fere sessiles, ♂ sæpius geminæ v. ad innovationes fasciculatæ, ♀ ad axillas solitariæ. (*Char. fructus ex Bureau.*)

Species 2, Madagascarienses. Habitu *Ampali* accedunt sed præter characteres florales foliorum venatione facile distinguuntur.

31. **Paratrophis**, *Blume, Mus. Bot. Lugd. Bat.* ii. 81.—Flores dioici v. monoici, utriusque sexus spicati. Fl. ♂: Perianthium 4-partitum, segmentis latis obtusis concavis leviter imbricatis. Stamina 4, filamentis in alabastro inflexis, per anthesin porrectis exsertis. Ovarii rudimentum turbinatum. Fl. ♀: Perianthium minimum, 4-partitum, segmentis imbricatis. Ovarium sessile, exsertum, rectum; stylus centralis, fere a basi 2-partitus, ramis stigmatosis linearibus; ovulum sub apice affixum, pendulum. Achænium subdrupaceum, parvum, ovoideum, perianthio parvo persistenti basi stipatum, apice stylo brevi mucronatum; exocarpium tenuiter carnosulum; endocarpium crustaceum. Semen subglobosum, pendulum, testa membranacea; albumen 0 v. in parte inferiore parcum et inter plicas embryonis leviter intrusum; cotyledones subcarnoso-foliaceæ, subæquales, latissimæ, contortuplicatæ, radiculam ascendentem amplectentes.—Arbores excelsæ, lactescentes. Folia alterna, breviter petiolata, crenata v. subintegerrima, pennivenia; stipulæ laterales, caducæ. Spicæ axillares, ♂ breviter amentiformes, ♀ laxifloræ, v. utriusque sexus elongatæ floribundæ. Inflorescentia ♂ in specie typica haud raro monstrosa paniculato-ramosissima bracteis numerosissimis minimis vacuis obtecta.

Species 4, quarum typica 1, Novo-Zelandica, parvifolia, brevispica. *Bur. in DC. Prod.* xvii. 235. *Raoul Choix, Pl. Nouv. Zel. t.* 9 (*Epicarpurus*), ab hac tamen generice non separandus videtur UROMORUS, *Bur. in DC. Prod.* xvii. 236, *Seem. Fl. Vit. t.* 73 (*Trophis*), species 3 ex insulis maris Pacifici et Philippinarum continens. Characteres floris et fructus omnino *Paratrophidis*, habitu solo differunt. Folia enim multo majora et spicæ utriusque sexus elongatæ floribundæ, differentiæ non majores quam illæ quæ *Morum pendulinum*, Endl., a *M. Brunoniano*, Endl., separant, quas Bureau pro varietatibus unius speciei *Pseudomori* habet.

32. **Pseudomorus**, *Bur. in Ann. Sc. Nat. ser.* 5, xi. 371, *et in DC. Prod.* xvii. 249.—Flores monoici v. dioici, utriusque sexus spicati. Fl. ♂: Perianthium 4-partitum, segmentis latis concavis leviter imbricatis. Stamina 4, filamentis in alabastro inflexis, per anthesin porrectis exsertis. Ovarii rudimentum obovoideum. Fl. ♀: Perianthium parvum, 4-partitum, segmentis imbricatis. Ovarium sessile, exsertum; stylus centralis, fere ad basin 2-partitus, ramis stigmatosis linearibus æqualibus; ovulum ab apice pendulum. Achænium drupaceum, parvum, subglobosum, perianthio immutato insidens; exocarpium tenue succulentum; endocarpium crustaceum. Semen conforme, testa tenuiter membranacea; albumen ad basin seminis parcum v. 0; embryo subglobosus, cotyledonibus crasso-carnosis, altera majore curvula alteram minorem subglobosam fovente, radicula recurvo-ascendente.—Arbor v. frutex lactescens. Folia alterna, breviter petiolata, integerrima v. denticulata, pennivenia; stipulæ laterales, lanceolatæ, parvæ, deciduæ. Spicæ axillares, breviter pedunculatæ, ♂ amentiformes, breves v. valde elongatæ, dense floribundæ, ad axillas solitariæ v. geminæ, bracteis parvis; ♀ breviter cylindraceæ oblongæ v. subcapitatæ, floribus paucis arcte contiguis sessilibus.

Species 1, Australiæ et insulæ Norfolk incola. *Endl. Atakta, t.* 32 (*Morus*).

Genus *Paratrophidi* valde affine, nec nisi floribus ♀ confertioribus et embryone distinguendum.

33. **Morus**, *Linn. Gen. n.* 1055.—Flores monoici v. dioici, utriusque sexus spicati. Fl. ♂: Perianthium 4-partitum, segmentis ovatis imbricatis. Stamina 4, filamentis in alabastro inflexis, per anthesin porrectis exsertis. Ovarii rudimentum turbinatum. Fl. ♀: Perianthii segmenta 4, ovata, decussatim imbricata, in fructu succulenta. Ovarium inclusum, ovoideum v. subglobosum; stylus centralis, fere ad basin 2-partitus, ramis stigmatosis linearibus æqualibus; ovulum ab apice pendulum. Fructus perianthio aucto succulento inclusus; exocarpium plus minus succulentum, tenue v. crassissimum; endocarpium crustaceum. Semen subglobosum, testa membranacea; albumen carnosum, sat

copiosum; embryo incurvus, cotyledonibus oblongis æqualibus, radicula sursum incumbente.—Arbores v. frutices lactescentes. Folia alterna, dentata, integra v. 3-loba, basi 3-nervia; stipulæ laterales, parvæ, caducæ. Spicæ ad axillas solitariæ, breviter pedunculatæ, ♂ longæ v. cylindraceæ amentiformes; ♀ nunc elongatæ densifloræ fructibus parum succulentis, nunc breves, densissime oblongæ v. fere globosæ, perianthiis valde succulentis arcte contiguis, baccam seu syncarpium bacciforme simulantibus sed revera semper distinctis.

Species a variis auctoribus descriptæ 10–12, a Bureau (Botanicis Indicis vix assentientibus) ad 5 reductæ, regionum temperatarum hemisphærii borealis et montium inter tropicos utriusque orbis incolæ. *Bur. in DC. Prod.* xvii. 238. *Ser. Descr. et. Cult. Mur. Paris,* 1855, *cum tabulis* 25. *Wats. Dendrol. Brit. t.* 149. *Nees, Gen. Fl. Germ. Monochl. n.* 32. *Reichb. Ic. Fl. Germ. t.* 657, 658. *Pall. Fl. Ross. t.* 52. *Dcne. in Jacquem. Voy. Bot. t.* 151. *Wight, Ic. t.* 674, 675, 677. *Brand. For. Fl. t.* 47.

34. **Ampalis,** *Boj. Hort. Maurit.* 291.—Flores dioici, utriusque sexus spicati. Fl. ♂: Perianthium 4-partitum, segmentis ovatis lævissime imbricatis v. subvalvatis. Stamina 4, filamentis in alabastro inflexis, per anthesin porrectis exsertis. Ovarii rudimentum truncatum. Fl. ♀: Perianthii segmenta 4, rotundata, decussatim imbricata, fructifera carnosa. Ovarium inclusum, compressum; stylus centralis v. parum excentricus, fere ad basin 2-partitus, ramis stigmatosis rigide filiformibus; ovulum ab apice pendulum. Fructus (a nobis non visus) perianthio carnoso subinclusus, globoso-subcompressus, stigmatibus persistentibus superatus, achænium mentiens sed vere drupeolatus, endocarpio corneo tenui. Semen pendulum, testa tenuissime membranacea; albumen 0; cotyledones crassæ, facie plana contiguæ, in molem obconico-compressam coactæ; radicula cotyledones æquans marginibus sursum accumbens. Arbor frondosa, succo opalino. Folia alterna, petiolata, apice rotundata v. brevissime obtuseque acuminata, coriacea, integerrima, pennivenia; stipulæ laterales, caducissimæ. Spicæ in axillis brevissime pedunculatæ, densæ, sæpius breviter cylindraceæ. (*Char. fruct. ex Bureau.*)

Species 1, Madagascariensis, in hortis botanicis inter tropicos sæpe culta. *Bur. in DC. Prod.* xvii. 251. *Jacq. Ic. Rar. t.* 617 (*Morus*).

Genus *Moro* valde affine, differt habitu, foliis, et ex Bureau embryone. Radiculam cotyledonibus accumbentem adhuc in *Moreis* non observavimus.

35. **Trophis,** *Linn. Gen. n.* 1103. (Bucephalon, *Linn. Gen. n.* 1230.)—Flores dioici, spicati v. racemosi. Fl. ♂: Perianthium 4-partium v. 4-fidum, segmentis lobisve crassiusculis valvatis. Stamina 4, filamentis in alabastro inflexis, per anthesin porrectis exsertis. Ovarii rudimentum obovoideum v. turbinatum. Fl. ♀: Perianthium tubulosum, carnosulum, ovario adnatum, superne circa stylum breviter liberum, ore contracto 4-dentato. Ovarium inferum, carnosum; stylus intra perianthium liber, conicus v. subcylindraceus, apice exsertus 2-partitus, ramis stigmatosis brevibus v. elongatis filiformibus sæpe recurvis; ovulum ex apice loculi pendulum. Fructus globosus, carnosus, pericarpio perianthiique tubo arcte concretis, limbo minimo coronatus. Semen globosum, testa tenui; albumen 0; embryo rectus, cotyledonibus carnosis æqualibus semiglobosis, radicula brevissima supera.—Arbores fruticesve. Folia alterna, petiolata, integerrima v. paucidentata, ramorum sterilium interdum lobata, subtus prominenter pennivenia et reticulata; stipulæ laterales, minimæ, caducæ. Spicæ v. racemi in axillis solitarii v. gemini, ♂ laxe floribundi, ♀ sæpius breves pauciflori, floribus sessilibus v. breviter pedicellatis. Bracteæ minimæ.

Species 5 v. 6, v. apud Bureau pauciores, Indiæ occidentalis Mexici et Americæ australis Andinæ incolæ. *Bur. in DC. Prod.* xvii. 252. *P. Br. Hist. Jam. t.* 37. *Plum. Ic. ed. Burm.* 67. *Lam. Illustr. t.* 806 (*Bucephalon*).

Genus pluribus notis, imprimis ovario infero cum *Sorocea* convenit et specimina sæpe in herbariis confusa; differt tamen floribus ♂ *Morearum* nec *Artocarpearum* et embryone.

36. **Sloetia,** *Teijsm. et Binnend. ex Kurz in Journ. Linn. Soc.* viii. 167, *t.* 13.—Flores monoici, in spicas amentiformes androgynas v. masculas densissime conferti. Fl. ♂: Perianthium alte 3-fidum, lobis membranaceis apice rotundatis leviter imbricatis. Stamina

3, filamentis in alabastro inflexis, per anthesin porrectis exsertis. Ovarii rudimentum parvum, elongato-conicum. Fl. ♀: Perianthium 4-partitum, segmentis latis decussatim imbricatis, exterioribus paullo majoribus interiora et ovarium rectum arcte obtegentibus. Stylus subcentralis, 2-partitus, ramis stigmatosis longissime filiformibus; ovulum sub apice affixum, pendulum. Fructus ovoideo-globosus, primum perianthio aucto inclusus, rectus, stylo persistente terminatus, 'maturescens contactu etiam lævi elastice exsiliens' (*Kurz*). Semen (in speciminibus nostris immaturum) 'obovatum; albumen ut videtur 0; cotyledones latæ, inæquales, submembranaceæ, majore paullulum concava marginibus inflexis, minore interiore, radicula longiuscula ad hilum versa' (*Bureau*).—Arbor vasta, lactescens, ligno duro. Folia alterna, breviter petiolata, sæpe ampla, integerrima, pennivenia; stipulæ laterales, lineari-lanceolatæ, caducissimæ. Spicæ ad axillas solitariæ v. geminæ, longiusculæ. Flores ♂ numerosissimi, minimi, sessiles, juniores in rhache leviter complanata uno latere densissime conferti, bracteis peltatis obtecti, per anthesin rhachin undique obtegentes, et spica cylindracea evadit. Flores ♀ perpauci, in parte inferiore spicæ sparsi, masculis multo majores eminentesque, in spicis pluribus omnino desunt.

Species 1, Archipelagi Malayani incola. *Bur. in DC. Prod.* xvii. 257. Huc pertinent etiam specimina Penangiana, *Wall. Cat. Herb. Ind. n.* 9090, et Malaccensia a Maingayo lecta. In horto Calcuttensi colebatur sub nomine *Mori bifarii.*

37. **Dorstenia,** *Linn. Gen. n.* 158. (Kosaria, *Forsk. Fl. Æg. Arab.* 164; *Ic. t.* 20. Sychinium, *Desv. in Mem. Soc. Linn. Par.* iv. 216, *t.* 12.)—Flores monoici, in receptaculo explanato androgyno densissime conferti. Perianthia utriusque sexus in stratum carnosum receptaculi superficiem vestientem plus minus connata, alveolas unisexuales formantia; limbi interdum ad margines alveolarum leviter prominuli obscure 2-lobi v. 2-dentati. Alveolæ ♂ parum immersæ, perianthii lobis interdum distincte prominentibus crassis. Stamina 2, rarius 1 v. 3, filamentis primum inflexis, demum porrectis exsertis. Ovarii rudimentum 0. Alveolæ ♀ profundius excavatæ, ore sæpe subclauso, foramine circa stylum minuto. Ovarium inclusum; stylus excentricus v. fere lateralis, exsertus, superne 2-fidus, ramis stigmatosis subulatis; ovulum ex apice pendulum. Fructus demum ex alveolis protrusi, parvi; exocarpium carnosulum; endocarpium crustaceum. Semen endocarpio conforme, testa tenuiter membranacea; albumen 0; cotyledones subæquales, contortuplicatæ, radiculam ascendentem amplectentes.—Herbæ perennes v. frutices parvi, lactescentes, habitu vario, rhizomate v. caule sæpe incrassato. Folia nunc in rhizomate longe petiolata, integra v. lobata, basi sæpius 3–5-nervia, nonnunquam peltata, nunc in speciebus caulescentibus alterna, integerrima, pennivenia; stipulæ laterales, distinctæ, caducæ v. diu persistentes. Receptacula ad axillas longe pedunculata, forma etiam in eadem specie valde variabilia, concava v. plana, orbiculata v. quadrata et integerrima v. varie lobata, nunc in lacinias 2–3 longas angustas fimbriatasque divisa, v. margine circa discum floridum incrassata v. membranacea. Flores utriusque sexus numerosi, minimi, intermixti, fœminei sæpius masculis 3–4 circumdati, v. rarissime receptacula unisexualia. Bracteæ inconspicuæ.

Species editæ 45, quarum una Asiatica in India orientali, cæteræ omnes Americæ v. Africæ tropicæ incolæ. *Bur. in DC. Prod.* xvii. 259. *Wight, Ic. t.* 1964. *Schweinf. Pl. Nilot. t.* 12. *Ruiz et Pav. Fl. Per. et Chil. t.* 102. *Vell. Fl. Flum. Ic.* i. *t.* 137 *ad* 142. *Miq. in Mart. Fl. Bras.* iv. i. *t.* 55 *ad* 61. *Moric. Pl. Nouv. Amer. t.* 58, 59, 64. *Field. et Gardn. Sert. Pl. t.* 13, 14. *Jacq. Ic. Rar. t.* 614. *Hook. Exot. Fl. t.* 6; *Ic. Pl. t.* 220, 399. *Bot. Mag. t.* 2017, 2476, 2760, 2804, 5795, 5908. *Lodd. Bot. Cab. t.* 677, 999, 1005, 1216, 1784. *Lemaire, Illustr. Hortic. t.* 362. *Saund. Ref. Bot. t.* 303.

38. **Trymatococcus,** *Pœpp. et Endl. Nov. Gen. et Sp.* ii. 30, *t.* 142, *ic. in Mart. Fl. Bras.* iv. i. *t.* 35 *repetita.*—Flores monoici, receptaculo primum cylindraceo v. turbinato mox globoso androgyno affixa. Fl. ♂ in margine receptaculi numerosi: Perianthium minimum, 3–4-fidum, lobis subvalvatis. Stamina 3–4, filamentis primum inflexis demum porrectis exsertis. Ovarii rudimentum 0. Fl. ♀ in fundo receptaculi solitarius. Perianthium receptaculo arcte adnatum, apice brevissime liberum, ore contracto subdentato. Ovarium inclusum, rectum; stylus exsertus, superne bifidus, ramis stigmatosis filiformibus

æqualibus ; ovulum ab apice pendulum. Fructus receptaculo globoso floribus masculis persistentibus coronato inclusus ; pericarpium receptaculo adnatum. Semen globosum, apice lateraliter affixum, testa tenuiter subcoriacea ; albumen 0 ; embryo globosus, cotyledonibus crassissimis carnosis parum v. valde inæqualibus, radicula brevissima inclusa.—Arbores fruticesve haud lactescentes (*Pœppig*). Folia alterna, breviter petiolata, integerrima, subtus prominenter pennivenia et reticulato-venulosa ; stipulæ laterales, parvæ, caducissimæ. Receptacula in axillis solitaria v. fasciculata, breviter pedunculata, primum saltem in specie africana tubo turbinato margine expansa, fructifera in utraque specie globosa, ore contracto, massa florum masculorum marcescentium coronato. Stylus sub anthesi inter flores masculos numerosissimos occultus, mox exsertus.

Species 2, altera regionis Amazonicæ Americæ australis, altera Africæ tropicæ occidentalis incola. *Bur. in DC. Prod.* vii. 278. *Baill. Adans.* xi. 300.

Genus florum in receptaculo dispositione *Lanessaniæ* et *Bosquieæ* accedit, sed flores ♂ *Morearum* nec *Artocarpearum*.

Tribus V. Artocarpeæ.

39. **Ficus,** *Linn. Gen. n.* 1168.—Flores monoici v. rarissime dioici, receptaculo carnoso globoso ovoideo pyriformi v. rarius oblongo sæpissime androgyno ad os parvum ∞-seriatim bracteato inclusi. Fl. ♂ : Perianthium 2–6-fidum v. partitum, lobis segmentisve imbricatis, rarissime ad squamam unicam reductum. Stamina 1–2, v. rarius 3–6, filamentis brevibus rectis ; antheræ exsertæ v. inclusæ, ovatæ v. oblongæ. Ovarii rudimentum 0. Fl. ♀ : Perianthii segmenta quam in mare sæpius pauciora angustioraque, nunc tamen tenuia et late imbricata v. minuta v. 0. Ovarium rectum v. mox obliquum ; stylus saltem post fecundationem excentricus v. lateralis, brevis v. filiformis, apice in stigma peltatum, cavum, oblongo-lanceolatum, lineari-lanceolatum v. longe caudatum rarius inæqualiter 2-crure dilatatus ; ovulum apice v. sub apice lateraliter affixum, pendulum. Achænia receptaculo sæpe aucto arcte inclusa, perianthio fructifero immutato v. rarius succulento stipata v. vestita, v. in paucis speciebus nuda ; pericarpium crustaceum induratum siccum v. extus succulentum, rarius totum carnosum. Semen pendulum, testa membranacea ; albumen sæpius parcum ; embryo curvus, cotyledonibus æqualibus v. inæqualibus interdum plicatis, radicula sursum incumbente.—Arbores fruticesve lactescentes. Folia alterna v. rarius opposita, integerrima dentata v. lobata, forma et venatione quam maxime varia ; stipulæ gemmam terminalem involventes, caducissimæ. Receptacula sæpius gemina v. uno abortiente solitaria, ad axillas v. ad nodos defoliatos ramorum vetustiorum, interdum in ramis distinctis aphyllis conferta v. racemosa, pedunculo sæpius brevissimo apice 3-bracteato v. nudo. Bracteæ ad os receptaculi ∞-seriatæ, parvæ, exteriores sæpe erectæ umbonem terminalem efficiunt, interiores horizontales v. intra receptaculum reflexæ. Flores ♂ interdum numerosi fœmineis intermixti, sæpe tamen iis pauciores, interdum perpauci in parte superiore v. juxta os receptaculi, ♀ sæpius numerosi, receptaculum intus fere totum v. partem inferiorem obducentes. Bracteolæ inter flores ♀ sæpius parvæ v. 0, nunc inter superiores ♂ v. rarius ubique majores, flores achæniaque superantes.

Species enumeratæ v. in herbariis nostris servatæ ultra 600, per regiones calidiores utriusque orbis late dispersæ, maxima copia in Archipelago Malayano et insulis maris Pacifici vigentes, paucæ extra tropicos extensæ, imprimis in orbe vetere ubi usque ad Japoniam, et regionem Mediterraneam necnon in Africa australi inveniuntur; in America boreali Mexico excepta desunt, et in America meridionali vix lineam tropicam excedunt. *Miq. Prod. Monogr. Fic. in Hook. Lond. Journ.* vi. 514, *in vol.* vii. *continuatus* ; *Afrik. Vijg. Boom. Amstelodami* 1849, *cum tabb.* 5, *et in Ann. Mus. Lugd. Bat.* iii. 260. *Walp. Ann.* i. 706, iii. 417. *Bur. in Ann. Sc. Nat. ser.* 5, xiv. 246. *Seem. Fl. Vit.* 247. *Benth. Fl. Austral.* vi. 161. *Bak. Fl. Maurit.* 283. *Kurz, For. Fl. Brit. Burm.* ii. 436. *Liebm. Urt. Mex. in R. Dansk. Vid. Selsk. Skrift. ser.* 5, ii. 319 (*Urostigma*) *et* 331 (*Pharmacosycea*).

Genus vastum et naturalissimum, in integrum servatum facillime cognoscendum, species continet habitu, florum utriusque sexus intra receptaculum dispositione, perianthio, staminum numero et stigmatis forma sat diversas, et auctores varii, imprimis Gasparrini in Nov. Gen. Fic., Neapoli, 1844, et

in Ricerche sul Caprifico e Fico in Rendic. R. Accad. Sc. Napoli, iv. (1845), et Miquel in Monographia citata, eas in plura genera distribuere tentaverant. Postea tamen ipse Miquel fateri coactus fuit 'species per genera naturalia fructificationis et habitu characteribus distincta distribuendi tentamen ad finem nunc perduci non posse, quum complurima specierum receptacula et flores nondum satis explorati sint,' et genera sua iterum conjunxit in Ann. Mus. Lugd. Bat. iii. 214 et 260 ad 300, ubi enumerationem dedit specierum 555 in subgenera seu sectiones 6 distributarum. Ex his sectionibus 4 v. 5 sequentes retinendæ videntur, etsi adhuc vix limitibus certis definiendæ sint, et genus totum monographo assiduo acriter commendamus.

1. *Urostigma.* Perianthium ♂ sæpius 3-merum. Stamen 1. Perianthium ♀ 4–6-merum. Stigma elongatum, sæpius acutum. Folia alterna, integerrima, sæpius coriacea, lævia. Receptacula sæpissime axillaria. Species in utroque orbe numerosæ. *Willd. Hort. Berol. t.* 36. *Vent. Jard. Malm. t.* 114. *Roxb. Corom. Pl. t.* 125. *Bot. Mag. t.* 2939, 3305. *Hook. Exot. Fl. t.* 223. *Wight, Ic. t.* 640, 642, 647, 653, 656 *ad* 658, 660, 662, 663, 665, 668, 671, 1967, 1989. *Bedd. Fl. Sylv. t.* 314. *Brand. For. Fl. t.* 48. *Vahl, Symb.* i. *t.* 22, 23. *Ferr. et Galin. Voy. Abyss. t.* 15. UROSTIGMA, *Gasp. Nov. Gen. Fic.* 7; *Ricerch. Caprif. e Fic. t.* 7. *Miq. in Hook. Lond. Journ.* vi. 514 *t.* 21 *ad* 23, vii. *t.* 12, 13; *Fl. Ind. Bat.* i. ii. 332, *t.* 24; *Afr. Vijg. Boom. t.* 3 *ad* 5; *et in Mart. Fl. Bras.* iv. i. 89, *t.* 27 *ad* 31. *Seem. Fl. Vit. t.* 68. *Bot. Her. Voy. t.* 35, 36. VISIANIA, *Gasp. Nov. Gen. Fic.* 9, *nomen in* MACROPHTHALMUM *mutatum in Ricerch. Caprif. e Fic.* 82. GALOGLYCHIA, *Gasp. Nov. Gen. Fic.* 10; *Ricerch. Caprif. e. Fic. t.* 8.

U. sphæridiophorum. Miq. in Hook. Lond. Journ. vi. 543, delendum est. Specimen descriptum est pars folii pinnati *Simabæ trichilioidis*, St. Hil., cum receptaculis 2 *Fici* cujusdam, in eadem charta casu servatis, ut rite notavit Planchon in Herb. Hook.

2? *Pharmacosyce*, perianthio sæpius 4-mero, staminibus 2, parum ab *Urostigmate* differt. Species continet paucas, omnes Americanas, habitu omnino *Urostigmatis*. PHARMACOSYCEA, *Miq. in Hook. Lond. Journ.* vii. 64, *t.* 2, *et in Mart. Fl. Bras.* iv. i. 83, *t.* 25, 26.

Pharmacosycea guianensis, Miq. in Hook. Lond. Journ. vii. 67, quæ ab auctore in *Ficum* transfertur sub nomine *F. Parkeri* nobis a *F. radula*, Willd., non vere distincta videtur. *Pharmacosycea Parkeriana*, Miq. in Hook. Lond. Journ. vii. 71, in Enumeratione in Ann. Mus. prætermissa, nobis videtur bona species cui nomen specificum *F. Parkeriana* retinendum.

3. *Eusyce.* Perianthium ♂ sæpius 5–6-merum rarius 1–3-merum. Stamina 1, 2 v. interdum 3–6. Perianthium ♀ 4–6-merum, rarius 2-merum. Stigma breve, obliquum, peltatum v. concavum, rarius breviter rostratum. Folia variant alterna v. opposita, integerrima dentata v. lobata, sæpe scabra. Receptacula axillaria v. ad nodos defoliatos ramorum vetustiorum. Species innumeræ omnes gerontogeæ. Sectio sat naturalis at vix limitibus certis ab *Urostigmate* definita. *Miq. in Hook. Lond. Journ.* vii. *t.* 3, 6, 14, 15; *Fl. Ind. Bat.* iii. *t.* 18 *ad* 22; *Choix, Pl. Rar. Jard. Buitenz. t.* 10 *ad* 13. *Vahl, Symb.* i. *t.* 24. *Link et Otto, Ic. Pl. Rar. t.* 31. *Vriese, Pl. Nouv. Jard. Lugd. t.* 3. *Bot. Mag. t.* 3282. *Wight, Ic. t.* 632 *ad* 636, 639, 643, 646, 649 *ad* 652, 654, 655, 659, 661, 664, 666, 670, 672. *A. Rich. Fl. Abyss. t.* 80. *Ferr. et Galin. Voy. Abyss. t.* 16. *Grant in Trans. Linn. Soc.* xxix. *t.* 99. *Seem. Fl. Vit. t.* 63 *ad* 67, 69, 70. CAPRIFICUS *et* TENOREA, *Gasp. Nov. Gen. Fic.* 6; *Ricerch. Caprif. e Fic. t.* 1, 2, 7. SYCOMORUS, *Gasp. Ricerch. Caprif. e Fic.* 86. *Miq. in Hook. Lond. Journ.* vii. 109, *t.* 3, *et Afrik. Vijg. Boom. t.* 1, 2. POGONOTROPHE, *Miq. in Hook. Lond. Journ.* vii. 72, *t.* 2. *Wight, Ic. t.* 1965.

SYNŒCIA, *Miq.*, ab auctore in *Hook. Lond. Journ.* vii. 469, pro genere proprio propositum fuit, *F. diversifoliam*, Bl., et *F. falcatam*, Thunb., includente, quibus speciebus incaute tribuit flores utriusque sexus prorsus nudos mixtosque. In revisione citata in Ann. Mus. Lugd. Bat. auctor characterem prius datam omnino neglexit, et has duas species in sectiones duas distinctas separavit, *Erythrogyne*, et *Synœcia*, characteribus tamen quibus ab *Eusyce* separantur adhuc valde incertis. In *Erythrogyne*, formas plures invenimus a Miquelio sub *F. diversifolia* conjunctas, quarum nonnullæ species bene distinctas constituere videntur:—1. *F. lutescens*, Desf., est ERYTHROGYNE, *Vis. in Gasp. Ricerch. Caprif. e Fic.* 86, cujus specimen e Horto Petropolitano characteres a Visianio datos bene præbet. Folia elliptico-lanceolata apice basique angustata undique pennivenia et ima basi 3-nervia et plus minus distincte subtus 2-glandulosa. Receptacula pedunculata, ovoidea v. demum subglobosa, floribus ♂ in parte superiore ∞ longiuscule pedicellatis 2-andris, floribus ♀ in parte inferiore numerosis sessilibus, perianthii segmentis angustis discretis. Huic simillimum est specimen Javense a Miquelio receptum sub nomine *F. diversifoliæ*, Bl. 2. Specimina Miqueliana *F. diversifoliæ var. receptaculo sessili* et *subsessili*, e Java. His folia *F. lutescentis* sed receptacula longiora primum angustiora ad axillas sessilia. Hanc formam ægre distinguimus ab *F. Motleyana*, Miq., cujus verisimiliter varietas est. 3. *F. diversifolia*, Blume, e variis insulis Archipelagi varietates

plures (et forte species nonnullas) præbet quoad magnitudinem foliorum et receptaculorum et florum structura sat diversas. In omnibus folia late obovato-cuneata v. rotundata, costa media furcata v. dichotoma, glandula nigra in pagina inferiore in axilla ramorum, ut bene notavit Blume. Receptacula globosa plus minus pedunculata. In plerisque varietatibus examinatis flores ♂ in parte superiore plures sessiles v. pedicellati 2–3-andri, ♀ inferiores numerosi sessiles perianthiis omnibus e segmentis 2–3 brevibus latis crassis nigrisque; in specimine tamen in Hook. Lond. Journ. vii. t. 9 B, delineato, flores ♂ desunt, ♀ numerosi prorsus nudi, ovaria plurima perfecta, jam post anthesin aucta v. fere matura, intermixta sunt cum aliis numerosis minimis ovuliferis sed non fecundatis, quæ forte Miquel in Lond. Journ. vii. 469, pro staminibus nudis descripsit. 4. *F. retusa*, Wall. (*F. ovoidea*, Wall., *F. sideroxylifolia*, Griff. Ic. Pl. As. t. 551, f. 2). Folia anguste v. latiuscule oblonga, obtusissima, costa ut in *F. diversifolia* bifurcata, receptaculis multo minoribus globosis, floribus omnibus sessilibus v. ♂ breviter pedicellatis, cæterum fere *F. diversifoliæ*.

4. *Synœcia*, qualis pro sectione a Miquelio in Ann. Mus. Lugd. Bat. iii. 289, definitur, species paucas continet habitu inter se paullum diversas ex Archipelago Malayano. Receptacula magna, floribus numerosis utriusque sexus intermixtis, masculis monandris plerumque longe pedicellatis, fœmineis sessilibus ovario tamen intra perianthium plus minus stipitato. Perianthii segmenta utriusque sexus angusta tenuia. Stigma *Eusyces*. Huc pertinent *Synœcia falcata*, Miq. in Hook. Lond. Journ. vii. t. 11, Choix, Pl. Rar. Buitenz. t. 14, in Ann. Mus. Lugd. Bat. ad *F. punctatam*, Thunb., relata; *F. kallicarpa* (rectius *callicarpa*), Miq. in Ann. Mus. Lugd. Bat. iii. t. 10; *F. apiocarpa*, Miq.; et *F. pomiformis*, Kurz.

5. *Covellia*. Perianthii ♂ segmenta 3 v. 4, lata, sese involventia. Stamen sæpius 1. Perianthium ♀ minimum v. 0, v. demum si ovario æquilongum tenuissimum truncatum v. brevissime obtusilobum. Stigma peltatum v. obliquum. Receptacula sæpius in trunco v. in ramulis brevibus v. distinctis aphyllis. Folia ut in *Eusyce* opposita v. alterna. Sectio quoad species plerasque naturalis, nonnullæ tamen habitu *Covelliæ* in *Urostigmate* v. *Eusyce* a Miquelio collocantur. Omnes Asiaticæ sunt v. Australienses. *Roxb. Corom. Pl. t.* 123, 124. *Willd. Hort. Berol. t.* 36. *Wight, Ic. t.* 637, 638, 641, 644, 645, 648, 667, 669, 673, 1966. *Brand. For. Fl. t.* 49. *Seem. Fl. Vit. t.* 71. COVELLIA, *Gasp. Nov. Gen. Fic.* 10; *Ricerch. Caprif. e Fic. t.* 8. *Miq. in Hook. Lond. Journ.* vii. 458, *t.* 7 *ad* 9; *Fl. Ind. Bat.* i. ii. 322, *t.* 23; *et Choix, Pl. Rar. Buitenz. t.* 15. SYCOMORPHE, *Miq. in Ann. Sc. Nat. ser.* 3, i. 35. CYSTOGYNE, *Gasp. Ricerch. Caprif. e Fic.* 84, *t.* 8, species nonnullas includit perianthio ♀ tenuissimo ovario æquilongo, a *Covelliis* perianthio ♀ minimo v. 0 ab auctore distinctas.

40. **Sparattosyce,** *Bur. in Ann. Sc. Nat. ser.* 5, xi. 379, *t.* 6.—Flores dioici, in receptaculis primum ficiformibus demum ruptis explanatisque numerosi. Fl. ♂: Perianthium 3–6-partitum, segmentis imbricatis. Stamina 3–6, filamentis brevibus rectis; antheræ ovatæ. Ovarii rudimentum breve. Fl. ♀: Perianthium 6–10-partitum, segmentis imbricatis. Ovarium liberum; stylus elongatus, sublateralis, indivisus v. 2-fidus, ramis stigmatosis longe filiformibus exsertis; ovulum ex apice pendulum. Fructus perianthio persistente stipatus, exocarpio tenui, endocarpio crasso osseo. Semen sub apice affixum, testa membranacea; albumen 0; cotyledones latissimæ, reclinatæ, conduplicato-corrugatæ, inferiore exteriore interiorem et radiculam superam circumducente.—Arbores. Folia alterna, petiolata, integerrima, coriacea, pennivenia; stipulæ gemmam terminalem tegentes, caducissimæ. Receptacula ad axillas solitaria, breviter pedunculata, primum pyriformia more *Fici* foramine parvo ∞-bracteato pertusa, per anthesin in lacinias irregulares patentes v. recurvas divisa, superficie interiore bracteolis segmentisque perianthiorum lanceolatis membranaceis fuscescentibus obtecta. (*Char. fruct. ex Bureau.*)

Species 2, Novo-Caledonicæ. *Bur. in DC. Prod.* xvii. 288.

Genus tam habitu quam receptaculis junioribus *Fico* quam maxime affine, nec differre videtur nisi receptaculis demum divisis et (an constanter?) stylo. Flores dioici etiam in *Fico* observantur etsi rarius.

41. **Brosimum,** *Swartz, Prod.* 12; *Fl. Ind. Occid.* i. 15, *t.* 1. (Piratinera, *Aubl. Pl. Gui.* ii. 888, *t.* 340, *charactere falso.* Galactodendron, *H. B. et K. Nov. Gen. et Sp.* vii. 163.)—Flores monoici, receptaculo globoso androgyno affixi. Fl. ♂ numerosi, superficiem exteriorem receptaculi obtegentes: Perianthium breviter cupulatum v. a receptaculo vix distinctum. Stamen 1 (rarius 2?), filamento brevi erecto; anthera parva ovata. Ovarii

rudimentum 0. Fl. ♀ in centro receptaculi plus minus immersus solitarius (v. rarius 2 in locellis distinctis?): Perianthium 0 v. cum receptaculo omnino concretum. Ovarium receptaculo inclusum et basi adnatum, superne in stylum breviter exsertum attenuatum; ramis stigmatosis exsertis crassiusculis patentibus; ovulum ex apice pendulum. Fructus globosus, receptaculo carnoso v. plus minus exsiccato quasi corticatus; pericarpium basi cum receptaculo concretum, apice liberum, etsi inclusum (v. rarius demum apice exsertum?). Semen subglobosum, apice v. sub apice lateraliter affixum, testa membranacea; albumen 0; cotyledones crassæ, carnosæ, subæquales, radicula parva supera.—Arbores lactescentes. Folia breviter petiolata, integerrima, demum coriacea, pennivenia; stipulæ laterales, parvæ, caducissimæ. Florum receptacula ad axillas sæpius gemina, pedunculis mox reflexis, v. interdum ramulis floriferis brevibus subaphyllis quasi racemosa. Bracteæ sub receptaculo parvæ arcte appressæ v. 0. Bracteolæ inter flores ♂ numerosæ, sæpissime peltatæ brevissimeque stipitatæ, superficiem totam ante anthesin obtegentes, in paucis speciebus minores v. minus conspicuæ, etiam in fructu sæpius persistentes.

Species ad 8, per Americam tropicam a Brasilia usque ad Indiam occidentalem et Mexicum dispersæ. *Tréc. in Ann. Sc. Nat. ser.* 3, viii. 139, *t.* 6. *Walp. Ann.* i. 666. *Tuss. in Journ. Bot.* i. (1808), 202, *t.* 8. *Pœpp. et Endl. Nov. Gen. et Sp. t.* 148. *Miq. in Mart. Fl. Bras.* iv. i. *t.* 32, 33.

Genus Aubletianum, pessime descriptum, ab auctoribus necessarie neglectum, nunc futile substitueretur pro Swartziano optime definito et tam diu ab omnibus botanicis recepto.

42. **Lanessania,** *Baill. Adans.* xi. 298.—Flores monoici, receptaculo carnoso anguste turbinato v. obpyramidato androgyno affixi. Fl. ♂ numerosi, apicem explanatum receptaculi obtegentes, arcte conferti, basi subconnati: Perianthium tubulosum, carnosulum, brevissime obtuseque 3–4-fidum. Stamina 2 rarius 3, filamentis inclusis rectis crassis; antheræ parvæ, loculis adnatis. Ovarii rudimentum 0 v. minute subulatum. Flos ♀ in centro receptaculi unicus. Perianthium a receptaculo carnoso haud distinctum canalem centralem efficiens. Ovarium in fundo receptaculi inferum; stylus intra canalem liber, apice exsertus, ramis stigmatosis elongatis; ovulum ex apice loculi pendulum. Fructus parvus, globosus (in speciminibus imperfectus).—Arbuscula lactescens, ramulis receptaculisque fulvo-tomentellis. Folia alterna, petiolata, integerrima, coriacea, subtus insigniter pennivenia et reticulato-venulosa; stipulæ parvæ, liberæ, caducæ. Receptacula ad axillas solitaria, pedunculo brevi patente v. reflexo. Bracteæ circa marginem receptaculi vix prominentes, fere tuberculiformes, tomentellæ, obscure 2–3-seriatæ.

Species quoad flores bene nota unica, Brasiliæ borealis incola (*Spruce n.* 1825). Huic forte addenda species quoad folia simillima, a Spruceo sub nomine *Soroceæ* n. 1635 distributa. Specimina absque floribus fructus paucos parvos imperfectos præbent.

43. **Bosquiea,** *Thou. ex Baill. Adans.* iii. 338, *t.* 10, *et* viii. 72, *t.* 4.—Flores monoici, receptaculo campanulato v. obconico androgyno affixi. Fl. ♂ receptaculi faciem interiorem obtegentes: Perianthia 0. Stamina bracteis intermixta, filamentis erectis; antheræ erectæ, ovales v. oblongæ. Flos ♀ unicus in centro receptaculi immersus: Perianthium 0 (nisi cum receptaculo concretum). Ovarium in fundo receptaculi inferum; stylus exsertus, ramis stigmatosis filiformibus; ovulum sub apice affixum, pendulum. Fructus inferus; pericarpium a receptaculo adnato urceolato v. subgloboso apice bracteolarum staminumque reliquiis coronato non distinguendum. Semen (maturum a nobis non visum) descendens, albumine carnoso copioso, embryone subapicali minimo (*Baill.*).—Arbores. Folia alterna, breviter petiolata, integerrima, coriacea, pennivenia; stipulæ intrapetiolares, caducæ. Receptacula ad axillas solitaria, sessilia v. pedunculata, margine æqualiter v. oblique bracteis brevibus involucrata.

Species 3 v. 4, Madagascariæ et Africæ tropicæ incolæ, quarum una a Welwitschio sub nomine *Centrogynis angolensis* distributa.

Genus primo intuitu *Trymatococcæ* similis sed stamina *Artocarpearum* nec *Morearum*. Seminum structura, si rite observata, ab omnibus *Urticaceis* abhorret albumine copioso carnoso et embryone minimo. An forte cotyledones pro albumine radicula cum plumula pro embryone descriptæ?

44. **Scyphosyce,** *Baill. Adans.* xi. 293.—Flores monoici, receptaculo tubuloso-cupulato androgyno inclusi. Fl. ♂ in fundo receptaculi ∞-seriati. Perianthium anguste tubulosum, obtuse 2–4-dentatum. Stamen 1, filamento recto; anthera oblonga, erecta, exserta. Ovarii rudimentum 0. Flos ♀ in centro receptaculi unicus: Perianthium masculis æquilongum, segmentis 2 distinctis latis uno alterum pistillumque involvente. Ovarium superum, perianthio inclusum; stylus subulatus, primum centralis, demum fere lateralis, ramis stigmatosis exsertis longiuscule filiformibus; ovulum apice oblique affixum, pendulum. Fructus junior ovoideo-globosus, receptaculi limbo deciduo denudatus, basi reliquiis florum ♂ cinctus iisque longior; maturus nobis deest.—Herba dicitur perennis, simplex, ½–1-pedalis; caulis tamen durus et in sicco lignosus videtur, basi radicans. Folia alterna, in parte superiore conferta, brevissime petiolata, oblonga, acuminata, integerrima v. denticulata, membranacea, pennivenia; stipulæ liberæ, angustæ. Receptacula parva, ad axillas pedunculata, basi carnosula florifera, parte superiore v. limbo cupulato membranaceo margine breviter 4–5-lobo.

Species 1, Africæ tropicæ occidentalis incola.

45. **Antiaris,** *Lesch. in Ann. Mus. Par.* xvi. 478, *t.* 22. (Lepurandra, *Grah. Cat. Pl. Bomb.* 193.)—Flores monoici, ♂ dense capitati, ♀ solitarii, receptaculo utriusque sexus bracteis ∞-seriatis imbricatis involucrato. Fl. ♂: Perianthium 4- rarius 3-partitum, segmentis spathulatis apice concavis imbricatis. Stamina 4, rarius 3, filamentis brevibus erectis liberis; antheræ oblongæ. Ovarii rudimentum 0. Fl. ♀: Perianthium 0 (v. cum receptaculo concretum?). Ovarium involucro inclusum et receptaculo adnatum; stylus 2-partitus, ramis subulatis exsertis recurvis superne stigmatosis; ovulum ab apice pendulum. Fructus carnosus, pericarpio cum receptaculo aucto concreto. Semen pendulum, testa crustacea v. indurata; albumen 0; embryo subglobosus, cotyledonibus crasso-carnosis æqualibus, radicula parva supera.—Arbores fruticesve lactescentes. Folia alterna, disticha, petiolata, pennivenia, integerrima v. serrata. Stipulæ laterales v. intra petiolum connatæ, parvæ, caducissimæ. Receptacula ad axillas breviter pedunculata, ♂ sæpius gemina v. pauca, plana v. convexa, ♀ solitaria.

Species 5 v. 6, Indiæ orientalis et Archipelagi Malayani incolæ. *Tréc. in Ann. Sc. Nat. ser.* 3, viii. 143, *t.* 6. *Walp. Ann.* i. 667. *Br. in Flind. Voy. t.* 5. *Benn. Pl. Jav. Rar. t.* 13. *Blum. Rumph. t.* 22, 23, 54. *Seem. Fl. Vit. t.* 72; *Bonplandia*, 1862, *t.* 7. *Hook. Comp. Bot. Mag.* i. *t.* 17. *Wight, Ic. t.* 1958. *Bedd. Fl. Sylv. t.* 307.

46. **Olmedia,** *Ruiz et Pav. Prod. Fl. Per. et Chil.* 129, *t.* 28; *Syst. Veg.* 257.—Flores dioici, ♂ dense capitati, ♀ solitarii, receptaculo utriusque sexus bracteis ∞-seriatis involucrato. Fl. ♂: Perianthium obovoideum, tenuiter membranaceum, demum valvatim 4-fidum, v. angustius 4-partitum, segmentis imbricatis. Stamina 4, filamentis ad basin segmentorum affixis liberis erectis; antheræ exsertæ, in alabastro pendulæ. Ovarii rudimentum 0 v. minutum (flores interdum 5-meri?). Fl. ♀: Perianthium basi ovoideum, demum globosum, apice foramine parvo pertusum v. in collum tenue circa stylum productum. Ovarium inclusum, rectum; stylus centralis, tenuis, ramis stigmatosis exsertis filiformibus; ovulum ab apice pendulum. Fructus perianthio membranaceo v. crassiusculo inclusus; pericarpium membranaceum. Semen globosum, testa membranacea; albumen 0; cotyledones crasso-carnosæ, æquales v. parum inæquales, radicula minima supera.—Arbores lactescentes. Folia alterna, breviter petiolata, integerrima v. remote dentata, paucivenia; stipulæ oblongæ, sericeæ, caducissimæ. Receptacula ad axillas solitaria v. gemina, in speciebus typicis sessilia, in aliis breviter pedunculata.

Species descriptæ v. in herbariis obviæ 6, Americæ australis tropicæ incolæ, nonnullæ uno sexu tantum noto adhuc dubiæ. *Tréc. in Ann. Sc. Nat. ser.* 3, viii. 127, *t.* 2. *Walp. Ann.* i. 662. *Pœpp. et Endl. Nov. Gen. et Sp. t.* 143, 144. *H. B. et K. Nov. Gen. et Sp.* vii. *t.* 633.

Characteres nostri, imprimis ab *O. aspera*, R. et Pav., deducti sunt, cujus flores utriusque sexus fructusque examinavimus, ut et ab iconibus Pœppigianis speciminibusque unius sexus aliarum specierum. *O. grandifolia*, Trec., et *O. guianensis*, Trec., a Baillonio referuntur ad *Maquiram* (*Perebeam?* v. *Helicostylem?*). *O. calophylla*, Pœpp., nobis videtur *Perebeæ* species. *O. tomentosa*,

Pœpp., a Bureau ad *Helicostylem* refertur. *O. armata*, Miq., in Seem. Bot. Her., est verisimiliter *Castilloæ* species. PSEUDOLMEDIA, *Karst. Fl. Colomb.* ii. 21, *t.* 111, a *Pseudolmedia*, Tréc., certe diversa, nobis characteres omnes *Olmediæ* ostendere videtur, exceptis floribus ♂ 5-meris, et perianthio ♀ basi ovario adnato.

47. **Pseudolmedia,** *Tréc. in Ann. Sc. Nat. ser.* 3, viii. 129, *t.* 5.—Flores dioici, ♂ capitati, ♀ solitarii, receptaculo utriusque sexus bracteis ∞-seriatis involucrato. Fl. ♂: Perianthium 0. Stamina (flores singuli) numerosa, receptaculo intra involucrum plano v. concavo (sine ordine?) imposita, squamis lineari-spathulatis (bracteolis?) intermixta, filamentis brevibus erectis; antheræ oblongæ. Ovarii rudimentum 0. Fl. ♀: Perianthium ovoideum v. tubulosum, crassiusculum, apice foramine parvo integro v. denticulato pertusum. Ovarium inclusum, basi uno latere adnatum; stylus rigidule filiformis, ramis stigmatosis exsertis subæqualibus; ovulum ab apice pendulum. Fructus ovoideus, perianthio aucto carnosulo inclusus, et plus minus uno latere adnatus, involucro ad basin fructus immutato; pericarpium crustaceum. Semen prope apicem affixum v. (*ex Baill.*) pericarpio lateraliter longe adnatum, testa membranacea; albumen 0 v. perparcum; cotyledones crasso-carnosæ, valde inæquales, radicula parva supera.—Arbores fruticesve (haud lactescentes?). Folia alterna, breviter petiolata, integerrima, tenuiter coriacea, nitidula, penninevia; stipulæ intrapetiolares, parvæ, caducissimæ. Capitula ♂ et flores ♀ ad axillas sessilia, solitaria v. gemina. Involucri bracteæ utriusque sexus pluriseriatim imbricatæ, in fœmineis tamen pauciores et sub fructu parvæ. Fructus in una saltem specie ruber dicitur et edulis.

Species 4 v. 5, Americæ tropicæ Andinæ et centralis et Indiæ occidentalis incolæ. *Walp. Ann.* i. 663. *Griseb. Fl. Brit. W. Ind.* 152.

OLMEDIOPSIS, *Karst. Fl. Colomb.* ii. 17, *t.* 109, ex icone et charactere dato, a *Pseudolmedia*, Tréc., non Karst., non rite distinguitur. Genus cæterum quoad flores masculos *Castilloam* refert, fœmineis tamen ut in *Olmedia* solitariis.

48. **Castilloa,** *Cervant. in Gaz. Litt. Mexico,* 1794, *ex Tréc. in Ann. Sc. Nat. ser.* 3, viii. 136, *t.* 5.—Flores monoici, utriusque sexus dense capitati, receptaculis unisexualibus planis aut concavis bracteis pluriseriatis involucratis. Fl. ♂: Perianthium 0. Stamina (flores singuli?) in receptaculo numerosa, conferta, bracteolis intermixtis, filamentis rectis; antheræ ovatæ. Ovarii rudimentum 0. Fl. ♀: Perianthium ovoideum, 4-lobum, lobis crassis arcte contiguis vix imbricatis. Ovarium inclusum, hinc perianthio adnatum; stylus brevis, ramis stigmatosis exsertis filiformibus v. lanceolatis patentibus; ovulum sub apice affixum, pendulum. Perianthia fructifera aucta, tenuiter succulenta v. crasso-carnosa, receptaculo insidentia nec concreta, achænia includentia; pericarpium crustaceum. Semen pendulum, testa membranacea; albumen 0; cotyledones crasso-carnosæ, æquales, radicula parva infera.—Arbores lactescentes. Folia alterna, brevissime petiolata, sæpius ampla, integerrima v. dentata, penninevia; stipulæ in unam intrapetiolarem amplam deciduam connatæ. Receptacula ♂ ad axillas v. ad nodos defoliatos sæpius plura, pedicellata; ♀ solitaria, sessilia v. brevissime pedicellata.

Species 2 v. 3, Americæ centralis et ins. Cubæ incolæ. *Walp. Ann.* i. 665. *Collins, Rep. Caoutch. Comm.* 1872, *t.* 2, 3.

Genus quoad flores ♀ et fructus *Perebeæ* valde affine et forte *C. Markhamiana*, Coll., cujus fl. ♂ ignoti, ad illam referenda erit. Flores ♂ *C. elasticæ*, Cerv., fere *Pseudolmediæ*, ab illis *Perebeæ* (si hi rite determinati) longe differunt.

49. **Helicostylis,** *Tréc. in Ann. Sc. Nat. ser.* 3, viii. 134, *t.* 5.—Flores dioici, utriusque sexus globoso-capitati, capitulis bracteis ∞-seriatim imbricatis involucratis. Fl. ♂: Perianthium 4-partitum, segmentis crassiusculis concavis imbricatis. Stamina 4, filamentis erectis; antheræ exsertæ, ovatæ, connectivo latiusculo. Ovarii rudimentum 0. Fl. ♀: Perianthium basi receptaculo semi-immersum concretumque, limbo 4-partito, segmentis crassis carnosis leviter 2-seriatim imbricatis arcte conniventibus. Ovarium inclusum et uno latere plus minus adnatum; stylus tenuis, terminalis v. demum lateralis, ramis stigmatosis filiformibus sæpe tortis; ovulum ab apice pendulum. Perianthia fructifera

in syncarpium irregulariter globosum carnosum ∞-locellatum arcte conferta et plus minus concreta. Achænia in locellis clausis uno latere adnata, ovata; pericarpium crustaceum. Semen conforme, superne lateraliter affixum, testa membranacea; albumen 0; cotyledones crasso-carnosæ, æquales, radicula brevi supera.—Arbores excelsæ (an lactescentes ?). Folia alterna, breviter petiolata, integerrima, coriacea, pennivenia; stipulæ intrapetiolares, distinctæ, caducissimæ. Capitula ♂ ad axillas sæpius plura, pedunculata, ♀ solitaria sessilia. Bracteolæ intra capitula ♂ sub floribus segmentis perianthii similes, in capitulis ♀ a perianthiis carnosis haud distinguendæ.

Species 2? Americæ Amazonicæ v. Guianensis incolæ. *Walp. Ann.* i. 664. *Pœpp. et Endl. Nov. Gen. et Sp.* ii. *t.* 145 (*Olmedia*).

MAQUIRA, *Aubl. Pl. Gui. Suppl.* 36, *t.* 389, arbor Guianensis floribus ob statum juvenilem indescriptis, ex icone speciminibus Guianensibus *Helicostylis Pœppigianæ*, Tréc., bene convenit sed genus Aubletianum valde incertum remanet et nomen delendum. Bureau in DC. Prod. xvii. 286, *Perebeam laurifoliam*, Tréc., ad *Maquiram* refert, sed folia basi valde inæquilatera cum icone haud conveniunt.

50. **Perebea**, *Aubl. Pl. Gui.* ii. 952, *t.* 361.—Flores dioici, utriusque sexus in receptaculo concavo demum plano convexo v. subgloboso bracteis ∞-seriatim imbricatis involucrato conferti. Fl. ♂: Perianthium 4-partitum, segmentis crassis 2-seriatim imbricatis. Stamina 4, filamentis brevibus erectis; antheræ ovatæ. Ovarii rudimentum 0. Fl. ♀: Perianthium tubulosum, apice 4-dentatum. Ovarium perianthio alte v. undique adnatum; stylus terminalis, crassus, ramis stigmatosis brevibus; ovulum sub apice affixum, pendulum. Perianthia fructifera carnosa, in capitulo involucrato arcte conferta at distincta; pericarpium . . . Semen . . .—Arbores lactescentes. Folia alterna, breviter petiolata, integerrima, coriacea, pennivenia; stipulæ parvæ v. mediocres semet amplectentes, caducissimæ. Capitula ♂ ad axillas breviter pedunculata, solitaria v. 2–3-na, bracteis involucrantibus flores non superantibus; capitula ♀ solitaria, sessilia.

Species 4 v. 5, Americæ tropicæ incolæ si omnes huc rite relatæ. *Tréc. in Ann. Sc. Nat. ser.* 3, viii. 133, *t.* 5. *Walp. Ann.* i. 664. *Pœpp. et Endl. Nov. Gen. et Sp.* ii. *t.* 146 (*Olmedia?*). *Karst. Fl. Colomb.* ii. *t.* 112.

Genus adhuc imperfecte notum, a *Helicostyle* differre videtur ovario evidentius infero et styli ramis abbreviatis. Speciem typicam Aubletii non vidimus, character supra datus imprimis e descriptionibus iconibusque citatis redactus, et e speciminibus *P. laurifoliæ*, Tréc. Hæc a Bureau ad *Maquiram*, Aubl., refertur, sed iconi male respondet, imprimis ob folia basi insigniter inæquilatera. Vix tamen dubitamus hæc genera melius nota in unum conjungenda erint sub nomine Aubletiano. Characteres e forma stigmatum sumpti non magis valoris hic videntur quam in *Ficu, Cudrania, Celtide, Crotone, Euphorbia*, aliisque generibus naturalissimis *Urticacearum* et *Euphorbiacearum*.

51. **Noyera**, *Tréc. in Ann. Sc. Nat. ser.* 3, viii. 135, *t.* 5.—Flores dioici ?, ♂ ignoti, ♀ globoso-capitati, capitulo bracteis ∞-seriatim imbricatis involucrato. Perianthium carnosum, ovoideum v. tubulosum, foramine parvo pertusum, v. 4–6-dentatum, v. 4–6-partitum. Ovarium inferum, receptaculo carnoso immersum adnatumque; stylus exsertus, ramis stigmatosis filiformibus v. crassiusculis; ovulum sub apice affixum, pendulum. Perianthia fructifera superne aucta, carnosa, supra receptaculum carnosum distincta. Achænia locellis receptaculi inclusa et ei subconnata; pericarpium chartaceum. Semen conforme, testa membranacea; albumen 0; cotyledones crasso-carnosæ, subæquales, radicula brevissima.—Arbores lactescentes. Folia alterna, breviter petiolata, integerrima, coriacea, pennivenia; stipulæ semet amplectentes, caducissimæ, cicatricem annularem relinquentes. Capitula ♀ ad axillas solitaria, sessilia.

Species 3, Guianæ v. Brasiliæ borealis incolæ, omnes adhuc imperfecte notæ in genera totidem distincta ab auctoribus distributæ. 1. NOYERA, *Tréc. l.c. Walp. Ann.* i. 664, perianthio ♀ apice foramine parvo integro pertuso. 2. NAUCLEOPSIS, *Miq. in Mart. Fl. Bras.* iv. i. 120, *t.* 35, perianthio ♀ apice 4–6-dentato. 3. ONCODEIA (male *Ogcodeia* nam γκ semper latine *nc* redditur), *Bur. in*

DC. Prod. xvii. 282, perianthio ♀ usque ad basin limbi in segmenta 4–6 angusta crassà (perianthia abortiva, *Bur.*) diviso. Characteres tamen levioris momentus ad genera separanda haud sufficere videntur, dum flores ♂ ignoti remanent. Genus in integrum a *Perebea* paullulum differt ovario fructuque in receptaculo immersis.

52. **Helianthostylis,** *Baill. Adans.* xi. 299.—Flores dioici, ♂ globoso-capitati, bracteis intermixti, receptaculum undique obtegentes; ♀ solitarii. Fl. ♂: Perianthium membranaceum, anguste obconico-tubulosum, apice breviter lateque 4–5-lobum. Stamina 4–5, filamentis rectis demum exsertis; antheræ ovatæ. Ovarii rudimentum lineare, hirtellum, in stylum demum longissime filiformem productum. Fl. ♀: Perianthium? globosum, carnosulum, ovarium includens eique fere undique arcte adnatum nisi summo apice brevissime solutum, ore parvo. Ovarium inclusum vix a perianthio solvendum; stylus brevissime exsertus, ramis stigmatosis tenuibus rigidulis; ovulum apice lateraliter affixum, pendulum. Fructus globosus, strato exteriore (an perianthium persistens potius quam exocarpium?) carnosulo, interiore (pericarpium verum? v. endocarpium?) chartaceo v. fere cartilagineo ægre solubili, in fructu maturo pericarpium totum exsiccatum, fragile. Semen pendulum, subglobosum, testa membranacea; albumen 0; embryo rectus, cotyledonibus crasso-carnosis æqualibus, radicula brevi supera.—Arbuscula, ramis tenuibus, novellis tomentellis mox glabratis. Folia alterna, brevissime petiolata, acuminata, integerrima, demum tenuiter coriacea, subtus prominule pennivenia et reticulato-venulosa; stipulæ parvæ, laterales, caducissimæ. Inflorescentiæ utriusque sexus ad axillas solitariæ, sessiles. Capitula ♂ stricte globosa, stylis effœtis undique longissime exsertis insignia. Bracteolæ intra capitulum sub floribus tenuiter setaceæ, apice spathulato-dilatatæ v. peltatæ, at parum conspicuæ. Florum ♀ perianthium extus breviter densissimeque hirsutum. Fructus extus scaber.

Species 1, Brasiliæ borealis incola, *Spruce n.* 2097, 2219, 2242, 3775.

53. **Cudrania,** *Tréc. in Ann. Sc. Nat. ser.* 3, viii. 122, *t.* 3. (Cudranus, *Miq. Fl. Ind. Bat.* i. ii. 290.)—Flores dioici, utriusque sexus globoso-capitati, capitulo exinvolucrato. Fl. ♂: Perianthium 4-partitum, segmentis oblongis obtusis concavis bracteis 2–4 cinctis. Stamina 4, filamentis filiformibus v. crasso-carnosis perianthii segmentis plus minus adnatis; antheræ erectæ, breviter exsertæ. Ovarii rudimentum subulatum v. 0. Fl. ♀: Perianthii segmenta quam in mare latiora, magis imbricata, ovarium arcte cingentia. Stylus indivisus v. æqualiter v. inæqualiter 2-partitus, ramis stigmatosis elongato-filiformibus v. crassis patentissimisque; ovulum ex apice pendulum. Perianthia fructifera cum bracteis aucta, carnosula, in pseudosyncarpium globosum densissime conferta; pericarpium inclusum, ovatum, compressum, crustaceum. Semen conforme, testa membranacea; albumen tenuiter carnosum; embryo plicatus, cotyledonibus latis varie contortuplicatis, æqualibus v. inæqualibus, radiculam longam ascendentem amplectentibus. —Frutices ramosissimi v. scandentes interdum arbusculæ, inflorescentia excepta glabri, spinis axillaribus rectis v. recurvis sæpius armati. Folia alterna, breviter petiolata, integerrima, pennivenia; stipulæ parvæ, laterales. Capitula ad axillas breviter pedunculata, florifera pisiformia, fructifera colorata usque ad pollicem diametro. Bracteolæ intra capitula utriusque sexus sub quoque flore plures.

Species 2 v. 3, Asiæ tropicæ a Zeylania et Peninsula usque ad Archipelagum Malayanum, Chinam et Japoniam necnon Australiæ tropicæ et Novæ Caledoniæ incolæ. *Walp. Ann.* i. 661. *Bur. in Ann. Sc. Nat. ser.* 5, xi. 377. *Wight, Ic. t.* 1960.

Genus habitu *Plecospermo* simillimum, et cum eo in herbariis sæpe confusum, staminibus facile dignoscendum. Species imprimis stylis inter se distinctæ, aliis characteribus ulterius definiendæ. *Cudraniæ* species tinctoria Africana, a Kirkio in Journ. Linn. Soc. ix. 229 memorata, est *Cardiogyne*, Bur., quam ad *Plecospermum* inter *Moreas* referimus.

54. **Treculia,** *Dcne.*; *Tréc. in Ann. Sc. Nat. ser.* 3, viii. 108, *t.* 3.—Flores dioici, utriusque sexus capitati, cum bracteolis receptaculum carnosum densissime obtegentes, capitulo bracteis paucis stipato. Fl. ♂: Perianthium tubulosum, membranaceum, apice 2–4,

(sæpius 3-) fidum v. dentatum, basi incrassatum. Stamina 2–4, sæpius 3, filamentis erectis crassis inæqualibus; antheræ oblongæ v. ovatæ, erectæ, exsertæ. Ovarii rudimentum 0 v. minutum. Fl. ♀: Perianthium 0 nisi cum bracteis concretum (rarius ex Trécul e foliolis 3 elongatis apice ciliato-fimbriatis). Ovarium ovatum, bractea v. receptaculo inclusum; stylus subulatus, ramis stigmatosis exsertis filiformibus v. rigidulis; ovulum ex apice pendulum. Bracteæ fructiferæ (cum perianthiis?) in syncarpium globosum bractearum lobis echinatum densissime confertæ v. cum receptaculo carnoso concretæ, locellos 1–∞-seriatos in medio syncarpio formantes. Achænia in quoque locello solitaria; pericarpium rigidule membranaceum. Semen ovoideum v. globosum, testa membranacea; albumen 0; embryo conformis, cotyledone altera carnosa reduplicata alteram angustam v. tenuem includente, radicula brevissima supera.—Arbores fruticesve glabri. Folia alterna, breviter petiolata, integerrima, coriacea, pennivenia; stipulæ lanceolatæ, parvulæ, caducæ. Capitula ad axillas v. nodos defoliatos sessilia v. breviter pedunculata. Bracteæ sub capitulo paucæ, parvæ, sub-2-seriatæ, involucrum verum haud formantes; bracteæ seu bracteolæ intra capitulum flores subtendentes, apice in ramulos ∞ clavatos v. apice peltatos divisæ, ramulo uno exteriore cæteris majore, v. in capitulo ♀ ramuli omnes subæquales.

Species 2 v. 3, Africæ tropicæ incolæ. *Walp. Ann.* i. 658. Species typica est arbor ingens, foliis magnis, syncarpio v. pseudosyncarpio fructifero pedem diametro, locellis fructiferis in interiore usque ad mille irregulariter ∞-seriatis. Bracteæ locellos formantes haud concretæ sed arctissime confertæ subcohærentes circa fructus membranaceo-dilatatæ subfibrosæ, ramis terminalibus tenuibus apice peltatis circumferentiam syncarpii æqualiter attingentibus. In capitulis floridis utriusque sexus bracteæ pariter densissimæ, antheris oblongis in mare, styli ramis divaricatis in fœmineo solis prominentibus. *Bot. Mag. t.* 5986.

T. acuminata, Baill. Adans. xi. 292, ab auctore pro sectione v. genere proprio *Pseudotreculia* proponitur. Arbor est multo minor, foliis oblongis. Capitula multo minora, bracteis sub floribus non peltatis una majore ovata crassa cæteris pluribus multo minoribus. Antheræ ovatæ. Capitula fructifera globosa, pollicem diametro non attingentia. Bractearum basis cum (perianthiis? et) receptaculo in massam carnosam concretæ locellos uniseriatos perfecte clausos excepto foramine circa stylum minuto formantes. Fructus parvi, subglobosi. Semen unicum examinavimus, cotyledone majore potius utriculosa quam simpliciter reduplicata, sed forte vix in hoc semine perfecta.

Speciei evidenter tertiæ specimina adsunt a Mannio et G. Thomson in 'Old Calabar' lecta, *T. acuminatæ* subsimilia, sed capitula ♂ quæ sola adsunt ovoideo-oblonga; vix tamen iis *T. acuminatæ* majora. Frutex dicitur nec arbor. Hæ duæ species melius notæ forte pro genere distincto hinc *Treculiæ* hinc *Artocarpo* affini habendæ.

55. **Parartocarpus,** *Baill. Adans.* xi. 294.—Flores dioici, utriusque sexus globoso-capitati, bracteis creberrimis peltatis intermixti, receptaculum undique obtegentes. Fl. ♂: Perianthium 0. Stamina sigillatim inter bracteas conferta diuque occultata, filamentis erectis brevibus crassis demum parum elongatis; antheræ ovatæ. Fl. ♀ (in una specie): Perianthium tubuloso-clavatum, superne incrassatum, foramine parvo dentato pertusum. Ovarium inclusum, liberum; stylus brevis, ramis stigmatosis exsertis brevibus recurvo-patentibus æqualibus; ovulum ab apice pendulum. Fructus . . .—Arbores v. frutices? Folia alterna, petiolata, acuminata, integerrima, chartacea, pennivenia; stipulæ parvæ, caducissimæ. Capitula utriusque sexus ad axillas v. supra axillas solitaria, pedunculo brevissimo cano-puberulo.

Species 2, in collectione Borneensi Beccariana congeneres videntur, alterius n. 2257, *P. Beccarianæ,* Baill., specimina ♂ sola adsunt, capitulis aliis perfectis 3–4 lin., aliis ab insecto deformatis ½ poll. diametro, basi 3-bracteatis, bracteolis intra capitulum creberrimis obtuse clavato-peltatis, stamina diu occultantibus. Speciei alterius, n. 667, specimina utriusque sexus adsunt. Folia iis *P. Beccarianæ* simillima. Capitula ♂ pisiformia, bracteis baseos fere obsoletis, bracteolis latius tenuiusque peltatis, antheris minimis e bracteolis intra capitulum demum prominulis. Capitula ♀ juniora masculis similia, bracteolis creberrimis peltatis alabastra occultantibus; per anthesin perianthia apice cano-puberula e bracteolis distincte prominentia, a basi libera.

56. **Artocarpus,** *Forst. Char. Gen.* 101, *t.* 51. (Radermachia, *Thunb. in Handl. Akad. Stockh.* 1776, 252. Polyphema, *Lour. Fl. Coch.* 546. Sitodium, *Gærtn. Fruct.* i. 344, *t.* 71, 72. Rima, *Sonner. Voy. Nouv. Guin.* 99, *t.* 57 *ad* 60.)—Flores monoici, in capitula unisexualia globosa v. oblonga densissime conferti, receptaculum carnosum undique obtegentes, involucro nullo. Fl. ♂: Perianthium 2–4-lobum v. partitum, lobis segmentisve apice concavis obtusis leviter imbricatis. Stamen 1, filamento erecto sæpius complanato; anthera breviter exserta. Ovarii rudimentum 0. Fl. ♀: Perianthium tubulosum, obovoideum oblongum v. lineare, obtusum v. umbonatum, basi receptaculo carnoso immersum concretumque, apice liberum, foramine minuto interdum 3–4-dentato pertusum. Ovarium rectum, inclusum, receptaculo sepultum sed ab eo liberum; stylus centralis v. plus minus lateralis, apice stigmatoso exserto lineari spathulato rarius subpeltato rarissime 2–3-fido; ovulum sub apice affixum, pendulum. Perianthia fructifera numerosissima v. rarius pauca, cum receptaculo carnoso in syncarpium apicibus liberis parum auctis echinatum v. areolatum alte connata. Achænia syncarpio inclusa; pericarpium membranaceum v. coriaceum. Semen conforme, pendulum, testa membranacea; albumen 0; embryo rectus v. incurvus, cotyledonibus crasso-carnosis æqualibus v. valde inæqualibus, radicula brevissima supera.—Arbores lactescentes. Folia alterna, ampla, coriacea, penninervia, integerrima v. pinnatim pauciloba, rarius pinnatim ∞-foliolata; stipulæ laterales, cæterum variæ. Pedunculi axillares, solitarii, brevissimi v. longiusculi. Flores parvi, numerosissimi, receptaculum sæpius carnosum breve v. elongatum undique obtegentes. Syncarpia parva mediocria v. maxima, fructibus sæpe paucis perfectis prope centrum syncarpii immersis, perianthiis tamen omnibus tam sterilibus quam fertilibus apice sæpius æqualiter auctis, nunc obtusissimis v. umbonatis mutua pressione angulatis syncarpium extus areolatum v. perfecte continuum formantibus, nunc lineari-elongatis syncarpium echinatum efficientibus. Achænia intra perianthia v. locellos syncarpii libera.

Species descriptæ v. indicatæ ultra 40, Asiæ tropicæ a Zeylania et Archipelago Malayano usque ad Chinam incolæ, quarum duæ in regionibus tropicis imprimis in insulis maris Pacifici jam diu cultæ. *Tréc. in Ann. Sc. Nat. ser.* 3, viii. 110, *t.* 4. *Walp. Ann.* i. 659. *Miq. Fl. Ind. Bat.* i. ii. 284, *Suppl.* 417. *Baill. Adans.* iv. 79, *t.* 5. *Wight, Ic. t.* 678 *ad* 682, 1957. *Bedd. Fl. Sylv. t.* 308, 309. *Bot. Mag. t.* 2833, 2834, 2869 *ad* 2871.

Species in herbariis nostris ob specimina imperfecta valde confusa et non sine labore assiduo bene ordinandæ. Trécul sectiones 2 proposuit: 1. *Jaca.* Stipulæ magnæ, altera alteram marginibus tegente. Perianthium ♂ 2-partitum. 2. *Pseudojaca.* Stipulæ minimæ, intrapetiolares v. laterales. Perianthium ♂ 4- rarius 3-partitum. Huc referenda Wight, Ic. t. 681, icones cæteræ supra citatæ omnes ad *Jacam.*

Genus ab auctoribus Linnæo tribuitur, nunquam tamen a Linnæo patre editum fuit, sed a Linnæo filio in Supplemento suo post Forsterum sub n. 1246 receptum.

57. **Batocarpus,** *Karst. Fl. Columb.* ii. 67, *t.* 134.—Flores dioici, ♂ ignoti, ♀ capitati, involucro 0 (v. e bracteis paucis parvis?). Fl. ♀: Perianthium carnosum, apice truncatum, foramine minuto pertusum. Ovarium inclusum, liberum; stylus brevis, ramis stigmatosis exsertis brevibus patentibus; ovulum sub apice affixum, pendulum. Fructus ovoideus, perianthio aucto crasso carnoso truncato inclusus; pericarpium pergameneum. Semen conforme, testa membranacea; albumen 0; embryo rectus, cotyledonibus crasso-carnosis æqualibus, radicula minima supera.—Arbor (lactescens?) partibus novellis tomentoso-pilosulis. Folia alterna, breviter petiolata, ample oblonga, acuminata, integerrima, papyracea, pennivenia et reticulato-venulosa; stipulæ lineari-lanceolatæ (liberæ?). Capitula ♀ globosa, ad axillas solitaria, breviter pedunculata, floribus arcte confertis, bracteis parvis interstinctis; fructifera in pseudosyncarpia globosa aucta, perianthiis crasso-carnosis cum receptaculo carnoso continuis arcte confertis et mutua pressione angulatis at non concretis. (*Char. ex ic. et descr. Karst.*)

Species 1, Columbiana, a nobis non visa. Genus evidenter *Sahaguniæ* valde affine, sed bene distinctum videtur fructibus in pseudosyncarpium arcte confertis nec supra receptaculum parvum discretis. Flore tamen ♂ ignoto quodammodo incertum remanet.

58. **Sahagunia,** *Liebm. in R. Dansk. Vid. Selsk. Skrift. ser.* 5, ii. 316. (Acanthinophyllum, *Fr. Allem. in Palestr. Scient. Rio Jan.* 1858, 215, *cum ic.*)—Flores dioici, ♂ tenuiter densissimeque cylindraceo-spicati, ♀ capitati. Fl. ♂: Perianthium 0. Stamina in spica numerosissima, sigillatim inter bracteas crebre longitudinaliter ∞-seriatas affixa, filamentis rectis v. flexuosis; antheræ e bracteis exsertæ, parvæ, ovatæ. Ovarii rudimentum 0. Fl. ♀: Perianthium ovoideum, crassum, apice foramine minuto subdentato pertusum. Ovarium inclusum, liberum; stylus brevis, ramis stigmatosis exsertis brevibus patentibus; ovulum apice v. sub apice affixum, pendulum. Fructus ovoideo-globosus, perianthio aucto tenuiter carnosulo inclusus; pericarpium membranaceum. Semen conforme, testa membranacea; albumen 0; embryo rectus, cotyledonibus crasso-carnosis æqualibus, radicula minima supera.—Arborea lactescentes. Folia alterna, breviter petiolata, oblonga v. ampla, acuminata, integerrima v. spinuloso-dentata, membranacea v. tenuiter coriacea, subtus prominule pennivenia et reticulato-venulosa; stipulæ minimæ, rigide setiformes v. inconspicuæ. Inflorescentiæ ad axillas breviter pedunculatæ. Spicæ ♂ in pedunculo sæpius plures, tenues, rhachi tamen staminibus bracteisque undique densissime obtecta. Capitula ♀ in axillis sæpius solitaria, subglobosa, perianthiis fructiferis in receptaculo parvo prominentibus.

Species 3, una Mexicana, duæ Brasiliæ et Guianæ incolæ, quarum unam ineditam ad flum. Casiquiare legit *Spruce n.* 3279, in Cayenne *Sagot n.* 530, et ad Cantagallo Brasiliæ *Peckolt*, alterius ab Allemão bene descriptæ et delineatæ specimina ♂ vidimus e vicinibus Rio Janeiro *Sello*, et e Cayenne *Martin*. Huic quoad folia simillima est *Sorocea Klotzschiana*, Baill., quæ tamen flores et fructus *Soroceæ* nec *Sahaguniæ* ostendit.

59. **Clarisia,** *Ruiz et Pav. Prod. Fl. Per. et Chil.* 158, *t.* 28; *Syst. Veg.* 255. (Soaresia, *Fr. Allem. in Palestr. Scient. Rio Jan.* 1858, 142, *cum ic.*)—Flores dioici, ♂ tenuiter densissimeque cylindraceo-spicati, ♀ ramosi. Fl. ♂: Perianthium 0. Stamina in spica numerosissima, sigillatim inter bracteas minutas apice peltatas affixa, filamentis erectis brevibus; antheræ ovatæ. Ovarii rudimentum 0. Fl. ♀: Perianthium ovoideum, crassum, ovario alte adnatum, supra ovarium connivens, foramine parvo fimbriato pertusum (a Ruiz et Pav. prætervisum). Ovarium inferum; stylus brevis, crassus, ramis stigmatosis linearibus inæqualibus; ovulum ab apice pendulum. Fructus ovoideus, carnosus, perianthio persistente cum pericarpio concreto, endocarpio membranaceo. Semen subglobosum, testa membranacea; albumen 0; embryo rectus, cotyledonibus crasso-carnosis æqualibus, radicula brevissima supera.—Arbores excelsæ, lactescentes. Folia alterna, petiolata, integerrima, pennivenia; stipulæ squamiformes, fugaces. Spicæ ♂ geminæ, paribus secus rhachin ramuli floriferi brevis aphylli dissitis subsessilibus. Rhachis spicæ (seu receptaculum lineare) uno latere anguste denudata, cæterum undique bracteolis staminibusque dense obtecta. Flores ♀ in racemo brevi sub quaque bractea gemini, singuli pedicellati, pedicello apice 4-bracteato (bracteis a Ruiz et Pav. pro perianthio descriptis). (*Char. ex descr. et ic. citat.*)

Species 4? quarum 2 Peruvianæ a R. et Pav. indicatæ, 1 Brasiliana ab Allemão descripta. Harum specimina non vidimus et inter se comparare nequimus, sed ex descriptione iconibusque species sunt evidenter congeneres, habitu et floribus ♂ *Sahaguniæ* affines, sed inflorescentia floribusque ♀ bene distinctæ, et nuper a Glaziovii accepimus sub n. 9590 nomineque *Soaresiæ ilicifoliæ* speciei quartæ Brasilianæ specimen fructiferum foliis ut in *Sahagunia* (*Acanthinophyllo*) *strepitante*, Allem., et *Sorocea Klotzschiana*, Baill., margine spinoso-dentatis sed rigidius coriaceis, fructu omnino ut in ic. cit. *Soaresiæ* delineato.

60. **Balanostreblus,** *Kurz in Journ. Asiat. Soc. Beng.* xlii. 247, *t.* 19; *For. Fl. Burm.* ii. 465.—Flores monoici (v. dioici ?), ♂ tenuiter densissimeque cylindraceo-spicati, ♀ racemosi. Fl. ♂: Perianthium 4-partitum, segmentis crassiusculis obtusis subvalvatis. Stamina 4, filamentis in alabastro erectis; antheræ ovatæ. Ovarii rudimentum 0. Fl. ♀ (a nobis non visi): Perianthium ovarium includens basique adnatum, sursum liberum, apice perforatum. Ovarium semisuperum, inclusum; stylus brevis, ramis stigmatosis exsertis brevibus crassis villosulis; ovulum ab apice pendulum. Drupa pisiformis, perianthio carnoso inclusa. Semen . . . —Arbor lactescens, subglabra, rarius spinis axil-

laribus armata. Folia alterna, brevissime petiolata, plus minus spinoso-dentata, rigidula, pennivenia; stipulæ parvæ (convolutæ?), caducissimæ. Spicæ ♂, non nisi statu juvenili observatæ, tenues, uno latere longitudinaliter sulcatæ et nudæ, bractearum serie duplici sulcam utrinque marginante, rhachi (seu receptaculo lineari) cæterum floribus parvis undique densissime obtecta. Flores ♀ secus rhachin racemi dissiti, ebracteati, pedicellis brevibus crassis fulti. (*Char. fl.* ♀ *et fr. ex descr. et ic. citat.*)

Species 1, Indiæ orientalis provinciarum orientalium incola.

61. **Sorocea,** *A. de St. Hil. in Mém. Mus. Par.* vii. 473.—Flores dioici, utriusque sexus racemosi v. interrupte spicati. Fl. ♂: Perianthium 4-partitum, segmentis latis imbricatis. Stamina 4, filamentis liberis erectis demum exsertis; antheræ ovatæ. Ovarii rudimentum 0. Fl. ♀: Perianthium ovoideum v. tubulosum, basi ovario adnatum, apice foramine parvo pertusum. Ovarium inferum; stylus basi inclusus crasso-carnosus ovoideo-conicus, apice breviter attenuatus, ramis stigmatosis exsertis brevibus patentibus; ovulum apice v. juxta apicem affixum, pendulum. Fructus perianthio aucto carnoso v. succulento omnino inclusus, eique basi concretus; pericarpii pars libera tenuis. Semen pendulum, testa membranacea; albumen 0; embryo curvus, cotyledone altera maxima crasso-carnosa, uno latere plicata, et intra plicam cotyledonem alteram minorem v. parvam cum radicula fovente.—Arbusculæ v. frutices lactescentes. Folia alterna, breviter petiolata, rigide membranacea v. tenuiter coriacea, integerrima spinuloso-dentata v. irregulariter pinnatifida, pennivenia, venis primariis reteque venularum subtus v. utrinque prominentibus; stipulæ parvæ, caducæ. Racemi ad axillas solitarii v. gemini. Flores utriusque sexus secus rhachin plus minus dissiti, sessiles v. pedicellati. Fructus sæpe et interdum racemus totus sub fructu ruber.

Species ad 12, Americæ tropicæ a Brasilia australi usque ad Mexicum incolæ. *Tréc. in Ann. Sc. Nat. ser.* 3, viii. 145, *t.* 6. *Miq. in Mart. Fl. Bras.* iv. i. 111, *t.* 34. *Gaudich. Voy. Bonite, t.* 71 *ad* 74. *Baill. Adans.* i. 212, *t.* 6.

In speciebus typicis 3 v. 4 flores utriusque sexus pedicellati. Pseudosorocea, *Baill. Adans.* xi. 296, species continet 8, inclusa *S. muriculata,* Miq., quas auctor pro sectione v. genere distincto proposuit. Parum tamen distinctæ videntur nisi floribus in utroque sexu secus rhachin sessilibus, masculis in una specie rhachi arcte adnatis segmentis inter se discretis. Fructus ubi notus in *Pseudosorocea* globosus, minor quam in speciebus typicis.

Tribus VI. Conocephaleæ.

62. **Cecropia,** *Linn. Gen. n.* 1099.—Flores dioici, densissime cylindraceo-spicati. Fl. ♂: Perianthium tubulosum v. campanulatum, integrum 2-fidum v. 2-partitum. Stamina 2, filamentis rectis vix exsertis, antheræ majusculæ. Ovarii rudimentum 0. Fl. ♀: Perianthium tenuiter membranaceum, vertice crassius, foramine parvo pertusum. Ovarium inclusum, rectum; stylus brevissimus, stigmate exserto penicillato; ovulum erectum, orthotropum. Fructus oblongus, perianthio tenuissimo inclusus; exocarpium tenuissimum evanidum; endocarpium crustaceum v. duriusculum. Semen conforme, testa membranacea; albumen 0; cotyledones oblongæ v. ovatæ, æquales, rectæ; radicula parva, supera.—Arbores lactescentes. Folia alterna, longe petiolata, ampla, circumscriptione suborbiculata, peltata, in lobos segmenta v. foliola 7–13, sæpius 9 v. 11, radiatim divisa, segmentis prominenter penniveniis subtus niveis v. utrinque virentibus; stipulæ magnæ, in unam intrapetiolarem connatæ, per evolutionem gemmam terminalem includentes, mox deciduæ. Spicæ cylindraceæ, plures (2–60), ad apicem pedunculi intra bracteam spathaceam caducam sessiles v. pedunculatæ, ♀ crassæ, ♂ tenuiores, floribus utriusque sexus minimis numerosissimis circa rhachin sæpe carnosam arcte confertis sessilibus. Pedunculi communes ad axillas solitarii v. gemini.

Species enumeratæ fere 40, Americæ tropicæ a Brasilia usque ad Mexicum incolæ, plures tamen e speciminibus valde mancis descriptæ, verisimiliter reducendæ. *Tréc. in Ann. Sc. Nat. ser.* 3, viii. 78, *t.* 1. *Walp. Ann.* i. 650. *Lam. Illustr. t.* 800. *Vell. Fl. Flum. Ic.* x. *t.* 101. *Miq. in Mart. Fl. Bras.* iv. i. 140, *t.* 46 *ad* 50. *Wawra, Bot. Pr. Max. Reise, t.* 85.

63. **Myrianthus,** *Beauv. Fl. Ow. et Ben.* i. 16, *quoad pl.* ♂ *t.* 11, *excl. fr. t.* 12. (Dicranostachys, *Tréc. in Ann. Sc. Nat. ser.* 3, viii. 85, *t.* 1.)—Flores dioici (v. monoici ?), ♂ in spicas repetiter ramosissimas dispositi, ♀ globoso-capitati. Fl. ♂ : Perianthium breve, 3–4-fidum, lobis latis imbricatis. Stamina 3–4, filamentis brevibus erectis liberis v. inter se varie connatis ; antheræ exsertæ, oblongæ. Ovarii rudimentum 0. Fl. ♀ : Perianthium ovoideum v. obovoideum, vertice ore parvo pertusum. Ovarium rectum, inclusum ; stylus breviter inclusus, apice stigmatoso exserto lineari recurvo ; ovulum ab apice pendulum. Perianthia fructifera in capitulum seu syncarpium arcte conferta et basi subconnata, pro maxima parte libera, acuta v. truncata, carnosula, fructus includentia, v. demum apice decidua fructum nudantia ; pericarpium (an endocarpium exocarpio cum perianthio concreto ?) durum, ovatum, compressiusculum, acutum. Semen conforme, testa membranacea ; albumen 0, cotyledones crasso-carnosæ, subæquales, radicula minima supera.—Arbores. Folia alterna, ampla, indivisa v. 3- v. 5-lobata partita v. foliolata, folio segmentisve argute dentatis coriaceis prominenter penniveniis subtus sæpe niveis ; stipulæ intrapetiolares, connatæ, magnæ v. breves, caducissimæ. Pedunculi ♂ repetiter dichotomi, paniculam amplam cymiformem formantes, ramulis ultimis brevibus floribus dense obtectis. Pedunculi ♀ breves, solitarii, capitulum unicum ferentes.

Species 4, Africæ tropicæ incolæ. In specie typica foliis digitatim partitis, cujus specimina florida utriusque sexus et fructus jam valde auctos a Bartero et a Mannio collecta et fructus maturos a Welwitschio accepimus, perianthia fructifera apice lata obtusissima v. retusa. In *M.* (*Dicranostachyde*, Tul.) *serrata*, foliis indivisis, fructus maturus ignotus est, sed jam post anthesin auctus perianthia ostendit apice acute prominentia. In specie altera inedita folia variant indivisa v. 3-partita, et in quarta pariter inedita 5–7-partita sunt. In omnibus florum structura eadem est. Fructus a Beauvois delineatus l. c. t. 12, evidenter ad stirpem longe alienam pertinet.

64. **Musanga,** *R. Br. App. Tuck. Congo,* 453.—Flores dioici, ♂ in capitula globosa paniculata dispositi, ♂ in massam ovatam v. obovatam conferti. Fl. ♂ : Perianthium ovoideo-tubulosum, ore truncatum. Stamen 1, filamento recto ; anthera brevis, exserta. Ovarii rudimentum 0. Fl. ♀ : Perianthium lineari-clavatum, vertice foramine minuto pertusum. Ovarium in fundo perianthii breve ; stylus filiformis, indivisus, apice stigmatoso breviter exserto acuto ; ovulum a basi erectum, orthotropum. Achænium perianthio parum aucto fibroso-carnoso apice crasso inclusum ; pericarpium crustaceum, durum, nitidum. Semen conforme, erectum, testa membranacea ; albumen tenue ; embryo rectus, cotyledonibus oblongis æqualibus, radicula brevi supera.—Arbor excelsa, habitu *Cecropiæ*. Folia alterna, longe petiolata, ampla, peltata, in segmenta 11–15 fere ad basin radiatim divisa, segmentis integerrimis subtus prominenter penniveniis, venulis transversis tenuissimis ; stipulæ magnæ, in unam intrapetiolarem connatæ, inflorescentias juniores includentes, mox deciduæ. Paniculæ ♂ ad axillas solitariæ, breviter pedunculatæ, repetito-ramosissimæ, capitulis parvis numerosissimis. Bracteæ intra capitula sub floribus minimis filiformes, apice subpeltato-dilatatæ. Spicæ ♀ ad axillas geminæ, pedunculatæ, magnæ, ovatæ v. oblongæ, compressæ, floribus minutis numerosissimis receptaculum carnosum undique densissime obtegentibus bracteis subulatis interstinctis.

Species 1, Africæ tropicæ occidentalis incola. *Benn. Pl. Jav. Rar.* 49.

65. **Coussapoa,** *Aubl. Pl. Gui.* ii. 955, *t.* 362, 363.—Flores dioici, globoso-capitati. Fl. ♂ : Perianthium tubulosum v. subclavatum, 3-dentatum 3-fidum v. 3-partitum, lobis imbricatis. Stamina 1 v. 2, filamentis connatis in columnam erectam ; antheræ ovatæ. Ovarii rudimentum 0. Fl. ♀ : Perianthium tubulosum v. clavatum, apice foramine minimo pertusum v. 3-dentatum. Ovarium inclusum ; stylus inclusus, stigmate solo exserto subpeltato penicillato-capitato indiviso ; ovulum erectum, orthotropum. Perianthia fructifera paullo aucta, apicem versus carnosula. Fructus inclusus, oblongus ; pericarpium carnosulum v. succulentum fere gelatinosum ; endocarpium crustaceum v. duriusculum, facile in valvas 2 solubile. Semen conforme, testa membranacea ; albumen 0 ; embryo rectus, cotyledonibus ovatis v. oblongis, radicula brevi supera.—Arbores

fruticesve lactescentes, nonnunquam supra arbores scandentes v. epiphytici. Folia alterna, petiolata, integerrima, coriacea, pennivenia v. 3-nervia; stipulæ interdum majusculæ, circa gemmam convolutæ, caducissimæ. Pedunculi in axillis solitarii v. gemini, ♂ sæpius dichotome paniculati, capitulis paucifloris, ♀ breviores, capitulum unicum majus v. pauca subconferta ferentes. Flores utriusque sexus in capitulis sessiles, arctissime conferti at non concreti. Bracteæ sub floribus filiformes, apice dilatatæ spathulatæ v. peltatæ.

Species enumeratæ 18, plures tamen certe reducendæ, Americæ australis inter tropicos incolæ. *Tréc. in Ann. Sc. Nat. ser.* 3, viii. 93, *t.* 1. *Walp. Ann.* i. 655. *Miq. Obs. Pl. Foche t.* 3, *et in Mart. Fl. Bras.* iv. i. 131, *t.* 42 *ad* 45. *Pœpp. et Endl. Nov. Gen. et Sp.* ii. *t.* 147.

66. **Conocephalus,** *Blum. Bijdr.* 483.—Flores dioici, globoso-capitati. Fl. ♂: Perianthium tubuloso-turbinatum, 4-fidum v. fere 4-partitum, lobis apice obtusis concavis valvatis. Stamina 4, filamentis erectis brevibus, v. perianthio longioribus; antheræ oblongæ, exsertæ. Ovarii rudimentum columnare v. clavatum. Fl. ♀: Perianthium clavato-tubulosum, angustum, obtusum, lobis 4 brevibus concavis crassiusculis. Ovarium inclusum; stylus brevis, indivisus, apice stigmatoso exserto lineari obliquo v. recurvo; ovulum a basi erectum, orthotropum. Fructus perianthio parum aucto tenuiter subcarnoso inclusus, oblongo-ovatus, compressus; pericarpium chartaceum, facile 2-valve. Semen erectum, testa membranacea; albumen pertenue v. 0; embryo rectus, cotyledonibus ovatis æqualibus, radicula brevi supera.—Frutices sæpe alte scandentes. Folia alterna, petiolata, sæpius ampla, coriacea, integerrima, subtus sæpius a basi prominenter pennivenia; stipulæ in unam intrapetiolarem connatæ. Inflorescentiæ axillares. Pedunculi ♂ sæpius ramosissimi, capitulis parvis. Capitula ♀ fructifera nunc 1–1½ poll. diametro, in pedunculo brevi subsolitaria, nunc vix ½ poll. diametro, in pedunculo plura. Flores ♂ arcte sessiles, ♀ sæpius breviter pedicellati. Adsunt etiam species 2 foliis tenuioribus angustioribus basi 3-nerviis, capitulis ♂ ad axillas 2 tantum v. paucis breviter pedunculatis, ♀ geminis brevissime pedunculatis.

Species ad 10, Indiæ orientalis et Archipelagi Malayani incolæ. *Benn. Pl. Jav. Rar.* 47, *t.* 12. *Tréc. in Ann. Sc. Nat. ser.* 3, viii. 87, *t.* 2. *Walp. Ann.* i. 654. *Miq. Fl. Ind. Bat. Suppl.* 416. *Wight, Ic. t.* 1959.

67. **Pourouma,** *Aubl. Pl. Gui.* ii. 891, *t.* 341.—Flores dioici, ♂ in glomerulos seu capitula cymoso-paniculata disposita, ♀ cymosi. Fl. ♂: Perianthium ovoideum obovoideum v. depresso-globosum, 3-4-dentatum v. lobatum, lobis subvalvatis. Stamina 3–4, filamentis erectis liberis v. basi connatis; antheræ ovatæ. Ovarii rudimentum 0. Fl. ♀: Perianthium tubulosum, crassiusculum, apice foramine minuto pertusum. Ovarium inclusum; stylus brevis, stigmate exserto peltato-discoideo dense papilloso; ovulum supra basin lateraliter affixum, ascendens, breviter amphitropum, micropyle terminali. Fructus ovoideus, perianthio aucto carnosulo v. succulento inclusus, erectus; pericarpium crustaceum v. induratum. Semen supra basin lateraliter affixum, funiculo a basi loculi erecto, apice sæpe incrassato, testa membranacea circa hilum crassiore (albumine tenui obducta ?); embryo rectus, cotyledonibus crassis oblongis, radicula supera minima.—Arbores. Folia alterna, longe petiolata, indivisa v. interdum in eadem arbore palmatim 3–5-fida v. partita, cæterum pennivenia, venis primariis parallelis valde elevatis subplicata, integerrima, coriacea, subtus sæpe nivea v. molliter tomentosa; stipulæ magnæ, in unam intrapetiolarem spathiformem connatæ, caducissimæ. Pedunculi axillares, solitarii v. gemini, utriusque sexus cymoso-ramosi. Capitula v. glomeruli ♂ numerosa. Flores ♀ secus ramulos cymæ sessiles, approximati. Fructus maturi distincti, erecti, quam in cæteris generibus sæpius multo majores.

Species enumeratæ ad 20, Americæ australis inter tropicos incolæ. *Tréc. in Ann. Sc. Nat. ser.* 3, viii. 101, *t.* 2. *Walp. Ann.* i. 656. *Miq. in Mart. Fl. Bras.* iv. i. 123, *t.* 36 *ad* 41. *Pœpp. et Endl. Nov. Gen. et Sp.* ii. *t.* 141. *Karst. Fl. Colomb.* ii. *t.* 110.

TRIBUS VII. URTICEÆ.

68. **Urtica,** *Linn. Gen. n.* 1054.—Flores monoici v. dioici, glomerulis cymulosis spicatis racemosis v. paniculatis. Fl. ♂: Perianthium alte 4-fidum, lobis ovatis apice concavis imbricatis, alabastro medio depresso. Stamina 4. Ovarii rudimentum cupuliforme. Fl. ♀: Perianthium 4-partitum, segmentis inæqualibus, exterioribus sæpius multo minoribus, interioribus planiusculis v. rarius cucullatis. Ovarium rectum. Stigma sessile v. rarius stylo brevi fultum, penicillato-capitatum, deciduum v. persistens; ovulum a basi erectum. Achænium ovatum v. oblongum, compressum, perianthio aucto membranaceo v. rarius carnosulo inclusum; pericarpium membranaceum v. tenuissime crustaceum. Semen conforme, testa membranacea, a pericarpio sæpe vix separanda; albumen parcum; cotyledones subrotundæ.—Herbæ annuæ v. perennes, rarius basi frutescentes, pilis urentibus armatæ. Folia opposita, petiolata, dentata v. inciso-lobata, 5–7-nervia v. rarius 3-nervia; stipulæ laterales, liberæ v. in unam interpetiolarem connatæ. Inflorescentiæ unisexuales v. androgynæ, in axillis geminæ, i.e. cyma sessilis 2-fida, ramis brevissimis v. longioribus simplicibus v. paniculato-ramosis. Glomeruli basi bracteati; flores singuli sæpius ebracteati.

Species ad 30, per regiones temperatas subtemperatasque utriusque orbis latissime dispersæ. *Wedd. in DC. Prod.* xvi. i. 40; *Monogr. t.* 1. *Maxim. in Bull. Acad. Petersb.* xxii. 235; *Mel. Biol.* ix. 618. *Reichb. Ic. Fl. Germ. t.* 652 *ad* 654. *Kanitz in Flora* 1872, *t.* 1. *Eichw. Pl. Cauc. Casp. t.* 39. *Wight, Ic. t.* 690. *Moris, Fl. Sard. t.* 111. *Brot. Phyt. Lusit. t.* 151. *Webb, Phytogr. Canar. t.* 210, 211. *Seub. Fl. Azor. t.* 7. *Miq. in Mart. Fl. Bras.* iv. i. *t.* 67.

Inter species *U. hyperborea*, Jacquem., insignis est caule basi lignescente, perianthii fructiferi segmentis interioribus maximis planis orbicularibus. Caulis basi lignescit etiam in *U. morifolia*, Poit., et in *U. feroce*, Forst.

69. **Hesperocnide,** *Torr. et Gr. Bot. Whipple Exped.* 83 (139).—Flores monoici, glomerulis ad axillas sessilibus androgynis. Fl. ♂: Perianthium 4-partitum, segmentis ovatis concavis levissime imbricatis, alabastro medio depresso. Stamina 4. Ovarii rudimentum obovoideo-urceolatum. Fl. ♀: Perianthium ovatum, subclausum, apice minute 2-dentatum. Ovarium rectum; stigma sessile, capitato-penicillatum, persistens; ovulum a basi erectum. Achænium ovatum, compressum, perianthio aucto membranaceo arcte inclusum; pericarpium tenue. Semen conforme, testa membranacea; albumen tenue; cotyledones suborbiculatæ.—Herbæ annuæ, habitu *Urticæ urentis*, pilis urentibus armatæ. Folia opposita, dentata v. incisa, 3–5-nervia; stipulæ laterales, liberæ. Glomerulæ seu cymulæ densæ, floribundæ. Flores minuti, ebracteati. Fructus parvi, hispidi.

Species 2, altera boreali-Americana, altera Sandwicensis. *Wedd. in DC. Prod.* xvi. i. 67.

Genus *Urticæ* valde affine, differt imprimis perianthio fœmineo minute 2-dentato, segmentis nempe intimis fere ad apicem connatis, exterioribus deficientibus, et hoc charactere *Bœhmerieis* accedit, inter quas genus primum collocatum fuit, sed lege naturali a Weddellio rite ad *Urereas* translatum videtur.

70. **Nanocnide,** *Blume, Mus. Bot. Lugd. Bat.* ii. 154, *t.* 17.—Flores monoici, cymulis masculis pedunculatis, glomerulis fœmineis sessilibus. Fl. ♂: Perianthium 4–5-lobum v. partitum, lobis segmentisve latis leviter imbricatis, dorso sub apice transverse cristatis nudisve. Stamina 4–5. Ovarii rudimentum late obovoideum v. urceolatum. Fl. ♀: Perianthium alte 4-fidum v. 4-partitum, segmentis exterioribus latiusculis carinatis, interioribus angustis planis, omnibus dorso sub apice sæpius setiferis. Ovarium rectum; stigma penicillato-capitatum, stylo brevi nunc brevissimo fultum; ovulum a basi erectum. Achænium oblongum, perianthio vix aucto laxe stipatum ab eoque facile deciduum; pericarpium tenue. Semen conforme, testa membranacea; albumen parcum; cotyledones ovatæ v. ellipticæ.—Herbæ annuæ, habitu *Urticæ* nisi tenuiores. Folia alterna, petiolata, lata, grosse dentata v. subincisa, irregulariter 3–5-nervia; stipulæ laterales, liberæ. Pedunculi ♂ filiformes, in axillis solitarii; glomeruli ♀ in iisdem v. in diversis axillis arcte

sessiles v. pedunculati. Flores utriusque sexus bractea stipati. Perianthium ♀ post achænia delapsa sæpe persistens.

Species 2, Japoniæ aliarumque insularum Asiæ orientalis incolæ. *Wedd. in DC. Prod.* xvi. i. 69; *Monogr. t.* 9.

71. **Obetia,** *Gaudich. Voy. Bonite, t.* 82.—Flores dioici, glomerulis masculis laxe cymoso-paniculatis, fœmineis subsessilibus. Fl. ♂: Perianthium 5-partitum, segmentis concavis valvatis, alabastro depresso-globoso. Stamina 5. Ovarii rudimentum obovoideo-globosum, suburceolatum. Fl. ♀ (a nobis non visi): Perianthii segmenta 4, inæqualia, latiuscula, 2 interioribus majoribus. Ovarium primum erectum, mox obliquum; stigma oblongum, mox obliquum, ex icone papillosum vix penicillatum; ovulum a basi erectum. Achænium ovatum, compressum, perianthio aucto membranaceo laxe stipatum; pericarpium tenue. Semen conforme, testa membranacea; albumen parcum; cotyledones latæ.—Frutices (v. arbores?) pilis urentibus parce præditi, ramis crassis. Folia alterna, petiolata, lata, crenata sæpeque 3–5-loba, basi cordata, 3–5-nervia, pubescenti-villosa; stipulæ laterales, fere foliaceæ, diu persistentes. Cymæ ♂ laxæ floribundæ; glomeruli ♀ fere capitati, subsessiles. Bracteæ lineares.

Species 2, Madagascarienses. *Wedd. in DC. Prod.* xvi. i. 70; *Monogr. t.* 1.

72. **Fleurya,** *Gaudich. in Freyc. Voy. Bot.* 497, *et in Voy. Bonite, t.* 83.—Flores monoici v. dioici, glomerulis paniculatis v. interrupte racemoso-spicatis. Fl. ♂: Perianthium 4–5-partitum, segmentis ovatis lanceolatisve subvalvatis v. leviter imbricatis, alabastro globoso v. depresso. Stamina 4–5. Ovarii rudimentum globosum v. subclavatum. Fl. ♀: Perianthii segmenta 4, imbricata, nunc subæqualia, nunc valde inæqualia, postico interdum cucullato, antico minimo v. deficiente. Ovarium junius rectum mox obliquum; stigma oblique ovatum v. lineare, demum uncinato-inflexum, breviter papillosum, additis interdum ad basin lobis 2 minutis; ovulum a basi erectum. Achænium obliquum, compressum, e perianthio parum aucto exsertum; pericarpium membranaceum. Semen conforme, testa membranacea; albumen vix ullum; cotyledones latæ.—Herbæ annuæ, pilis urentibus sæpe nec semper præditæ. Folia alterna, petiolata, dentata, 3-nervia, cystolithis linearibus; stipulæ in unam intrapetiolarem 2-fidam connatæ, interdum obsoletæ. Florum glomeruli unisexuales v. androgyni, paniculis spicisve in axillis solitariis. Bracteæ paucæ. Flores et præsertim fructus sæpe arcte reflexi.

Species 8, per regiones tropicas utriusque orbis late dispersæ, ultra tropicos in Africa australi extensæ. *Wedd. in DC. Prod.* xvi. i. 71; *Monogr. t.* 1. *Jacq. Hort. Schœnbr. t.* 388 (*Urtica*). *Blume, Mus. Bot. Lugd. Bat.* ii. *t.* 21. *Wight, Ic. t.* 692 (*Urtica*), 1975. *Hensl. in Ann. Nat. Hist. ser.* 1, i. *t.* 12 (*Urera*). *Saund. Refug. Bot. t.* 38.

SCHYCHOWSKYA, *Endl. in Ann. Mus. Vind.* i. 187, *t.* 13, quæ *Urtica ruderalis*, Forst., a Gaudichaudio ad *Fleuryam* relata, quoad flores ♀ et fructus cum hoc genere omnino convenit. Flores ♂ nobis desunt, ex Endlichero receptaculo longo carnoso-grumoso impositi sunt et filamenta late petaloideo-dilatata qualia in nulla alia specie *Fleuryæ* adhuc observata sunt.

73. **Sceptrocnide,** *Maxim. in Bull. Acad. Imp. Petersb.* xxii. 238; *Mel. Biol.* ix. 623. —Flores monoici, glomerulis cymulisve longe racemosis v. ♂ paniculatis. Fl. ♂: Perianthium 5-partitum, segmentis ovatis subvalvatis, alabastro depresso. Stamina 5, filamentis ad medium perianthio adnatis apice in alabastro inflexis, per anthesin porrectis exsertis. Ovarii rudimentum globosum. Fl. ♀: Perianthii segmenta 4, demum valde inæqualia, 2 interioribus ovalibus planis, 2 exterioribus minimis. Ovarium primum rectum, mox obliquum; stigma lineare, uno latere villosum, persistens; ovulum a basi erectum. Achænium oblique rotundatum, compressum, stipiti horizontali incumbens, toro aucto laminiformi lateraliter affixum, perianthii segmentis exterioribus fere obtectum v. lateraliter exsertum; pericarpium tenue. Semen conforme, testa membranacea; albumen sat copiosum; cotyledones latæ.—Herba elata, stimulis validis adspersa. Folia alterna, petiolata, ampla, grosse dentata, pennivenia; stipulæ laterales, parvæ, caducæ. Racemi ♀ in axillis superioribus tenues longi (sæpe subpedales), florum fasciculis seu

cymulis numerosis laxe paucifloris secus rhachin dissitis. Inflorescentiæ ♂ a nobis non visæ, ex Maximoviczio in axillis inferioribus sitæ quam ♀ breviores ramosæque. Bracteæ 0.

Species 1, Japonica, habitu et characteribus plerisque *Laporteæ canadensi*, Gaud., valde affinis.

74. **Laportea,** *Gaudich. in Freyc. Voy. Bot.* 498.—Flores monoici v. dioici, glomerulis v. cymulis dichotome paniculatis, rarius racemosis. Fl. ♂: Perianthium 4–5-partitum, segmentis ovatis subvalvatis v. leviter imbricatis, alabastro depresso. Stamina 4–5. Ovarii rudimentum clavatum v. subglobosum. Fl. ♀: Perianthii lobi v. segmenta 4, nunc subæqualia nunc valde inæqualia, exterioribus minoribus uno sæpe minuto v. deficiente. Ovarium primum rectum, mox obliquum; stigma lineare, sæpius elongatum, uno latere papillosum, demum sæpe reflexum; ovulum a basi erectum. Achænium obliquum, plano-compressum v. leviter ventricosum, perianthio membranaceo immutato v. vix aucto basi stipatum, et nonnunquam toro oblique producto breviter stipitatum; pericarpium membranaceum v. carnosulum. Semen conforme, testa membranacea; albumen tenuissimum v. 0; cotyledones latæ.—Herbæ perennes frutices v. arbores, pilis urentibus sæpius præditæ. Folia alterna, sæpe ampla, dentata rarius integerrima, pennivenia rarius 3-nervia; stipulæ distinctæ v. in unam intrapetiolarem plus minus connatæ, deciduæ. Paniculæ ad axillas solitariæ, cymoso-dichotomæ v. rarius ad racemum simplicem reductæ, unisexuales v. rarissime androgynæ, ♀ in axillis superioribus sæpe valde elongatæ, ♂ inferiores sæpius breviores densiores et ramosiores. Flores et præsertim fructus sæpe reflexi. Bracteæ paucæ v. 0.

Species ad 25, per regiones calidiores orbis veteris late dispersæ, paucæ in America boreali extratropica v. in Mexico vigentes, in America australi desunt. *Wedd. in DC. Prod.* xvi. i. 78; *Monogr. t.* 2. *Blume, Mus. Bot. Lugd. Bat.* ii. *t.* 23. *Maxim. in Bull. Acad. Petersb.* xxii. 237; *Mel. Biol.* ix. 622.

Genus e Weddellio in sectiones 4 sequentes dividitur:—

1. *Discocarpus.* Species 2 Mexicanæ v. Americæ centralis, fruticosæ v. arborescentes, achænio magno planissimo tenuiter membranaceo disciformi insignes. Discocarpus, *Liebm. in K. Dansk. Vidensk. Selsk. Skrift. ser.* 5, ii. 308, *non Kl.*

2. *Sclepsion.* Species typicæ generis, habitu et patria variæ. *Wight, Ic. t.* 689 (*Urtica*), 1972.

3. *Sarcopus.* Species 4 Australienses v. insularum maris Pacifici, pedicellis fructiferis botuliformi-incrassatis. *Benth. Fl. Austral.* vi. 191. *Seem. Fl. Vit. t.* 59.

4. *Dendrocnide.* Floris ♀ perianthii segmenta subæqualia. Species 6, Asiaticæ, inclusa *L. crenulata*, Wight, Ic. t. 686 (*Urtica*); Gaudich. Voy. Bonite t. 81 (*L. latifolia*); Bedd. Fl. Sylv. t. 306; Seem. Fl. Vit. t. 60, cui achænium utrinque leviter ventricosum pericarpio carnosulo et sic *Ureræ* accedente. Dendrocnide, *Miq. in Pl. Jungh.* i. 29.

75. **Urera,** *Gaudich. in Freyc. Voy. Bot.* 496.—Flores dioici v. rarius monoici, glomerulis laxe paniculatis. Fl. ♂: Perianthium 4–5-partitum, segmentis ovatis leviter imbricatis, alabastro depresso. Stamina 4–5. Ovarii rudimentum globosum v. fere cupuliforme. Fl. ♀: Perianthii lobi v. segmenta 4, subæqualia v. exteriora minora. Ovarium rectum v. obliquum; stigma subsessile, penicillato-capitatum v. rarissime sublanceolatum, persistens; ovulum a basi erectum. Achænium rectum v. obliquum, compressum v. ventricosum, perianthio aucto carnosulo v. baccato alte stipatum v. inclusum; pericarpium tenuiter crustaceum. Semen conforme, testa membranacea; albumen parcissimum v. 0; cotyledones latæ.—Frutices v. arbusculæ rarius suffrutices, pilis urentibus sæpius conspersi. Folia alterna, integerrima dentata v. lobata, pennivenia v. 3–5-nervia; stipulæ liberæ v. in unam intrapetiolarem plus minus connatæ. Paniculæ dichotome cymosæ v. irregulariter ramosæ, unisexuales, in axillis v. ad nodos vetustiores solitariæ, breviter longiusve pedunculatæ. Bracteæ parvæ v. 0.

Species 18, Americæ et Africæ tropicæ necnon insularum Mascarensium et maris Pacifici incolæ, in Asia tropica deesse videntur. *Wedd. in DC. Prod.* xvi. i. 89; *Monogr. t.* 2. *Jacq. Hort. Schœnbr. t.* 386, 387 (*Urtica*). *Blume, Mus. Bot. Lugd. Bat.* ii. *t.* 22. *Miq. in Mart. Fl. Bras.* iv. i. *t.* 66.

Species 5 ex Africa tropica et insulis Mauritianis caulem præbent frutescentem scandentemque. In his includimus Scepocarpum, *Wedd. in DC. Prod.* xvi. i. 98, ex specimine fructifero solo notum.

Perianthium fructiferum nobis omnino idem videtur quod in *U. obovata*, ore sæpius vix dentato, achænio brevissime exserto; interdum vero perianthium fere ad basin in segmenta 2 v. 3 dividitur, quod etiam de *U. acuminata* aliisque prædicatur. Inflorescentia ♀ stimulis quasi involucrata, etc. omnino *U. obovatæ*, a qua *Scepocarpus* specifice differt foliorum forma, et indumento.

76. **Gyrotænia,** *Griesb. in Mem. Amer. Acad. ser.* 2, viii. 174.—Flores dioici, dense glomerato-spicati, rhachi fructifera carnoso-dilatata. Fl. ♂: Perianthium 4-partitum, segmentis latis imbricatis, alabastro depresso. Stamina 4. Ovarii rudimentum subglobosum, umbilicatum. Fl. ♀: Perianthium parvum, 2-lobum. Ovarium rectum; stigma sessile, penicillato-capitatum; ovulum a basi erectum. Achænium oblique ovatum, compressum, basi perianthio immutato stipatum; pericarpium crustaceum v. tenuiter carnosulum. Semen conforme, testa membranacea; albumen parcum; cotyledones latæ.—Frutices v. arbusculæ (stimulis nullis?). Folia alterna, dentata v. integerrima; basi 3-nervia; stipulæ parvæ, laterales, liberæ, caducæ. Spicæ axillares, sessiles v. subsessiles, rarius breviter ramosæ. Flores secus rhachin glomerati v. glomerulis confluentibus densissime conferti. Fructus in rhachi carnosa numerosissimi, minimi.

Species 3, Indiæ occidentalis incolæ. *Wedd. in DC. Prod.* xvi. i. 99.

77. **Girardinia,** *Gaudich. in Freyc. Voy. Bot.* 498.—Flores dioici v. monoici, dense spicati. Fl. ♂: Perianthium 4–5-partitum, segmentis valvatis, alabastro subumbilicato. Stamina 4–5. Ovarii rudimentum globosum v. cupulatum. Fl. ♀: Perianthium ovoideo-tubulosum, apice 2–3-dentatum, per anthesin usque ad basin uno latere fissum subspathaceum, addito interdum segmento (v. bractea?) altero parvo fere setiformi. Ovarium rectum; stigma subulatum, acutum, minutissime papillosum, demum vix obliquum; ovulum a basi erectum. Achænium latum, valde compressum, perianthio haud v. parum aucto unilateraliter stipatum; pericarpium crassiusculum, interdum subduplex, exteriore membranaceo, interiore tenuiter cartilagineo. Semen conforme, testa membranacea; albumen tenuissimum v. 0; cotyledones latæ.—Herbæ elatæ, basi interdum frutescentes, pilis v. aculeis urentibus sæpius crebris armatæ. Folia alterna, grosse serrata v. varie lobata, 3-nervia; stipulæ in unam intrapetiolarem sæpius latiusculam foliaceam connatæ. Spicæ simplices v. paniculato-ramosæ, ad axillas solitariæ v. geminæ, ♂ sæpius longæ, tenues, floribus secus rhachin glomeratis, ♀ sessiles, densissimæ, pilis aculeisve rhacheos flores superantibus creberrimisque horridæ, breves globosæ v. oblongæ, v. elongatæ apiceque subscorpioideæ.

Species 7, Asiæ et Africæ tropicæ incolæ. *Wedd. in DC. Prod.* xvi. i. 100; *Monogr. t.* 2. *Dcne. in Jacquem. Voy. Bot. t.* 153. *Wight, Ic. t.* 687 (*Urtica*). *Bl. Mus. Bot. Lugd. Bat.* ii. *t.* 49.

78. **Pilea,** *Lindl. Collect. t.* 4. (Dubreuilia, *Gaudich. in Freyc. Voy. Bot.* 495. Adike, *Rafin. ex Wedd.*)—Flores monoici v. dioici, ad axillas cymulosi. Fl. ♂: Perianthium 4-partitum, rarius 2–3-partitum, segmentis concavis carnosulis subvalvatis interdum in cupulam truncatam connatis, dorso sæpe mucronatis v. appendiculatis. Stamina 4, rarius 2 v. 3. Ovarii rudimentum conicum v. oblongum. Fl. ♀: Perianthium 3-partitum, segmentis inæqualibus, majore interdum dorso gibboso v. cucullato. Staminodia segmentis opposita, squamiformia, nunc minuta v. inconspicua. Ovarium rectum; stigma sessile, breviter penicillatum; ovulum a basi erectum. Achænium ovatum v. orbiculare, compressum, parum obliquum, perianthio vix v. parum aucto stipatum v. subinclusum; pericarpium membranaceum. Semen conforme, testa tenui; albumen vix ullum; cotyledones latæ.—Herbæ annuæ v. perennes, rarius basi frutescentes, interdum repentes v. diffusæ. Folia opposita, cujusve paris æqualia v. valde inæqualia, integerrima v. dentata, 3-nervia v. subenervia; stipulæ in unam intrapetiolarem connatæ. Cymæ ad axillas solitariæ, nunc dense capituliformes nunc laxe paniculato-ramosæ, sessiles v. pedunculatæ. Bracteæ parvæ, rarissime paucæ majores.

Species ad 160, per regiones tropicas utriusque orbis late dispersæ, in Australia tamen desunt. *Wedd. in DC. Prod.* xvi. i. 105; *Monogr. t.* 6 *ad* 8. *Blume, Mus. Bot. Lugd. Bat.* ii. *t.* 18. *Miq. Fl. Ind. Bat.* i. ii. *t.* 17, *et in Mart. Fl. Bras.* iv. i. *t.* 68 *ad* 70. *Baker, Fl. Maurit.* 274. *Maxim. in Bull. Acad. Petersb.* xxii. 242; *Mel. Biol.* ix. 629. *Wight, Ic. t.* 1973, 1974. *Bot. Mag. t.* 2481 2567 (*Urtica*).

79. **Achudenia**, *Blume, Mus. Bot. Lugd. Bat.* ii. 57, *t.* 20.—Flores polygami, glomerulis laxe cymosis. Fl. ♂ : Perianthium 5-partitum, segmentis inæqualibus subimbricatis apice dorso minute appendiculatis. Stamina 5. Ovarii rudimentum minutum. Fl. ♀ : Perianthium 5-partitum, segmentis parum inæqualibus. Staminodia squamiformia, parva v. perianthio vix dimidio breviora. Ovarium subobliquum; stigma sessile, villosiusculum; ovulum a basi erectum. Achænium compressum, perianthio persistente laxe inclusum; pericarpium tenuiter crustaceum. Semen erectum, testa membranacea; albumen carnosum; cotyledones ovatæ.—Herbæ teneræ, ramosæ, diffusæ v. repentes. Folia opposita, petiolata, cujusve paris inæqualia, grosse dentata, 3-nervia; stipulæ intrapetiolares, deciduæ. Cymæ ad axillas longe pedunculatæ, parvæ densæque v. laxe divaricatæ, floribus masculis fœmineis et rarius hermaphroditis in iisdem glomerulis mixtis.

Species 2, typica Javanica, a nobis non visa. *Wedd. DC. in Prod.* xvi. i. 163; altera Japonica, *Maxim. in Bull. Acad. Petersb.* xxii. 241; *Mel. Biol.* ix. 627.

Genus primo intuitu *Nanocnidem* refert, sed foliis oppositis florumque structura facile dignoscendum.

80. **Lecanthus**, *Wedd. in Ann. Sc. Nat. ser.* 4, i. 187, *et in DC. Prod.* xvi. i. 164; *Monogr. t.* 9.—Flores monoici v. dioici, receptaculo lato discoideo insidentes. Fl. ♂ : Perianthium 4–5-partitum, segmentis parum inæqualibus membranaceis leviter imbricatis apice dorso leviter gibbosis, alabastro obconico. Stamina 4–5. Ovarii rudimentum parvum. Fl. ♀ : Perianthium 3-partitum, segmentis inæqualibus planiusculis v. magis minusve cucullatis. Staminodia parva, squamiformia. Ovarium rectiusculum; stigma penicillatum, deciduum; ovulum a basi erectum. Achænium rectum, parum compressum, perianthio persistente laxe stipatum eoque longius; pericarpium crassiuscule membranaceum. Semen conforme, testa membranacea; albumen haud copiosum; cotyledones latæ.—Herba annua v. perennis habitu *Urticæ* v. *Pileæ*, inflorescentia *Elatostematis*. Folia opposita, petiolata, membranacea, serrato-dentata, 3-nervia; stipulæ in unam intrapetiolarem connatæ. Receptacula in axillis solitaria, pedunculata, primum late subcampanulata, mox discoideo-expansa, floribus masculis fœmineisque in eodem receptaculo mixtis v. in diversis separatis. In capitulis ♀ flores nonnulli sæpe adsunt steriles, longe pedicellati, ovario mox abortiente staminodiis auctis.

Species 1, Indiæ orientalis incola. *Royle, Ill. Himal. Bot. t.* 83 (*Procris peduncularis et P. obtusa*). *Wight, Ic. t.* 1985 (*Elatostemma*).

81. **Pellionia**, *Gaudich. in Freyc. Voy. Bot.* 494, *t.* 119.—Flores dioici v. monoici, dense cymosi v. subcapitati. Fl. ♂ : Perianthium 5- rarius 4-partitum, segmentis obtusis membranaceis imbricatis sub apice dorso mucrone v. cornu appendiculatis. Stamina 5, rarius 4. Ovarii rudimentum parvum. Fl. ♀ : Perianthii segmenta 5, rarius 4, æqualia v. inæqualia, nuda v. in flore sterili dorso appendiculata. Staminodia squamiformia, inflexa, nunc minuta v. 0. Ovarium rectum; stigma sessile, penicillatum; ovulum a basi erectum. Achænium compressum v. subteres, perianthio persistente immutato stipatum v. aucto vestitum; pericarpium membranaceum. Semen conforme, testa membranacea; albumen parcissimum; cotyledones ovatæ.—Herbæ basi sæpe repentes, rarius suffrutescentes. Folia specie alterna, disticha, breviter petiolata v. subsessilia, basi valde inæqualia, latere minori apicem rami spectante, integerrima v. dentata, addito sæpius altero nano sublaterali sæpe altius affixo, vix vere opposito; stipulæ intrapetiolares indivisæ, parvæ v. obsoletæ; folia omnia perfecte opposita in speciminibus nostris non deteximus. Florum cymæ ad axillas solitariæ, sessiles v. pedunculatæ, dense floribundæ, nunc in capitulum depressum contractæ, nunc divergentim ramosiores, rhachi vix dilatata nec in receptaculum disciformem expansa. Flores ♂ et ♀ in iisdem v. in diversis cymis; steriles evidentius pedicellati, sepalis appendiculatis, in capitulis fœmineis cum floribus fertilibus subsessilibus sæpe mixti; in speciebus nonnullis flores ♂ in cymas laxas ad axillas superiores pedunculatas dispositi, ♀ in axillis inferioribus dense capitati, capitulis arcte sessilibus.

Species 15, Asiæ tropicæ et orientalis usque ad Japoniam, v. insularum maris Pacifici incolæ. *Wedd. in DC. Prod.* xvi. i. 165; *Monogr. t.* 5, 6. *Maxim. in Bull. Acad. Petersb.* xxii. 244; *Mel. Biol.* ix. 632.

In *P. umbellata*, Wedd., seu *Elatostemate umbellato*, Blume, Mus. Bot. ii. t. 19, bracteæ flores ♂ stipantes fere in involucrum connatæ sunt, et species quasi medium tenet inter *Pellioniam* et *Elatostema*, a Maximowiczio ad *Elatostema* revocatur.

POLYCHROA, *Lour. Fl. Cochinch.* 559, ab Endlichero ad *Amarantum* relata, est ex auctoris descriptione verisimiliter *Pelloniæ* species, *P. brevifoliæ*, Benth., valde affinis, in China inculta, et ob pulchritudinem foliorum versicolorum culta, speciminibus tamen nullis a botanicis recentioribus visis haud tuto determinanda.

82. **Elatostema,** *Forst. Char. Gen.* 105, *t.* 53. (Langeveldia, *Gaudich. in Freyc. Voy. Bot.* 494.)—Flores monoici v. dioici, depresso-capitati, receptaculo demum lato discoideo v. lobato insidentes. Fl. ♂: Perianthium 4–5-partitum, segmentis membranaceis v. fere hyalinis leviter imbricatis, dorso sub apice sæpe tuberculatis v. breviter appendiculatis. Stamina 4–5. Ovarii rudimentum parvum. Fl. ♀: Perianthium e segmentis 3–5 parvis angustis v. omnino deficiens. Staminodia parva, squamiformia, interdum desunt. Ovarium rectum; stigma sessile, parce penicillatum, mox evanidum; ovulum a basi erectum. Achænium ovatum v. ellipsoideum, compressum, sæpe striatum, perianthio dum adsit immutato stipatum; pericarpium membranaceum. Semen conforme, testa membranacea; albumen sæpius 0; cotyledones ovatæ.—Herbæ annuæ v. perennes, rarius basi lignosæ. Folia specie alterna, sessilia v. breviter petiolata, disticha, basi valde inæquilatera, margine angustiore rami apicem spectante, grosse serrata v. rarius integerrima, 3–5-nervia, addito interdum altero nano stipuliformi opposito reflexoque v. laterali et erectiore; stipulæ intrapetiolares, indivisæ. Flores prima juventute receptaculo globoso clausoque v. campanulato ore coarctato inclusa, demum receptaculo varie expanso discoideo lobato v. partito insidentes, sessiles v. breviter pedicellati, in quoque receptaculo unisexuales. Receptacula e rhachibus cymæ dilatatis confluentibusque constantia, in axillis solitaria gemina v. rarius plura, sessilia v. pedunculata. Bracteæ intra capitulum sæpe præsertim in ♂ late membranaceæ flores singulos includentes, in capitulo ♀ sæpius lineares v. parvæ. Filamenta in flore ♂ interdum nec semper segmentis alte adnatæ.

Species ad 50, per Asiam et Africam intra tropicos late dispersæ, in Asia orientali usque ad Japoniam extensæ. *Wedd. in DC. Prod.* xvi. i. 171; *Monogr. t.* 9, 10. *Maxim. in Bull. Acad. Petersb.* xxii. 245; *Mel. Biol.* ix. 634. *Wight, Ic. t.* 1983, 1984, 2091. *Brongn. in Duperr. Voy. Coq. Bot. t.* 45, 46. *Seem. Fl. Vit. t.* 61.

83. **Procris,** *Juss. Gen. Pl.* 403. (Sciophila, *Gaudich. in Freyc. Voy. Bot.* 493, *t.* 120. Sciobia, *Reichb. ex Endl. Gen. Suppl.* iv. ii. 37.)—Flores monoici v. dioici, ♂ glomerati receptaculo parvo, ♀ capitati receptaculo subgloboso carnoso. Fl. ♂: Perianthium 5- v. rarius 4-partitum, segmentis membranaceis valvatis v. vix levissime imbricatis exappendiculatis. Stamina 5, rarius 4. Ovarii rudimentum oboveideum. Fl. ♀: Perianthium sub anthesi minimum, cyathiforme v. 3–4-partitum. Ovarium rectum; stigma sessile, penicillatum, mox evanidum; ovulum a basi erectum. Achænium ovatum, perianthii segmentis auctis carnosulis fere obtectum v. e perianthio minimo exsertum; pericarpium rigide membranaceum v. subcrustaceum. Semen conforme, testa tenuiter membranacea; albumen 0 (v. parcissimum?); cotyledones ovatæ.—Suffrutices v. frutices, interdum epiphytici, caule sæpe succulento. Folia alterna, in speciebus typicis breviter petiolata, basi valde inæquilatera, integerrima v. leviter serrata, carnosula, pennivenia; stipulæ intrapetiolares, indivisæ. Inflorescentiæ axillares v. ad nodos defoliatos, in speciebus typicis glomeruli ♂ laxe cymosi, capitula ♀ majuscula solitaria subsessilia. In *P. grandi* folia longe petiolata ampla æquilatera, stipulis integris interdum magnis. In *P. lævigata* capitula ♀ uti glomeruli ♂ parva, globosa, ad nodos fasciculata, breviter pedunculata.

Species 5 v. 6, Asiæ et Africæ tropicæ et insularum Mascarensium et maris Pacifici incolæ. *Wedd. in DC. Prod.* xvi. i. 191; *Monogr. t.* 6. *Hook. Ic. Pl. t.* 1295.

84. **Bœhmeria,** *Jacq. Stirp. Amer.* 246, *t.* 157. (Splitgerbera, *Miq. Comm. Phytogr.* 133, *t.* 14. Duretia, *Gaudich. in Freyc. Voy. Bot.* 500 *in adnot.*)—Flores monoici v. dioici, utriusque sexus globoso-glomerati. Fl. ♂ : Perianthium 4-lobum v. 4-partitum, rarius 3- v. 5-partitum, lobis segmentisve ovatis valvatis dorso sub apice mucronatis v. muticis. Stamina 4, rarius 3 v. 5. Ovarii rudimentum clavatum v. subglobosum. Fl. ♀ : Perianthium tubulosum, compressum v. ventricosum, ore sæpius contracto 2–4-dentato, fructiferum interdum auctum in angulos 2 acutos v. alatos dilatatum v. intus cellulosum. Ovarium inclusum, sessile v. stipitatum ; stigma elongato-filiforme, uno latere pilosum, diu persistens nec in ovario articulatum ; ovulum a basi erectum. Achænium perianthio marcescente inclusum eique haud raro accretum ; pericarpium tenuiter crustaceum, dum liberum extus nitidum. Semen conforme, testa tenuiter membranacea ; albumen varium ; cotyledones ellipticæ v. ovatæ.—Arbusculæ frutices v. suffrutices, magis minusve pubescentes. Folia opposita v. alterna, æqualia v. inæquilatera, dentata et rarius 2-loba, 3-nervia ; stipulæ liberæ v. rarius intra petiolum basi connatæ, deciduæ. Florum glomeruli fere semper unisexuales, ad axillas v. ad nodos v. secus rhachin spicæ v. ramos cymæ paniculiformis sessiles. Bracteæ parvæ, scariosæ.

Species ad 45, regionum calidiorum utriusque orbis incolæ, pleræque tropicæ, in America tamen a Chile usque ad Americam borealem et in Asia orientali usque ad Japoniam extensæ. *Wedd. in DC. Prod.* xvi. i. 196 ; *Monogr. t.* 11. *Maxim. in Bull. Acad. Petersb.* xxii. 249 ; *Mel. Biol.* ix. 639. *Benth. Fl. Austral.* vi. 184. *Jacq. Hort. Vind. t.* 166. *Bonpl. Jard. Malm. t.* 15. *Endl. Iconogr. t.* 86. *Blume, Mus. Bot. Lugd. Bat.* ii. *t.* 13, 56. *Hook. Kew Journ.* iii. *t.* 8. *Wight, Ic. t.* 688, *et* 691 (*Urtica*), *t.* 1977 (*Splitgerbera*). *Miq. in Mart. Fl. Bras.* iv. i. *t.* 64, 65.

85. **Chamabaina,** *Wight, Ic.* vi. 11, *t.* 1981.—Flores monoici v. dioici, utriusque sexus globoso-glomerati. Fl. ♂ : Perianthium alte 4-lobum, segmentis valvatis dorso sub apice gibbosis mucronatisve. Stamina 4. Ovarii rudimentum clavatum. Fl. ♀ : Perianthium tubulosum, compressum, ore contracto minute 4-dentato. Ovarium inclusum ; stigma patens, ovatum, fimbriatum, stylo brevi fultum ; ovulum a basi erectum. Perianthium fructiferum crassiuscule membranaceum, turbinatum, vertice planum subclausum. Achænium inclusum, compressiusculum ; pericarpium rigidulum. Semen conforme, testa tenuiter membranacea ; albumen parcum ; cotyledones ovatæ.—Herba diffusa, tenuis, basi radicans. Folia opposita, petiolata, dentata, 3-nervia ; stipulæ intrapetiolares geminæ, latæ, membranaceo-scariosæ, in axillis floriferis glomerulos juniores includentes, inflorescentia perfecta sub glomerulis persistentes. Glomeruli ad axillas sessiles, superiores masculi, inferiores sæpius fœminei. Flores sessiles v. breviter pedicellati v. masculi nonnulli longius pedicellati.

Species 1, montium Indiæ orientalis incolæ. *Wedd. in DC. Prod.* xvi. i. 218 ; *Monogr. t.* 12.

86. **Pouzolzia,** *Gaudich. in Freyc. Voy. Bot.* 503.—Flores monoici, rarius dioici, ad axillas glomerulati. Fl. ♂ : Perianthium 4–5-lobum v. partitum, rarius 3-partitum, segmentis valvatis apice nunc concavis nunc abrupte inflexis dorsoque transverse plicatis. Stamina 4–5, rarius 3. Ovarii rudimentum clavatum v. oblongum. Fl. ♀ : Perianthium tubulosum, sæpe rostratum, ore contracto 2–4-dentato. Ovarium inclusum ; stigma filiforme, uno latere villosum, cito deciduum ; ovulum a basi erectum. Achænium perianthio marcescente aucto v. vix mutato inclusum, ab eo sæpius liberum ; pericarpium nitidum, fragile. Semen conforme, testa tenuiter membranacea ; albumen perparcum v. 0 ; cotyledones ovatæ.—Herbæ suffrutices v. frutices. Folia alterna v. inferiora rarissime omnia opposita, sæpius integerrima, 3-nervia, superiora gradatim minora, summa interdum in bracteas abeuntia ; stipulæ liberæ, sæpe persistentes. Florum glomeruli unisexuales v. androgyni, ad axillas sessiles. Flores plus minus pedicellati. Bracteæ parvæ.

Species ad 48, regionum tropicarum utriusque orbis incolæ, in America tamen pauciores. *Wedd. in DC. Prod.* xvi. i. 219 ; *Monogr. t.* 13. *Benth. Fl. Austral.* vi. 186.

Pouzolzia a Weddellio in genera duo dividitur, quæ tamen characteribus vix constantibus separantur et potius pro sectionibus duabus sequentibus habenda :—

1. *Pouzolzia.* Foliorum nervi primarii sæpius ramosi ; perianthii ♂ lobi dorso convexi v. gibbi

nec transverse plicati. *Blume, Mus. Bot. Lugd. Bat.* ii. *t.* 58. *Wight, Ic. t.* 1980, 2098 *ad* 2101. Huc includit Weddell genera sequentia a variis proposita. LEPTOCNIDE, *Blume, Mus. Bot. Lugd. Bat.* ii. 193, *t.* 57, species Malayana, foliis dentatis insignis, et STACHYOCNIDE, *Blume l.c.* 227, *t.* 55, species Luzonica florum glomerulis in racemum longum terminalem aphyllum ut in *Distemate* dispositis. MARGAROCARPUS, *Wedd. in Ann. Sc. Nat. ser.* 4, i. 203 (LEUCOCOCCUS, *Liebm. in K. Dansk. Vid. Selsk. ser.* 5, ii. 311), species Americanæ perianthio fructifero nec costato nec alato. ELKANIA, *Schlecht. in Pl. Ind. Hohenack., distrib.*, species Nilgherica, floribus laxe cymosis insignis.

2. *Memorialis.* Folia integerrima, nervis 3 primariis simplicibus; perianthii ♂ lobi sæpius (nec semper) abrupte inflexi, dorso transversim angulati v. subplicati, alabastro truncato. *Wight, Ic. t.* 1978, 1979, 2092 *ad* 2097. *Benn. Pl. Jav. Rar. t.* 14. GONOSTEGIA, *Turcz. in Bull. Soc. Imp. Nat. Mosc.* 1846, ii. 509. MEMORIALIS, *Hamilt. in Wall. Cat. Herb. Ind. n.* 4598 *et* 4601. *Wedd. in DC. Prod.* xvi. i. 235². HYRTANANDRA, *Miq. Pl. Jungh.* i. 25.

87. **Distemon,** *Wedd. Monogr. Urt.* 550, *t.* 20, *et in DC. Prod.* xvi. i. 235⁶².—Flores monoici, glomerulis parvis androgynis. Fl. ♂: Perianthium campanulatum, 2-fidum rarius 3-fidum, lobis inflexis acuminatis subvalvatis, alabastro acutiusculo. Stamina 2, rarius 3. Ovarii rudimentum lanatum. Fl. ♀: Perianthium tubuloso-ventricosum, ore contracto minute dentato. Ovarium inclusum, perianthio plus minus adnatum; stigma lineare, deciduum; ovulum a basi erectum. Perianthium fructiferum incrassatum, extus fere carnosum, strato interiore indurato. Achænium arcte inclusum, perianthio subadhærens sed maturum facile solvendum; pericarpium tenue, fragile. Semen conforme, testa tenuiter membranacea; albumen sat copiosum; cotyledones latæ.—Herba perennis, habitu *Eudroguetiæ* v. *Pouzolziæ* (*Stachyocnides*). Folia alterna, petiolata, grosse dentata; stipulæ laterales, liberæ. Florum glomeruli ad apices ramorum laxe spicati, foliis floralibus ad bracteas reductis, sub quaque bractea solitarii, exinvolucrati, floribus in glomerulo 1–2 fœmineis, 2 v. paucis masculis. Spica terminalis, elongata, interdum breviter ramosa, et spicæ breviores sæpe in axillis foliorum superiorum adsunt.

Species 1, Indiæ orientalis incola. Genus a Weddellio sub *Forskohlieis* enumeratum, sed flores masculos sæpe 3-meros invenimus, nec unquam ad segmentum stamenque unicum reductos et ovarii rudimentum semper adest.

88. **Cypholophus,** *Wedd. in Ann. Sc. Nat. ser.* 4, i. 198, *in DC. Prod.* xvi. i. 235⁹; *Monogr. t.* 12.—Flores monoici v. dioici, utriusque sexus dense globoso-glomerati. Fl. ♂: Perianthium 4-partitum, segmentis valvatis, dorso sub apice mucronatis nudisve. Stamina 4. Ovarii rudimentum obovoideum. Fl. ♀: Perianthium tubuloso-ventricosum, ore contracto 2-dentato v. inæqualiter 4-dentato. Ovarium rectum, inclusum; stigma breviter v. longius lineare, recurvum, latere exteriore papilloso-piloso v. longe fimbriato; ovulum a basi erectum. Achænium perianthio carnosulo v. subbaccato arcte vestitum; pericarpium crustaceum, superne sæpe crassum, induratum. Semen conforme, testa tenuiter membranacea; albumen sat copiosum; cotyledones ellipticæ.—Arbores fruticesve. Folia opposita, petiolata, serrata, 3-nervia, sæpe (nec semper) bullato-rugosissima, in pari æqualia v. valde disparia; stipulæ liberæ, deciduæ. Florum glomeruli ad axillas v. ad nodos inferiores arcte sessiles, sæpius densissimi, caulem demum amplectentes. Flores ♂ sæpe pedicellati, caducissimi, ♀ sessiliores.

Species 9, Archipelagi Malayani et insularum maris Pacifici incolæ. *Blume, Mus. Bot. Lugd. Bat.* ii. *t.* 48 (*Bœhmeria*). *Seem. Fl. Vit. t.* 62 (*Bœhmeria*).

89. **Touchardia,** *Gaudich. Voy. Bonite, t.* 94.—Flores dioici, utriusque sexus dense globoso-glomerati. Fl. ♂: Perianthium 5-partitum, segmentis membranaceis subimbricatis sub apice dorso leviter mucronatis. Stamina 5. Ovarii rudimentum clavatum. Fl. ♀: Perianthium alte 4-lobum, lobis 2-seriatim imbricatis apice incrassatis concavisque. Ovarium rectum, inclusum; stigma brevissimum v. oblongum, uno latere papilloso-penicillatum, stylo brevi fultum; ovulum a basi erectum. Achænium perianthio carnosulo laxe inclusum, compressiusculum, pericarpium fragile. Semen conforme, testa tenuiter membranacea; albumen mediocre; cotyledones ovatæ.—Frutex elatus, glaber. Folia alterna, longe petiolata, maxima, dentata, penninervia et basi sub-3-nervia; stipulæ magnæ, in unam intrapetiolarem connatæ. Florum glomeruli stricte globosi, ramos

paucos paniculæ lateralis terminantes, v. uno alterove secus ramum paniculæ sessili. Flores in glomerulo fere sessiles, bracteis parvis scariosis.

Species bene nota 1, insularum Sandwicensium incola. *Wedd. in DC. Prod.* xvi. i. 235[13]; *Monogr. t.* 13, et forte alteram legit Moseley in insulis Admiralty, foliis pariter maximis, glomerulis masculis irregularibus subcarnosis, structura in speciminibus nostris vix accurate scrutanda.

90. **Sarcochlamys,** *Gaudich. Voy. Bonite, t.* 89.—Flores dioici, tenuiter glomerato-spicati. Fl. ♂: Perianthium 5-partitum, segmentis membranaceis concavis leviter imbricatis, alabastro depresso. Stamina 5. Ovarii rudimentum parvum. Fl. ♀: Perianthium sub anthesi ovoideo-campanulatum, ore contracto inæqualiter 4-lobum, post anthesin uno latere gibboso-accretum ore sublaterali. Ovarium obliquum; stigma sessile, parvum, penicillatum; ovulum a basi erectum. Achænium obliquum, perianthio carnoso inclusum; pericarpium membranaceum. Semen conforme, testa crustacea (nisi endocarpio crustaceo adnata?); albumen vix ullum; cotyledones ovatæ.—Frutex. Folia alterna, petiolata, angusta, dentata, eleganter rugosa, 3-nervia, subtus nivea; stipulæ intrapetiolares, basi connatæ. Inflorescentiæ axillares, florum ♂ glomerulis secus ramos arcte sessilibus, spicas tenues plus minus interruptas formantes; flores ♀ densiores, secus ramos in spicas continuas irregulariter cylindraceas conferti.

Species 1, Indiæ orientalis et Peninsulæ Malayanæ incola. *Wedd. in DC. Prod.* xvi. i. 235[14]; *Monogr. t.* 16.

91? **Poikilospermum,** *Zipp.*; *Miq. in Ann. Mus. Lugd. Bat.* i. 203.—Flores dioici, capitato-cymulosi, cymulis laxe cymosis. Fl. ♂: Perianthium 4-partitum, segmentis apice inflexis subvalvatis, alabastro depresso-globoso. Stamina 4. Ovarii rudimentum parvum. Fl. ♀ (nobis non visi): Perianthium obconico-subcampaniforme, ore minutissime 4-denticulatum, ovarium arcte includens, fructiferum carnosum, achænii basin cupulæ specie amplectens. Stigma sessile, capitellato-peltatum, minute papillosum; ovulum a basi erectum. Achænium e perianthio persistente carnoso exsertum, epicarpio carnosulo, endocarpio subcrustaceo. Semen conforme, albuminosum.—Frutex? ramis novellis adpresse pubescentibus. Folia alterna, magna, petiolata, integerrima, pennivenia et basi subtrinervia; stipulæ intrapetiolares, deciduæ. Inflorescentiæ ad axillas v. nodos defoliatos breviter pedunculatæ, ♂ dichotome cymosæ ramosissimæ densiores et breviores quam ♀. Bracteæ ovatæ, coloratæ, sub axibus primariis diutius persistentes. (*Char. fl.* ♀ *et inflorescentiæ ex Miq.*)

Species 1, Amboinensis, *Wedd. in DC. Prod.* xvi. i. 235[15], a Weddellio non visa et nobis e specimine imperfecto non satis nota, ulterius cum *Conocephalo* comparanda.

92. **Neraudia,** *Gaudich. in Freyc. Voy. Bot.* 500, *t.* 117, *et Voy. Bonite, t.* 133.—Flores dioici, glomerulis dense capitatis ad axillas sessilibus. Fl. ♂: Perianthium 4-partitum, segmentis acutis valvatis, alabastro ovoideo v. acuminato. Stamina 4. Ovarii rudimentum longe lanatum. Fl. ♀: Perianthium tubulosum, basi ventricosum, apice attenuatum, ore contracto sub-4-dentato, fructiferum plus minus auctum carnosum. Ovarium rectum, inclusum; stigma lineare, supra ovarium articulatum, villosum, deciduum nisi in ore perianthii retentum; ovulum a basi erectum. Achænium perianthio carnosulo arcte inclusum, depressum, basi circumcirca incrassatum v. in lobulos seu cornua 4 dilatatum; epicarpium carnosulum, endocarpium crustaceum. Seminis testa endocarpio adnata; albumen parcum; cotyledones ovatæ.—Frutices, teste Gaudichaudio lactescentes. Folia alterna, petiolata, integerrima, 3-nervia, supra interdum creberrime punctulata, cystolithis parum conspicuis; stipulæ parvæ, intrapetiolares. Florum capitula utriusque sexus ad axillas solitaria, arcte sessilia.

Species v. varietates insignes 2 v. 3, insularum Sandwicensium incolæ. *Wedd. in DC. Prod.* xvi. i. 235[16]; *Monogr. t.* 12.

Folia variant subtus sericea v. fere glabra, creberrime punctulata v. epunctata. Perianthium fructiferum nunc valde auctum circa achænium laxum, nunc minus auctum achænio maturo subappressum. Flores ♂ in alabastro obtusiusculi v. acuminati. Achænia basi 4-cornuta v. annulo continuo cincta, sed ex speciminibus nostris species bene limitatas distinguere nequimus.

93. **Pipturus,** *Wedd. in Ann. Sc. Nat. ser.* 4, i. 196, *et in DC. Prod.* xvi. i. 235[16]; *Monogr. t.* 15. (Nothocnide, *Blume, Mus. Bot. Lugd. Bat.* ii. *t.* 14. Prætoria, *Baill. Etud. Euph.* 470, *t.* 11.)—Flores dioici v. rarius monoici, dense globoso-glomerati. Fl. ♂: Perianthium 4–5-fidum, lobis ovatis acutis valvatis. Stamina 4–5. Ovarii rudimentum lanatum. Fl. ♀: Perianthium ovoideum, apice attenuatum, ore contracto minute dentato, fructiferum tenuiter carnosulum. Ovarium inclusum, perianthio adhærens; stigma lineare, exsertum, uno latere villosum, deciduum; ovulum a basi erectum. Receptaculum sub fructibus globosum, leviter carnosum v. siccum, sæpe villosulum. Achænium perianthio parum aucto herbaceo v. carnosulo arcte inclusum, a quo tamen sæpius liberum; pericarpium rigide membranaceum v. tenuiter crustaceum. Semen conforme, testa tenuiter membranacea; albumen perparcum; cotyledones latæ.—Arbores fruticesve elati, rarius scandentes. Folia alterna, integerrima v. crenato-serrata, 3–5-nervia, subtus sæpe canescentia; stipulæ in unam intrapetiolarem bifidam coalitæ, caducissimæ. Florum glomeruli nunc ad axillas sessiles solitarii, nunc spicati, secus rhachin simplicem v. ramosam dissiti sessilesque. Bracteæ minimæ.

Species 8, insularum Mascarensium Archipelagi Malayani et maris Pacifici et Australiæ incolæ. *Benth. Fl. Austral.* vi. 185.

94. **Villebrunea,** *Gaudich. Voy. Bonite, Bot. t.* 91, 92. (Oreocnide, *Miq. Pl. Jungh.* i. 39.)—Flores dioici, dense capitato-glomerati, receptaculo fructifero parvo. Fl. ♂: Perianthium 4-partitum, segmentis ovatis acutis valvatis v. vix imbricatis, alabastro subgloboso. Stamina 4. Ovarii rudimentum obovato-clavatum. Fl. ♀: Perianthium tubulosum, ovario adnatum, ore contracto minute dentato. Stigma sessile, parvum v. discoideum, margine longe ciliato-penicillatum; ovulum a basi erectum. Achænium perianthio tenuiter carnosulo arcte adnatum; pericarpium subcrustaceum. Semen rectum, sæpe acuminatum, testa tenuiter membranacea; albumen varium; cotyledones ovatæ v. latæ. —Arbores fruticesve. Folia alterna, petiolata, integerrima v. crenulata, pennivenia v. 3-nervia; stipulæ in unam intrapetiolarem bifidam connatæ. Florum glomeruli seu capitula parva, solitaria, v. plura in cymam dichotomam laxiusculam disposita. Bracteæ sub capitulis parvæ v. breviter lineares; bracteolæ (?) intra capitulum sæpe nec semper sub fructu auctæ, in cupulam crasso-carnosam integerrimam interdum fructum ipsum æquantem accretæ.

Species ad 8, Indiæ orientalis, Archipelagi Malayani et Asiæ orientalis usque ad Japoniam incolæ. *Blume, Mus. Bot. Lugd. Bat.* ii. *t.* 15. *Wedd. in DC. Prod.* xvi. i. 235[20]; *Monogr. t.* 15.

V. rhodopleura, Bl., ex specimine Zippeliano videtur *Debregeasiæ* species vix a *D. velutina* distincta.

95. **Debregeasia,** *Gaudich. Voy. Bonite, t.* 90. (Morocarpus, *Sieb. et Zucc. Fl. Jap. Fam. Nat.* ii. 94.)—Flores monoici v. dioici, dense glomerato-capitati, receptaculo ♀ leviter carnoso-incrassato. Fl. ♂: Perianthium 4-partitum, rarius 3- v. 5-partitum, segmentis ovatis valvatis v. apice leviter imbricatis, alabastro depresso-globoso. Stamina 4, rarius 3 v. 5. Ovarii rudimentum glabrum v. basi lanatum. Fl. ♀: Perianthium ovoideum v. obovoideum, ore contracto minutissime dentato, fructiferum succulentum. Ovarium rectum, inclusum; stigma sessile v. in *D. Wallichiana* stylo distincto fultum, pilis paucis v. brevibus mox evanidis penicillatum; ovulum a basi erectum. Achænium perianthio succulento arcte inclusum eique subadnatum; pericarpium crustaceum, demum sæpe solutum. Semen conforme, testa membranacea; albumen copiosum v. parcum; cotyledones parvæ, latæ.—Frutices. Folia alterna, petiolata, serrato-crenata, 3-nervia, rugosa, subtus sæpissime nivea v. cinerea; stipulæ in unam intrapetiolarem 2-fidam connatæ. Florum glomeruli globosi, ad axillas v. nodos defoliatos in *D. hyalina*, Wedd., arcte sessiles, in *D. velutina*, Gaud., in cymas sessiles breviter dichotomas dispositi, in *D. Wallichiana* in cymas laxas longe pedunculatas. Bracteæ in glomerulis ♂ scariosæ.

Species 5, Abyssiniæ, Indiæ orientalis, Archipelagi Malayani et Asiæ orientalis usque ad Japoniam incolæ. *Wedd. in DC. Prod.* xvi. i. 235[21]; *Monogr. t.* 14, 15. *Blume, Mus. Bot. Lugd. Bat.* ii. *t.* 16 (*Morocarpus*). *Wight, Ic. t.* 1959 (*Conocephalus*). *Ferr. et Galin. Voy. Abyss. t.* 17 (*Bœhmeria*).

LEUCOCNIDE, Miq. in Pl. Jungh. i. 36, species continet plures ab auctore ipso postea ad *Morocarpum* (*Debregeasiam*) v. ad *Leucosykem* relatas.

96. **Leucosyke,** *Zoll. et Mor. in Moritz. Verz. Pl. Zoll.* 76. (Missiessia, *Gaudich. Voy. Bonite, t.* 93.)—Flores sæpius dioici, globoso-glomerati v. capitati, receptaculo fructifero carnosulo. Fl. ♂: Perianthium 4–5-partitum, segmentis valvatis. Stamina 4–5. Ovarii rudimentum glabrum v. breviter lanatum. Fl. ♀: Perianthium cupuliforme, sæpius breve, 4–5-dentatum v. lobatum. Ovarium oblique ovoideum, sæpe compressum; stigma sessile, penicillatum v. longe papillosum; ovulum a basi erectum, 'micropyle sæpius infundibuliformi-ampliata fimbriataque et summo loculo cohærente' (*Wedd.*). Achænium perianthio persistenti vix v. non aucto insidens, quo multo longius, ovatum, plus minus compressum; pericarpium crustaceum, extus interdum tenuissime carnosulum. Semen conforme, testa tenuiter membranacea; albumen parcum; cotyledones ellipticæ. —Arbusculæ v. frutices. Folia alterna, sæpe disticha, petiolata, crenato-serrata v. vix integerrima, 3-nervia, subtus canescentia; stipulæ in unam intrapetiolarem 2-fidam v. fere integram nunc maximam connatæ. Florum glomeruli globosi, ad axillas sessiles v. pedunculati, solitarii v. 2–4-ni, interdum brevissime racemosi nec cymosi. Bracteæ in glomerulis ♂ scariosæ.

Species 9, Archipelagi Malayani et insularum maris Pacifici australis incolæ. *Wedd. in DC. Prod.* xv. i. 235[26]; *Monogr. t.* 15 (*Missiessia*). *Blume, Mus. Bot. Lugd. Bat.* ii. *t.* 24 (*Touchardia*).

97. **Maoutia,** *Wedd. in Ann. Sc. Nat. ser.* 4, i. 193, *et in DC. Prod.* xvi. i. 235[30]; *Monogr. t.* 16. (Lecanocnide, *Blume, Mus. Bot. Lugd. Bat.* ii. *t.* 12.)—Flores monoici v. dioici, glomerato-capitati, receptaculo ♀ parvo. Fl. ♂: Perianthium 5-partitum, segmentis acutis valvatis v. vix apice inflexo-imbricatis, alabastro depresso-globoso. Stamina 4. Ovarii rudimentum dense lanatum. Fl. ♀: Perianthium ad basin ovarii minutum obliquum v. 0. Ovarium rectum; stigma parvum v. capitellatum, penicillatum, sessile v. stylo brevi fultum; ovulum a basi erectum. Achænium ovatum, compressum v. subtrigonum, perianthio minuto impositum v. omnino nudum; pericarpium crustaceum v. leviter induratum, extus interdum tenuissime carnosulum. Semen conforme, testa membranacea; albumen parcum; cotyledones ellipticæ v. oblongæ.—Frutices. Folia alterna, petiolata, crenato-serrata, 3-nervia, subtus nivea; stipulæ in unam intrapetiolarem 3-fidam connatæ. Florum glomeruli parvi, secus ramulos paniculæ axillaris sessiles v. ramulos terminantes. Bracteæ in glomerulis ♂ parvæ, scariosæ.

Species 8, Indiæ orientalis, Archipelagi Malayani et insularum maris Pacifici incolæ.

98. **Myriocarpa,** *Benth. Bot. Sulph.* 168, *t.* 55.—Flores dioici, rarius monoici, gracillime racemosi v. spicati. Fl. ♂: Perianthium 4–5-partitum (rarius 3-partitum, *Wedd.*), segmentis latis obtusis imbricatis. Stamina 4–5. Ovarii rudimentum glabrum, oblongum v. late peltatum. Fl. ♀: Perianthium 0, nisi bracteæ 2 sub ovario oppositæ additis interdum 2 minimis pro sepalis habendæ. Ovarium supra bracteas sessile v. breviter stipitatum, compressum; stigma oblique oblongum v. fere semilunare, villoso-papillosum, stylo conspicue fultum; ovulum a basi erectum. Achænium ovoideum, compressum, marginibus sæpe incrassatis; pericarpium tenuiter crustaceum. Semen conforme, testa tenuiter membranacea; albumen parcum; cotyledones ovatæ.—Arbusculæ v. frutices. Folia alterna, sæpius ampla, petiolata, dentata, pennivenia et sub-3-nervia, cystolithis circa pilorum bases v. rudimenta insigniter radiantibus; stipulæ intrapetiolares, in unam sæpe alte 2-fidam connatæ. Spicæ v. racemi ad axillas v. nodos defoliatos solitariæ v. subfasciculatæ, sæpius ramosæ. Flores secus rhachin ramosque filiformes interdum longissimos sparsi, ♂ sæpius sessiles denseque conferti, ♀ laxiores, sessiles v. pedicellati, sæpius numerosissimi. Ovaria et achænia pilis rigidulis hispida.

Species 6, Americæ tropicæ a Brasilia usque ad Mexicum incolæ. *Wedd. in DC. Prod.* xvi. i. 235[34]; *Monogr. t.* 16.

99. **Phenax,** *Wedd. in Ann. Sc. Nat. ser.* 4, i. 191, *in DC. Prod.* xvi. i. 235[36]; *Monogr. t.* 16.—Flores monoici, rarius dioici, in axillis dense glomerati. Fl. ♂: Perianthium campanulatum, supra medium in lobos 4, rarius 3 v. 5, divisum, lobis latis sæpe inflexis valvatis v. leviter imbricatis, alabastro globoso v. apice truncato. Stamina 4, rarius 3 v. 5. Ovarii rudimentum subglabrum v. breviter lanatum, interdum basi cum basibus filamentorum in columnam brevem connatum. Fl. ♀: Perianthium 0 (ovario undique arcte adnatum, limbo nullo prominente, *Blume*). Ovarium intra bracteam sessile v. in stipitem brevem contractum, compressum; stigma elongatum, tenue, uno latere papillo-villosum, diu persistens; ovulum a basi erectum. Achænium compressiusculum; pericarpium tenuiter crustaceum v. submembranaceum. Semen conforme, testa membranacea; albumen parcum v. sat copiosum; cotyledones ovatæ.—Suffrutices v. frutices tenues, sæpe diffusi. Folia alterna, petiolata, crenata v. serrata, 3–5-nervia, sæpe rugosa; stipulæ liberæ. Florum glomeruli ad axillas arcte sessiles, bracteis ferrugineo-scariosis latis imbricatis; flores ♂ breviter pedicellati, ♀ subsessiles, singuli bracteis arcte inclusi.

Species 10, Americæ tropicæ incolæ, quarum una etiam in Mauritio et Malacca invenitur an inquilina? *Blume, Mus. Bot. Lugd. Bat.* ii. *t.* 54. *Jacq. Eclog. t.* 135 (*Bœhmeria*).

100. **Parietaria,** *Linn. Gen. n.* 1152. (Freirea *et* Thaumuria, *Gaudich. in Freyc. Voy. Bot.* 502.)—Flores polygami, ad axillas cymosi v. glomerati. Perianthium florum ☿ et ♂ alte 4-lobum, rarius 3-lobum, lobis valvatis, in flore ♀ basi evidentius tubulosum, lobis brevioribus. Stamina 4, rarius 3. Ovarium intra perianthium liberum, in flore ♂ rudimentum glabrum; stigma breviter v. rarius longius lineare, recurvum, dense penicillatum, sessile v. stylo fultum, deciduum; ovulum a basi erectum. Achænium perianthio persistente varie aucto sæpe cylindraceo herbaceo inclusum; pericarpium tenuiter crustaceum. Semen conforme, testa membranacea; albumen sat copiosum; cotyledones ovatæ v. oblongæ.—Herbæ annuæ v. perennes, sæpius diffusæ, pube sæpe e pilis hamatis præhensilibus. Folia alterna, petiolata, integerrima, 3-nervia v. triplinervia, sæpe parva; stipulæ 0. Florum cymulæ densæ v. glomeruli ad axillas sæpius gemini, sessiles. Bracteæ exteriores nunc basi plus minus in involucrum sub glomerulo 3- v. paucifloro connatæ, nunc in cymula laxiore varie connatæ v. liberæ, fructibus semper plus minus ex involucro protrusis.

Species ad 8, per regiones temperatas utriusque orbis late dispersæ, inter tropicos rariores, quarum plures inter se habitu simillimæ in herbariis valde confusæ. *Wedd. in DC. Prod.* xvi. i. 235[42]; *Monogr. t.* 17. *Gærtn. Fruct. t.* 119. *Nees, Gen. Fl. Germ. Monochl. n.* 29. *Reichb. Ic. Fl. Germ. t.* 651. *Ledeb. Ic. Fl. Ross. t.* 22. *Sibth. Fl. Græc. t.* 154. *Delile, Fl. Ægypt. t.* 50. *Webb, Phytogr. Canar. t.* 214.

101. **Gesnouinia,** *Gaudich. in Freyc. Voy. Bot.* 502.—Flores monoici, fœmineus cum 2 masculis in involucro basi tubuloso, involucris glomeratis, glomerulis paniculatis. Fl. ♂: Perianthium 4-partitum, segmentis apice inflexis subvalvatis breviter acuminatis. Stamina 4. Ovarii rudimentum acuminatum, basi lanatum. Fl. ♀: Perianthium ovoideum, involucri tubo inclusum eique basi adnatum, breviter 4-dentatum. Ovarium rectum, inclusum; stigma lineare, stylo brevi fultum, uno latere papillosum; ovulum a basi erectum. Achænium perianthio et involucri tubo inclusum; pericarpium tenuiter membranaceum. Semen conforme, testa membranacea, vix a pericarpio solvenda; albumen tenue; cotyledones ovatæ.—Arbuscula patule ramosa, ramulis foliisque novellis canopilosis. Folia alterna, petiolata, majuscula, acuminata, integerrima, 3-nervia et pennivenia; stipulæ 0. Paniculæ in axillis superioribus ramosæ, floribundæ, interdum folia excedentes. Involucrorum glomeruli secus ramulos paniculæ dissiti, numerosi; involucra ipsa basi tubuloso-campanulata circa fructum leviter incrassata, lobis sæpius 6 angustis inæqualibus tubo longioribus.

Species 1, ins. Canariensium incola. *Wedd. in DC. Prod.* xvi. i. 235[50]. *L'Hér. Stirp. Nov. t.* 20 (*Urtica*). *Webb, Phytogr. Canar. t.* 213 (*Parietaria*). *Jacq. Fragm. t.* 5 (*Bœhmeria*).

Species altera in Prodromo memorata, *Parietaria filamentosa*, Webb, Phytogr. Canar. t. 212, nobis tam habitu quam characteribus melius *Parietariæ* quam *Gesnouiniæ* convenire videtur.

Involucra 3-flora in aliis speciebus *Parietariæ* observantur, et flos ♀ et fructus e tubo involucri exsertus etiam in *P. filamentosa*. Stigma parum tantum longius et tenuius quam in flore ♀ *P. officinalis* a Weddellio in Monogr. t. 17, fig. 4, delineatur.

102. **Helxine,** *Req. in Ann. Sc. Nat. ser.* 1, v. 384. (Soleirolia, *Gaudich. in Freyc. Voy. Bot.* 504; *Voy. Bonite, t.* 114.)—Flores monoici, in axillis solitarii. Fl. ♂: Involucrum sub flore e bracteis 3 angustis. Calyx campanulatus, semi-4-fidus, lobis acuminatis valvatis, alabastro depresso. Stamina 4. Ovarii rudimentum parvum, lanatum. Fl. ♀: Involucri bracteæ in tubum plus minus connatæ, acuminatæ, dorso carinatæ v. fere alatæ ciliatæque. Perianthium involucro inclusum, tubulosum, breviter et anguste 4-fidum. Ovarium rectum; stigma penicillatum, stylo brevi fultum; ovulum a basi erectum. Achænium ovatum, nitidum, perianthio involucroque inclusum; pericarpium tenuiter crustaceum. Semen conforme, testa membranacea; albumen tenue; cotyledones ovatæ. —Herba tenella, diffuse ramosissima, basi repens, ramis filiformibus. Folia alterna, parva, integerrima, rotundata; stipulæ 0. Involucra ad axillas breviter pedicellata v. subsessilia, superiora mascula, inferiora pauca fœminea.

Species 1, Corsicæ et Sardiniæ incola. *Wedd. in DC. Prod.* xvi. i. 235[51]; *Monogr. t.* 18. *Viv. App. Fl. Cors.* 7, *f.* 1 (*Parietaria*).

103. **Rousselia,** *Gaudich. in Freyc. Voy. Bot.* 503; *Voy. Bonite, t.* 98.—Flores monoici, ad axillas ♂ racemulosi, ♀ gemini 2-bracteati. Fl. ♂: Perianthium 4-partitum, segmentis acutis valvatis, alabastro globoso. Stamina 4. Ovarii rudimentum basi lanatum. Fl. ♀: Perianthium ovatum, ore contracto 2–4-dentato. Ovarium rectum; stigma filiforme, curvulum, uno latere papilloso-plumosum; ovulum a basi erectum. Achænium compressum, ovatum, acutum, nitidum, perianthio aucto bracteaque vestitum; pericarpium fragile. Semen conforme, testa membranacea; albumen parcum; cotyledones ovatæ. —Herba perennis, tenera, diffusa, ramosissima; habitu *Parietariæ*. Folia alterna, parva, late ovata, integerrima, paucivenia et subtrinervia; stipulæ parvæ, liberæ. Cymulæ ♀ 2-floræ, ad axillas sessiles; bracteæ 2, latæ, foliaceæ, inter se liberæ sed demum floribus arcte adnatæ. Pedunculus ♂ ex eadem axilla, in speciminibus nostris vix floribus ♀ longior, apice racemulum fere in umbellam contractum pauciflorum ferens, floribus minimis breviter pedicellatis, singulis bractea parva lineari subtensis.

Species 1, Indiæ occidentalis incola. *Wedd. in DC. Prod.* xvi. i. 235[51]; *Monogr. t.* 18. Racemulum masculum laxum qualem a Gaudichaudio delineatur non vidimus, brevissimum invenimus ut a Weddellio depictum, sed ex iisdem axillis quam flores fœminei.

104. **Hemistylis,** *Benth. Pl. Hartw.* 123.—Flores monoici, ♂ glomerato-spicati, ♀ gemini, bracteis 2 involucrati. Fl. ♂: Perianthium 4-partitum, segmentis acutis valvatis, alabastro subgloboso. Stamina 4. Ovarii rudimentum parvum, glabrum v. basi lanatum. Fl. ♀: Perianthium ovoideum, ore contracto 2–4-dentato, fructiferum compressum, 2-carinatum v. 2-alatum. Ovarium inclusum; stigma filiforme, curvum, breviter papillosum, deciduum; ovulum a basi erectum. Achænium perianthio aucto arcte inclusum cui basi sæpe accretum, ovoideo-conicum; pericarpium nitidum fragile. Semen conforme, testa membranacea; albumen tenue; cotyledones latæ.—Arbusculæ v. frutices. Folia alterna, longe petiolata, lata, integerrima v. dentata, 3-nervia; stipulæ liberæ. Spicæ ad axillas solitariæ v. geminæ, rhachi pro maxima parte glomerulis ♂ numerosis confertis obtecta, bracteis sub glomerulis parvis. Involucra ♀ prope basin spicæ sæpius pauca, subsessilia, e bracteis 2 latis basi sæpe connatis et utrinque segmento anguste auctis composita; flores intra bracteas gemini, sessiles, nunc distincti bracteolis parvis stipati, nunc arcte contigui perianthiis fructiferis connatis. In una specie involucra ♀ numerosa, spicis a ♂ distinctis paniculatis.

Species 4, Colombianæ. *Wedd. in DC. Prod.* xvi. i. 235[52]; *Monogr. t.* 18.

Genus *Bœhmerieas* cum *Parietarieas* arcte connectens, forte melius inter priores recensendum. Habitus *Bœhmeriæ* ipsius.

105. **Forskohlea,** *Linn. Mant. n.* 1262. (Forskalea, *Juss. Gen.* 403. Caidbeja,

Forsk. Fl. Æg. Arab. 82.)—Flores monoici, intra involucrum tubuloso-campanulatum 3–6-partitum aggregati, lana densa involuti. Fl. ♂ in ambitu involucri ∞ : Perianthium in alabastro clavatum, per anthesin hinc fissum irregulariter 3-lobum v. 3-dentatum, lobo terminali inflexo. Stamen 1. Ovarii rudimentum 0. Fl. ♀ in centro involucri 1–5: Perianthium 0. Ovarium rectum; stigma filiforme, papilloso-hispidum, diu persistens; ovulum a basi erectum. Achænia involucro inclusa, lana involuta, ovata, compressa; pericarpium crassiusculum. Semen conforme, testa membranacea; albumen parcum v. 0; cotyledones latæ.—Herbæ basi interdum lignescentes, tenues, pube rigida sæpius incana scaberrimæ. Folia alterna, dentata, triplinervia, subtus sæpe incana; stipulæ laterales, liberæ. Involucra ad axillas sæpius plura, extus longe sericeo-pilosa, bracteis nunc a basi liberis nunc breviter connatis. Flores ♂ pedicellati, ex involucro sæpius breviter prominentes, ♀ sessiles arcte inclusi.

Species 5, inter se non semper facile distinguendæ, Africæ totius, Arabiæ et Indiæ orientalis provinciarum occidentalium incolæ, etiam in Hispania australi obviæ. *Wedd. in DC. Prod.* xvi. i. 235[55]; *Monogr. t.* 19. *Jacq. Hort. Vind. t.* 48. *Webb, Otia Hisp. t.* 44.

106. **Droguetia,** *Gaudich. in Freyc. Voy. Bot.* 505; *Voy. Bonite, t.* 114.—Flores monoici, in involucro late campanulato dentato aggregati. Fl. ♂ in ambitu involucri ∞ : Perianthium in alabastro clavatum, per anthesin hinc fissum et inæqualiter 3-lobum v. 3-dentatum. Stamen 1. Ovarii rudimentum 0. Fl. ♀ in centro involucri 1 v. pauci: Perianthium 0. Ovarium rectum; stigma filiforme, papilloso-hispidum, diu persistens; ovulum a basi erectum. Achænia involucro inclusa, lanata v. nuda, ovata, compressa; pericarpium crassiusculum. Semen conforme, testa membranacea; albumen varium; cotyledones ellipticæ.—Herbæ quam in *Forskohlea* teneriores, virides v. scabro-pubescentes. Folia ovata, serrata, triplinervia; stipulæ laterales, liberæ. Involucra quam in *Forskohlea* sæpius minora, tomento brevi scabro pubescentia, ad axillas foliorum v. bractearum solitaria v. plura conferta, subsessilia. Flores intra involucrum sessiles.

Species 4, Africæ tropicæ et australis Madagascariæ et Indiæ orientalis incolæ. *Wedd. in DC. Prod.* xvi. i. 235[57]; *Monogr. t.* 19.

Genus *Forskohleæ* nimis affine, in sectiones 2 distinctissimas dividitur:—

1. *Didymogyne,* foliis oppositis, involucris omnibus axillaribus interdum geminis pluribusve. Species Africanæ et Indicæ *Forskohleæ* arcte affines. *Wight, Ic. t.* 1982 (*Forskohlea*). Didymogyne, *Wedd. in Ann. Sc. Nat ser.* 4, i. 207.

2. *Eudroguetia,* foliis alternis, involucris in axillis solitariis superioribus v. omnibus in spicam terminalem dispositis, foliis floralibus ad bracteas parvas reductis. Species 2, Mascarenses, *D. leptostachya,* Wedd. (foliis lapsu calami oppositis dictis), et *D. Thouarsiana,* Gaud. Voy. Bonite, t. 86, 87.

107. **Australina,** *Gaudich. in Freyc. Voy. Bot.* 505.—Flores monoici, ad axillas glomerati, exinvolucrati. Fl. ♂: Perianthium clavatum, hinc fissum v. irregulariter dentatum, demum sæpe explanatum bracteiforme. Stamen 1. Ovarii rudimentum 0. Fl. ♀: Perianthium ovato-tubulosum, ore contracto obscure dentato. Ovarium inclusum, rectum; stigma lineare, sæpe breve, uno latere villosum v. fere penicillatum, persistens v. evanidum; ovulum a basi erectum. Achænium perianthio parum aucto crassiuscule membranaceo v. fere carnosulo arcte inclusum, eique interdum adhærens; pericarpium tenue, nitidulum. Semen conforme, testa tenuiter membranacea pericarpio subadhærente; albumen perparcum; cotyledones ovatæ.—Herbæ diffusæ, annuæ v. perennes. Folia alterna, petiolata, dentata v. minora subintegerrima; stipulæ laterales, liberæ. Florum glomeruli in axillis sessiles, unisexuales v. androgyni; bracteæ 1–2 exteriores interdum majores latioresque sed vix involucrum formantes.

Species ad 5, Australiæ et Africæ australis incolæ. *Wedd. in DC. Prod.* xvi. i. 235[59]; *Monogr. t.* 20. *Benth. Fl. Austral.* vi. 189.

Didymodoxa, *E. Mey. MS.*, species Africanas annuas continet quas ab Australianis perennibus generice distinguit Weddell in DC. Prod. xvi. i. 235[61]; et Monogr. 547 t. 20, ob glomerulos androgynos et flores ♀ perianthio destitutos. Glomeruli tamen etiam in Australianis sæpe androgyni sunt, et

perianthium verum nobis adesse videtur in Capensibus. Flores fructusque plures in speciminibus Dregeanis et Burchellianis examinavimus, et ovarium intra perianthium stigmate coronatum vidimus, perianthio ipso interdum acumine brevi nec stylo coronato.

A. flaccida, Wedd., ex Abyssinia, foliis oppositis videtur potius *Droguetiæ* species, *D. paucifloræ* affinis, sed flores in speciminibus nostris haud perfecti.

Tribus VIII. Thelygoneæ.

108. **Thelygonum,** *Linn. Gen. n.* 1068 (Theligonum). (Cynocrambe, *Gærtn. Fruct.* i. 362, *t.* 75.)—Flores monoici, ad axillas 1–3-ni. Fl. ♂ : Perianthium in alabastro globosum membranaceum clausum, per anthesin valvatim 2-partitum, segmentis patentibus latis 5-nervibus. Stamina in centro floris ∞ (sæpius 7–12, ex A. DC. 2–20), filamentis liberis filiformibus; antheræ jam in alabastro erectæ, lineares, prope basin dorsifixæ. Ovarii rudimentum 0. Fl. ♀ : Perianthium membranaceum, valde oblique lageniforme, tubo basi circa ovarium globoso, fere a basi uno latere in collum ascendens tubulosum basi constrictum apice minute 2–4-dentatum producto. Staminodia 0. Ovarium tubo globoso inclusum, basi prope collum perianthii affixum, stylus basilaris, e collo perianthii exsertus, filiformis, fere a basi papilloso-pilosulus; ovulum a basi erectum, mox a stylo averse incurvum, micropyle terminali. Nux subglobosa, perianthii tubo tenuissime membranaceo (interdum adnato v. deliquescente) inclusa, collo marcescente v. demum evanescente; pericarpium tenuiter crustaceum. Semen sessile, a basi erectum, ambitu pericarpio conforme sed valde curvum sinu a latere inferiore profunde intruso hippocrepiforme v. quasi 2-lobum; testa tenuiter membranacea, dorso pericarpio subadhærens, in latere inferiore seminis et intra sinum laxior; albumen dense carnosum, semini conforme; embryo in centro albuminis pariter curvus, albumine paullo brevior, cotyledonibus planis ellipticis sibimet applicitis, radicula incumbenti-incurva a basi seminis aversa.—Herba annua, procumbens, ramosa, carnosula. Folia inferiora opposita, superiora defectu unius cujusve paris alterna, breviter petiolata, ovata, integerrima, succulenta; stipulæ liberæ. Florum cymulæ sessiles, folio oppositæ (ad axillam folii oppositi abortientis). Flores ♂ 2–3-ni, subsessiles, ebracteolati, mox caduci, ♀ ex eodem v. diverso nodo 1–3-ni, v. in axillis gemini, pedicellis brevibus obconicis post anthesin calloso-incrassatis fulti, bracteolis 2 stipati, sub anthesin minuti. Nuces maturæ vix lineam excedunt diametro.

Species 1, per regionem Mediterraneam late dispersa. *A. DC. Prod.* xvii. 33 (*Cynocrambe*). *Nees, Gen. Fl. Germ. Monochl. n.* 69. *Caruel in Nuov. Giorn. Bot. Ital.* v. 165, *t.* 1. *Sibth. Fl. Gr. t.* 941. *Delile in Ann. Sc. Nat. ser.* 1, xix. 370, *t.* 13.

Genus olim ob stationem sæpe maritimam et habitum carnosulum *Chenopodiaceis* adscriptum, sed florum et præcipue seminum structura longe distat, a nonnullis pro ordine proprio habetur. In omnibus tamen cum tribu *Urticearum* convenit, exceptis staminibus indefinitis erectisque, quæ præterea in sola *Ampelocera* e tribu *Celtidearum* observantur, et embryone curvo, in tribu *Celtidearum* constante, in *Moreis* minus frequente, in *Urticeis* nondum noto.

De foliorum dispositione et evolutione confer Irmisch in Flora 1856, 689. Delile l. c. cystolithos in exocarpio observatos descripsit sub nomine *aiguilles crystallines*. Hic auctor flores fœmineos dixit masculis præcociores; contra, ex Caruel, qui pariter plantam vivam in loco natali observavit, flores fœminei post masculos delapsos in eadem axilla evolvuntur.

Ordo CLIV. PLATANACEÆ.

Endl. Gen. 289. Lindl. Veg. Kingd. 272.

Flores monoici, in capitulis unisexualibus globosis densissime conferti, receptaculo carnoso impositi. *Perianthium* 0. Capitula ♂: *Antheræ* numerosæ, in receptaculo subsessiles, singulæ squamella minuta subtensæ, oblongæ v. fere lineares, loculis 2 parallelis dorso appositis longitudinaliter dehiscentibus, connectivo apice peltato superatis. Capitula ♀: *Carpella* numerosa, omnia distincta at sæpe per 2–8 obscure fasciculata, subsessilia, bracteolis linearibus v. brevibus hinc inde intermixta. *Ovarium* lineare, 1-loculare, in stylum elongatum superne uno latere stigmatosum productum. *Ovulum* 1 (v. rarius 2 uno abortiente), ex apice loculi pendulum, orthotropum. *Capitula fructifera* aucta cæterum florentibus similia. *Carpella* singula basi linearia pilis longis circumdata, superne calloso-incrassata, sigillatim decidua, indehiscentia. *Semen* in carpello unicum, pendulum, lineare, testa membranacea. *Albumen* in seminibus examinatis tenue (interdum deficere dicitur). *Embryo* linearis, rectus, cotyledonibus sibimet applicitis vix radicula infera latioribus eique subæquilongis.

Arbores cortice sæpius in squamas latas quotannis deciduo. Folia alterna, petiolata, lata, palmatinervia lobataque, petiolo basi dilatato gemmam includente. Stipulæ membranaceæ, caducæ. Florum capitula secus pedunculum terminalem v. e gemma laterali oriundum pauca, sessilia, in eodem pedunculo unisexualia. Receptaculum utriusque sexus leviter foveolatum et minute squamellatum. Bracteolæ cæterum in capitulo ♂ 0, in capitulo ♀ sub fasciculis v. interdum sub floribus singulis lineares, floribus æquilongæ v. breviores, in capitulo fructifero sæpius evanidæ (an exsiccatæ an delapsæ incertum est).

Species 5–6, regionum temperatarum v. subtropicarum hemisphærii borealis utriusque orbis incolæ, quarum 2 Europææ orientales v. Asiaticæ, 2 Americanæ.

Ordo e genere unico constans nulli arcte proximus, etsi pluribus notis *Urticaceis* conveniat. Inflorescentia *Artocarpearum* et *Morearum* nonnullarum. Ovulum orthotropum, albumen perparcum, et embryo *Conocephalearum* et *Urticearum*, sed micropyle et radicula infera ab omnibus *Urticaceis* distat. Ab *Hamamelideis* (*Altingia*), quacum nonnulli comparant, multo longius recedit ovario, fructu, seminibus, aliisque notis. Observationes B. Clarkii in Ann. Nat. Hist. ser. 3, i. 103, t. 6, nequaquam confirmare possumus. Nec perianthii segmenta nec bracteolas inter antheras capituli ♂ invenimus, et rarissime hinc inde anthera imperfecta interposita est. Flores ♀ obscure fasciculati ut in *Artocarpeis* globoso-capitatis, ubi capitula e cyma contracta formata videntur, et bracteola sæpe sub fasciculo adest, sed perianthium a Clarkio depictum nunquam vidimus, nec invenire potuit Eichler (Blüthendiagr. ii. 66).

1. **Platanus,** *Linn. Gen. n.* 1075.—Genus unicum. Character ordinis.

Species, uti supra, 5–6. *A. DC. Prod.* xvi. ii. 159. *Nees, Gen. Fl. Germ. Monochl. n.* 17. *Sibth. Fl. Græc. t.* 945. *Wats. Dendrol. Brit. t.* 100, 101. *Mich. N. Amer. Sylv. t.* 63. *Nutt. N. Amer. Sylv. t.* 15. *Moric. Pl. Nouv. Amer. t.* 26.

Ordo CLV. LEITNERIEÆ.

Flores dioici, utriusque sexus in spicis amentaceis erectis sub quaque bractea solitarii. Fl. ♂: *Perianthium* 0. *Stamina* ∞ (3–12), toro basi bracteæ adnato affixa, filamentis filiformibus liberis v. vix basi connatis. *Antheræ* majusculæ, erectæ, basifixæ, loculis parallelis distinctis dorso contiguis longitudinaliter dehiscentibus. *Ovarii* rudimentum 0. Fl. ♀: *Perianthium* minutum e squamellis valde inæqualibus basi in discum seu cupulam connatis. *Ovarium* sessile, 1-loculare, in stylum longum indivisum apice recurvum uno

latere longe stigmatosum desinens. *Ovulum* unicum, parieti lateraliter affixum, amphitropum, ascendens, micropyle supera. *Drupa* oblonga, compressiuscula, exocarpio tenui; endocarpium durum. *Semen* hilo lineari lateraliter affixum, fructui conforme, testa membranacea. *Albumen* tenue, carnosum. *Embryo* rectus, semine parum brevior, cotyledonibus planis basi cordatis, radicula brevi exserta supera.

Frutices non resinosi, innovationibus sericeo-puberulis. Folia alterna, petiolata, majuscula, integerrima, penninevia, epunctata. Stipulæ 0. Amenta e ramis annotinis ante folia evoluta, in gemmis solitaria, sessilia, squamis seu bracteis imbricatis demum laxiusculis, inferioribus plurimis vacuis.

Species 2, altera Floridana paludosa, altera Texana minus perfecte nota.

1. **Leitneria,** *Chapm. Fl. S. U. St.* 427.—Genus unicum. Character ordinis.

Species, uti supra, 2. *Cas. DC. Prod.* xvi. ii. 154. *Hook. Ic. Pl. t.* 1044. *Baill. Hist. Pl.* vi. 239, fig. 214 ad 216.

Genus dubie *Myricaceis* adscriptum, nobis potius *Urticaceis* affine videtur, quoad flores ♂ *Juglandeas* refert, sed habitu, perianthio ♀ infero, etc., distincte differt.

Didymeles, *Thou. Hist. Veg. Afr. Austr.* 9, *t.* 1 (*vel* 3), arbor Madagascariensis a botanicis recentioribus non observata, a Baillonio primum ad *Rutaceas* dubie relata, serius Hist. Pl. vi. 241. *Leitneriæ* juxtaposita, ex charactere et icone auctoris nobis ab utroque aliena videtur sed affinitas valde dubia.

Ordo CLVI. **JUGLANDEÆ.**

Endl. Gen. 1125. Lindl. Veg. Kingd. 292.

Flores monoici, masculi sæpius in spicis amentaceis laxis pendulis, fœminei v. rarius utriusque sexus in spicis erectis, ad quamquam bracteam solitarii, sessiles. Fl. ♂ bracteæ adnati: *Perianthium* e lobis 3–6 ad bracteæ margines, v. extremo intra apicem bracteæ libero, v. perianthium 0, toro bracteæ adnato. *Stamina* ∞ (3–40), toro sæpius lineari 2-∞-seriatim affixa, filamentis brevibus. *Antheræ* erectæ, ovatæ v. oblongæ, loculis parallelis distinctis dorso contiguis, rima longitudinali dehiscentibus, connectivo apice clavato v. dilatato v. undique tenui. *Ovarii* rudimentum rarius evolutum. Fl. ♀ in rhachi sessiles, varie bracteati, sæpeque 2-bracteolati: *Perianthium* ovario adnatum, apice breviter liberum, 4-dentatum v. breviter 4-lobum. *Ovarium* inferum, 1-loculare; stylus brevis, ramis 2 abbreviatis v. elongatis introrsum continue a basi stigmatosis sæpe fimbriato-plumosis. *Ovulum* 1, a basi erectum, orthotropum. *Fructus* drupaceus v. rarius nuceus, nunc bractea bracteolisque auctis basi v. alte adnatis varie involucratus, nunc bracteolis immutatis v. deciduis nudus; exocarpium carnosum v. succulentum, arcte adhærens v. demum varie solutum, rarius tenuissimum; endocarpium durum, osseum, v. rarius tenuius crustaceum, basi intrusum, fructum in loculos 2 v. 4 imperfectos dividens. *Semen* unicum, endocarpio intruso affixum, superne erectum subintegrum, basi in lobos 2 v. 4 in loculos spurios descendentes divisum, testa membranacea. *Albumen* 0. *Embryo* semini conformis, cotyledonibus nunc carnosis æqualibus v. rugosis nunc subfoliaceis intricate contortuplicatis, radicula supera.

Arbores sæpe magnæ, ligno duro, succo aqueo v. resinoso nec lacteo. Folia alterna, sæpius ampla, imparipinnata, foliolis integerrimis serratisve penniveniis sæpe obliquis v. falcatis. Stipulæ 0. Amenta ♂ e ramis annotinis v. ad basin innovationum lateralia; spicæ ♀ terminales, v. spicæ utriusque sexus ad apices ramulorum hornotinorum plures.

Species vix ultra 30, per regiones temperatas hemisphærii borealis in utroque orbe late dispersæ, etiam inter tropicos in montanis Asiæ et Americæ centralis obviæ.

Ordo bene distinctus, olim *Anacardiaceis* approximatus, involucro generis typici pro calyce descripto, perianthii lobis pro petalis, a botanicis aliis ob spicas masculas amentaceas cum *Cupuliferis*

aliisque in ordine *Amentacearum* inclusus, revera pluribus notis *Urticaceis* accedit, sed foliis pinnatis, fructu intus basi spurie 2–4-loculato, seminis lobis intra loculos descendentibus, ab omnibus affinibus facile separatur.

CONSPECTUS GENERUM.

* *Amenta ♂ pendula. Flores ♀ spicati v. subsolitarii.*

1. CARYA. Bractea sub fl. ♀ parva v. 0, bracteolæ 0. Drupæ exocarpium ab endocarpio lævi v. vix rugoso apice 4-valvatim secedens.—*Amer. bor.*, *Mexico.*

2. JUGLANS. Bractea fl. ♀ bracteolis ovario arcte adhærens, sub perianthii limbum irregulariter dentata, perianthium exterius simulans. Drupæ exocarpium endocarpio rugoso arcte adhærens v. demum irregulariter solvendum.—*Eur.*, *Asia med. et or.*, *Amer. bor.*, *Mexico*, *Ind. occid.*

3. PTEROCARYA. Bractea fl. ♀ basi ovario subadnata, sub fructu immutata; bracteolæ intra bracteam latæ ovario adnatæ. Drupa bracteolis auctis oblique adnatis 2-alata.—*Caucasus*, *China*, *Japonia.*

4. ENGELHARDTIA. Bractea fl. ♀ ima basi cupulata, ovario adnata, 3-loba, fructifera aucta, venosa, patens, 3-loba, lobo medio longiore, basi nucem fovens.—*Ind. or.*, *Archip. Mal.*, *China austr.*

** *Spicæ utriusque sexus erectæ, imbricato-bracteatæ.*

5. PLATYCARYA. Fl. ♀ ad basin bracteæ sessiles, ebracteolati. Spica fructifera strobiliformis, bracteis squamiformibus numerosis imbricatis nuces parvas sæpius 2-alatas obtegentibus.—*Japonia*, *China bor.*

1. **Carya,** *Nutt. Gen. Pl. Amer.* ii. 220. (Hicorias et Scorias, *Rafin. ex Endl. Gen. Pl.* 1126.)—Amenta ♂ lateralia, pendula. Perianthium cum bractea lineari concretum, irregulariter 2–3-lobum. Stamina ∞ (3–10), in receptaculo adnato sub-2-seriata; antherarum connectivum tenue, ultra loculos non productum. Ovarii rudimentum 0. Flores ♀ breviter v. interrupte spicati, sæpius pauci, bractea parva fugaci v. omnino deficiente exinvolucrati. Perianthium ovario adnatum; limbi lobi 4, breves æqualesve v. uno multo longiore. Ovarium et ovulum ad normam ordinis; styli rami undique stigmatosi papilloso-fimbriati, ad apicem ovarii subsessiles patentes. Drupa subsicca, ovoidea v. globosa, exocarpio (e perianthio adnato ?) carnoso-coriaceo in valvas 4 superne dehiscente; endocarpium indehiscens, læve v. parum rugosum, cum laminis intrusis fructum plus minus in loculos 2–4 dividentibus, nunc crassum durissimumque, nunc tenuius fere crustaceum. Semen inferne 2–4-lobum; cotyledonibus carnosis sæpe rugosis, non tamen plicatis.—Arbores habitu *Juglandis*. Folia imparipinnata, foliolis serratis. Amenta ♂ ad basin innovationum in pedunculo communi brevi sæpissime terna, ternationibus interdum in ramulo numerosis. Spica ♀ terminalis, floribus nunc 6–10 dissitis, nunc 3–4 fere capitatis.

Species notæ 10, omnes boreali-Americanæ, quarum una usque ad Mexicum extensa. *Cas. DC. Prod.* xvi. ii. 142. *Gærtn. Fruct. t.* 89 (*Juglans*). *Mich. Arb. Amer. Sept.* i. *Ic. Jugl. t.* 3 *ad* 10. *Wats. Dendrol. Brit. t.* 148, 167. *Torr. Fl. N. York, t.* 100, 101. *Emers. Rep. Trees Massachus. t.* 12 *ad* 15.

2. **Juglans,** *Linn. Gen. n.* 1071, *pro parte.*—Amenta ♂ lateralia, pendula. Perianthium cum bractea lineari concretum, margine irregulariter 5–6-lobum. Stamina ∞ (8–40), toro lineari 2-∞-seriatim affixa; antherarum connectivum apice sæpius clavatum v. dilatatum, loculos tamen vix superans. Ovarii rudimentum 0. Flores ♀ in spica terminali pauci. Bractea cum bracteolis ovario alte adnatæ, involucrum adnatum (calycem auct. plur.), margine irregulariter 3–5-lobum v. dentatum formans. Perianthium (petala nonnullorum) intra involucrum ovario altius adnatum, limbo libero 4-dentato v. alte 4-fido, lobis imbricatis æqualibus v. uno paullo majore. Ovarium et ovulum ad normam ordinis; styli rami stigmatosi lineares v. lanceolati, recurvo-patentes, a basi fimbriato-plumosi. Drupa sæpius majuscula, globosa v. ovoidea, exocarpio carnoso indehiscente adhærente v. demum irregulariter fisso solutoque; endocarpium crassum, durum, extus rugosum,

intus basi spurie 2- v. 4-loculare. Semen basi 2- v. 4-lobum, cotyledonibus carnosis sæpius rugosis.—Arbores cortice odorato v. resinoso. Folia ampla, ∞-foliolata. Amenta ♂ e gemmis lateralibus paucisquamatis solitaria. Spicæ ♀ terminales, dissite paucifloræ v. interdum ad florem unicum reductæ.

Species 7 v. 8, per hemisphærii borealis regiones temperatas v. subtropicas late dispersæ; 1 Europæa et Asiatica media, 2 ex Asia orientali et Japonia, 4 v. 5 Americanæ a Canada et California usque ad Indiam occidentalem et Mexicum extensæ. *Cas. DC. Prod.* xvi. ii. 135. *Maxim. in Bull. Acad. Petersb.* xviii. 58; *Mel. Biol.* viii. 630. *Hayne, Arzneig.* xiii. *t.* 17. *Jacq. Ic. Rar. t.* 191, 192. *Wats. Dendrol. Brit. t.* 158. *Nees, Gen. Fl. Germ. Monochl. n.* 27. *Mich. Arb. Amer. Sept.* i. *Jugl. t.* 1, 2. *Torr. Bot. Sitgr. Exped. t.* 15, 16.

Wallia, *Alefeld in Bonplandia,* 1861, 335, genus ad species Americanas propositum, ab auctore distinguitur exocarpio etiam maturo arcte adhærente, endocarpio extus rugosiore, laminis intrusis induratis nec ut in *J. regia* tenuibus, characteres perpauci momenti. Alefeld tamen nunquam *J. regiam* in *Wallia* inclusit ut errore in Prodromo citatur.

3. **Pterocarya,** *Kunth in Ann. Sc. Nat. ser.* 1, ii. 345.—Amenta ♂ lateralia, pendula. Perianthium cum bractea lineari v. spathulata concretum, margine irregulariter 3–6-lobum, lobo extremo sæpe intra bracteæ apicem libero. Stamina ∞ (9–18), toro lineari 2-seriatim affixa; antherarum connectivum tenue. Ovarii rudimentum lineare sæpe adest. Fl. ♀ longe spicatæ. Bracteolæ intra bracteam latæ, ovario plus minus adnatæ. Perianthium ovario adnatum, limbo libero breviter 4-fido. Ovarium et ovulum ad normam ordinis; styli rami stigmatosi lineari-oblongi, introrsum a basi dense papilloso-subplumosi. Bractea primaria sub fructu immutata. Drupa sicca, bracteolis valde auctis basi oblique adnatis fere ad apicem late v. longiuscule 2-alata, exocarpio tenui; endocarpium durum, intus varie intrusum, loculos 4 imperfectos irregularesque formans. Semen basi 4-lobum, cotyledonibus rugoso-plicatis sæpius intricato-contortuplicatis.—Arbores. Folia ampla, foliolis sæpius numerosis angustis. Amenta ♂ ad basin innovationum pauca. Spicæ ♀ longæ, tenues, ramulos breves 1–3-foliatos terminantes.

Species 3 v. 4, Asiæ temperatæ incolæ, quarum una Caucasica, cæteræ Chinenses v. Japonicæ. *Cas. DC. Prod.* xvi. ii. 139. *Oerst. in Vidensk. Meddel. Nat. Foren. Kjobenh.* 1870, 160, *t.* 1. *Maxim. in Bull. Acad. Petersb.* xviii. 63; *Mel. Biol.* viii. 637.

4. **Engelhardtia,** *Leschen. in Blume, Bijdr.* 528. (Pterilema, *Reinw. in Syll. Pl. Nov. Soc. Ratisb.* ii. 13.)—Amenta ♂ lateralia, pendula. Perianthium cum bractea lineari v. apice dilatata concretum, margine irregulariter 3–6-lobum, v. vix prominens. Stamina ∞ (3–15), toro 2-seriatim affixa; antherarum connectivum parum prominens. Ovarii rudimentum lineare sæpe adest. Flores ♀ longe laxeque spicati. Bractea ima basi brevissime cupulata et ovario adnata, 3–5-fida, lobo medio longiore lateralibus (bracteolis ?) parvis. Perianthium ovario adnatum, limbo libero brevi 4-fido, lobis subvalvatis. Ovarium et ovulum ad normam ordinis; styli rami stigmatosi 2–4, crassi, varie papilloso-fimbriati. Bractea sub fructu aucta, rigide membranacea, venosa, basi nucem amplectens eique adnata, superne alam 3–5-fidam patentem formans, lobo medio lateralibus multo longiore. Nux parva, endocarpio crustaceo v. indurato intus varie intruso, loculos 2–4 imperfectos irregularesque formante. Semen basi 2–4-lobum, cotyledonibus rugoso-plicatis sæpius intricato-contortuplicatis.—Arbores magnæ. Folia ampla, ∞-foliolata, subtus sæpe resinoso-punctatæ. Amenta ♂ e gemmis solitaria v. gemina, v. in pedunculo brevi ramoso plura. Spicæ fœmineæ ad basin innovationum laterales, v. paniculam masculam rarius ramulum foliatum terminantes, sæpius longæ, floribundæ, erectæ v. fructiferæ recurvæ.

Species genuinæ ad 10, Indiæ orientalis, Archipelagi Malayani v. Chinæ australis incolæ. *Cas. DC. Prod.* xvi. ii. 140. *Blume, Fl. Jav. Jugl.* i. 1 *ad* 5. *Wall. Pl. As. Rar. t.* 199, 208.

Oreomunnea, *Oerst. in. Vid. Meddel. Nat. Foren. Kjobenh.* 1856, 52 (Oreamunoa, *Oerst. l.c.* 1870, 166, *t.* 2), e Costa Rica Americæ centralis, apud Cas. DC. *Engelhardtiæ* sectionem format. Flores ♂ et folia adhuc ignota. Fructus ex ic. et descr. ei *Engelhardtiæ* similis est, sed multo major, ala 5-pollicari, styli rami stigmatosi brevissime crassi vertice hippocrepici et endocarpium intus multo magis divisum quam in *Engelhardtiis* Asiaticis.

5. **Platycarya,** *Sieb. et Zucc. in Abhandl. Akad. Wissensch. Münch.* iii. 741, *t.* 5; *Fl. Jap. t.* 149. (Fortunæa, *Lindl. in Journ. Hort. Soc.* i. 150.)—Spicæ utriusque sexus erectæ, imbricato-bracteatæ, interdum androgynæ, basi fœmineæ. Fl. ♂: Perianthium 0. Stamina ∞ (8–10), toro basi bracteæ sæpeque rhachi spicæ adnato affixa, antherarum connectivo tenui. Ovarii rudimentum lineare, interdum deficiens. Fl. ♀ ad basin bracteæ sessiles, ebracteolati: Perianthium ovario adnatum, apice 2–3-dentatum, dentibus parvis 2 lateralibus tertio dum adsit postico. Ovarium inferum, ovatum, a dorso compressum; stylus brevis, crassus, lobis stigmatosis patentibus. Spica fructifera strobiliformis, ovoidea v. oblonga, squamis v. bracteis rigidis acute acuminatis imbricatis nuces omnino obtegentibus. Nux ad basin bracteæ parva, compressa, angulis lateralibus acutis sæpius anguste alatis, et interdum facie postica angulo obtuso plus minus prominente instructa; exocarpium tenue; endocarpium crustaceum, duriusculum, intus basi laminis intrusis loculos 2 imperfectos formans. Semen basi 2-lobum; cotyledonibus plicatis.—Arbores. Folia ∞-foliolata, foliolis serrulatis. Spicæ ad apices ramulorum brevium foliatorum plures, centralis fœminea v. androgyna basi fœminea apice mascula, cæteræ 2–8 masculæ, omnes cylindraceæ, multifloræ.

Species 1, Japoniæ et Chinæ borealis incola. *Cas. DC. Prod.* xvi. ii. 145.

Ordo CLVII. MYRICACEÆ.

Endl. Gen. Pl. 271. Lindl. Veg. Kingd. 256.

Flores unisexuales, in spicis breviter cylindraceis squamoso-bracteatis sub bracteis sessiles. *Perianthium* 0, flores tamen præsertim ♀ bracteolis 2–4 rarius ∞, intra bracteam stipati. Fl. ♂: *Stamina* 2–∞ (usque ad 16, sæpius 4–6), toro basi bracteæ adnato imposita, filamentis brevibus liberis v. plus minus coalitis. *Antheræ* erectæ, ovatæ, loculis 2 distinctis parallelis longitudinaliter dehiscentibus, connectivo non producto. *Ovarii* rudimentum rarius adest subulatum. Fl. ♀ sub quaque bractea solitarii v. rarius 2–4-ni, sæpissime 2–4-bracteolati. *Ovarium* sessile, 1-loculare; stylus brevis, ramis 2 introrsum continue stigmatosis filiformibus v. rarius abbreviatis. *Ovulum* 1, a basi erectum, orthotropum. *Drupa* parva, globosa v. ovoidea, extus sæpius ceraceo-papillosa, exocarpio resinoso-carnoso v. succulento, endocarpio duro. *Semen* erectum, testa membranacea. *Albumen* 0. *Embryo* rectus, cotyledonibus carnosulis plano-convexis, radicula brevi supera.

Arbores fruticesve, sæpius aromatici. Folia alterna, penninvenia, integerrima serrata irregulariter dentata v. lobata, v. regulariter pinnatifida. Stipulæ 0 (nisi in *M. asplenifolia* spuriæ). Spicæ ♂ in ramis annotinis sæpius densæ, squamis imbricatis ante foliorum evolutionem v. ad basin innovationum v. ad axillas foliorum solitariæ sessilesque, v. ∞ fasciculatæ spicatæ v. dense paniculatæ; interdum androgynæ masculis similes, floribus inferioribus ♂, superioribus ♀. Spicæ ♀ nunc masculis breviores, nunc longiores interruptæque, sæpius axillares.

Species ad 35, per totum fere orbem in regionibus temperatis calidioribusque latissime dispersæ, in Australia tamen adhuc non repertæ.

1. **Myrica,** *Linn. Gen. n.* 1107.—Genus unicum. Character ordinis.

Species, uti supra, ad 35. *Cas. DC. Prod.* xvi. ii. 147. *Gærtn. Fruct.* i. *t.* 39. *Nees, Gen. Fl. Germ. Monochl. n.* 26. *Reichb. Ic. Fl. Germ. t.* 620. *Jacq. Fragm. t.* 1. *Mirb. in Mém. Mus. Par.* xiv. *t.* 27, 28. *Wall. Tent. Fl. Nap. t.* 45. *Wight, Ic. t.* 764, 765. *Blum. Fl. Jav. Myric. t.* 1. *H. B. et K. Nov. Gen. et Sp. t.* 98.

Genus anomalum, olim *Amentaceis* ob inflorescentiam adscriptum, recedit tamen notis essentialibus floralibus carpicisque tam a *Cupuliferis* quam a *Salicineis*. Characteres plures *Juglandearum*, sed

habitus longe diversa, semen parvum minime lobatum, etc. In Prodromo sectiones 4 admissæ sunt, imprimis ex inflorescentia plus minus composita bracteolarumque numero distinctæ, characteres potius specifici quam sectionales v. omnino variabiles. *M. Gale*, Linn., species per regiones temperatas utriusque orbis dispersa, bene sectionem distinctam format (*Gale*), bracteolis floris ♀ per anthesin minimis post anthesin valde accretis fructu adnatis alæformibus et drupa squamam spicæ non v. vix superante. In cæteris omnibus speciebus (sect. *Morella*), bracteolæ sub fructu parvæ remanent et drupa globosa v. ovoidea e squamis spicæ longe exserta. Inter illas includuntur genera sequentia a variis auctoribus proposita: Nageia, *Gærtn. Fruct.* i. 191, quoad flores descriptos est verisimiliter *M. Nagi*, Thunb., *Bot. Mag. t.* 5727, species japonica v. chinensis, spicis ♂ simplicibus, sed stamina sub squamis inferioribus interdum ☿ bracteolis intermixta. Fructus a Gærtnero depictus est *Podocarpi* species. Morella, *Lour. Fl. Cochinch.* 548, ex charactere dato est *M. sapida*, Wall., species in India orientali Chinaque frequens sylvestris v. culta, spicis ♂ denso paniculato-ramosis insignis. Comptonia, *Banks, in Gærtn. Fruct.* ii. 58, *t.* 90; *Wats. Dendrol. Brit. t.* 166, est *M. asplenifolia*, Endl., species boreali-Americana foliis regulariter pinnatifidis, floribus ♀ 4-bracteolatis. In hac sola specie folia gemmam axillarem foventia 2-stipulata dicuntur. Stipulæ tamen vix normales videntur, nec petiolo nec cauli adnatæ sed utrinque inter petiolum et caulem sitæ, subulatæ sed basi auricula foliacea in caulem extus deflexa auctæ. Annon potius pro squamis prioribus gemmæ axillaris habendæ? Ad folia inferiora innovationum gemmis axillaribus destituta desunt. Faya, *Webb. Phytogr. Canar.* iv. 272, *t.* 216, est *M. Faya*, Ait., species Canariensis et Maderensis, floribus ♀ sub quaque squama sæpius 3 arcte confertis v. subcoalitis, nec aliter a sectione *Morella* distincta.

GENERA EXCLUSA.

Leitneram, Chapm., pro ordine proprio **Leitneriaceis** accepimus.
Clarisia, Ruiz. et Pav., ad **Urticaceas** (*Artocarpeas*) refertur.

Ordo CLVIII. CASUARINEÆ.

Endl. Gen. 270. Lindl. Veg. Kingd. 249.

Flores unisexuales, masculi in spicis cylindraceis v. 4-gonis, fœminei in spicis strobilisv globosis v. ovoideis, utriusque sexus sub bracteis squamisve verticillatis solitarii, sessiles, 2-bracteolati. Fl. ♂: *Perianthii* segmenta 1 v. 2 (anticum et posticum), concava v. cucullata, basi circumscissa et staminis evolutione rejecta. *Stamen* 1, filamento in alabastro inflexo, per anthesin porrecto. *Anthera* majuscula, loculis distinctis dorso appositis longitudinaliter dehiscentibus. Fl. ♀: *Perianthium* 0. *Ovarium* minutum, 1-loculare; stylus brevis, ramis elongatis linearibus a basi continue stigmatosis. *Ovula* 2, semianatropa, supra basin collateraliter affixa, ascendentia, micropyle supera. *Fructus* in strobilum ovoideum v. cylindraceum e bracteis bracteolisque auctis induratis sæpius lignosis coalitis formatum conferti, bracteolis ante maturitatem supra nucem clausis, maturitate 2-valvatim apertis. *Nux* a latere compressa, lævis, apice in alam medio stylo percursam producta, indehiscens. *Semen* abortu unicum, lateraliter affixum, testa membranacea. *Albumen* 0. *Embryo* rectus, cotyledonibus complanatis æqualibus, radicula brevi supera.

Arbores fruticesve, ramis ramulisque aphyllis rigidis erectis v. pendulis plerisque deciduis, cylindraceis verticillatisque v. 4-gonis sparsisque, ad nodos sæpius articulatis. Squamellæ loco foliorum ad nodos 4–∞, verticillatæ, parvæ, appressæ, interdum breviter in vaginam connatæ, costis decurrentibus angulos caulis formantibus, squamellis cujusve nodi cum illis nodi inferioris alternis. Spicæ ♂ simplices v. compositæ, ramulos sæpius deciduos terminantes, ♀ in ramis persistentibus terminales v. laterales.

Species notæ 23, pleræque Australiæ v. Novæ Caledoniæ incolæ, 4 in Archipelago Malayano crescentes quarum una per Asiam tropicam, ins. Mascarenses et maris Pacifici extensa, et in aliis regionibus tropicis culta v. inquilina.

Ordo quoad flores et fructus nonnullis e præcedentibus affinis, sed characteribus vegetationis ab omnibus Dicotyledonibus Monochlamydeis alienus, primo aspectu *Coniferis* accedens.

1. **Casuarina**, *Forst. Char. Gen.* 103, *t.* 52.—Genus unicum. Character ordinis.

Species uti supra 23. *Miq. Revis. Crit. Casuar.* 1848, *cum tabb.* 12, *in DC. Prod.* xvi. ii. 334, *et Illustr. Pl. Archip. Ind. t.* 7, 8. *Benth. Fl. Austral.* vi. 194. *Poiss. Rech. Casuar. in Nouv. Archiv. Mus. Par.* x. 59, *t.* 4 *ad* 7. *Vent. Jard. Cels. t.* 62. *Andr. Bot. Rep. t.* 346. *Labill. Pl. Nov. Holl. t.* 218. *Hook. f. Fl. Tasm. t.* 96. *F. Muell. Fragm.* vi. *t.* 54.

Genus in dissertatione Poissoni supra citata optime illustratum et in series 2 divisum: A. *Cylindraceæ.* Rami et ramuli plerumque verticillati, cylindracei, raro sub-4-angulati sulcis inter angulos excavatis pilosis. Inflorescentiæ ♂ simplices, ♀ axillares v. laterales. Huc pertinent species omnes Australienses cum paucis e Nova-Caledonia v. aliis regionibus, et in sectiones 3 distribuuntur: 1. *Leiopitys.* Verticilli 7–16-meri, rarius 6-meri. Strobili fructiferi valvæ sæpius prominentes, dorso incrassatæ carinatæ v. angulatæ, gibbo dorsali lævi v. rarissime rugoso. 2. *Trachypitys.* Verticilli 4–5-meri, rarius 6-meri. Strobili fructiferi valvæ rarius ultra gibbum dorsalem crassum latum sæpius rugosissimum v. tuberculatum prominentes. 3. *Acanthopitys.* Strobili fructiferi valvæ valde prominentes, gibbo dorsali in acumen rigidum producto. B. *Tetragonæ.* Rami sparsi v. pseudoverticillati, ramulis 4-angulis, sulcis inter angulos 0 v. parum intrusis; vaginæ 4-dentatæ. Inflorescentia ♂ sæpius composita. Strobili fructiferi quadrati, squamis a latere dilatatis, valvis exsertis. Species 7 quarum una Archipelagi Malayani incola, cæteræ omnes Novo-Caledonicæ.

Ordo CLIX. **CUPULIFERÆ.**

Endl. Gen. 273. Corylaceæ, Lindl. Veg. Kingd. 290. Betulaceæ, Endl. Gen. 272. Lindl. Veg. Kingd. 251. Castaneaceæ, Baill. Hist. Pl. vi. 217, pro parte.

Flores monoici, masculi in spicis amentaceis pendulis v. erectis, rarius cymoso-capitati, fœminei varie spicati capitati v. solitarii. Fl. ♂: *Perianthium* simplex, membranaceus, v. 0. *Stamina* 2–4 v. ∞, toro affixa, filamentis liberis brevibus v. filiformibus. *Antherarum* loculi 2, erecti, paralleli, nunc discreti ad apicem filamenti sessiles v. breviter stipitati, nunc connectivo parvo juncti basi v. prope basin affixi, rima longitudinali dehiscentes, interdum latiuscule 2-valves. *Ovarii* rudimentum pilosum v. 0. Fl. ♀: *Perianthium* ovario adnatum v. 0, limbo dum adsit sæpius parvo annulari v. dentato. *Ovarium* inferum v. nudum, sub anthesi sæpius solidum, ovula distincta non exhibens, post fœcundationem plus minus perfecte 2–3-loculare, rarius 4–6-loculare; styli tot quot loculi, interdum basi in stylum ramosum connati, breves v. elongati tenuesque, nunc apice solo nunc superne introrsum v. fere tota superficie interiore stigmatosi. *Ovula* in loculis solitaria, v. gemina collateralia, apice v. sub apice lateraliter affixa, pendula v. descendentia, anatropa v. hemianatropa, micropyle supera. *Fructus* nuceus, bracteis v. bracteolis varie accretis stipatus inclusus v. involucratus; pericarpium crustaceum v. induratum, indehiscens. *Semen* abortu sæpissime unicum, testa membranacea. *Albumen* 0. *Cotyledones* carnosæ, læves rugosæ v. ruminatæ; radicula brevis, supera.

Arbores frutiscesve. Folia alterna, penniveniа, serrato-dentata v. integerrima, rarius lobata, nunquam composita. Stipulæ liberæ, sæpe fugaces. Inflorescentia varia, amenta mascula tamen sæpissime in ramulis annotinis lateralia præcocia, v. ad basin innovationum, spicæ v. flores fœminei sæpius ramulos paucifoliatos terminantes; interdum inflorescentiæ utriusque sexus axillares.

Species ad 400, pro maxima parte per regiones temperatas hemisphærii borealis utriusque orbis late dispersæ, etiam inter tropicos usque ad montes Archipelagi Malayani et Americæ centralis et Columbianæ extensæ, perpaucæ unius tantum generis in hemisphærii australis temperatis et frigidioribus repertæ.

Ordo olim cum *Salicineis, Myrica, Platano,* aliisque nonnullis in unicum sub nomine *Amentacearum*

junctus, ab auctoribus recentioribus interdum in tres divisus, nobis magis cum natura consentaneus videtur limitibus hic adoptatis. Genera unius ordinis observantur alia perianthii margine in ovario floris fœminei prominente, alia perianthio omnino nullo, inter se tamen valde affinia, e.g., in *Urticaceis*, *Chloranthaceis* aliisque. Ovarium in *Betuleis* nudum est nec superum, ut interdum perperam dicitur.

De foliorum vernatione in *Cupuliferis* affinibusque, confer Döll, Zur Erklärung der Laubknospen der Amentaceen, Frankfurt, 1848, et præcipue Henry in Nov. Act. Nat. Cur. xviii. 525, et xxii. 309. In plerisque generibus, folia novella concava v. in longitudinem plicata facie tota interiore gemmæ applicita sunt v. eam amplectent v. marginibus involutis axi applicita; in *Corylo* tamen folia novella secus costam induplicata laminam duplicem formant, quarum interior dorso gemmæ applicita.

CONSPECTUS GENERUM.

Tribus I. Betuleæ. Amenta ♂ pendula: Perianthii segmenta 4 v. abortu pauciora. Stamina 2–4. Spicæ ♀ imbricato-squamatæ: Flores sub bractea 2–3. Perianthium 0. Ovarium 2-loculare, loculis 1-ovulatis. Styli 2. Nux parva, compressa.

1. Betula. Stamina 2. Spicæ fructiferæ squamæ tenues, 3-fidæ, cum nucibus deciduæ.—*Eur.*, *Asia med. et bor.*, *Amer. bor.*

2. Alnus. Stamina 4. Spicæ fructiferæ squamæ induratæ, post nuces delapsas persistentes.—*Eur.*, *Asia med. et bor.*, *Amer. bor.*, *Andes Amer. austr.*

Tribus II. Coryleæ. Amenta ♂ pendula: Perianthium 0. Stamina 3–∞, toro bracteæ adnato affixa. Inflorescentia ♀ varia: Perianthium ovario adnatum. Ovarium 2-loculare, loculis 1-ovulatis. Styli v. styli rami 2. Nux ovoideo-globosa v. compressiuscula.

3. Carpinus. Bracteolæ ♂ 0. Flores ♀ spicati. Bracteolæ fructiferæ accretæ, venosæ, expansæ, 3-lobæ v. grosse dentatæ, basi apertæ v. brevissime convolutæ, nucem parvam foventes.—*Eur.*, *Asia*, *Amer. bor.*

4. Ostryopsis. Bracteolæ ♂ 0. Flores ♀ spicati. Bracteolæ fructiferæ accretæ, foliaceæ, convolutæ, acuminatæ, apice 3-fidæ, basi margine subconnatæ, nucem parvam includentes.—*Mongolia.*

5. Ostrya. Bracteolæ ♂ 0. Flores ♀ spicati. Bracteolæ fructiferæ accretæ, membranaceæ, vesiculosæ, plano-compressæ, clausæ, minute acuminatæ, nucem parvam basi includentes.—*Eur.*, *Asia*, *Amer. bor.*

6. Corylus. Bracteolæ ♂ intra squamam pone antheras 2 collaterales. Capitula ♀ 2–4-flora, sub anthesi squamis imbricatis involucrata, fructifera ramulum foliatum terminantia. Bracteolæ accretæ, foliaceæ, dentatæ lobatæ v. echinatæ, convolutæ v. basi tubulosæ, nucem majusculam includentes.—*Eur.*, *Asia*, *Amer. bor.*

Tribus III. Quercineæ. Inflorescentia ♂ varia: Perianthium 4–6-lobum v. rarius 7-lobum. Stamina ∞. Flores ♀ secus rhachin spicæ solitarii v. 2–3-ni, squamis imbricatis plus minus conferruminatis involucrati. Ovarium 3-loculare v. rarius 2, v. 4–6-loculare, loculis 2-ovulatis. Involucrum fructiferum sub nuce cupulatum v. nucem omnino includens.

7. Quercus. Spicæ ♂ amentaceæ pendulæ v. utriusque sexus erectæ, strictæ. Ovarium floris ♀ 3- rarissime 4–5-loculare. Involucrum fructiferum squamarum apicibus areolatum annulatum v. echinatum, cæterum inerme, sub nuce cupulatum v. nucem pro maxima parte v. omnino includens.—*Eur.*, *Asia temp. et trop.*, *Amer. bor.*, *mont. Amer. cent. et Columbiæ.*

8. Castanopsis. Spicæ utriusque sexus erectæ, strictæ. Ovarium floris ♀ 3-loculare. Involucrum fructiferum aculeorum v. tuberculorum fasciculis armatum, nucem omnino includens, perfecte clausum v. demum irregulariter fissum.—*Asia trop. et or. subtrop.*, *California.*

9. Castanea. Spicæ utriusque sexus erectæ, strictæ. Ovarium floris ♀ 6-loculare. Involucrum fructiferum dense echinatum, nuces 1–2 omnino includens, demum 2–4-valvatim dehiscens.—*Eur.*, *Asia temp.*, *Amer. bor.*

10. Fagus. Flores ♂ laxe globoso-capitati v. in pedunculo 1–3-ni. Ovarium floris ♀ 3-loculare. Involucrum fructiferum aculeis v. fimbriis echinatum, nuces 2–4 omnino includens, demum valvatim 4-partitum.—*Eur.*, *Asia temp. et bor.*, *Amer. bor.*, *Amer. austr. extratrop.*, *Austral.*, *Nov. Zel.*

TRIBUS I. BETULEÆ.

1. **Betula**, *Linn. Gen. n.* 1052, *pro parte*.—Flores monoici, ♂ in spicis amentaceis pendulis squamoso-bracteatis, sub quaque squama sæpius 3. Bracteolæ intra squamam cui basi adnatæ 2, collaterales. Perianthia sessilia, membranacea, in segmenta 4 v. abortu pauciora divisa; segmentum anticum ovatum antheris æquilongum, cætera sæpius minima v. abortiva. Stamina 2, anticum et posticum, filamentis brevissimis; antheræ ovatæ, loculis erectis parallelis discretis, ad apicem filamenti brevissime stipitatis. Ovarii rudimentum 0. Flores ♀ in spicis cylindraceis erectis dense imbricato-bracteatis, sub quaque bractea sæpius 3. Bracteolæ intra squamam 2, collaterales. Perianthium 0. Ovarium nudum, sessile, plano-compressum, 2-loculare; styli 2, cylindracei, tenues, apice stigmatosi; ovula in loculis solitaria, sub apice affixa, micropyle supera. Spicæ fructiferæ cylindraceæ, incrassatæ, bracteis cum bracteolis in squamam 3-fidam connatis, cum fructibus deciduis. Nuces parvæ, compressæ, anguste v. late bialatæ, stylis persistentibus sæpius coronatæ, ante casum bractearum in spica inclusæ; exocarpium tenue, endocarpium crustaceum v. leviter induratum. Semen abortu unicum, pendulum, testa membranacea; cotyledones planæ, radicula brevi supera.—Arbores fruticesve. Folia alterna, dentata v. serrata, rarius incisa, pennivenia. Spicæ terminales v. axillares, sæpe ramulum brevissimum 1-2-foliatum axillarem terminantes, solitariæ v. ♂ sæpe ♀ in speciebus perpaucis, 2-4 subracemosæ.

Species ad 25, per Europam, Asiam mediam et borealem, et Americam borealem late dispersæ. *Regel, Monogr. Betul. in Mem. Soc. Imp. Nat. Mosc.* xiii. 9, *t.* 1 *ad* 13, *in Bull. Soc. Imp. Nat. Mosc.* 1865, ii. *t.* 6 *ad* 8, *et in DC. Prod.* xvi. ii. 162. *Gærtn. Fruct.* ii. *t.* 90. *Nees, Gen. Fl. Germ. Monochl. n.* 18. *Reichb. Ic. Fl. Germ. t.* 621 *ad* 627. *Jacq. Hort. Vind. t.* 122. *Wats. Dendrol. Brit. t.* 94, 95, 97, 144, 151 *ad* 154. *Pall. Fl. Ross. t.* 39, 40. *Trautv. Imag. Fl. Ross. t.* 5, *et in Middend. Reise, Bot. t.* 21. *Dcne. in Jacquem. Voy. Bot. t.* 158. *Brandis, For. Fl. t.* 56. *Mich. Arb. Amer. Sept.* ii. *t.* 1 *ad* 5. *Nutt. N. Amer. Sylv. t.* 7, 8. *Torr. Fl. N. York, t.* 112 *ad* 114. *S. Wats. Bot. U. S.* 40 *Parall. t.* 35.

BETULASTER, *Spach in Ann. Sc. Nat. ser.* 2, xv. 198, genus propositum fuit ad *B. acuminatam* Wall. Pl. As. Rar. t. 109 (cui includendæ *B. cylindrostachys*, Wall., et *B. nitida*, Don), spicis ♀ sæpius 2-4-nis, et fructus alis squamas strobili superantibus, characteres tamen levioris momenti et vix constantes, nam spicæ ♀ sæpe geminæ in *B. Bhojpattra*, Wall., et alæ fructus quoad latitudinem in pluribus speciebus variant. Regel genus Spachianum pro sectione admisit addita *B. Maximowicziana*, Reg., e Japonia. Hæc species spicas ♀ 4-nas exhibet sed alæ fructus squamis strobili insigniter breviores.

2. **Alnus**, *Gærtn. Fruct.* ii. 54, *t.* 90.—Flores monoici, ♂ in spicis amentaceis pendulis squamoso-bracteatis, sub quaque bractea sæpius 3. Bracteolæ intra squamam cui basi affixæ 3-5. Perianthia sessilia, 4-partita, segmentis æqualibus leviter imbricatis antheras æquantibus v. inæqualibus plerisque minute squamiformibus. Stamina 4, filamentis brevissimis; antheræ ovatæ, loculis distinctis parallelis supra basin connectivo minuto affixæ. Ovarii rudimentum 0. Flores ♀ in spica cylindracea v. oblonga imbricato-squamata sub quaque bractea sæpius 2. Bracteolæ intra squamam 2-4, minutæ. Perianthium 0. Ovarium nudum, sessile, plano-compressum, 2-loculare; styli 2, cylindracei, breves, apice stigmatosi; ovula in loculis solitaria, sub apice lateraliter affixa, micropyle supera. Spicæ fructiferæ incrassatæ, ovoideæ v. breviter cylindraceæ, squamis auctis induratis lignosis post nuces delapsas persistentibus, primum dense imbricatis, maturitate patentibus apertis. Nuces parvæ, compressæ, bialatæ v. nudæ; exocarpium tenue; endocarpium crustaceum. Semen abortu unicum, pendulum, testa membranacea; cotyledones planæ, radicula brevi supera.—Arbores fruticesve. Folia alterna, decidua, pennivenia, serrata v. rarius integerrima. Spicæ ♂ et ♀ e gemmis distinctis sæpius 3-∞, racemosæ, hieme v. jam autumno præcedente ad axillas foliorum formatæ, primo vere ante foliorum evolutionem florentes v. rarius foliis novellis coetaneæ, tempus tamen evolutionis non semper in eadem specie constans.

Species ad 14, per Europam, Asiam mediam et borealem, Americam borealem et Andes Americæ

australis late dispersæ, una ex Europæis etiam in Africa australi obvia, sed forte inquilina. *Regel in Mem. Soc. Imp. Nat. Mosc.* xiii. 73, *t.* 14 *ad* 17, *et in DC. Prod.* xvi. ii. 181. *Mirb. in Mem. Mus. Par.* xiv. *t.* 21, 22. *Wats. Dendrol. Brit. t.* 96 (*Betula*). *Nees, Gen. Fl. Germ. Monochl. n.* 19. *Reichb. Ic. Fl. Germ. t.* 628 *ad* 631. *Ten. Fl. Nap. t.* 99. *Eichw. Pl. Cauc. Casp. t.* 2. *Brand. For. Fl. t.* 57. *Mich. Arb. Amer. Sept.* iii. *t.* 4. *Nutt. N. Amer. Sylv. t.* 9, 10. *Torr. Fl. N. York t.* 115, 116. *Lodd. Bot. Cab. t.* 1141, 1231.

Genus naturalissimum, *Betulæ* affine sed facillime definitum, nec nostro sensu sectiones distinctas præbet, etsi a Spachio in genera tria, v. a Regelio in sectiones 4 divisum, characteribus levioris momenti v. vix constantibus e tempore evolutionis florum v. e segmentis perianthii ♂ sumptis. Alnaster, *Spach in Ann. Sc. Nat. ser.* 2, xv. 200 (Alnobetula, *Schur, Enum. Pl. Trans.* 614), est *A. viridis, DC.*, cujus stipulæ et squamulæ sub spicis (perulæ, *Regel*) solito majores sunt et spicæ præsertim ♀ vix ante foliorum evolutionem florent. Clethropsis, *Spach, l.c.* 201, species 2 Indicas continet (*Wall. Pl. As. Rar. t.* 131; *Dcne. in Jacquem. Voy. Bot. t.* 159), quarum folia integerrima v. parce minuteque dentata et perianthii ♂ segmenta parva inæqualia squamiformia nunc minima. Flores tamen nobis videntur ad normam terni 4-andri v. hinc inde abortu 3-andri, nec in unum 10–12-merum 10–12-andrum confluentes. Amenta ♂ in *A. nepalense* numerosa, paniculata, in *A. nitida* tamen sæpius 3–4-na.

Tribus II. Coryleæ.

3. **Carpinus,** *Linn. Gen. n.* 1073, *pro parte.*—Flores monoici, ♂ in spicis amentaceis pendulis squamoso-bracteatis. Bracteolæ 0. Perianthium 0. Stamina 3–∞, in toro piloso ad basin bracteæ adnato conferta, filamentis brevissime filiformibus; antherarum loculi erecti, discreti, oblongi, apice pilosi, rima longitudinali dehiscentes, ad apicem filamenti gemini v. rarius singuli, breviter stipitati. Flores ♀ in spicis laxis erectis subfoliaceo-bracteatis, ad basin bracteæ gemini, sessiles, singuli bracteola lineari basi utrinque lobulo aucta amplexi. Perianthium ovario adnatum, margine parum prominulo denticulato. Ovarium inferum, post fœcundationem 2-loculare; stylus in ramos 2 erectos lineari-subulatos superne introrsum stigmatosos divisum; ovula in quoque loculo solitaria, pendula, anatropa. Sub fructu bracteæ primariæ spicæ sæpius delapsæ, bracteolæ basi immutatæ v. paullo auctæ, nucem amplectentes, superne valde accretæ, foliaceæ, expansæ, varie 3-lobæ v. grosse dentatæ. Nux ad basin bracteolæ sessilis v. ea semi-inclusa, ovoidea v. subglobosa, indehiscens, extus perianthii adnati nervis ∞-costata, pericarpio duro haud crasso. Semen abortu unicum, pendulum, testa membranacea; cotyledones crasso-carnosæ, æquales, radiculam superam tegentes.—Arbores v. rarius frutices. Folia alterna, petiolata, sæpius duplicato-serrata, crebre et parallele subplicato-pennivenia. Amenta ♂ ad basin innovationum lateralia. Spicæ fœmineæ etiam fructiferæ erectæ, terminales.

Species 9, per regiones temperatas hemisphærii borealis utriusque orbis late dispersæ. *A. DC. Prod.* xvii. ii. 126. *Nees, Gen. Fl. Germ. Monochlam. n.* 20. *Reichb. Ic. Fl. Germ. t.* 632 *ad* 634. *Wats. Dendrol. Brit. t.* 98, 157. *Wall. Pl. As. Rar. t.* 106. *Brand. For. Fl. t.* 66. *Torr. Fl. N. York, t.* 103. *Mich. N. Amer. Sylv.* iii. *t.* 108.

Distegocarpus, *Sieb. et Zucc. Fam. Nat. Fl. Jap.* ii. 102, *t.* 3; *A. DC. Prod.* xvi. ii. 127, includit species Japonicas, typicis imprimis *C. duinensi*, Scop. (*C. orientali*, Lam.) similes, sed bracteolarum basis per anthesin ut in illis minuta, post anthesin paullulum accrescit, nucem amplectens et demum latere fissa ligulam interiorem format, uti nostro sensu rite observavit Blume, Mus. Bot. Lugd. Bat, i. 308.

4. **Ostryopsis,** *Dcne. in Bull. Soc. Bot. Fr.* xx. 155.—Flores monoici, ♂ in spicis amentaceis pendulis squamoso-bracteatis. Bracteolæ 0. Perianthium 0. Stamina 4–6, toro parvo glabro ad basin bracteæ adnato affixa, filamentis brevibus; antherarum loculi erecti, distincti, ad apicem filamenti stipitati v. subsessiles, glabri, rima longitudinali dehiscentes. Flores ♀ in spica erecta v. recurva globosa v. ovoidea, ad basin bracteæ membranaceæ gemini, singuli intra basin bracteolæ foliaceæ 3-fidæ sessiles, subinclusi. Perianthium ovario adnatum, limbo brevi membranaceo subdentato. Ovarium inferum, 2-loculare; stylus 2-fidus, ramis elongatis tenuibus introrsum stigmatosis; ovula in

loculis solitaria, pendula, anatropa. Bracteolæ fructiferæ accretæ, foliaceæ, marginibus basi subconnatis superne involutis involucrum formantes longe acuminatum, apice 3-fidum, basi nucem includens. Nux parva, late ovoidea, suborbiculata, compressiuscula, extus perianthii adnati nervis tenuiter costata, perianthii limbo accreto membranaceo tubuloso nuce ipso vix breviore coronata; pericarpium crustaceum. Semen abortu unicum, testa membranacea; cotyledones crasso-carnosæ, æquales, radicula brevissima supera.—Frutex humilis. Folia alterna, petiolata, cordata, duplicato-serrata, pennivenia, transversim venulosa. Amenta ♂ brevia, e gemmis anni præteriti ad basin innovationum. Spicæ ♀ breves, terminales, breviter pedunculatæ, fructiferæ recurvæ. Bracteæ primariæ sæpius persistentes, immutatæ v. emarcidæ.

Species 1, Mongoliæ orientalis incola.

Genus *Carpino* affine, differt bracteolis fructiferis fere ut in *Corylo* clausis et præsertim perianthii limbo post anthesin accreto. Foliorum forma fere *Coryli avellani*, sed vernatio *Carpini*. Baillon, Hist. Pl. vi. 224, genus *Corylo* adjunxit, a quo tamen distincte differt floribus tam masculis quam fœmineis *Carpini* affiisque notis.

5. **Ostrya,** *Scop. Fl. Carn.* 414.—Flores monoici, ♂ in spicis amentaceis pendulis squamoso-bracteatis. Bracteolæ 0. Perianthium 0. Stamina 3–∞, in toro piloso ad basin bracteæ adnato conferta, filamentis brevissime filiformibus; antherarum loculi erecti, discreti, oblongi, apice pilosi, rima longitudinali dehiscentes, ad apicem filamenti gemini v. rarius singuli, breviter stipitati. Flores ♀ in spicis laxis erectis subfoliaceo-bracteatis ad basin bracteæ gemini, singuli bracteola parva sub-3-loba basi breviter cupulata stipati. Perianthium ovario adnatum, margine parum prominulo denticulato. Ovarium inferum, post fœcundationem 2-loculare; stylus in ramos 2 erectos lineari-subulatos superne introrsum stigmatosos divisus; ovula in quoque loculo solitaria, pendula, anatropa. Sub fructu bracteæ primariæ delapsæ, bracteolarum pars cupulata valde accreta, membranacea, ovata, vesiculoso-compressa, apice clausa et lobis minimis emarcidis coronata. Nux in bracteola utriculosa sessilis eaque multo brevior, pericarpio crustaceo duriusculo. Semen abortu unicum, pendulum, testa membranacea; cotyledones crasso-carnosæ, æquales, radiculam brevem superam tegentes.—Arbores. Folia alterna, petiolata, duplicato-serrata, crebre et parallele subplicato-pennivenia. Amenta ♂ ad basin innovationum laterales. Spicæ fructiferæ bracteolis imbricatis numerosis strobiliformes, fere lupulinæ, sæpius recurvæ v. pendulæ.

Species 2, inter se vix distinctæ, regionum temperatarum hemisphærii borealis incolæ, altera gerontogea, altera Americana. *Alph. DC. Prod.* xvi. ii. 124. *Micheli, Nov. Pl. Gen. t.* 104. *Nees, Gen. Fl. Germ. Monochl. n.* 21. *Reichb. Ic. Fl. Germ. t.* 635. *Wats. Dendrol. Brit. t.* 143. *Torr. Fl. N. York, t.* 102. *Mich. N. Amer. Sylv.* iii. *t.* 109 (*Carpinus*).

6. **Corylus,** *Linn. Gen. n.* 1074.—Flores monoici, ♂ in spicis amentaceis pendulis squamoso-bracteatis. Bracteolæ 2, collaterales, bracteæ intus pone antheras affixæ eaque vix breviores. Perianthium 0. Stamina ∞ (4–8), in toro piloso ad basin bracteæ conferta, filamentis brevissimis filiformibus; antherarum loculi erecti, discreti, oblongi, apice pilosi, rima longitudinali dehiscentes, ad apicem filamenti singuli v. 2–3-natim stipitati. Flores ♀ in capitulo globoso sessili squamis numerosis imbricatis vacuis involucrati, ad basin squamarum 2–3 superiorum v. interiorum geminatim sessiles, singuli bracteola minuta pilosa inæqualiter 3-partita stipati. Perianthium ovario adnatum, margine annulari denticulato sub apice ovarii parum prominulo. Ovarium inferum, post fœcundationem 2-loculare; stylus a basi in ramos 2 lineari-subulatos superne introrsum stigmatosos divisus; ovula in quoque loculo solitaria, pendula, anatropa. Sub fructu bracteæ primariæ sæpe delapsæ v. emarcidæ, bracteolæ quam maxime accretæ, foliaceæ, varie dentatæ lobatæ v. aculeis horridæ, basi nucem globosam v. ovoideam includentes; pericarpium durum. Semen abortu unicum, pendulum, testa membranacea; cotyledones crasso-carnosæ, æquales, radicula brevissima supera.—Arbores fruticesve. Folia alterna, pennivenia, duplicato-serrata, venis primariis in plerisque speciebus magis distantibus quam in *Carpino* et vernatio ab omnibus affinibus differt folio juniore secus costam

induplicato lamina interiore dorso gemmæ applicita. Amenta ♂ præcocia, e gemmis in ramis annotinis fasciculata. Capitula ♀ sub anthesi in ramis annotinis aphyllis lateralia, post anthesin in ramulum foliatum evoluta, fructibus ad apicem per 2–6 fasciculatis. Nuces quam in generibus præcedentibus majores.

Species editæ 7, per regiones temperatas hemisphærii borealis latissime dispersæ, pleræque gerontogeæ, 2 boreali-Americanæ, quarum una etiam in Asia orientali extratropica obvia. *A. DC. Prod.* xvi. ii. 129. *Nees, Gen. Fl. Germ. Monochlam. n.* 22. *Reichb. Ic. Fl. Germ. t.* 636 *ad* 638. *Wats. Dendrol. Brit. t.* 99. *Trautv. Imag. Fl. Ross. t.* 4. *Dcne. in Jacquem. Voy. Bot. t.* 160.

C. ferox, Wall. Pl. As. Rar. i. 77, t. 87 (sect. *Acanthochlamys*, Spach, in Prodromo recepta), a cæteris speciebus parum differt foliis ut in *Carpino* evidentius plicato-penniveniis et bracteolis fructiferis apice dentibus spinescentibus horridis, vix tamen in sectionem distinctam separandus videtur. Foliorum vernatio *Coryli*, etsi folium infimum gemmæ facie tota gemmæ applicitum v. vix basi auricula parva inflexum; sequentia tamen more generis induplicata, lamina interiore minore v. exteriorem subæquante.

Tribus III. Quercineæ.

7. **Quercus,** *Linn. Gen. n.* 1070.—Flores monoici, in spicis unisexualibus amentaceis v. erectis rarissime androgynis sessiles v. subsessiles. Fl. ♂: Perianthium campanulatum lobatum v. ad basin divisum, lobis segmentisve 4–7 sæpius 6 membranaceis imbricatis. Stamina ∞, sæpius ad 6, interdum 10–12, filamentis liberis filiformibus exsertis; antheræ erectæ, ovatæ oblongæ v. rarius subglobosæ, loculis contiguis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum parvum pilosum v. obsoletum. Fl. ♀ singuli intra involucrum e squamis imbricatis varie conferruminatis inclusi. Perianthium sæpius urceolatum, tubo ovario adnato, limbo brevi campanulato sæpius 6-lobo v. obsolete denticulato. Staminodia interdum adsunt parva. Ovarium inferum, post fecundationem (v. jam sub anthesi?) plus minus perfecte 3-loculare, rarissime 4–5-loculare; styli totidem, sæpius breves, erecti v. recurvi, teretes v. apice dilatati v. clavati, nunc summo vertice, nunc superne, introrsum stigmatosi; ovula in loculis gemina, pendula v. lateraliter affixa, anatropa v. hemianatropa, micropyle supera. Involucrum fructiferum auctum sæpeque induratum, sub nuce cupulatum v. nucem pro maxima parte v. omnino includens, indivisum v. demum irregulariter fissum, squamarum apicibus areolatum zonatum tuberculatum v. varie echinatum (nec aculeis armatum). Nux, *glans* dicta, cupula insidens v. rarius omnino inclusa, a cupula, basi umbiliciformi excepta, libera v. rarius altius adnata; pericarpium crustaceum v. coriaceum, rarius crassum induratum grosse granulatum v. osseum, indehiscens. Semen abortu sæpissime unicum, testa membranacea; cotyledones crasso-carnosæ, nunc undique æquales, nunc varie sulcatæ ruminatæ v. lobatæ, radicula supera brevi inter cotyledones retracta v. parum prominula. —Arbores, rarius frutices. Folia alterna, annua v. perennantia, integerrima dentata v. lobata, membranacea v. coriacea, pennivenia, venis primariis nunc ante marginem in rete venularum transeuntibus, nunc parallele et distincte ad marginem extensis, venulis intermediis transverse v. parum distinctis. Inflorescentia dimorpha, infra sub *Lepidobalano* et *Pasania* descripta.

Species fere 300, per regiones temperatas hemisphærii borealis utriusque orbis late dispersæ, et inter tropicos in montosis Americæ usque ad Columbiam et Asiæ usque ad Archipelagum Malayanum extensæ. Cæterum omnino desunt in America australi, in Africa præter regionem Mediterraneam, in insulis Mascarensibus, Australasia et insulis maris Pacifici, nec in Nova Guinea hucusque repertæ. *A. DC. Prod.* xvi. ii. 3. *Blume, Fl. Jav. Cupul. cum tabb.* 20, *et Mus. Bot. Lugd. Bat.* i. 286. *Miq. Ann. Mus. Lugd. Bat.* i. 102. *Œrst. in Vidensk. Meddel. Nat. Foren. Kjöbenh.* 1866, 11, *t.* 1, 2, *et in Liebm. Chênes Amer. Trop., Copenh.* 1868, *cum tabb.* 47, *edit. Leipzig*, 1869.

Genus œconomiæ nostræ maximi momenti, ab auctoribus pluribus tam de flore Americana quam de Europæa v. Asiatica tractantibus repetiter scrutatum, et ab Alph. DC. summa cura elaboratum. Endlicher primus, Gen. Pl. Suppl. iv. ii. 24, *Quercum* in sectiones 3 divisit cum generibus 2 monotypicis, Blume fere easdem sectiones aliis nominibus signavit. Miquel, partim ex observationibus Candollei sectiones 6 admisit. Alph. DC. pariter genus in sectiones 6 divisit a Miquelianis parum diversas, et in specierum ordinatione characteribus 2 novis usus est, fructus maturationis duratione

annua v. biennia, et ovulorum abortientium situ juxta basin v. prope apicem seminis. Hic, tamen character, observatu difficilis, et vix in quartam partem e numero specierum verificatus, nec semper cum differentiis naturalibus conveniens, ad usum practicum parum asservit, et fructus duratio in speciebus cæterum quam maxime affinibus diversa est. Œrsted serius characterem protulit ab auctoribus prius neglectum, e stylorum indole derivatum, et genera propria 4 proposuit, uno excepto sectionibus majoribus Candolleanis conformia. Genus tamen nostra sententia in integrum servatum bene limitatur, et in sectiones sequentes a Candolleanis v. Œrstedianis parum mutatas commode dividitur.

1. *Lepidobalanus*, Endl. Spicæ ♂ tenues, flexiles, laxæ, sæpius pendulæ (*amenta* proprie dicta). Involucra ♀ cupulata v. ore aperta, squamarum apicibus imbricatis. Styli superne introrsum stigmatosi, subulati v. apice dilatati v. capitati.—Folia varia, decidua v. perennantia, sæpissime tamen plurima v. omnia plus minus dentata v. lobata. Amenta ♂ e gemmis lateralibus ramulorum annotinorum v. ad basin innovationum sæpius 2–∞. Flores sub bracteis parvis sæpius solitarii rarius 3-ni, (an semper?) ebracteolati. Involucra ♀ solitaria, subsessilia v. in spica brevi ∞. Species tam in America quam in Europa et Oriente numerosæ, in Asia media et orientali pauciores. *A. DC. Prod.* xvi. ii. 3. *Kotschy, Eichen Europas und des Orients, Wien*, 1862, *cum tabb.* 40. *Nees, Gen. Fl. Germ. Monochl. n.* 23. *Reichb. Ic. Fl. Germ. t.* 641 *ad* 650. *Wats. Dendrol. Brit. t.* 89 *ad* 93. *Hayne, Arzneig.* vi. *t.* 35, 36, xii. *t.* 43 *ad* 48. *Boiss. Voy. Esp. t.* 164 *ad* 166. *Cav. Ic. Pl. t.* 129. *Laguna, Com. Fl. Forest. Espan.* 1872, *t.* 2, 3, 5, 6, 12, 13. *Ten. Fl. Nap. t.* 197, 198. *Eichw. Pl. Cauc. Casp. t.* 38. *Labill. Dec. Pl. Syr.* v. *t.* 6. *Jaub. et Spach. Ill. Pl. Or. t.* 54 *ad* 58. *Hook. f. in Trans. Linn. Soc.* xxiii. *t.* 36 *ad* 38. *Tchihatch. As. Min. t.* 40 *ad* 42. *Wall. Pl. As. Rar. t.* 174. *Royle, Illustr. Bot. Himal. t.* 84. *Lindl. in Paxt. Fl. Gard.* i. 59, *f.* 37. *Mich. Hist. Chênes de l'Amér. Paris*, 1801, *cum tabb.* 36; *Hist. Arb. Amer. Sept.* ii. *t.* 1 *ad* 26. *Emerson, Rep. Trees Massach. t.* 1 *ad* 11. *Wesmaël. in Bull. Fed. Soc. Hort. Belg.* 1869, 321, *cum tabb.* 18. *Torr. in Ann. Lyc. N. York*, ii. *t.* 4, *Fl. N. York*, *t.* 104 *ad* 109, *in Emory, Not. Milit. Reconn. App. t.* 9, *in Bot. Emory Exped. t.* 51, *et in Rep. Sitgr. Exped. Bot. t.* 17 *ad* 19. *A. Gray, Bot. Amer. Expl. Exped.* ii. 458, *t.* 15. *Engelm. in S. Wats. Bot. Calif.* ii. 93. *Hook. Ic. Pl. t.* 382, 383, 402, 403. *Liebm. Chênes Amér. Trop. t.* 1 *ad* 47. *Humb. et Bonpl. Pl. Æquin. t.* 75 *ad* 96, *et t.* 129 *ad* 131.

2. *Cyclobalanopsis*, Œrst. Amenta ♂ ut in *Lepidobalano* tenuia, pendula. Involucra ♀ ut in *Cyclobalano* cupulata v. ore aperta, squamarum apicibus in laminas v. zonas annulares concentricas integras v. tardius denticulatas lateraliter connatis. Styli *Lepidobalani* superne introrsum stigmatosi v. in stigma crassum dilatati.—Folia sæpissime dentata, rarius lobata v. integerrima. Inflorescentia *Lepidobalani*. Species ad 15, omnes Asiaticæ, Indieæ Malayanæ Chinenses v. Japonicæ. *Blume, Fl. Jav. Cupul. t.* 18, 19. *Korth. in Verh. Nat. Geschied. t.* 47, *f.* 18. *Wall. Pl. As. Rar. t.* 149, 150. *Hook. f. et Cathc. Ill. Himal. Pl. t.* 20. *Wight, Ic. t.* 211. *Brand. For. Fl. t.* 65. *Kæmpf. Ic. Fl. Japon. t.* 17. *Seem. Bot. Her. t.* 90. Cyclobalanopsis, *Œrst. in Lehm. Chênes Amér. Trop.* 19. Species paucæ imprimis Chinenses v. Japonicæ *Cyclobalanopsem* cum *Pasaniæ* arcte connectunt.

3. *Pasania*, Miq. Spicæ ♂ erectæ, interdum paniculatæ. Involucra ♀ cupulata v. ore aperta, squamarum apicibus imbricatis. Styli teretes, erecti, brevissimi v. rarius longiusculi, apice solo stigmatosi.—Folia integerrima v. rarissime hinc inde paucidentata. Spicæ ♂ axillares, strictæ. Flores sub bracteis sæpius 3–5, arcte sessiles, 2-bracteolati. Involucra ♀ secus rhachin elongatam v. brevissimam v. interdum ad basin spicæ ♂ singula v. ternatim conferta v. coalita. Species ad 30, quarum una Californica, cæteræ Asiaticæ, Indicæ Malayanæ Chinenses v. Japonicæ. *A. DC. Prod.* xvi. ii. 82. *Blume, Fl. Jav. Cupul. t.* 1 *ad* 12, 17. *Lambert, Pinus*, ii. *t.* 8. *Korth. in Verh. Nat. Geschied. t.* 43. *Wall. Pl. As. Rar. t.* 46. *Wight, Ic. t.* 213, 219 *ad* 221. *Kurz in Journ. Asiat. Soc. Beng.* xliv. 196, *t.* 14. *Brand. For. Fl. t.* 64. *Oudem. Annot. Cupul. Jav.* (*in Verh. K. Akad. Amst.* xi.) *t.* 1 *ad* 7. *Sieb. et Zucc. Fl. Jap. t.* 89. *Lindl. in Paxt. Fl. Gard.* i. 59, *f.* 36. *Seem. Bot. Her. t.* 87, 88 (*et* 89?). *Hook. Ic. Pl. t.* 224.

Species Californica, *Q. densiflora*, Hook. Ic. Pl. t. 380, in Prodromo xvi. ii. 81, pro sectione propria *Androgyne* separatur, sed characteres omnino *Pasaniæ* præbet. Styli in speciminibus nostris sat numerosis sæpissime 3 etsi interdum (ut etiam observatur in nonnullis aliis *Pasaniis*) variant 4 v. rarissime 5. Spicæ hinc inde androgynæ (involucris ♀ paucis ad basin spicarum ♂) occurrunt in pluribus speciebus *Pasaniæ*.

Synædrys, *Lind. Introd. Nat. Syst. ed.* 2, 441, est *Q.* (*Pasania*) *cornea*, Lour., a Lindleyo olim generice distincta ob pericarpium durum et cotyledones valde ruminato-corrugatas v. lobatas, characteres in speciebus paucis sectionum plurium imprimis *Pasaniæ* et *Cyclobalani* observatis. Pasania, *Œrst. in Liebm. Chênes Amér. Trop.* 20, includit sectiones nostras *Pasaniam* et *Chlamydobalanum*.

4. *Cyclobalanus*, Endl. Spicæ erectæ, flores ♂, styli et folia *Pasaniæ*. Involucra ♀ cupulata v. ore aperta, squamarum apicibus in lamellas concentricas seu zonas distinctas integerrimas v. demum denticulatas lateraliter connatis. Species fere 50, omnes Asiaticæ, ab Archipelago Malayano usque ad Chinam extensæ. *A. DC. Prod.* xvi. ii. 91 (sect. *Cyclobalanus*). *Blume, Fl. Jav. Cupul. t.* 13 *ad* 16. *Korth. in Verh. Nat. Geschied. Bot. t.* 46, 47. *Oudem. Annot. Cup. Jav. t.* 8, 10. *Seem. Bot. Her. t.* 89? 90, 91. CYCLOBALANUS, *Œrst. in Liebm. Chênes Amér. Trop.* 20. *G. celebica*, Miq., et *G. induta*, Bl., in Prodromo sub *Cyclobalano* enumeratæ, nobis potius ad *Pasaniam* referendæ videntur.

5. *Chlamydobalanus*, Endl. Spicæ erectæ, flores ♂, styli et folia *Pasaniæ*. Involucra ♀ ovoidea v. globosa, extus concentrice zonata v. squamarum apicibus subverticillatim notata, clausa v. demum irregulariter fissa. Nux omnino inclusa sed ab involucro præter basin libera, pericarpio crustaceo v. osseo. Species ad 8, omnes Asiaticæ, Indicæ Malayanæ Chinenses v. Japonicæ. *A. DC. Prod.* xvi. ii. 102. *Korth. in Verh. Nat. Geschied. Bot. t.* 44, 45. *Wight, Ic. t.* 212. *Sieb. et Zucc. Fl. Jap. t.* 2. *Seem. Bot. Her. t.* 92. *Benth. in Hook. Ic. Pl. t.* 1312, 1313.

6. *Lithocarpus*, Miq. Spicæ erectæ, flores ♂, styli et folia *Pasaniæ*. Involucra ♀ majuscula v. magna, ovoidea v. globosa, extus concentrice et oblique zonata v. squamarum apicibus prominentibus rigidis echinata, clausa v. demum prope apicem circumscissa. Nux omnino inclusa, involucro alte v. fere ad apicem cohærens, pericarpio crasso duro granuloso v. osseo. Species 4, Asiaticæ, Indicæ v. Malayanæ. *A. DC. Prod.* xvi. ii. 104. *Benth. in Hook. Ic. Pl. t.* 1314, 1315. *Kurz in For. Fl. Burm.* ii. 489. *Oudem. Annot. Cup. Jav. t.* 11, 12. LITHOCARPUS, *Blume, Fl. Jav. Cupul.* 34, *t.* 20.

8. **Castanopsis,** *Spach in Suit. Buff.* xi. 185.—Flores monoici, utriusque sexus in spicis erectis unisexualibus v. rarius androgynis sessiles. Fl. ♂ sub bractea 1–3, 2-bracteolati. Perianthium campanulatum, 5–6-lobum v. partitum, lobis segmentisve imbricatis. Stamina ∞ (sæpius 10–12), filamentis filiformibus exsertis; antheræ parvæ, loculis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum parvum, hirsutum. Fl. ♀ intra involucrum e squamis imbricatis conferruminatis 3-natim inclusi v. rarius solitarii v. gemini. Perianthium urceolatum, tubo ovario adnato, limbo brevi 6-lobo. Ovarium inferum, post fœcundationem 3-loculare; styli sæpius 3, lineares, ex involucro breviter exserti, stigmate parvo terminali; ovula in loculis gemina, hemianatropa, micropyle supera. Involucrum fructiferum auctum, globosum v. ovoideum, squamarum apicibus parum prominulis plus minus connatis varie annulatum, sæpius tamen aculeis fasciculatis v. ramosis undique dense echinatum v. aculeorum v. tuberculorum fasciculis distinctis armatum, perfecte clausum v. demum irregulariter fissum. Nuces in involucro omnino inclusæ, solitariæ involucro conformes, v. 2–3-næ pressione angulatæ, sæpe pilosæ, pericarpio cartilagineo v. indurato. Semen in nuce abortu sæpius unicum, testa membranacea; cotyledones crasso-carnosæ, in seminibus examinatis æquales, radicula supera inclusa.—Arbores, rarius frutices, habitu *Quercus* sect. *Pasaniæ* v. *Cyclobalani*. Folia alterna, sæpius coriacea, integerrima, parallele penninervia, venulis secundariis parum conspicuis, in paucis tamen speciebus folia dentata v. venulæ inter venas primarias transverse conspicuæ. Spicæ ♂ tenues, rigidulæ, sæpe elongatæ, interdum paniculatæ, ♀ simplices, masculis breviores v. interdum pariter elongatæ. Bracteæ sub floribus ♂ parvæ.

Species nobis notæ ad 25, quarum una Californica, cæteræ omnes Asiaticæ, Indiæ provinciarum orientalium Archipelagi Malayani v. Chinæ australis incolæ. *A. DC. Prod.* xvi. ii. 109. *Blume, Fl. Jav. Cupul. t.* 21 *ad* 24. *Wight, Ic. t.* 218, 417, 769, 770. *Seem. Bot. Her. t.* 86. *Bot. Mag. t.* 4953. *Torr. Bot. Williams. Exped.* 6, *cum ic.* (*omnes sub Castanea*).

Genus, quoad species typicas sectionem *Eucastanopsis* A.DC. formantes, et iconibus citatis illustratas, a *Quercu* sect. *Chlamydobalano* differt involucris extus more *Castaneæ* aculeis densis echinatis, flores nucesque sæpius (nec semper) 3 continentibus. CALLÆOCARPUS. *Miq. Pl. Jungh.* i. 13, ad sectionem *Castanopseos* in Prodromo reductus, species continet paucas, involucris ut in *Chlamydobalano* extus zonatis, zonis parum prominulis tuberculorum v. aculeorum brevium fasciculos dissitos ferentibus. In *C. inermi* (*Castanea inermi*, Lindl.) tuberculi minimi sæpe vix prominuli, species tamen involucris sæpe 2–3-floris huc nec ad *Quercum Chlamydobalanum* referenda.

9. **Castanea,** *Gærtn. Fruct.* i. 181, *t.* 37.—Flores monoici, in spicis erectis unisexualibus v. androgynis sessiles. Fl. ♂ sub bractea ∞, sæpius 3, 2-bracteolati. Perianthium campanulatum, alte partitum, segmentis sæpius 6 imbricatis. Stamina ∞ (10–20), fila-

mentis filiformibus exsertis; antheræ parvæ, ovoideæ v. globosæ, loculis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum parvum pilosum v. obsoletum. Fl. ♀ intra involucrum e squamis imbricatis conferruminatis inclusi, 2–3-nati v. rarius solitarii. Perianthium urceolatum, tubo ovario adnato, limbo campanulato 6-lobo. Staminodia sæpius ∞, circa stylos limbo inclusa. Ovarium inferum, post fœcundationem 6-loculare, loculis apice subconfluentibus; styli 6, lineares, ex involucro exserti, acuminati, stigmate parvo; ovula in loculis gemina, hemianatropa, micropyle supera. Involucrum fructiferum auctum, globosum, aculeis intra squamas fasciculatis densissime echinatum, nuces omnino includens, demum 2–4-valvatim dehiscens. Nuces perfectæ in involucro sæpius solitariæ v. geminæ, pericarpio cartilagineo-coriaceo. Semen in quaque nuce abortu unicum, rarius 2–3, testa membranacea; cotyledones crassæ, plus minus undulato-ruminatæ, radicula supera inclusa.—Arbores. Folia alterna, sæpius serrato-dentata, parallele pennivenia. Spicæ axillares, elongatæ, inferiores masculæ, superiores sæpius androgynæ, floribus fœmineis ad basin solitariis v. paucis. Bracteæ et bracteolæ florem masculum non excedentes.

Species 2, in temperatis hemisphærii borealis crescentes, altera gerontogea, imprimis Asiatica, sed etiam in Europa late dispersa indigena vel jam a tempore remoto culta, altera boreali-Americana. *A. DC. Prod.* xvi. ii. 114. *Nees, Gen. Fl. Germ. Monochl. n.* 25. *Reichb. Ic. Fl. Germ. t.* 640, *Mich. Hist. Arb. Amer. Sept.* ii. *t.* 6, 7; *N. Amer. Sylv.* iii. *t.* 104, 105. *Torr. Fl. N. York, t.* 111.

10. **Fagus**, *Linn. Gen. n.* 1072.—Flores monoici, ♂ laxe globoso-capitati v. in pedunculo 1–3-ni. Perianthium subcampanulatum, 4–7-lobum, lobis imbricatis. Stamina ∞ (8–40), filamentis filiformibus exsertis; antheræ oblongæ, erectæ, basi obtusæ v. sagittatæ, loculis contiguis rima longitudinali dehiscentibus. Ovarii rudimentum 0. Flores ♀ intra involucrum e squamis numerosis basi conferruminatis 2–4-natim inclusi. Perianthium tubo 3-gono ovario adnato, limbo brevi 4–5-lobo. Staminodia 0. Ovarium inferum, 3-loculare; styli 3, lineares et superne introrsum breviter stigmatosi v. breves latiores superficie interiore fere tota stigmatosi; ovula in loculis gemina, pendula, anatropa. Involucrum fructiferum auctum, ovoideum v. subglobosum, aculeis v. fimbriis echinatum, nuces omnino includens, demum valvatim 4-partitum. Nuces 2–4, ad angulos acutæ v. alatæ, pericarpio crustaceo v. subcoriaceo. Semen in quaque nuce abortu unicum; cotyledones crassiusculæ, varie plicatæ, radicula brevi supera.—Arbores, rarius frutices. Folia alterna, pennivenia, sæpius dentata, secus venas primarias plicata v. parvula coriaceaque. Pedunculi ♂ capituliferi v. 1–3-flori, sæpius recurvi v. penduli. Flores in capitulo potius confertim cymosi v. fasciculati quam spicati, bracteis parvis v. 0. Involucra ♀ in axillis superioribus sessilia, solitaria.

Species ad 15, in regionibus temperatis frigidioribusve utriusque orbis tam australibus quam borealibus late diffusæ. *A. DC. Prod.* xvi. ii. 118.

Genus a Blumeo in genera duo divisum quæ sectiones sat distinctas formant:—1. *Eufagus.* Capitula ♂ multiflora globosa. Styli elongati, pilosi, superne introrsum breviter stigmatosi. Involucra fructifera sæpius semipollicaria v. longiora. Folia novella plicato-pennivenia. Species 3, hemisphærii borealis, Americanæ Europææ v. Asiaticæ. *Nees, Gen. Fl. Germ. Monochl. n.* 24. *Reichb. Ic. Fl. Germ. t.* 639. *A. DC. l.c.* (sect. *Eufagus**). *Mich. Hist. Arb. Amer. Sept.* ii. *t.* 8, 9; *N. Amer. Sylv.* iii. *t.* 106, 107. *Torr. Fl. N. York, t.* 110.

2. *Nothofagus.* Pedunculi ♂ breves v. brevissimi, 1–3-flori. Styli breves, sæpe latiusculi, facie interiore fere ubique stigmatosi. Involucra ♀ paucisquamata, fructifera sæpius 2–4 lin. longa. Species ad 12, omnes australes, Americæ Chilensis v. Antarcticæ, Novæ Zelandiæ, v. Australiæ montanæ incolæ. *A. DC. Prod.* xvi. ii. 119, 121 (sect. *Eufagus*** et *Nothofagus*). *Benth. Fl. Austral.* v. 210. *Mirb. in Mém. Mus. Par.* xiv. *t.* 23 *ad* 26. *Pœpp. et Endl. Nov. Gen. et Sp. t.* 194 *ad* 198. *Hook. Journ. Bot.* ii. *t.* 6 *ad* 8, *et Ic. Pl. t.* 630, 639, 652, 673, 881. *Hook. f. Fl. Antarct. t.* 123, 124. *Philippi in Linnæa* xxix. *t.* 12 *ad* 15. NOTHOFAGUS, *Blume, Mus. Bot. Lugd. Bat.* i. 307. LOPHOZONIA, *Turcz. in Bull. Soc. Imp. Nat. Mosc.* 1858, i. 396.

CALUCECHINUS et CALUSPARASSUS, *Homb. et Jaquin. Voy. Pôle Sud, Ic. Phaner. t.* 6 *ad* 8, genera indescripta, ex iconibus eadem videntur ac subsectio *Eufagus*** et sectio *Nothofagus*, A. DC., inter se foliis solis distinctæ, in priore cadiva distincte plicato-pennivenia, in posteriore persistentia, coriacea, venis minus prominulis. Characteres essentiales in utroque omnino *Nothofagi.*

Ordo CLX. **SALICINEÆ.**

Endl. Gen. 290. Lindl. Veg. Kingd. 254.

Flores dioici, in spicis rarius racemis cylindraceis amentiformibus erectis v. præsertim masculis pendulis, sub quaque bractea solitarii. *Perianthium* præter discum 0. Discus (an potius perianthium?) nunc e squamulis 2 glanduliformibus erectis postica et antica v. unica postica, nunc cyathiformis v. cupulatus, oblique truncatus crenatus v. varie lobatus. Fl. ♂: *Stamina* 2–∞, toro affixa, filamentis filiformibus liberis v. plus minus coalitis. *Antheræ* ovatæ parvæque v. oblongæ, basi v. dorso prope basin affixæ, loculis 2 distinctis parallelis longitudinaliter dehiscentibus. *Ovarii* rudimentum nisi in floribus monstruosis 0. Fl. ♀: *Ovarium* sessile v. breviter stipitatum, 1-loculare, placentis 2–4 parietalibus; stylus brevis v. brevissimus, 2–4-fidus; stigmata 2–4, brevia, crassiuscula, emarginata v. 2-fida. *Ovula* in quaque placenta infra medium ovarii ∞, 2–∞-seriata, ascendentia, anatropa. *Capsula* ovoidea v. oblonga, sæpissime acuminata, in valvas 2–4 basi medio placentiferas dehiscens. *Semina* ∞, parva, sæpe minuta, coma densa e pilis longissimis numerosis e funiculo oriundis et cum semine deciduis cincta, testa tenuissima, superne sæpe vacua. *Albumen* 0. *Embryo* rectus, cotyledonibus latis oblongisve plano-convexis æqualibus, radicula brevissima infera.

Arbores fruticesve. Folia alterna, integerrima serrulata dentata v. rarius lobata, penninvenia v. simul basi 3-nervia, decidua. Stipulæ liberæ, nunc parvæ deciduæ squamiformes, nunc foliaceæ diutius persistentes. Amenta sæpe sericeo-villosa, e gemmis paucisquamatis ante foliorum evolutionem prodeuntia v. ramulos breves paucifoliatos terminantia. Bracteæ membranaceæ, nunc fugaces jam ineunte anthesi delapsæ, nunc in amentis ♀ usque ad maturitatem capsularum persistentes.

Species a variis botanicis numero a 150 usque ad 200 v. etiam 300 computatæ, per regiones temperatas frigidasque hemisphærii borealis latissime dispersæ, inter tropicos utriusque orbis rariores, in hemisphærio australi perpaucæ, una sola in Africa australi obvia, una ex Americanis usque ad Chile extensa, in Australasia, Archipelago Malayano et insulis maris Pacifici australis omnino desunt.

Ordo olim cum *Cupuliferis* aliisque pro tribu sub *Amentaceis* inclusus, ab omnibus tamen longiuscule distat florum structura, fructu capsulari, ovulorum et seminum numero et situ, coma semina cingente, aliisque notis, nec ullo alio ordini propius accedit. Sic dicta cupula *Populi* et glandulæ *Salicis* evidenter organa homologa sunt, nam in paucis speciebus *Salicis* glandulæ 2 basi brevissime confluunt, et in *Populo euphratica* cupula carnosula profunde ∞-loba et in floribus nonnullis ♀ in glandulas distinctas dividitur. An pro disco an perianthio habenda dubium remanet.

CONSPECTUS GENERUM.

1. Salix. Discus e glandulis 1–2 distinctis v. vix basi connatis. Pistillum semper 2-merum. Ovula in quaque placenta haud numerosa. Folia sæpius angusta. Amenta sæpius erecta, densa.—*Distrib. ordinis.*

2. Populus. Discus cyathiformis sæpe obliquus v. cupulatus, integer v. lobatus. Pistillum interdum 3–4-merum etsi sæpius 2-merum. Ovula in quaque placenta numerosa. Folia sæpius lata. Amenta saltem ♂ laxa, pendula.—*Hemisph. bor.*

1. **Salix**, *Linn. Gen. n.* 1098.—Amenta sæpius densa, erecta, floribus sessilibus. Discus e squamulis 2 antica cum postica, v. 1 postica, carnosulis glanduliformibus erectis oblongis v. latis obtusis v. retusis. Fl. ♂: Stamina 2 v. in paucis speciebus 3–∞ (usque ad 12), filamentis filiformibus liberis v. rarius alte coalitis filamentum unicum 2-antheriferum simulantibus; antheræ sæpius parvæ. Fl. ♀: Ovarium sessile v. stipitatum, placentis 2; stylus sæpius brevis, ramis 2 brevibus retusis v. 2-fidis; ovula in quaque

placenta sæpius 4–8, 2-seriata. Capsula 2-valvis. Semina ordinis.—Arbores v. frutices, interdum humillimi trunco subterraneo ramis humistratis. Folia sæpius angusta v. parva, integerrima v. serrulata, pennivenia; stipulæ variæ. 'Amenta in regionibus temperatis sæpius præcocia sessilia nuda, in calidis et frigidis coetanea, foliato-pedunculata' (*Anders.*). Bracteæ parvæ integerrimæ v. rarius dentatæ.

Species a monographo perito enumeratæ 160, distributione lata ordinis, ubique formis et modificationibus inter se multifariam connexis scatentes, sæpe hybriditate procreatæ, ultra modum intricatæ. *Anderss. in DC. Prod.* xvi. ii. 191; *Monogr. Sal. pars* 1 (quæ sola edita) *in K. Vetensk. Acad. Stockh. Handl.* vi. *cum tabb.* 9. *Forbes, Salictum Wob.*, 1829, *cum tabb.* 140. *Host. Salix*, 1828, *cum tabb.* 105. *Trautv. Salicetum, in Mem. Sav. Etrang. Acad. Petersb.* iii. 607, *cum tabb.* 4. *Nees, Gen. Fl. Germ. Monochl. n.* 15. *Reichb. Ic. Fl. Germ. t.* 557 *ad* 613. *Mich. in Mém. Mus. Par.* xiv. *t.* 20. *Jacq. Fl. Austr. t.* 298, 408, 409. *Pall. Fl. Ross. t.* 81, 82. *Hayne, Arzneig.* xiii. *t.* 39 *ad* 45. *Ledeb. Ic. Fl. Ross. t.* 453 *ad* 455, 460, 476, 480. *Trautv. in Middend. Reise, Bot. t.* 2, 3, 19, 20. *Lundstr. Weid. Now. Zeml. in Nov. Act. R. Soc. Upsal.* 1877, *cum tab.* 1. *Roxb. Corom. Pl. t.* 97. *Wight, Ic. t.* 1953, 1954. *Brand. For. Fl. t.* 58 *ad* 62. *Kl. et Garcke, Pr. Waldem. Reise, Bot. t.* 89, 90. *Thunb. Ic. Fl. Jap.* iv. *t.* 1. *Webb, Phytogr. Canar. t.* 215. *Hook. Fl. Bor. Amer. t.* 180 *ad* 182. *Torr. Fl. N. York, t.* 117 *ad* 120. *Hook. et Arn. Bot. Beech. Voy. t.* 26, 70. *Seem. Bot. Voy. Herald, t.* 10. *H. B. et K. Nov. Gen. et Sp. t.* 99 *ad* 102. *Leybold in Mart. Fl. Bras.* iv. i. *t.* 71, 72.

2. **Populus**, *Linn. Gen. n.* 1123.—Amenta laxa, mascula sæpius pendula, floribus in utroque sexu sæpe breviter pedicellatis. Discus (an perianthium?) carnosulus v. membranaceus, breviter v. latiuscule cyathiformis, sæpe obliquus, integer dentatus v. irregulariter lobatus. Fl. ♂: Stamina ∞ (4–30), filamentis filiformibus liberis; antheræ sæpe majusculæ. Fl. ♀: Ovarium intra discum sessile, placentis 2–3, rarius 4; stylus brevis, ramis tot quot placentæ integris 2-fidisve; ovula in quaque placenta ∞, sæpe numerosissima, 2-∞-seriata. Capsula 2–3-valvis, rarius 4-valvis. Semina ordinis minima, coma sæpe longa densissimaque nivea.—Arbores ramulis teretibus angulatisve, gemmis squamosis sæpius resinosis. Folia alterna, petiolo haud raro a latere compresso tremula, sæpius lata, pennivenia et basi 3-nervia, integerrima dentata v. lobata, in una specie in eodem ramo sæpe valde heteromorpha; stipulæ angustæ, membranaceæ, fugaces. Amenta laxiora quam in *Salice*, fœminea interdum pedicellis elongatis laxe racemiformia. Bracteæ sæpe in stipitem contractæ, apice dilatatæ dentatæ v. ciliato-fimbriatæ, haud raro fugacissimæ.

Species descriptæ 18, Europæ, Asiæ mediæ v. montanæ et borealis et Americæ borealis Mexico inclusa incolæ. *Wesmaël in DC. Prod.* xvi. ii. 324. *Gærtn. Fruct. t.* 84*a* (98). *Nees, Gen. Fl. Germ. Monochlam. n.* 16. *Reichb. Ic. Fl. Germ. t.* 614 *ad* 619. *Hayne, Arzneig.* xiii. *t.* 46, 47. *Wats. Dendrol. Brit. t.* 102. *Pall. Fl. Ross. t.* 41. *Ledeb. Ic. Fl. Ross. t.* 479. *Royle, Ill. Himal. Bot. t.* 84. *Brand. For. Fl. t.* 63. *Nutt. N. Amer. Sylv. t.* 16. *Torr. Fl. N. York, t.* 121. *Hook. Ic. Pl. t.* 878.

ORDO CLXI. LACISTEMACEÆ.

Endl. Gen. 291. Lindl. Veg. Kingd. 329.

Flores hermaphroditi, sub squamis imbricatis spicæ tenuis cylindraceæ solitarii, 2-bracteolati. *Perianthium* 0 v. e segmentis 6 v. paucioribus distinctis inæqualibus linearibus setaceis v. spathulatis tenuibus interdum petaloideis. *Discus* carnosulus, nunc explanatus breviter sinuato-sublobatus, nunc concavus v. cupulatus genitalia includens, uno latere sæpius fissus. *Stamen* 1, disco affixum, a centro parum distans, filamento leviter complanato v. crassiusculo. Anthera ad apicem filamenti e loculis 2 distinctis sæpius

divaricato-stipitatis, ovoideis, longitudinaliter dehiscentibus. *Ovarium* in centro disci superum, sessile v. brevissime stipitatum, 1-loculare, placentis 3 rarius 2 parietalibus intus vix prominentibus, stigmatibus 3 rarius 2 brevibus erectis coronatum. *Ovula* in quaque placenta 1–2, anatropa, pendula, pleraque tamen jam sub anthesi abortientia. *Capsula* ovoidea v. subglobosa, sæpius 3-quetra, 3-valvatim dehiscens, valvis coriaceis v. subcarnosis medio placentiferis. *Semen* in tota capsula abortu unicum (rarius 2–3 ?), obovoideo-oblongum, pendulum, testa crassiuscule membranaceo-coriacea, strato exteriore sæpius tenuiter carnosulo, exsiccatione testa subcrustacea apparet, strato exteriore in pelliculam tenuem plus minus detergibilem (arillam, auct. plur.) mutato. *Albumen* copiosum, carnosum. *Embryo* in centro albuminis quo parum brevior, rectus, radicula tereti supera, cotyledonibus latis foliaceis sibimet applicitis radiculæ subæquilongis.

Frutices v. arbusculæ. Folia alterna, breviter petiolata, integerrima, penninevia; stipulæ 0. Spicæ graciles, breves, ad axillas sessiles, sæpius fasciculatæ. Squamæ imbricatæ, parvæ, latæ, concavæ. Bracteolæ ad basin pedicelli brevissimi lineari-subulatæ, nunquam deficere videntur. Perianthii segmenta quam maxime variabilia, squamam vix excedunt, sæpius 4–6 valde inæqualia, interdum minimam v. 0.

Species editæ 16, omnes Americæ tropicæ, a Brasilia et Peruvia usque ad Indiam occidentalem et Mexicum extensæ.

1. **Lacistema,** *Swartz, Prod.* 12; *Fl. Ind. Occid.* ii. 1091, *t.* 21. (Nematospermum, *Rich. in Act. Soc. Hist. Nat. Par.* 1792, 105. Synzyganthera, *Ruiz. et Pav. Prod. Fl. Per. et Chil.* 137, *t.* 50; *Syst. Veg.* 273. Didymandra, *Willd. Spec.* iv. 971.)—Genus unicum. Character ordinis.

Species uti supra 16, *Alph. DC. Prod.* xvi. ii. 591. *Schnizl. in Mart. Fl. Bras.* iv. i. 281, *t.* 77 *ad* 81. *Mart. Nov. Gen. et Sp. Bras. t.* 94, 95. *Rudge, Pl. Gui. t.* 4 (*Piper*).

Genus nulli prope affine, ab auctoribus variis cum *Piperaceis, Chloranthaceis, Urticaceis* et *Samydaceis* comparatum, nuperque a Baillonio Hist. Pl. v. 275, sententia Lindleyana secuta, *Bixaceis* cum *Samydeis* adjunctum, ob capsulæ dehiscentiæ et placentationis similitudinem et semina a pluribus arillata dicta. Hic tamen character ex observatione imperfecta deductus est, et florum structura inflorescentiaque a *Samydaceis* longe recedunt. Nobis *Piperaceis* propinquius videtur, etsi ab his etiam pluribus notis distat, imprimis disco evoluto et embryone majore. Inflorescentia cum pluribus *Peperomiis* et *Symbryone* convenit. Ovarium 1-loculare placentis parietalibus in *Houttuynia* observatur, bracteolæ in *Symbryone*, perianthium in *Lactore*. In *Lacistemate* etiam perianthium deest in *L. grandifolio*, Schult., cui potius quam *L. myricoidi* verisimiliter referendum est *Piper fasciculare*, Rudge, Pl. Gui. t. 4. Discus in hac specie supra bracteolam magnus est, cupularis, hinc fissus sed nequaquam corolla dicendus.

Lozania, *Seb. Mut. Sem. Nov. Granad. ex DC. Prod.* iii. 30, est verisimiliter *Lacistematis* species male descripta. Si tamen stirpem alienam designat, ex charactere dato non recognoscenda est et nomen delendum.

Ordo CLXII. EMPETRACEÆ.

Endl. Gen. 1105. Lindl. Veg. Kingd. 285.

Flores unisexuales v. rarius polygami. *Perianthii* segmenta 4–6, subpetaloidea, valde imbricata sæpeque plus minus distincte 2-seriata. *Stamina* 2–3 rarissime 4, in flore ♂ centralia v. sub ovarii rudimenta, in flore ☿ hypogyna; filamenta filiformia v. crassiuscula, sæpe inæqualia, libera; antheræ dorsifixæ, loculis 2 ovoideis contiguis parallelis, rima longitudinali bivalvatim dehiscentibus. *Discus* 0. *Ovarium* in flore ♀ sessile, 2–∞- (usque ad 9-) loculare, globosum v. depressum. *Stylus* brevis v. columnaris, apice in ramos stigmatosos tot quot loculi integros dentatos v. bifidos mox radiato-patentes divisus. *Ovula* in loculis solitaria, angulo centrali lateraliter affixa, amphitropa, micropyle

infera. *Fructus* subglobosus, drupaceus, mesocarpio succulento, pyrenis 2-∞ 1-spermis in annulum collocatis. *Semina* angulo interiori lateraliter affixa, hilo lineari; testa tenuis. *Albumen* copiosum, carnosum. *Embryo* centralis, rectus, teres, albumine paullo brevior, cotyledonibus minimis cum radicula longa infera continuis.

Frutices ericoidei. Folia sparsa, sæpius conferta, parva, linearia v. oblonga, crassiuscula, subtus sulco profundo longitudinali notata, in pulvine brevissimo subarticulata. Stipulæ 0. Flores parvi, axillares v. in capitulum terminalem conferti. Drupæ parvulæ.

Species 4, regionum temperatarum hemisphærii borealis et montium elatiorum v. regionum frigidarum utriusque orbis incolæ.

Ordo distinctissimus, pluribus notis *Euphorbiaceis* nonnullis *Stenolobieis* accedit, nec longe distat habitus ericoideus; stipularum tamen absentia et præsertim radicula infera distincte separatur. Drupæ ∞-pyrenæ in *Euphorbiaceis* rarissimæ sunt, et flores polygami nunquam observantur.

De origine sulcæ paginæ inferioris foliorum confer Gibelli in Nuov. Giorn. Bot. Ital. viii. 49.

CONSPECTUS GENERUM.

1. EMPETRUM. Flores axillares, solitarii. Stamina 3. Gynœcium 6–9-merum.—*Reg. mont. et frigid. utriusque orbis.*

2. COREMA. *Flores ad apices ramorum conferti subcapitati.* Stamina sæpius 3. Gynœcium *sæpius 3-merum.—Amer. bor., Eur. austro-occid., ins. Azores.*

3. CERATIOLA. Flores axillares, 2–3-ni. Stamina 2. Gynœcium 2-merum.—*Amer. bor. civit. austr.*

1. **Empetrum,** *Linn. Gen. n.* 1100.—Flores subdioici, hermaphroditis plus minus perfectis sæpe intermixtis. Perianthii segmenta 6, 2-seriatim imbricata, exteriora suborbiculata, interiora longiora, obovato-oblonga, magis colorata. Stamina 3. Ovarium subglobosum v. vertice depressum, 6–9-loculare; stylus brevis, crassus, ramis stigmatosis tot quot loculi dilatatis radiato-patentibus plus minus dentatis bifidisve. Drupa succulenta fere baccata, pyrenis 6–9 obovoideo-triquetris in annulum collocatis axi centrali nullo distincto. Semina ordinis.—Frutex ericoideus, prostratus, ramosissimus. Folia sparsa, crebra, parva, obtusa, glabra v. lanato-ciliata et intra sulcum dorsalem pubescentia; squamæ ad basin innovationum imbricatæ, longe ciliatæ. Flores parvi, in axillis solitarii, brevissime pedicellati, bracteis 4 (ex Buchenau 5) imbricatis segmentis perianthii exterioribus similibus at gradatim minoribus stipati.

Species 1, regionum frigidarum et montium hemisphærii borealis in utroque orbe incola, etiam per Andes Americæ australis usque ad Americam antarcticam et insulam Tristan d'Acunha extensa, cæterum in hemisphærio australi deest. *A. DC. Prod.* xvi. i. 25. *Buchenau in Bot. Zeit.* 1862, 297. *Nees, Gen. Fl. Germ. Monochl. n.* 42. *Reichb. Ic. Fl. Germ. t.* 158. *Schnizl. Iconogr. t.* 241. *Bot. Reg. t.* 1783.

2. **Corema,** *Don in Edinb. N. Phil. Journ.* ii. (1826–7) 63. (Oakesia, *Tuckerm. in Hook. Lond. Journ.* i. 445. Tuckermannia, *Klotzsch in Wiegm. Archiv.* vii. 248. Euleucum, *Raf. ex A. DC.*)—Flores dioici. Perianthii segmenta 5–6, squamiformia, subpetaloidea, valde imbricata, exterioribus sæpe brevioribus latioribusque sed minus distincte 2-seriata quam in *Empetro*, florum ♀ breviora quam florum ♂. Fl. ♂: Stamina 3, rarissime 4. Ovarii rudimentum rarius plus minus evolutum. Fl. ♀: Ovarium subglobosum, 3- (rarius 2- v. 4-) loculare; stylus cylindraceus, apice in ramos totidem superne introrsum stigmatosos integros v. 2-fidos divisus. Drupa subglobosa, sæpius 3-pyrena. Semina ordinis.—Fruticuli ericoidei. Folia sparsa, conferta, lineari-teretia, subtus sulcata. Flores ♂ in capitula terminalia inter folia summa sessilia conferti, singuli ad axillam bracteæ v. folii floralis squamiformis sessiles, bracteolis tamen nullis extra perianthii lobos. Flores ♀ pariter capitati, sed ramo post anthesin excrescente fructus laterales evadunt.

Species 2, altera boreali-Americana, altera in Europa austro-occidentali et ins. Azores vigens. *A. DC. Prod.* xvi. i. 27. *Link et Hoffm. Fl. Port. t.* 72 (*Empetrum*). *Hook. Ic. Pl. t.* 531. *A. Gray, Chlor. Bor. Amer. t.* 1.

3. **Ceratiola,** *Mich. Fl. Bor. Amer.* ii. 221.—Flores dioici. Perianthii segmenta 4–6, squamiformia, subpetaloidea, valde imbricata, quarum 2–3 latissima, extimo breviore; 1–2 interiora sæpius minora v. angustiora, sed series 2 non rite distinguendæ. Stamina 2, absque ovarii rudimento in fl. ♂. Ovarium in fl. ♀ obovoideum, 2-loculare; stylus cylindraceus, in ramos stigmatosos 2–4 valde inæquales et interdum dentatos divisus. Drupa 2-pyrena. Semina ordinis.—Fruticulus ericoideus, ramis virgatis. Folia anguste linearia, subtus sulcata. Flores secus ramos numerosi, ad axillas 2–3-ni, sessiles, singuli bractea perianthii segmentis minore stipati, ebracteolati. Drupæ quam in *Empetro* et *Coremate* multo minores.

Species 1, Americæ borealis civitatum australiorum incola. *A. DC. Prod.* xvi. i. 27. *Pursh, Fl. Amer. Sept. t.* 13. *Bertol. Misc. Bot.* xiii. *t.* 1 (*Empetrum, male*). *Bot. Mag. t.* 2758.

Ordo CLXIII. CERATOPHYLLEÆ.

Endl. Gen. 267. Lindl. Veg. Kingd. 263.

Flores monoici, ad axillas sessiles, solitarii. *Perianthium* tenuiter herbaceum submembranaceum, æquale, ∞-partitum, segmentis (6–12) angustis subvalvatis apice sæpe dentatis v. laceris. *Flores* ♂: *Stamina* ∞ (10–20) in toro plano v. convexo conferta, filamentis brevissimis. *Antheræ* fere sessiles, erectæ, lineari-oblongæ, perianthium æquantes, loculis 2 linearibus parallelis adnatis rimis longitudinalibus extrorsum dehiscentibus, connectivo ultra loculos in appendicem crassum coloratum sæpius 2–3-dentatum producto. *Ovarii* rudimentum 0. *Flores* ♀: *Staminodia* 0. *Ovarium* 1, sessile, ovoideum, 1-loculare. *Stylus* cum ovario continuus breviter cylindraceus, in laminam longiusculam lineari-subulatam canaliculatamve v. sublanceolato-expansam (facie ? v. margine ?) stigmatosam productus, et ad basin laminæ interdum lobulo parvo auctus. *Ovulum* 1, pendulum, anatropum. *Fructus* nuceus, indehiscens, perianthio marcescente stipatus v. deciduo denudatus, ovoideus v. ellipsoideus, compressiusculus. *Pericarpium* coriaceum v. crustaceum interdum induratum, nunc læve obtusum v. styli basi persistente brevissime mucronatum, nunc styli basi elongata indurata apice aculeatum et basi aculeis utrinque divaricatis v. reversis 2-spinosum rarius 3–4-spinosum, v. ala angusta coriacea denticulata cinctum v. undique tuberculosum, lamina stigmatosa styli marcescente v. decidua. *Semen* ab apice loculi pendulum, testa membranacea. *Albumen* 0. *Embryo* rectus, cotyledonibus oblongis crassiusculis æqualibus, radicula supera brevissima, plumula valde evoluta jam in semine polyphylla.

Herbæ aquaticæ submersæ, ramis elongatis fluitantibus undique foliosis. Folia verticillata, 2-fida v. dichotome divisa, laciniis filiformibus v. lineari-complanatis rigidulis, sæpe dissite denticulatis. Flores in verticillo solitarii, ♂ et ♀ ad nodos diversos alterni v. nodi ♂ inferiores, ♀ superiores.

Species v. varietates insigniores 2, a variis auctoribus usque ad 8–10 multiplicatæ, ad aliis in unam junctæ, in aquis dulcis orbis fere totius vigentes.

Genus unicum distinctissimum a variis auctoribus ordinibus variis plus minus remotis frustra comparatum, et pro ordine proprio ab omnibus admissum. A. Gray tamen jam in Ann. Lyc. N. York, iv. 41 (1837), notavit embryonem *Nelumbonis* cum habitu *Cabombæ*, et forte *Ceratophyllum* revera pro forma valde depauperata *Nymphæacearum* habendum, cæteri tamen characteres longe discrepant.

1. **Ceratophyllum,** *Linn. Gen. n.* 1065. (Dichotophyllum, *Dill.*; *Mœnch. Meth.* 345.)—Genus unicum. Character ordinis.

Species uti supra 1 v. 2. *DC. Prod.* iii. 73. *W. et Arn. Prod. Fl. Penins.* 309. *Cham. in Linnaa*, iv. 503, *t.* 5. *Gærtn. Fruct. t.* 44. *Nees, Gen. Fl. Germ. Monochl. n.* 1 (*mediocriter*). *Schnizl. Iconogr. t.* 83 (*bene*). *Wight, Ic. t.* 1948.

Caruel in Nuov. Giorn. Bot. Ital. viii. 28, t. 3, acumen ovarii quod pro stylo cum lamino stigmatoso descripsimus, perianthii adnati limbum dixit, perianthium nostrum involucrum nuncupat, et stigma verum descripsit ad basin limbi (laminæ stigmatosæ) quod tamen in floribus pluribus in vivo iterum iterumque examinatis frustra quæsivimus, et lamina terminalis facie v. margine stigmatosa nobis apparuit, ut in iconibus citatis delineatur, meliusque a B. Clarke in Ann. Nat. Hist. ser. 2, xi. t. 14, f. 1 ad 3, et xii. t. 3, f. 5.

GYMNOSPERMEÆ.

Ordo CLXIV. GNETACEÆ.

Endl. Gen. 262. Lindl. Veg. Kingd. 232.

Flores unisexuales, sæpius dioici, intra bracteas oppositas v. rarius ternatim verticillatas sessiles, in spicas densas amentiformes v. interruptas dispositi. Fl. ♂: *Perianthium* tubuloso-clavatum v. laxum, apice valvatim 2-lobum v. uno latere fissum. *Staminum* filamenta in columnam v. tubum coalita; antheræ ad apicem columnæ v. tubi 2–8, sessiles v. breviter stipitatæ, subglobosæ, 1-3-loculares, vertice poris v. rimis brevibus 1–3 dehiscentes. *Ovulum* centrale sterile v. 0. Fl. ♀: *Ovuli* nucleus utriculo duplici v. triplici inclusus; exterior (perianthium?) carnosulus v. membranaceo-fibrosus, apice foramine parvo pervius; interior (ovuli integumentum?) membranaceus, nucleo breviter demum altius adnatus, superne liber, supra nucleum in tubum longum tenuem e foramine perianthii exsertum productus; intermedius dum adsit exteriore inclusus. *Nucleus* centralis, ovoideus v. oblongo-conicus, obtusus, apice pollen excipiens, intus ante fœcundationem solidus v. centro obscure cavus, post fœcundationem saccos amnioticos 1-2 continens. *Fructus* nunc drupaceus ovoideus v. oblongus, nunc membranaceo-compressus, pericarpio duplici v. simplici ex utriculo exteriore formato. *Semen* erectum, testa ex utriculo interiore cum strato exteriore nuclei formata, tubulo persistente sæpe coronata. *Albumen* tenue v. crassiusculum. *Embryo* rectus, albumine parum brevius, cotyledonibus sibimet applicitis radicula vix v. multo brevioribus.

Frutices rarius arbores, opposite foliati v. squamati v. ad truncum obconicum supra planum reducti. Folia v. squamæ dum adsint basi sæpius connata, ramis ad nodos sæpissime articulatis; stipulæ 0. Spicæ axillares v. terminales, nunc bractearum paribus arcte approximatis v. imbricatis amentiformes, nunc paribus distantibus interruptæ. Flores intra bracteas nunc utrinque solitarii, ad nodos oppositi, nunc ∞, 1–∞-seriatim verticillati. Staminum columnæ et ovulorum tubulæ ultra bracteas prominulæ.

Species ad 40, pleræque tropicæ, tam Americanæ quam gerontogeæ, paucæ in regionibus temperatis utriusque orbis extensæ.

Ordo distinctissimus, olim *Coniferis* adjunctus, a botanicis recentioribus iis rite approximatus et characteribus certis separatus.

CONSPECTUS GENERUM.

1. Welwitschia. Truncus lignosus, humilis, crassus, longævus, supra plano-truncatus, præter cotyledones longe accretas patentes aphyllus. Spicæ utriusque sexus imbricatæ, strobiliformes, multifloræ, ad margines trunci paniculatæ.—*Afr. trop., austro-occid.*

2. Ephedra. Frutices aphylli, ramis articulatis, squamis ad nodos oppositis in vaginulam connatis. Spicæ in axillis pedunculatæ v. ad apices ramorum paniculatæ, ♂ imbricatæ floribus in omnibus axillis oppositis, ♀ 1-2-floræ, squamis inferioribus laxis vacuis.—*Eur. austr., Reg. Mediterr., Asia et Amer. trop. et temp.*

3. Gnetum. Frutices rarius arbores, oppositifolii, ramis nodosis. Spicæ densæ v. interruptæ, axillares v. paniculatæ, floribus intra cupulam e squamis oppositis connatis ∞ pseudoverticillatis.—*Asia, Africa et Amer. intra tropicos.*

1. **Welwitschia,** *Hook. f. in Trans. Linn. Soc.* xxiv. i. *t.* 1 *ad* 14. (Tumboa, *Welw. olim in Diariis nonnullis Hortul.*)—Flores dioici, utriusque sexus in spicis amentiformibus intra bracteas squamiformes oppositas v. rarius ternatim verticillatas quadrifariam rarius sexfariam imbricatas solitarii, sessiles. Fl. ♂: Perianthium laxe membranaceum, compressum, breviter 2-lobum, lobis latis valvatis postico et antico, bracteolis 2 lateralibus carinatis perianthio vix brevioribus stipatum. Staminum filamenta in tubum laxum exsertum apice inter antheras truncatum alte connata; antheræ 6, ad apicem columnæ breviter stipitatæ, subglobosæ, vertice poris 3 mox in rimas breves confluentibus dehiscentes. Intra tubum adest utriculus membranaceus (ovuli integumentum, *Hook. f.*; ovarium imperfectum, *M'Nab*) in collum longe tubulosum flexuosum apice in discum latum concavum inter antheras dilatatum productus; intra utriculum nucleus ovoideus, obtusus v. breviter acuminatus, nucleo ovuli florum fœmineorum similis sed sterilis. Fl. ♀: Ovulum utriculo duplici inclusum; utriculus exterior (perianthium?) planus, latus, membranaceo-fibrosus, apice foramine minuto pervius, lateribus utrinque in alam latam tenuem squamæ amenti appressam dilatatis; interior (ovuli integumentum) tenuiter membranaceus, basi ovulo adnatus, superne ab eo liber, in tubum longum flexuosum superne subulatum e perianthio ultra squamas amenti longe exsertum vertice minute 2-dentatum productus; ovulum ipsum (ovuli nucleus) sessile, ovoideo-oblongum, obtusum. Fructus sub squamis amenti siccus, compressus, 2-alatus, utriculo exteriore floris ♀ aucto fibroso cæterum immutato, interiore membranaceo albumen laxe involvente. Embryo in centro albuminis granulosi linearis, teres, cotyledonibus 2 parvis sibimet arcte applicitis, radicula longiore supera apice carnosō-incrassata.—Truncus lignosus, longævus, crasso-conicus, vertice plano-truncatus, supra terram parum prominens, pedes plures diametro attingens, præter folia primordialia e cotyledonibus accreta aphyllus. Hæc tamen ad marginem trunci opposita, patentia, persistentia, demum pluripedalia et in segmenta longa dilacerata. E vertice plano trunci oriuntur inflorescentiæ marginales aphyllæ, rigide dichotome ramosæ, squamis oppositis ad dichotomias vaginantibus. Spicæ amentiformes, coloratæ, ♂ ad apices ramulorum v. in dichotomiis sessiles fasciculatæ, 1–1½ pollicares, ♀ pauciores, majores, crassiores, utplurimum breviter pedunculatæ. Squamæ utriusque sexus arcte imbricatæ, antheræ solæ in ♂, tubuli in ♀, e squamis prominentes.

Species 1, regionum aridarum Africæ tropicæ austro-occidentalis incola. *Parlat. in DC. Prod.* xvi. ii. 359 (partium interpretatione a nostra valde discrepante). *M'Nab, in Trans. Linn. Soc.* xxviii. 507, *t.* 40. *Strasb. Conif.* 141, *t.* 18 *ad* 20. De crystallis in ligno *Welwitschiæ* copiosissimis cfr. Solms-Laubach in Bot. Zeit. 1871, 509.

2. **Ephedra,** *Linn. Gen. n.* 1136. (Chætocladus, *Senil. seu Nels. Pin.* 161.)—Flores unisexuales, sæpius dioici, intra bracteas oppositas decussatim imbricatas solitarii. Fl. ♂ in spicula ∞: Perianthium tenuiter membranaceum, laxum, apice breviter 2-lobum, lobis latis valvatis postico et antico, ebracteolatum. Stamina in fundo perianthii affixa, filamentis in columnam apice exsertam connatis; antheræ ad apicem columnæ 2–8, sessiles, 2-loculares, loculis vertice poro terminali mox in rimam extenso dehiscentibus. Fl. ♀ in spicula intra bracteas summas, solitarii v. gemini, terminales, bracteis exterioribus vacuis: Ovuli nucleus sessilis, ovoideus, utriculis 2 apice foramine parvo perviis inclusus; utriculus exterior (perianthium?) carnosulus, apice breviter acuminatus; interior membranaceus, nucleo vix basi adhærens, ultra nuculam in tubulum tenuem longe exsertum superne 2-lobum v. uno latere fissum productus. Fructus drupaceus, oblongus, indehiscens, strato exteriore carnoso, interiore crustaceo v. indurato, membrana intima tenui hyalina (ovuli utriculo interiore) albumen involvente, sæpeque tubulo persistente coronata. Embryo albumine carnoso parum brevior, cotyledonibus oblongis semiteretibus radicula supera (in seminibus examinatis) vix brevioribus.—Frutices aphylli, erecti v. scandentes, fasciculato-ramosissimi, ramis nodosis articulatis, vaginis ad nodos minimis v. utrinque in squamulas lineares oppositas productis. Florum spiculæ parvæ, subglobosæ, in axillis vaginarum pedunculatæ v. ad apices ramorum paniculatæ. Bracteæ spicularum ♂ omnes floriferæ. In spiculis ♀ flos unicus terminalis subteres, v. flores 2 faciebus interioribus complanatis sibimet arcte appliciti. Bracteæ exteriores vacuæ, decussatim imbricatæ, v. in

speciebus nonnullis laxæ dilatatæ plus minus coloratæ. Flos terminalis spicularum ♂ interdum ♀ est, sed ut videtur imperfectus sterilisque.

Species descriptæ ad 30, sed imprimis a Miersio nimis multiplicatæ, Europæ australis, Africæ borealis, Asiæ temperatæ et subtropicæ et Americæ extratropicæ v. Andinæ a Bonaria et Chile usque ad Texam et Californiam incolæ. *C. A. Mey. Monogr. Ephedr. ex Mem. Acad. Petersb.* 1846, *cum tabb.* 8. *Parlat. in DC. Prod.* xvi. ii. 353. *Miers in Ann. Nat. Hist. ser.* 3, xi. 252; *Contrib. Bot.* ii. 164, *t.* 75 *ad* 79. *Strasb. Conif.* 132, *t.* 14 *ad* 17, 22. *L. C. Rich. Conif. t.* 4. *Nees, Gen. Fl. Germ. Monochl. n.* 13. *Reichb. Ic. Fl. Germ. t.* 539. *Wats. Dendrol. Brit. t.* 142. *Sibth. Fl. Græc. t.* 961. *Lange, Ic. Pl. Hisp. t.* 32. *Desf. Fl. Atl. t.* 253. *Pall. Fl. Ross. t.* 83. *Brand. For. Fl. t.* 69. *S. Wats. Bot.* 40 *Parall.* 328, *t.* 39. *Bertol. Misc. Bot.* xxiii. *t.* 3. *Tul. in Mart Fl. Bras.* iv. i. 404, *t.* 107.

3. **Gnetum,** *Linn. Mant.* 18, *n.* 1278. (Thoa, *Aubl. Pl. Gui.* ii. 874, *t.* 336. Abutua, *Lour. Fl. Coch.* 630.)—Flores unisexuales, sæpius dioici, intra cupulam e bracteis 2 oppositis connatis formatam ∞, sessiles, pseudoverticillati, singuli pilis articulatis v. pulvino velutino cincti v. semi-immersi. Fl. ♂: Perianthium lineari-clavatum, obtusum, integrum v. facile valvatim 2-fidum. Stamina in fundo perianthii affixa, filamentis in columnam apice ex ore exsertam connatis; antheræ 2, 1-loculares (v. loculi 2 antheræ unicæ), distinctæ, ad apicem columnæ sessiles, vertice 2-valvatim dehiscentes. Fl. ♀ perfecti: Ovuli nucleus sessilis, ovoideus v. globosus, utriculis 3 apice foramine parvo perviis inclusus; utriculus exterior (perianthium?) carnosulus, apice obtusus v. breviter acuminatus, uno latere plus minus fissus; secundus intermedius (andrœcium imperfectum ex *Beccari*) exteriore inclusus eoque paullo brevior; intimus (ovuli integumentum) tardius evolutus, nucleo basi adnatus, superne laxe membranaceus et ultra nuculam in tubulum tenuem longe exsertum apice sæpe dentatum v. fimbriatum productus. Fl. alii imperfecte ♀ quasi neutri: Nucleus (semper sterilis *Beccari*) utriculo duplici inclusus, utriculo utroque apice obtuso foramine parvo pervio, tubulo nullo exserto. Fructus drupaceus, ovoideus v. oblongus, indehiscens, strato exteriore tenuiter carnoso, interiore crustaceo v. indurato, membrana intima fibrosa ab exterioribus libera albumen laxe involvente (ex utriculo interiore et nuclei substantia formato, *Griff.*). Albumen copiosum, carnosum; embryo centralis, ovoideo-clavatus, radicula in filum sæpe longissimum intricato-flexuosum (a plerisque funiculum dictum) producta; cotyledones 2, breves.—Frutices alte scandentes v. rarius erecti v. arbores, nodosi, glabri. Folia opposita, coriacea, penninevia. Flores parvi, perfecti utriusque sexus in verticillis et sæpius in stirpibus distinctis separati, ♂ in verticillis sæpe ∞-seriati, ♀ pauciores; verticilli nunc in spica interrupte nodosa dissiti, nunc in spicam densam conferti, spicis axillaribus terminalibusque solitariis fasciculatis v. paniculatis. Flores imperfecte ♀ seu neutri (in *G. Gnemone*, Linn., affinibusque) seriem interiorem formant verticillorum masculorum; in *G. scandente*, Roxb., affinibusque ut in speciebus Americanis nondum observati.

Species ad 15, pro maxima parte Asiæ et Americæ tropicæ incolæ, una tamen in Africa tropica a Welwitschio, altera in ins. Fiji maris Pacifici ab Harveyo detecta. *Griff. in Trans. Linn. Soc.* xxii. 299, *t.* 55, 56. *Blume, Rumphia*, iv. 1, *t.* 174 *ad* 176. *Parlat. in DC. Prod.* xvi. ii. 349. *Strasb. Conif.* 155, *t.* 21. *Welw. in Trans. Linn. Soc.* xxvii. 73. *Wight, Ic. t.* 1955. *Seem. Fl. Vit.* 434. *Beccari in Nuov. Giorn. Bot. Ital.* ix. 91, *t.* 7. *Hook. Kew Journ.* viii. *t.* 2, 3. *Brongn. in Duperr. Voy. t.* 1. *Tul. in Mart. Fl. Bras.* iv. i. 399, *t.* 102 *ad* 106.

Griffithii dissertatio optima supra citata ex observationibus repetitis ad vivum institutis instructa a Parlatorio uti a Tulasneo infeliciter prætervisa fuit. Floris præsertim fœminei evolutionem plane docet, ejusque conclusiones bene comprobantur ex observationibus Beccarii pariter in loco natali ad vivum institutis.

Abutua africana, Lour., cujus flores fructusque ignoti sunt, est verisimiliter a genere longe aliena et certe a *Gneto africano*, Welw., valde diversa, species cæterum nequaquam recognoscenda et ex enumeratione delenda.

ORDO CLXV. **CONIFERÆ.**

Endl. Gen. 258 ad 262, et Suppl. iv. ii. 1 (CUPRESSINEÆ, ABIETINEÆ et TAXINEÆ), et Syn. Conif. Sangalli, 1847. Carrière, Traité Gen. des Conif. Paris, 1855. Henkel et Hochst. Syn. Nadelhölz. Stuttgardt, 1865. Strasburger Conif. und Gnet. Jena, 1872, cum tabb. 26. PINACEÆ et TAXACEÆ, Lindl. Veg. Kingd. 226, 230.

Flores unisexuales, monoici v. dioici. *Perianthium* deest in utroque sexu. Fl. ♂ (amenta ♂ *Parlat.*) solitarii, rarius spicati v. capitati. *Stamina* ∞, sæpius numerosa; filamenta alte connata (cum v. absque axe centrali), columnam globosam ovoideam oblongam v. sæpius cylindraceam formantia. *Antheræ* (flores ♂ *Parlat.*) circa axin columnæ breviter stipitatæ v. rarius sessiles, oppositæ decussatæque v. alternatim 3–4-natim verticillatæ, v. sæpius ∞-seriatim spiraliter confertæ; loculi (antheræ *Parlat.*) nunc 2–∞ inter se liberæ, ab apice stipitis v. a connectivo penduli, nunc 2 inter se plus minus connati et sæpe stipiti adnati, globosi ovoidei v. oblongo-lineares, rima longitudinali obliqua v. transversa deorsum introrsum v. lateraliter dehiscentes 2-valvesque. Connectivum (bractea *Parlat.*) ultra loculos sæpe in appendicem squamiformem productum, interdum vero inappendiculatum. *Pollen* globosum v. ellipsoideum in pluribus generibus imprimis in *Cupressineis* simplex, in aliis præsertim *Abietineis* utroque latere gibbo v. lobo globoso (vesiculo aerifero) auctum, sed vix semper in eadem tribu constans. Fl. ♀ in spicas bracteatas amentiformes (*amenta*) dispositi v. supra bracteas squamiformes imbricatas solitarii; amenti squamæ oppositæ decussatæque v. alternatim 3–4-natim verticillatæ v. sæpius spiraliter confertæ ∞-seriatæ, specie simplices v. duplices polymorphæque, revera e laminis 2 compositæ, bractea et lamina ovulifera. *Bractea* sub anthesi sæpius magis conspicua quam lamina ovulifera, nunc fere a basi libera membranacea, post anthesin immutata v. parum aucta rarissime laminam seminiferam superans, nunc laminæ ovuliferæ alte adnata et cum ea post anthesin varie accreta, rarius jam sub anthesi lamina ovulifera brevior. *Lamina ovulifera* seu axis secundaria (a variis auctoribus *torus, discus, perianthium, involucrum* v. *ovarium apertum* dicta) ad axillam bracteæ eique basi v. sæpius omnino adnata, jam sub anthesi carnosa v. rarius tenuis, post ovuli fœcundationem mox accreta et valde polymorpha, formis insignioribus in characteribus tribuum quærendis. *Ovula* nuda, prope basin v. rarius infra apicem laminæ ovuliferæ affixa, sessilia v. basi laminæ subimmersa, erecta v. reversa, nunc in lamina solitaria nunc 2–∞ collateralia v. rarius irregulariter 2–3-seriata; integumentum exterius nucleo basi adnatum, superne liberum nucleum sæpius superans, cupulatum v. urceolatum, apice sub anthesi v. apertum v. pervium, post fœcundationem sæpius clausum; nucleus brevior, apice pollen accipiens, post fœcundationem interdum saccos amnioticos 2–3 continens. *Fructus* normalis strobilaceus, ex amento fœmineo formatus, squamis varie accretis sæpius induratis v. carnosis imbricatis supra semina arcte clausis, maturitate demum hiantibus et post semina delapsa diu persistentibus, rarius cum seminibus deciduis; in paucis generibus, floribus solitariis v. seminibus e bracteis immutatis longe exsertis, strobilus non evolvitur. *Semina* 1–∞, in lamina ovulifera varie aucta sessili v. in stipitem contracta sessilia, v. lamina adnata inclusa, erecta v. reversa, ovoidea v. oblonga, sæpe compressa, haud raro varie alata, in *Abietineis* laminam hyalino-scariosam e strato interiore laminæ ovuliferæ auferentia pseudosamaroidea; testa membranacea coriacea crustacea indurata v. drupacea, nuda v. lateraliter 2–3-alata, v. in alam terminalem producta semen revera samaroideum efficiens; integumentum interius sæpius testæ basi tantum adnatum, superne a testa liberum, albumini applicitum. *Albumen* copiosum, carnosum v. subfarinaceum, æquabile v. rarius ruminatum. *Embryo* (rarius embryones 2–3 in eodem semine) in centro albuminis rectus, sæpius angustus et subteres, radicula supera (ab hilo remota) brevi v. sæpe longiuscula, cotyledonibus 2–∞ æqualibus radicula brevioribus v. rarius longioribus.

Arbores rarius frutices, sæpissime sempervirentes; rami sæpe, ob gemmas quotannis ad

basin innovationis terminalis evolutas, pseudoverticillati, in aliis generibus sparsi. Folia sempervirentia v. in perpaucis generibus hieme decidua, opposita 3-natim rarius 4-natim verticillata v. subspiraliter alterna, nunc omnia v. saltem ramulorum floriferorum crassiuscule squamiformia, ramulis appressa v. imbricata, nunc omnia acicularia v. anguste linearia patentia et quaquaversa v. subdisticha, nunc in aliis ramulis squamiformia in aliis acicularia, rarissime e lanceolata ovata plana et coriacea, integerrima v. rarius minutissime serrulata v. lobata, in *Pino* valde anomala. Flores (rarius capitula) ♂ in gemmis v. ramulis terminalibus v. axillaribus sessiles, v. breviter pedicellati, bracteis parvis squamiformibus imbricatis sæpe stipati; columna staminea nunc parva subglobosa, nunc ovoidea oblonga v. dense cylindracea usque ad 1–2 poll. longa. Amenta ♀ sæpius terminalia, interdum gemmis floriferis brevissimis lateralia evadunt. Strobili nunc minimi, sæpe 1–3-pollicares, interdum 6–8-poll. diametro.

Species notæ ad 300, pro maxima parte per regiones temperatas v. montanas tam boreales quam australes utriusque orbis late dispersæ, interdum præsertim in hemisphærio boreali sylvas vastas constituentes, inter tropicos pauciores.

Ordo naturalis, nulli prope affinis nisi cæteris *Gymnospermeis* (*Gnetaceis Cycadeisque*). A Parlatore (in DC. Prod. xvi. ii. 363) *Casuarineis Betulaceis*que summopere accedere dicitur, verisimiliter ob similitudinem quamdam organorum vegetationis *Casuarinæ* et *Callitridis*, sed characteres florum et fructuum toto cælo distant. De horum structura multum disputatum est, et homologiæ nonnullæ adhuc dubiæ remanent. Apud auctores nonnullos, præsertim Parlatore in Prodromo, floris masculi columna staminea supra descripta est amentum ∞-florum, antherarum connectiva bracteæ dicuntur et loculi antheræ distinctæ nuncupati. Floris fœminei structuram veram bene indicavit R. Brown in Appendice ad King, Surv. Austral. ii. 554, et in pluribus speciebus optime illustravit L. C. Richard in opere posthumo Commentatione de Coniferis et Cycadeis, Stutgardiæ 1864, cum tabulis 29. Postea ovulum nudum a variis auctoribus in Prodromo citatis et a Parlatore ipso negatum est, lamina ovulifera nunc lepidium nunc involucrum dicta, ovuli integumentum exterius pro pistillo habitum et nucleus pro ovulo vero. De his variis sententiis præter opera citata confer—Zuccarini in Abhandl. Bay. Acad. Münch. iii. 753 cum tabb. 5. Baillon, Adansonia i. 1. Dickson in Edinb. N. Philos. Journ. ser. 2, xiii. 193. Eichler in Mart. Fl. Bras. iv. i. 435. Van Tieghem in Ann. Sc. Nat. ser. 5, x. 269, t. 13 ad 16. De floris ♂ homologia et structura confer imprimis Mohl, Verm. Schrift. 45, t. 1. De anatomia et structura *Coniferarum* optime tractatur in opere supra citato Strasburgii, cujus tamen conclusiones nonnullas negat Benth. in Proc. Linn. Soc. 1872-3, 11 (Address 1873, p. 4), nuperque quodammodo emendavit auctor ipse in Angiosp. et Gymnosp., Jena, 1879. *Coniferæ* præsertim cultæ illustrantur in operibus: Lambert, Pinus, ed. major, Londini, 1803, cum tabb. 43, et vol. ii. 1824, cum tabb. 11; ed. minor 1832, cum tabb. 81. Forbes, Pinetum Woburnense, Londini, 1839, cum tabb. 67. Gordon, The Pinetum, Londini, 1858, cum supplemento 1862. A. Murray, Pines and Firs of Japan, Londini, 1863, cum ic. xylogr. plur. Adnotationes etiam plures utilissimas accepimus a G. Engelmann in litt.

FORMÆ ABNORMES.

Ramuli phyllodinei in *Phyllocladо* et *Sciadopito*.

Folia lobata in *Gingko*, secundaria acicularia a primariis squamiformibus insigniter diversa in *Pino*, ramorum nonnullorum sterilium acicularia a squamiformibus ramulorum fertilium valde diversa in speciebus pluribus *Juniperi* et *Dacrydii*, hieme decidua in *Larice* et *Taxodio*.

Flores ♂ plures, capitati, in *Juniperi* sect. *Caryocedro*, in *Cephalotaxo* et in *Cunninghamia*.

Antherarum connectivum submuticum esquamatum in *Taxo*, *Saxegothæa*, *Tsuga*, *Pseudotsuga*, *Abiete*, *Larice* perpaucisque aliis, vix appendiculatum in *Cephalotaxo*, *Torreya*, *Ginkgo*, *Pherosphæra*, *Podocarpo*.

In floribus ♂ monstruosis hinc inde præsertim in *Abietineis* perpaucis observatis, axis centralis superne squamas nonnullas irregulariter ovuliferas evolvit.

De floris ♂ formis valde diversis cfr. tribuum characteres.

Seminis albumen insigniter ruminatum in *Torreya*.

CONSPECTUS GENERUM.

SERIES A. *Ovula saltem sub anthesi erecta.*

Tribus I. Cupressineæ. Amenti ♀ squamæ 2–∞-seriatæ, in quaque serie oppositæ v. 3-natim rarius 4-natim verticillatæ. Ovula sub squamis fertilibus 2–∞, rarius 1. Folia ramulorum

fertilium opposita v. ternatim verticillata, sæpius parva crassa, squamiformia. Lamina ovulifera bracteæ adnata, primum ea brevior, mox aucta, demum squamam fere totam efficiens, bracteæ apice ad umbonem v. mucronem dorsalem reducto. Strobili squamæ excepta *Junipero*, demum apertæ, persistentes.

1. CALLITRIS. Strobili squamæ 4, 6 v. 8, omnes fertiles, ad normam 2-seriatæ, sed specie 1-seriatæ, demum valvatim apertæ, dorso nudæ.—*Africa, Madagasc., Australia, N. Caled.*

2. ACTINOSTROBUS. Strobili squamæ 6 fertiles, ad normam 2-seriatæ, sed specie 1-seriatæ demum valvatim apertæ, singulæ dorso squamis exterioribus vacuis 2-seriatim appressis appendiculatæ.—*Australia.*

3. FITZROYA. Strobili squamæ 2–3 fertiles, 1-seriatim valvatæ, exterioribus vacuis 1-2-eriatis. Semina sub squama 2–3, 2–3-alata.—*Chile, Tasmania.*

4. LIBOCEDRUS. Strobili squamæ 2 fertiles, 2 exteriores et interdum 2 intimæ vacuæ. Semina sub squama 2, superne alata, samaroidea.—*Chile, N. Zel., N. Caled., China, Japonia, California.*

5. THUYA. Strobili ovoidei v. oblongi rarius subglobosi squamæ 2–6 (parium 1-3) fertiles, 2 rarius 4 exteriores et 2 intimæ vacuæ. Semina sub squama 2–3, rarissimo 5, utrinque alata v. exalata.—*Amer. bor., Asia or. extratrop.*

6. CUPRESSUS. Strobili globosi lignosi squamæ 4 v. 6 (parium 2–3) fertiles, 2 rarius 4 exteriores et interdum 2 intimæ vacuæ. Semina sub squama ∞, angusto 2-alata.—*Asia temp., Eur. austr. or., Amer. bor., Mexico.*

7. JUNIPERUS. Strobili globosi carnosi drupiformis v. bacciformis indehiscentis squamæ 2–6 fertiles. Semina in strobilo 1–6, testa dura, distincta v. in massam globosam crassam lignosam endocarpium simulantem conferruminata.—*Hemisph. bor. reg. extratrop. et mont.*

Tribus II. Taxodieæ. Amenti ♀ squamæ spiraliter confertæ. Ovula sub squamis fertilibus 2–6, erecta, in generibus 2 post anthesin obliqua horizontalia v. subreversa. Folia spiraliter affixa quaquaversa v. distiche patentia. Lamina ovulifera bracteæ adnata, demum ut in *Cupressineis* valde aucta, squamam fere totam efficiens, rarius sub semine maturo immutata parvaque.

8. CRYPTOMERIA. Lamina ovulifera adnata apice digitatim 5-fida. Ovula 3–6. Strobili squamæ ob lobos laminæ ovuliferæ et bractearum apices prominentes echinatæ.—*Japonia, China.*

9. TAXODIUM. Lamina ovulifera margine integra. Ovula 2. Strobili squamæ apice lignosæ, dilatatæ, truncatæ, dorso vix medio umbonatæ v. mucronatæ, semina includentes.—*Amer. bor., Mexico, China.*

10. SEQUOIA. Lamina ovulifera margine integra. Ovula 3–6, sæpius 5, post anthesin sæpe horizontalia v. subreversa. Strobili squamæ apice lignosæ, in discum crassum dorso medio depressum vix mucronatum dilatatæ.—*California.*

11. ATHROTAXIS. Omnia *Sequoiæ* nisi squamarum strobili apex dorso mucrone v. umbone conico instructus.—*Australia.*

12. CEPHALOTAXUS. Lamina ovulifera parva, cum bractea post anthesin vix aucta. Ovula 2. Semina magna, drupiformia, e squamis longe exserta.—*Japonia, China* (*Asia trop.*?).

Tribus III. Taxeæ. Amenti ♀ squamæ imbricatæ, omnes præter terminalem vacuæ v. plures fertiles. Lamina ovulifera a bractea libera, sessilis v. longe stipitata, apice perfecte v. imperfecte annularis v. cupulata v. ovulum involvens. Ovulum in lamina v. in quoque lobo laminæ 1, erectum v. post anthesin obliquum.

13. TAXUS. Amentum ♀ 1-florum. Lamina ovulifera primum annularis, mox cupulata, carnosa, demum bacciformis, semen includens at non ei adnata, vertice aperta. Antheræ post anthesin umbraculiformes, loculis in circulum connatis.—*Utriusque orbis hemisph. bor.*

14. TORREYA. Amentum ♀ 1-florum. Lamina ovulifera primum cupularis, mox ovarium includens, demum semini arcte adnata. Albumen insigniter ruminatum. Antherarum loculi in semicirculum connati.—*Amer. bor., Japonia, China bor.*

15. GINKGO. Amenta ♀ v. gemmæ squamatæ 1-floræ. Lamina ovulifera longe stipitata, apice breviter 2–∞-fida, lobis in annulum seu cupulam brevem semini adnatam dilatatis. Antherarum loculi 2, penduli. Folia petiolata, subflabellata, incisa.—*China.*

16. PHYLLOCLADUS. Amenta ♀ parva, ∞-flora. Lamina ovulifera primum annularis, mox cupulata, semini appressa. Antherarum loculi 2, contigui. Ramuli ultimi phyllodinei, coriacei, dilatati, subflabellati.—*Tasmania, N. Zel., Archipel. Malay.*

17. Dacrydium. Spicæ ♀ 1-6-floræ. Lamina ovulifera late concava v. cupulata, latere interiore aperta, mox squamam oblique superans, a semine libera. Antherarum loculi 2, globosi, contigui.—*Archip. Malay., ins. maris Pacif., N. Caled., N. Zel., Tasmania, Chile.*

18? Pherosphæra. Amenta ♀ parva, ∞-flora. Lamina ovulifera tenuis ovulum involvens? v. 0? Antherarum loculi 2, globosi, contigui.—*Tasmania.*

Series B. *Ovula jam sub anthesi arcte reversa.*

Tribus IV. Podocarpeæ. Amenti ♀ squamæ perpaucæ v. ∞, sæpe carnosæ, spiraliter confertæ. Ovulum 1, ab apice squamæ v. laminæ ovuliferæ reversum. Lamina ovulifera sessilis v. stipitata, nunc ovulo nunc squamæ adnata (v. 0 ?). Antherarum loculi 2, contigui, adnati.

19. Microcachrys. Amentum ♀ parvum, squamis ∞-seriatis semiglobosis. Ovulum ab apice squamæ reversum (lamina ovulifera dubia). *Folia parva, opposita, decussatim imbricata.*—*Tasmania.*

20. Saxegothea. Amentum ♀ subglobosum, squamis pauciseriatim imbricatis. Ovulum 1, reversum. Lamina ovulifera carnosa? bracteæ adnata, mox valde accreta. Strobilus indehiscens? bractearum apicibus muricatus. Folia sparsa v. distiche patentia.—*Chile.*

21. Podocarpus. Amenti ♀ 1-2-flori squamæ paucæ, pedunculo adnatæ, cum quo sæpius carnosæ. Lamina ovulifera e squama exserta, plus minus stipitata, ovulum reversum includens eique adnata.—*Amer. austr., Afr. trop. et austr., Asia trop. montana, Australasia, Japonia.*

Tribus V. Araucarieæ. Amenti ♀ squamæ numerosissimæ ∞-seriatæ spiraliter imbricatæ, specie simplices, lamina ovulifera bracteæ arcte adnata. Ovula 1-6, medio v. infra medium squamæ collateraliter affixa, reversa. Semina exalata v. lateraliter alata, nec ala spuria samaroidea.

* *Lamina ovulifera tenuis, apice linea parum prominula v. apiculo parvo terminata.*

22. Cunninghamia. Antherarum loculi 2-4. Lamina ovulifera squama multo brevior. Ovula 3. Semina ala angusta cincta.—*Japonia, China.*

23. Agathis. Antherarum loculi 5-∞. Lamina ovulifera squama multa brevior. Ovula 1 rarius 2. Semina uno latere v. utrinque late alata.—*Archip. Malay., ins. maris Pacif., N. Caled., N. Zel., Australia.*

24. Araucaria. Antherarum loculi 6-∞. Lamina ovulifera squama vix brevior. Ovulum 1. Semen squamæ adnatum utrinque alatum v. exalatum. *Amer. austr., Australia, Nov. Caled., ins. maris Pacifici.*

** *Lamina ovulifera demum valde aucta indurata, in strobilo lignoso squamam fere totam efficiens.*

25. Sciadopitys. Antherarum loculi 2. Ovula 7-9. Folia vera minute squamiformia, scariosa, sparsa. Phyllodia foliis *Pini* similia, in pseudoverticillis distinctis numerosa.—*Japonia.*

Tribus VI. Abietineæ. Amenti ♀ squamæ *duplices*, lamina ovulifera a bractea libera v. basi tantum adnata, demum valde aucta, in strobilo sæpius sola conspicua. Ovula 2, prope basin squamæ affixa, reversa. Semina ala spuria (e strato interiore squamæ soluta) samaroidea, rarius ala decidua v. vix evoluta denudata v. nuda.

26. Pinus. Folia primaria minima, squamiformia, scariosa, sparsa, secundaria longiuscule v. longe acicularia, per 2-5 intra vaginam scariosam fasciculata. Flores ♂ ad basin innovationum subspicati, antherarum connectivo sæpius in appendicem squamiformem producto. Strobili squamæ persistentes.—*Hemisph. borealis.*

27. Cedrus. Folia acicularia, subtetragona, rigidula, in gemma squamata dense subverticillato-fasciculata, v. in innovationibus sparsa. Flores ♂ in fasciculo solitarii, antherarum connectivo in appendicem squamiformem producto. Strobili magni squamæ arcte imbricatæ demum deciduæ.—*Mont. Africæ bor. et Asiæ mediæ et occid.*

28. Picea. Folia sparsa, cum petioli basi persistente articulata, subtetragona, rigidula. Flores ♂ ad axillas solitarii, antherarum connectivo in appendicem squamiformem producto. Strobili reflexi squamæ persistentes, bractea subtendente parva sæpius occulta.—*Hemisph. bor. reg. extratropicæ.*

29. Tsuga. Folia *Abietis*, nisi basi persistente leviter prominula. Flores ♂ *Abietis*. Strobili reflexi squamæ persistentes, bractea subtendente parva.—*Asia or. extratrop., Amer. bor.*

30. PSEUDOTSUGA. Folia et flores ♂ *Abietis.* Strobili reflexi squamæ persistentes, bractea subtendente conspicua, apicula centrali squamam superante.—*Amer. bor. occid.*

31. ABIES. Folia sparsa, cicatricem non prominentem relinquentia, linearia, supra plana. Flores ♂ ad axillas solitarii, antherarum connectivo ultra loculos umbonato v. vix prominulo. Strobili erecti squamæ cum seminibus deciduæ, bractea subtendente conspicua, apicula centrali squamam sæpe æquante v. superante.—*Hemisph. bor. reg. extratrop.*

32. LARIX. Folia tenuia, decidua, in gemma squamata dense subverticillato-fasciculata, v. in innovationibus sparsa. Flores ♂ in gemma squamata aphylla solitarii, antherarum connectivo ultra loculos haud v. vix prominulo. Strobili reflexi squamæ persistentes, bractea subtendente conspicua, squama breviore v. eam æquante.—*Hemisph. bor. reg. extratrop.*

GENERA EXCLUSA.

EPHEDRA et GNETUM, olim *Coniferis* adscripta, hodie ad ordinem distinctum **Gnetacearum** referuntur, supra, 433.

ALTINGIA, *Noronha*, a Kœn. et Sims, Ann. Bot. ii. 325, ad *Coniferas* relata, et postea a Loudon et Don perperam *Araucariæ*, Juss., substituta, est **Hamamelidea,** supra, i. 669.

TRIBUS I. CUPRESSINEÆ.

1. **Callitris,** *Vent. Decad. Gen. Nov.* 1808, 10. (Frenela, *Mirb. in Mém. Mus. Par.* xiii. 30.)—Flores in ramis diversis monoici v. rarius dioici, ♂ ad apices ramulorum intra folia summa subsessiles, solitarii gemini v. rarius 3–4-ni. Staminum columna tenuis; antheræ spiraliter confertæ, subverticillatæ, stipite brevi; connectivi appendicula squamiformis ovata v. deltoidea, basi truncata v. orbiculata peltataque; loculi 2–4, sub appendicula fere occulti, deorsum 2-valves. Amenta ♀ in ramulis abbreviatis solitaria v. fasciculata; squamæ 4, 6 v. rarius 8, plus minus distincte 2-seriatæ, lamina ovulifera adnata fere ad apicem incrassatæ. Ovula ad basin cujusve squamæ ∞, erecta, circa conum centralem v. apicem 3-angulatum v. 3-lobum rhacheos sessilia, 2–3-seriata. Strobilus globosus ovoideus v. pyramidatus, maturus squamis induratis persistentibus erecto-patentibus quasi valvatim dehiscens, valvis 4, 6 v. rarius 8 omnibus æqualibus v. 3 alternis minoribus margine leviter exterioribus. Semina perfecta ∞, absque alis oblonga, testa tenuiter crustacea, late 2- rarius 3-alata; albumen parcum; cotyledones 2, rarius 3; semina interiora sæpius imperfecta exalata v. semialata, v. intima omnino abortiva columnæ centrali adnata.—Arbores fruticesve, ramulis teretibus v. 3–4-angulis interdum articulatis. Folia 3–4-natim verticillata v. decussatim opposita, rarius demum sparsa, ramorum sterilium v. plantæ junioris interdum acicularia, sæpissime tamen ad squamas minutas crassas carinatas reducta, carinis in angulos ramulorum decurrentibus. Strobilorum valvæ apertæ, post semina delapsa diu persistentes.

Species ad 14, Africæ, Madagascariæ, Australiæ et Novæ Caledoniæ incolæ. *L. C. Rich. Conif.* 46. *Hook. f. in Hook. Lond. Journ.* iv. 145.

Genus in integrum servatum naturale et bene definitum, in sectiones sequentes imprimis numero partium cujusve verticilli et patria distinctas dividitur.

1. *Pachylepis.* Squamæ ramorum majorum sæpius alternæ v. irregulariter oppositæ, ramulorum fructiferorum fructiferæque ipsæ sæpissime oppositæ. Strobili crasse lignosi, subæqualiter 4-valves, squamis tamen omnino ut in *Tetraclinæ* decussatim oppositis. Species 3, quarum 2 Africæ australis, tertia Madagascariæ incolæ, omnes inter se valde affines. PACHYLEPIS, *Brongn. in Ann. Sc. Nat. ser.* 1, xxx. 189. PAROLINIA, *Endl. Gen. Suppl.* i. 1372. WIDDRINGTONIA, *Endl. Syn. Conif.* 31. *Schlecht. in Linnæa*, xxxiii. 339, *t.* 1. *Parlat. in DC. Prod.* xvi. ii. 442.

2. *Tetraclinis.* Squamæ ramorum 4-natim verticillatæ, ramulorum fructiferorum fructiferæque ipsæ decussatim oppositæ. Strobili quam in *Pachylepide* minus indurati, subæqualiter 4-valves. Rami ramulique fragilissimi. Species 1, Africæ boreali-occidentalis incola. CALLITRIS, *Spach, Suites Buff.* xi. 342. *Parlat. in DC. Prod.* xvi. ii. 452, *non Vent.* *L. C. Rich. Conif. t.* 8. *Vahl, Symb.* ii. *t.* 48 (*Thuia*). *Desf. Fl. Atl. t.* 252 (*Thuia*).

3. *Hexaclinis.* Squamæ ramorum fructiferorum fructiferæque ipsæ ternatim verticillatæ. Strobili subæqualiter 6-valves, v. valvæ 3 subexteriores paullo minores. Species 9, quarum 1 Novo-Caledonica, cæteræ Australianæ. CALLITRIS, *Vent. Decad. Gen. Nov.* 10. *L. C. Rich. Conif. t.* 18. FRENELA, *Spach, Suites Buff.* xi. 345. *Parlat. in DC. Prod.* xvi. ii. 445. *Hook. f. Fl. Tasm. t.* 97.

Benth. Fl. Austral. vi. 235. *F. Balansæ*, Brongn. et Gris in Bull. Soc. Bot. Fr. xvi. 327, est certe eadem ac *F. sulcata*, Parlat. *F. subumbellata*, Parlat., est ejusdem specimen sterile foliis acicularibus quaternis, ramulis tamen nonnullis superioribus omnino normalibus squamis brevibus angulatis ternatis.

4. *Octoclinis.* Squamæ omnes 4-natim verticillatæ. Strobili subæqualiter 8-valves, v. valvæ 4 subexteriores vix minores. Species 1, Australiana. *Benth. Fl. Austral.* vi. 235 (*Frenela*). OCTOCLINIS, *F. Muell. in Trans. Phil. Inst. Vict.* ii. 21 *cum ic.* LEICHHARDTIA, *Sheph. Cat. Pl. Cult. Sydn.* 1851, *ex F. Muell.*

Genus a Ventenatio l.c. conditum fuit beneque definitum ad speciem quamdam Australianam ab auctore non nominatam, foliis squamisque fructiferis ternatim verticillatis, et nomen a κάλλος et τρεῖς derivavit ob insignem symmetriam partium numero ternario. L. C. Richard primus *Thuiam articulatam*, Vahl., nomine *Callitris quadrivalvis* salutavit, synonymo falso (v. inedito?) Ventenatii allato, ab omnibus auctoribus sequentibus repetito. Mirbel nomen *Frenelæ* pro *Callitride* substituit ob similiter sonantem *Calytrix*, Labill., et species Africanas cum Australiensibus inclusit. Spach primus nomen Mirbelii ad Australianas typicas limitavit, nomine Ventenatii infeliciter ad Africanas translato.

2. **Actinostrobus,** *Miq. in Pl. Preiss.* i. 644.—Flores in diversis ramis monoici (v. interdum dioici ?), ♂ axillares v. terminales, sessiles, solitarii. Staminum columna oblonga; antheræ spiraliter confertæ, 6-fariam ternatim verticillatæ; connectivi appendicula squamiformis orbiculata v. acuminata, plus minus peltata, loculis 4–6 sub appendice deorsum parum prominulis 2-valvibus. Amenta ♀ globosa, in ramulis brevibus solitaria; squamæ ternatim verticillatæ, arcte 6-fariam imbricatæ; exteriorum series ∞ vacuæ, latæ, concavæ, intus haud incrassatæ, 6 intimæ (serierum 2 intimarum) subæquales, fere valvatæ, intus lamina ovulifera adnata valde incrassatæ. Ovula ad basin squamarum intimarum solitaria v. gemina, erecta. Strobilus ovoideo-globosus v. acuminatus, maturus squamis intimis auctis parum induratis 6-valvatim dehiscens, squamis exterioribus vacuis tenuibus parum auctis in dorso fertilium arcte appressis 6-fariam superpositis ad quamquam squamam solitariis v. 2–3 ab extimis in intimas gradatim majoribus. Semina perfecta pauca, obovoidea v. triquetra, testa crustacea duriuscula late 2–3-alata; albumen tenue; embryo tereti-clavatus, cotyledonibus 2 radicula sublongioribus.—Frutices ramosissimi. Folia ternatim verticillata, pleraque minima, squamiformia, rigida, acuta v. rarius obtusa, squarroso-patentia v. appressa, ramorum sterilium interdum elongata, acicularia. Flores ♂ in *A. pyramidali* ad axillas sessiles, in *A. acuminata* terminales. Strobili sæpius circa ½ poll. diametro.

Species 2, Australiæ austro-occidentalis incolæ. *Benth. Fl. Austral.* vi. 239. *Hook. Ic. Pl.* *t.* 1272.

3. **Fitzroya,** *Hook. f. in Journ. Hort. Soc.* vi. 264, *et in Bot. Mag. t.* 4616. (Diselma, *Hook. f. Fl. Tasm.* i. 353, *t.* 98. Cupresstellata, *Senil. seu Nels. Pin.* 60.)—Flores dioici, ♂ ad apices ramulorum intra folia summa sessiles. Staminum columna brevis; antheræ spiraliter confertæ, stipite tenui sæpius brevi; connectivi appendicula squamiformis late ovata v. orbiculata, peltata, superne dorso sæpius valde convexa; loculi 2–4 sub appendice occulti v. inferne prominentes, deorsum 2-valves. Amenta ♀ terminalia, subglobosa, sessilia, solitaria; squamæ oppositæ v. ternatim verticillatæ, 2-3-seriatæ, seriei exterioris vix a foliis superioribus distinctæ, seriei intermediæ majores coloratæ basi intus incrassatæ sed vacuæ, seriei interioris adhuc majores, fertiles, intus lamina ovulifera adnata ultra medium v. fere ad apicem carnoso-incrassatæ; amenti rhachis in columnam brevem oblongam (squamarum seriei quartæ rudimentum) producta. Ovula ad basin squamarum fertilium 2–3, erecta. Strobilus parum auctus, globosus, squamis fructiferis induratis demum hiantibus diu persistentibus, apice lamina ovulifera aucta dilatatis extus subplanis, infra apicem bracteæ apice umbonatis. Semina squamis vix breviora, testa crustacea oblonga late 2–3-alata; embryo normalis.—Arbores fruticesve sempervirentes, ramosissimi. Folia parva, ternatim verticillata v. decussatim opposita, laxe v. appresse imbricata. Strobili 2–4 lin. diametro.

Species 2, altera typica montium Chile australis vix Patagoniæ incola, arborea, foliis amentique ♀ squamis sæpius ternatim verticillatis interdum vero oppositis, antheris sæpius 4-locularibus

ovulis ternis seminibus 2-alatis. *Parlat. in DC. Prod.* xvi. ii. 463. *Lemaire, Illustr. Hortic.* i. *Misc.* 30 *cum ic.* *Fl. des Serres* vii. 130, *cum ic. a Bot. Mag. repetita*; altera Tasmanica, pariter montana, *F. Archeri*, Benth., frutescens, erecta, foliis amentique ♀ squamis oppositis decussatis, antheris sæpius 2-locularibus, ovulis geminis rarius ternis, seminibus 3-alatis. *Benth. Fl. Austral.* vi. 240 (*Diselma*). Numerus partium vix semper constans videtur et characteres essentiales in utraque specie eidem.

4. **Libocedrus,** *Endl. Syn. Conif.* 42.—Flores monoici v. dioici, ♂ terminales, solitarii. Staminum columna intra folia ultima subsessilis, globosa v. ovoidea; antheræ decussatim oppositæ, ∞-seriatæ, stipite brevi; connectivi appendicula squamiformis late ovata v. orbiculata, leviter peltata; loculi sæpius 4, subglobosi, deorsum 2-valves. Amenta ♀ subglobosa ovoidea v. oblonga, in ramulis brevibus solitaria; squamæ 4, rarius 6, decussatim oppositæ, breviter v. longe acuminatæ, pauciseriatæ, paris infimi breviores v. angustiores vacuæ, paris sequentis majores, ovatæ v. oblongæ, floriferæ; summæ vacuæ in 2 tantum speciebus adsunt; fertiles fere ad apicem lamina ovulifera adnata carnoso-incrassatæ. Ovula ad basin squamarum fertilium sæpius 2, erecta. Strobilus ovoideus v. oblongus, squamis induratis ovoideis v. oblongis sub apice bracteæ apice nunc brevissime acuminatis nunc longe cornutis, in strobilo maturo hiantibus post semina delapsa diu persistentibus apice sæpius recurvis. Semina samaroidea, testa coriacea oblonga superne uno latere in alam longam obliquam membranaceam erectam producta, latere altero rarius angustissime alata; embryo normalis.—Arbores sempervirentes, habitu *Thuyæ*. Folia squamiformia, opposita, quadrifariam imbricata, nunc omnia æqualiter decussata appressa v. patentia, nunc in ramulis complanatis lateralia alte carinata, facialia planiora v. plana minoraque. Strobili maturi 4–8 lin. longi.

Species bene notæ 8, quarum 2 Chilenses, 2 Novo-Zelandicæ, 1 Novo-Caledonica, 1 Japonica, 1 Chinensis, 1 Californica. *Parlat. in DC. Prod.* xvi. ii. 453. *Brongn. et Gris in Bull. Soc. Bot. Fr.* xviii. 140. *Hook. Lond. Journ.* i. *t.* 18, ii. *t.* 4, iii. *t.* 4 (*Thuya*). *Pœpp. et Endl. Nov. Gen. et Sp.* iii. *t.* 220 (*Thuya*).

Genus *Thuyæ* nimis affine, imprimis seminibus samaroideis superne 1-alatis distinguitur, et quoad species plerasque defectu squamarum strobili interiorum sterilium. Species inter se formas valde diversas exhibent. Folia in *L. chilense*, *L. Doniana*, *L. decurrente* et *L. macrolepide* in ramulis complanatis dimorpha, lateralia late carinata, facialia parvâ plana, in *L. tetragona* et *L. Bidwilli* omnia æqualiter decussata. Strobili squamæ in *L. Doniana*, *L. tetragona* et *L. Bidwilli* dorso longe cornutæ, in *L. chilense*, *L. decurrente* et *L. macrolepide* sub apice minute mucronatæ.

Heyderia, *C. Koch, Dendrol.* ii. ii. 179 (*L. decurrens* e California), et Calocedrus, *S. Kurz in Trim. Journ. Bot.* 1873, 196, *t.* 133 (*L. macrolepis* e prov. Yunan Chinæ), seminibus et characteribus essentialibus *Libocedri*, a cæteris speciebus differunt squamis interioribus strobili bene evolutis etsi vacuis, et fere medium tenent inter *Thuyam* et *Libocedrum*.

5. **Thuya,** *Linn. Gen. n.* 1078 (Thuja).—Flores monoici, ♂ terminales solitarii. Staminum columna intra folia ultima subsessilis, parva, subglobosa; antheræ decussatim oppositæ, sæpius 2–3-seriatæ, stipite brevi; connectivi appendicula squamiformis orbiculata, leviter peltata, staminum superiorum interdum minima; loculi 2–4, subglobosi, deorsum 2-valves. Amenta ♀ ovoidea v. oblonga, in ramulis brevibus solitaria; squamæ decussatim oppositæ, ∞-seriatæ, paris infimi rarius parium 2 inferiorum vacuæ sæpiusque breviores, parium 1–3 intermediorum majores floriferæ, paris intimi v. rarissime 2 intimorum angustæ, vacuæ, haud raro basi connatæ, fertiles introrsum pro maxima parte lamina ovulifera adnata carnoso-incrassatæ. Ovula ad basin squamarum fertilium 2–3 rarius 5, erecta. Strobilus ovoideus v. oblongus, rarius globosus, squamis coriaceis induratis vix tamen lignosis sæpius oblongis sub apice bracteæ apice mucronulatis, v. apice crasso-conicis mucrone obliterato, in strobilo maturo laxiusculis, post semina delapsa diu persistentibus. Semina sub squamis fertilibus 2–3, rarius 4–5, testa coriacea oblonga utrinque in alam latam v. angustam expansa v. exalata; embryo normalis.—Arbores fruticesve sempervirentes. Folia parva, opposita, squamiformia, appressa, quadrifariam imbricata, omnia subæqualia v. sæpius in ramulis complanatis lateralia alte carinata, facialia planiora v. plana minoraque. Strobili maturi rarius semipollicem longitudine excedunt.

Species ad 12, Americæ borealis et Asiæ orientalis extratropicæ incolæ, quarum 2 in hortis diu cultæ, in sectiones 5 apud auctores nonnullos genera propria distribuendæ, characteribus vix valorem specificum excedentibus. Genus cæterum *Cupresso* valde affine, differt ramis (cum foliis) sæpius nec semper complanatis, strobilis minoribus minus induratis, et ovulis paucis.

1. *Euthuya.* Strobili maturi ovoideo-oblongi cernui squamæ parum incrassatæ, 2 tantum ut in *Libocedro* fertiles. Semina late subæqualiter 2-alata, sub quaque squama 2 v. 3. Species typica Linnæi, boreali-Americana. *L. C. Rich. Conif. t.* 7, *f.* 1. *Mich. N. Amer. Sylv. t.* 156. *Wats. Dendrol. Brit. t.* 150. *Nees, Gen. Fl. Germ. Monochl. n.* 11, *pro parte.*

2. *Macrothuya.* Strobili squamæ fertiles 4 v. 6. Seminum alæ angustiores quam in *T. occidentali.* Cætera *Euthuyæ.* Species 2, altera boreali-Americana, *Nutt. N. Amer. Sylv. t.* 111; altera Japonica.

THUYA, qualis a Parlatorio in DC. Prod. xvi. ii. 456 limitatur, includit *Euthuyam* et *Macrothuyam.*

3. *Thuyopsis.* Strobili maturi globosi suberecti squamæ incrassatæ, duræ, fertiles 4–6 v. rarissime 8. Semina anguste 2-alata, sub quaque squama sæpius 4 v. 5. Species Japonica. *Lamb. Pin. ed. min. t.* 68. THUYOPSIS, *Sieb. et Zucc. Fl. Jap.* ii. 32, *t.* 119, 120. *Parlat. in DC. Prod.* xvi. ii. 460.

4. *Biota.* Strobili junioris globosi subcarnosi maturi subovoidei duri squamæ fertiles sæpius 4. Semina exalata, sub quaque squama 2 v. 3, testa duriuscula. Species v. varietates 2, in Japonia et China boreali indigenæ, in Asia et Europa frequenter cultæ. *Lamb. Pin. ed. min. t.* 76. *L. C. Rich. Conif. t.* 7, *f.* 2. *Forbes, Pin. Wob. t.* 63. *Bot. Reg.* 1842, *t.* 20. *Nees, Gen. Fl. Germ. Monochl. n.* 11, *pro parte. Sieb. et Zucc. Fl. Jap. t.* 117, 118. BIOTA, *Endl. Syn. Conif.* 46. *Parlat. in DC. Prod.* xvi. ii. 461.

PLATYCLADUS, *Spach, Suites Buff.* xi. 333, includit *Thuyopsin* et *Biotam.*

5. *Chamæcyparis.* Strobili maturi globosi duri squamæ apice incrassato-dilatatæ, fertiles 4 v. 6. Semina late v. rarius anguste 2-alata, sub quaque squama 2. Ramuli complanati, foliis facialibus parvis *Thuyæ*, v. folia decussatim imbricata *Cupressi.* Strobili quam in *Cupresso* multo minores et squamæ 2-ovulatæ omnino *Thuyæ.* Species 6, Americanæ et Japonicæ. *L. C. Rich. Conif. t.* 8. CUPRESSI sp. *Lamb. Pin. t.* 43; *ed. min. t.* 66. *Wats. Dendrol. Brit. t.* 156. *Trautv. Imag. Pl. Ross. t.* 7. *Bot. Mag. t.* 5581. *Mich. N. Amer. Sylv. t.* 152. CHAMÆCYPARIS, *Spach, Suites Buff.* xi. 329. *Parlat. in DC. Prod.* xvi. ii. 463. *Maxim. in Bull. Acad. Sc. Petersb.* x. 489; *Mel. Biol.* vi. 25. CHAMÆPEUCE, *Zucc. in Endl. Enchir.* 139, *et in Lindl. Veg. Kingd.* 229, *non DC.* RETINOSPORA, *Sieb. et Zucc. Fl. Jap.* ii. 36, *t.* 121 *ad* 123.

6. **Cupressus,** *Linn. Gen. n.* 1079.—Flores in ramis diversis monoici, ♂ terminales, solitarii v. rarius gemini. Staminum columna intra folia summa subsessilis, oblonga v. cylindracea; antheræ decussatim oppositæ, stipite brevi; connectivi appendicula squamiformis, ovata v. orbicularis, plus minus peltata, loculis 2–6 sub appendicula deorsum prominentibus 2-valvibus. Amenta ♀ in ramulis brevibus solitaria v. rarius fasciculata, globosa; squamæ 3–6-seriatim oppositæ, seriei exterioris et interdum intimæ steriles, fertiles sæpius 4 v. 6, sub anthesi late ovatæ, introrsum pro maxima parte lamina ovulifera adnata carnoso-incrassatæ. Ovula ad basin squamarum fertilium ∞, sæpe numerosa, erecta. Strobilus globosus, lignosus, squamis valde incrassatis extrorsum peltato-dilatatis, dorso bractearum apicibus sæpe umbonatis v. breviter muricatis, ante maturitatem arcte clausis, demum apice solutis hiantibus, post semina delapsa diu persistentibus. Semina oblonga, testa coriacea v. leviter indurata utroque latere anguste rarius late in alam expansa; embryo normalis, cotyledonibus 2, rarius 3–4.—Arbores interdum excelsæ v. frutices sempervirentes. Folia sæpius ut in *Juniperi* sect. *Sabina* parva, squamiformia, adnato-decurrentia, apice appressa v. breviter patentia, opposita, decussatim imbricata, ramorum sterilium v. plantæ junioris rarius aciculari-patentia, in una tamen specie omnia subulata, patentia. Strobili sæpe pollicem diametro.

Species ad 12, Asiæ temperatæ, Europæ austro-orientalis, Americæ borealis et Mexici incolæ. *Parlat. in DC. Prod.* xvi. ii. 467. *Lamb. Pin t.* 42, *ed. min. t.* 65. *L. C. Rich. Conif. t.* 9. *Forbes, Pin. Wob. t.* 61, 62. *L'Hér. Stirp. Nov. t.* 8. *Nees, Gen. Fl. Monochl. n.* 10. *Reichb. Ic. Fl. Germ. t.* 534. *Wats. Dendrol. Brit. t.* 155. *Pall. Fl. Ross. t.* 53.

7. **Juniperus,** *Linn. Gen. n.* 1134.—Flores monoici v. dioici, ♂ solitarii v. rarius 3–6 in capitulum conferti. Staminum columna sessilis v. breviter stipitata; antheræ spiraliter

arcte approximatæ v. laxius distincteque oppositæ v. 3-natim verticillatæ, stipite brevi nunc brevissimo rarius tenui; connectivi appendicula squamiformis, ovata v. peltata; loculi 2-6, sub appendicula occulti v. deorsum prominentes, 2-valves. Amenta ♀ globosa; squamæ 2-3-seriatim oppositæ v. ternatim verticillatæ, jam sub anthesi pro maxima parte lamina ovulifera adnata incrassato-carnosæ et arcte contiguæ, mox valde auctæ carnosæ et supra ovula undique concretæ. Ovula sub quaque squama serieum 1-2 intimarum solitaria v. gemina, erecta, sub anthesi libera, mox squamis auctis clausis operta. Strobilus e squamis conferruminatis carnosis fibrosis v. succulentis drupiformis v. bacciformis, extus lævis v. bractearum apicibus v. squamarum marginibus prominulis notatus. Semina 3-6 v. abortu pauciora, intra fructum inclusa v. (ex *Engelm.*) rarius leviter prominula, nunc distincta testa crasse coriacea indurata v. ossea, nunc in massam globosam crassissime lignosam putamen simulantem perfecte conferruminata, nucleis singulis in locellis distinctis separatis; albumen membrana inclusum et embryo normales; cotyledones sæpius 2, interdum 3 vidimus, et in *J. californica* fide Engelmanni usque ad 5.—Frutices v. arbores sempervirentes. Folia opposita v. ternatim verticillata, parva adnato-decurrentia v. patentia et linearia v. acicularia. Flores v. spicæ terminales v. ramulo florifero ad fasciculum foliorum minimorum reducto axillares. Strobili cærulei v. rubri, a pisi ad nucis magnitudinem variant.

Species ad 25, per hemisphærium boreale late dispersæ, in regionibus temperatis frigidisque frequentes, inter tropicos non nisi in montibus utriusque orbis obviæ. *Parlat. in DC. Prod.* xvi. ii. 475. *Endl. Syn. Conif.* 8.

Genus ab Endlichero in sectiones 3, apud nonnullos pro generibus propriis habendas, divisum est:—

1. *Sabina.* Folia omnia v. saltem ramorum fructiferorum parva, squamiformia, opposita et decussatim imbricata, rarissime ternatim verticillata, ramorum sterilium v. plantæ junioris rarius acicularia. Flores ♂ solitarii, terminales, connectivorum appendicibus squamiformibus imbricatis loculos obtegentibus. Semen unicum v. 2 distincta. *L. C. Rich. Conif. t.* 6. *Forbes, Pin. Wob. t.* 64, 65. *Andr. Bot. Rep. t.* 534. *Hook. Lond. Journ.* ii. *t.* 1. *Reichb. Ic. Fl. Germ. t.* 536. *Guss. Pl. Rar. t.* 62. *Vis. Ill. Pl. Nov. in Mem. Instit. Venet.* vi. *t.* 1*, 1**. *Pall. Fl. Ross. t.* 55 *ad* 57. *Trautv. Imag. Pl. Ross. t.* 15. *Sieb. et Zucc. Fl. Jap. t.* 126, 127. *Mich. N. Amer. Sylv. t.* 155. *Newb. Bot. Williams. Exped. t.* 10.

2. *Oxycedrus.* Folia acicularia v. linearia, plus minus patentia, ternatim verticillata. Flores ♂ ad axillas solitarii, basi bracteis parvis stipati (ramulo florifero axillari ad fasciculum bractearum reducto), connectivorum appendicibus basi parum productis, loculis prominentibus quasi dorsalibus. Semina sæpius 3, distincta, nunc abortu pauciora. *L. C. Rich. Conif. t.* 5. *Nees, Gen. Fl. Germ. Monochl. n.* 12. *Reichb. Ic. Fl. Germ. t.* 535, 537. *Moggr. Fl. Ment. t.* 65. *Ten. Fl. Nap. t.* 247. *Pall. Fl. Ross. t.* 54. *Sieb. et Zucc. Fl. Jap. t.* 125. *Webb. Phytogr. Canar. t.* 217.

3. *Caryocedrus,* Endl. Folia acicularia *Oxycedri.* Flores ♂ pariter axillares, sed 3-6 in capitulum conferti, per anthesin laxe patentes, singuli bractea parva lineari-lanceolata subtensi. Staminum columna in quoque flore stipitata, antheris 9-12, connectivorum appendicibus ovatis incurvis laxe imbricatis basi non peltatis locellis magnis stipiti infra appendicem affixis. Strobili drupiformes, in genere magni. Semina in massam globosam crassissime lignosam putamen 2-6-locularem simulantem arcte conferruminata. Species unica, orientalis. *Labill. Dec. Pl. Syr.* ii. *t.* 8. ARCEUTHOS, *Ant. et Kotschy in Œstr. Bot. Wochenbl.* 1854, 249.

THUIACARPUS. *Trautv. Imag. Pl. Ross.* 11, *t.* 6, genus propositum fuit ad plantam in horto Nikitensi cultam sub nomine *Juniperi oblongi*, Bieb., speciei partim ad *J. communem* partim ad *J. oxycedrum* ab auctoribus relatæ. Ex icone, strobili descripti imperfecti et quodammodo monstruosi videntur.

TRIBUS II. TAXODIEÆ.

8. **Cryptomeria,** *Don in Trans. Linn. Soc.* xviii. 166, *t.* 13, *f.* 1.—**Flores monoici, ♂ in axillis summis subsessiles, squamis paucis imbricatis stipati, spicam brevem interruptam formantes. Staminum columna oblonga, sessilis; antheræ spiraliter confertæ, stipite brevi; connectivi appendicula squamiformis lata, peltata, imbricata; loculi 3-5, sub appendicula occulti, penduli, deorsum 2-valves; antheræ 2-3 infimæ sæpius**

imperfectæ, appendicula minore. Amenta ♀ subglobosa, intra folia summa sessilia; squamæ per anthesin arcte imbricatæ, spiraliter pauciseriatæ, ultra medium lamina ovulifera adnata apice digitatim 5-fida carnoso-incrassatæ. Ovula sub quaque squama 3–6, erecta, 3-quetra v. nonnulla (sterilia?) compressa. Strobilus globosus; squamæ induratæ, sublignosæ, superne incrassato-dilatatæ, dorso bracteæ apice et laminæ ovuliferæ lobis induratis echinatæ, basi in stipitem contractæ, demum hiantes et post semina delapsa persistentes. Semina erecta, testa coriacea medio oblonga in alas laterales 2–3 angustas dilatata; embryo normalis.—Arbores sempervirentes, ramis patentibus. Folia spiraliter conferta, anguste lineari-falcata, incurvo-erecta, 3–4-gona, angulo dorsali prominente adnato-decurrente. Capitula seu amenta ♀ sub anthesi terminalia, interdum fasciculo foliorum ad apicem rhacheos excrescente carnosa. Strobili ½–1 poll. diametro.

Species 1, Japoniæ et Chinæ borealis incola, sæpe tamen in China australi nuperque in aliis regionibus culta. *Parlat. in DC. Prod.* xvi. ii. 437. *Sieb. et Zucc. Fl. Jap.* ii. *t.* 124 *et* 124 *b.* *Hook. Ic. Pl. t.* 668.

9. **Taxodium,** *L. C. Rich. in Ann. Mus. Par.* xvi. 298; *Conif.* 143, *t.* 10. (Schubertia, *Mirb. in Nouv. Bull. Soc. Philom.* iii. 123. Glyptostrobus, *Endl. Syn. Conif.* 69. Cuprespinnata, *Senil. seu Nels. Pin.* 61.)—Flores monoici, ♂ in ramulis hornotinis subaphyllis squamellatis numerosi, racemoso-spicati, singuli pedunculo brevissimo imbricato-squamato fulti. Staminum columna oblonga, intra bracteas subsessilis; antheræ spiraliter confertæ, stipite brevi; connectivi appendicula lata, membranacea, basi truncata v. vix peltata, loculi 4–5 (3–9 ex Parlat.), a stipite penduli, deorsum 2-valves. Amenta ♀ in ramulo annotino sparsa, sessilia, globosa; squamæ arcte confertæ, spiraliter imbricatæ, apice ovato-patentes, infra medium lamina ovulifera adnata carnoso-incrassatæ. Ovula 2, a basi squamæ erecta. Strobilus auctus, induratus, globosus v. obovoideus; squamæ præcipue e lamina ovulifera valde aucta constantes basi in stipitem contractæ, apice lignoso valde dilatato orbiculato mutua pressione angulato v. late ovato, extus medio bracteæ apice umbonato v. mucronato et marginem versus linea curva tuberculorum sæpe notato, v. rarius omnino lævi; squamæ maturitate hiantes, post semina delapsa persistentes. Semina majuscula; testa incrassata coriacea v. subsuberosa, extus nitida, irregulariter 3-angulata v. subalata, basi brevissime contracta v. in stipitem hinc alatum contracta.—Arbores laxe ramosæ, ramulis patentibus v. pendulis. Folia decidua v. subpersistentia, alterna, subspiraliter affixa, nunc linearia distiche patentia, nunc rarius parva, appressa, squamiformia. Florum ♂ racemi sæpius plures subpaniculati. Amenta ♀ pauca, sub anthesi parva.

Species 3, quarum 2 typicæ, Americæ borealis et Mexici incolæ, strobilis maturis globosis usque ad pollicem diametro, seminibus irregulariter 3-quetris subalatis vix basi contractis. *Parlat. in DC. Prod.* xvi. ii. 440. *Lamb. Pin. ed. min. t.* 63. *Forbes, Pin. Wob. t.* 60. *Nutt. N. Amer. Sylv. t.* 151 (*Cupressus*). *Ten. in Mem. Acad. Ital. Moden.* xxv. ii. 200, *cum tabb.* 2. *Bot. Mag. t.* 5603 (*Glyptostrobus*); species tertia Chinensis (*T. heterophyllum*, Brongn.), strobilis maturis obovoideis basi longe contractis, seminibus vix angulatis basi in stipitem hinc alatum contractis. Amenta ♀ florida et habitus omnino varietatum nonullarum *T. distichæ*. Flores tamen ♂ adhuc ignoti, etsi arbor jam diu hinc inde in hortis culta. Pro genere proprio a Parlat. in DC. Prod. xvi. ii. 438 sub nomine *Glyptostrobi* retinetur.

10. **Sequoia,** *Endl. Syn. Conif.* 197. (Wellingtonia, *Lindl. Gard. Chron.* 1853, 823. Washingtonia, *Winsl. ex Hook. Kew Journ.* vii. 29. Gigantabies, *Senil. seu Nels. Pin.* 77.)—Flores monoici, ♂ in summis axillis v. ad apices ramulorum solitarii, squamis imbricatis stipati. Staminum columna oblonga v. subglobosa, intra squamas imbricatas pedicellata v. subsessilis; antheræ spiraliter confertæ, stipite tenui, loculis 2–4, sæpius 3, ab apice stipitis pendulis deorsum 2-valvibus, connectivo in appendicem ovatam incurvam basi truncatam v. vix peltatam producto. Amenta ♀ terminalia, ovoidea v. oblonga, squamæ arcte confertæ, spiraliter imbricatæ, pluriseriatæ, basi in stipitem crassum contractæ, dorso obtuse carinatæ, carina in acumen producta; lamina ovulifera arcte

adnata, crasse carnosa, bractea brevior at jam sub anthesi multo latior, post anthesin valde aucta. Ovula sæpius 5, primum ad basin squamæ erecta, post anthesin, squama basi accrescente, linea transversa curva infra apicem laminæ ovuliferæ affixa, reversa v. subhorizontalia. Strobilus valde auctus, ovoideus v. breviter oblongus, indurato-lignosus; squamæ præcipue e lamina ovulifera aucta constantes, basi in stipitem contractæ, apice in discum crassum orbiculatum v. transverse oblongum medio depressum et (bracteæ apice?) mucronatum dilatatæ, demum hiantes, persistentes. Semina horizontalia v. reversa, compressa, testa crassiuscule membranacea v. tenuiter crustacea, utrinque in alam angustissimam dilatata; embryo normalis, 3–6-cotyledoneus.—Arbores giganteæ, sempervirentes, dense ramosæ. Folia alterna, spiraliter affixa, in *S. sempervirente* sæpius sublanceolata et disticha patentia, in *S. gigantea* sæpius multo breviora obtusiora et undique appresse imbricata, sed folia utriusque formæ in utraque specie interdum observantur. Strobili ½–1½-pollicares.

Species 2 Californicæ. *Parlat. in DC. Prod.* xvi. ii. 435. *Lamb. Pin. ed. min. t.* 64 (*Taxodium*). *Bot. Mag. t.* 4777, 4778 (*Wellingtonia*), *ic. in Fl. des Serres t.* 892, 893, *iteratæ. Dcne. in Rev. Hort. ser.* 4, iv. 10 et 11, *fig.* 1, 2.

In *S.* (*typica*) *sempervirente*, flores ♂ sæpius ad apices ramorum 2–3 spicam brevem formant, singuli squamis bracteisve paucis imbricatis stipati v. rarius ramulo brevissimo foliato fulti, amentum ♀ in eodem ramulo terminale, spica mascula arcte approximatum, in aliis ramulis flores ♂ soli adsunt. In *S.* (*Wellingtonia*) *gigantea*, flores ♂ ad apices ramulorum solitarii, terminales, intra folia summa subsessiles; in hac spica amenta ♀ florentia non vidimus. In utraque specie strobili terminales apparent, in *S. gigantea* multo majores durioresque quam in *S. sempervirente*. Arbores tamen bene congeneres videntur quod jam anno 1853 indicavit Decaisne l.c. et fere in eodem tempore Torrey ex A. Gray in Sill. Journ. ser. 2, xviii. 287. De magnitudine et duratione harum arborum confer *A. Gray in Sill. Journ. ser.* 2, xvii. 440; *et Address, Sequoia*, 1872.

11. **Athrotaxis,** *Don in Trans. Linn. Soc.* xviii. 171, *t.* 13, 14 (*errore* Arthrotaxis, *auct. fere omn.*).—Flores monoici, ♂ ad apicem ramulorum solitarii. Staminum columna brevis, inter folia summa subsessilis; antheræ laxe subspiraliter confertæ, stipite tenui, loculis 2 ab apice stipitis pendulis longiusculis deorsum 2-valvibus, connectivo in appendicem squamiformem late ovatam non v. vix peltatam producto. Amenta ♀ subglobosa, terminalia; squamæ ∞-seriatim spiraliter imbricatæ, basi contractæ; lamina ovulifera carnosa, bracteæ adnata eaque sub anthesi multo brevior, mox aucta. Ovula 3–6, primum ad basin squamæ erecta, mox squama basi accrescente infra apicem laminæ ovuliferæ collateralia, horizontalia v. reversa. Strobilus globosus, induratus, sublignosus; squamæ præcipue e lamina ovulifera aucta constantes, basi in stipitem contractæ, apice incrassatæ, bracteæ apice prominente conico breviter acuminatæ v. dorso umbonatæ, demum hiantes, persistentes. Semina horizontalia v. reversa, compressa, absque alis anguste oblonga, testa subcrustacea utrinque æqualiter v. inæqualiter anguste v. latiuscule in alam expansa; embryo normalis, sæpius 2-cotyledoneus.—Arbores sempervirentes, coma ramosissima dense foliata. Folia parva, spiraliter conferta, dense v. laxe imbricata, nunc brevissima obtusa appressa, nunc laxiora, lanceolata. Strobili sæpius ½–¾-poll. diametro.

Species 3, Tasmanicæ. *Benth. Fl. Austral.* vi. 241. *Hook. Ic. Pl. t.* 559, 573, 574. Genus quoad flores et fructum *Sequoiæ* valde affine et vix a specie typica nisi patria et strobili squamis evidentius acuminatis distinguendum.

12. **Cephalotaxus,** *Sieb. et Zucc. Fam. Nat. Fl. Jap.* ii. 108; *Fl. Jap.* ii. 65, *t.* 130 *ad* 132.—Flores dioici, ♂ ∞ (6–9), in capitula axillaria globosa bracteis squamiformibus imbricatis involucrata conferti, singuli bractea squamiformi subtensi. Staminum columna brevis, subsessilis; antheræ paucæ (4–∞), stipite brevi; loculi 2–4, circa apicem stipitis reflexi, intus subdeorsum dehiscentes, connectivo ultrà loculos in appendicem brevem sursum incurvam producto. Amenta ♀ ovoidea, ad apices ramorum sæpius terna; singula intra bracteas squamiformes imbricatas sessilia v. breviter pedunculata. Squamæ floriferæ ∞, spiraliter confertæ, lanceolatæ v. triangulares, mox modice incrassatæ carnosulæ, dorso convexo-carinatæ, lamina ovulifera cum bractea arcte connata, intus

sæpe costa media prominula instructa, post anthesin sæpius immutata. Ovula sub quaque squama 2, erecta. Amenta fructifera squamis parum auctis vix strobiliformia. Semina magna, drupiformia, e squamis demum marcescentibus omnino exserta, ovoidea v. oblonga; testa drupacea, extus carnosa, intus dura; albumen carnosum; embryo normalis, 2-cotyledoneus.—Arbores fruticesve sempervirentes. Folia alterna, subspiraliter affixa, distiche patentia, brevissime petiolata, linearia, plana, iis *Taxi* similia nisi longiora. Semina drupiformia, sæpius semipollicaria.

Species editæ 4, quarum 3 Japonicæ, 1 Chinensis, inter se tamen valde affines et forte unius varietates. *Parlat. in DC Prod.* xvi. ii. 502. *Forbes, Pin. Wob. t.* 66 (*Taxus*). *Bot. Mag. t.* 4499. Illis forte addenda specimina quoad habitum et folia simillima a Griffithio in Indiæ provinciis orientalibus lecta et alia a Miquelio indicata e Sumatra, in his omnibus tamen flores et fructus ignoti, et genus adhuc dubium remanet. Genus *Cephalotaxus* ab auctoribus plerisque ad *Taxeas* relatum, sed florum structura tam ♂ quam ♀ omnino *Taxodicarum*. Semen exsertum drupiforme primo intuitu fructum *Torreyæ* refert, sed ni fallimur, stratus exterior carnosus in *Cephalotaxo* est testæ pars, dum in *Torreya* e lamina ovulifera adnata oritur. Amenta ♀ in *Cephalotaxo* ∞-flora squamis 2-ovulatis, in *Torreya* 1-flora, 1-ovulata.

Tribus III. Taxeæ.

13. **Taxus,** *Linn. Gen. n.* 1135. (Verataxus, *Senil. seu Nels. Pin.* 168.)—Flores dioici, ♂ ad axillas solitarii, subsessiles, bracteis nonnullis squamiformibus imbricatis stipati. Staminum columna breviter stipitata, turbinato-globosa; antheræ 5–8, ante dehiscentiam subglobosæ, supra depressæ, 4–6-sulcatæ, stipite brevi, loculis 4–6 circa apicem stipitis connatis, subtus introrsum dehiscentibus; anthera effœta fere umbraculiformis, 4–6-lobus, connectivo inappendiculato v. vix in media anthera brevissime mucronulato. Amenta ♀ axillaria, sessilia, 1-flora (v. rarissime 2-flora?), squamis vacuis ∞ latis arcte imbricatis superioribus gradatim majoribus fere in cupulam confertis; lamina ovulifera intra squamam summam ab ea libera, sub anthesin annularis vix prominens, mox aucta, cupulata, truncata, demum semine longior. Ovulum 1, intra laminam ovuliferam erectum. Semen maturum ovoideo-globosum, lamina ovulifera aucta carnosa pulposa bacciformi apice truncata fere ad apicem v. omnino inclusum, ab ea tamen præter basin liberum; testa dura sublignosa, extus in vivo viscoso-subcarnosa; embryo normalis, 2-cotyledoneus.—Arbores rarius frutices sempervirentes. Folia subspiraliter affixa, sæpissime distiche patentia, brevissime petiolata, linearia, plana, sæpe falcata. Fructus lamina exterior bacciformis ad 3 lin. diametro, apice ore parum contracto aperta.

Species apud auctores nonnullos 6–8, ab aliis omnes in unam coadunatæ, per regiones temperatas hemisphærii borealis in utroque orbe late dispersæ. *Parlat. in DC. Prod.* xvi. ii. 500. *L. C. Rich. Conif. t.* 2. *Zucc. in Abhandl. Bay. Acad. Münch.* iii. 803, *t.* 5. *Nees, Gen. Fl. Germ. Monochl. n.* 14. *Reichb. Ic. Fl. Germ. t.* 538. *Wall. Tent. Fl. Nap. t.* 44. *Sieb. et Zucc. Fl. Jap. t.* 128. *Nutt. N. Amer. Sylv. t.* 108.

14. **Torreya,** *Arn. in Ann. Nat. Hist. ser.* 1, i. 130. (Caryotaxus, *Zucc.*; *Henk. et Hochst. Nadelh.* 365. Fœtataxus, *Sen. seu Nels. Pin.* 167.)—Flores dioici, ♂ ad axillas solitarii, subsessiles, bracteis nonnullis squamiformibus decussatim imbricatis stipati. Staminum columna intra bracteas subsessilis, ovoidea v. oblonga; antheræ ∞-seriatim spiraliter confertæ, stipite brevi, loculis 4 ab apice pendulis basi (supera) in semi-annulum connatis, introrsum 2-valvibus, connectivo supra loculos breviter producto parum dilatato margine superiore sæpius denticulato. Amenta ♀ axillaria, sessilia, 1-flora, squamis vacuis parvis carnosulis 3–4-fariam imbricatis post anthesin immutatis; lamina ovulifera intra squamam summam ab ea libera, sub anthesi cupularis ovulum æquans, mox aucta, urceolata, supra ovulum clausa, crasse carnosa. Ovulum intra laminam 1, erectum. Fructus ovoideus, drupiformis, lamina carnosa e cupula aucta constans semen includens eique plus minus adnata. Seminis testa ossea; albumen insigniter ruminatum; embryo parvus, 2-cotyledoneus.—Arbores sempervirentes. Folia subspiraliter affixa, distiche patentia, brevissime petiolata, linearia, plana, iis *Taxi* similia nisi longiora. Fructus $\frac{3}{4}$–$1\frac{1}{2}$-pollicaris.

Species 3 v. 4, Americæ borealis, Japoniæ et Chinæ borealis incolæ. *Parlat. in DC. Prod.* xvi. ii. 504. *Hook. Ic. Pl. t.* 232, 233. *Bot. Mag. t.* 4780. *Sieb. et Zucc. Fl. Jap. t.* 129. *Nutt. N. Amer. Sylv. t.* 109. *Newb. Pl. Williams. Exped.* 62, *cum ic. xyl.*

15. **Ginkgo,** *Linn. Mant.* 313. (Salisburia, *Sm. in Trans. Linn. Soc.* iii. 330. Pterophyllus, *Senil. seu Nels. Pin.* 163.)—Flores dioici, ♂ ad axillas squamarum solitarii, pedunculati, ebracteati; staminum columna laxe cylindracea; antheræ subspiraliter confertæ, stipite tenui, loculis 2 ab apice stipitis pendulis longiusculis fere a basi distinctis introrsum dehiscentibus, connectivo supra loculos vix brevissime appendiculato. Flores ♀ in gemma squamata (an semper ?) solitarii. Lamina ovulifera in axilla squamæ ab ea libera, basi in stipitem longum contracta, apice breviter 2-fida rarius irregulariter 3–6-fida, lobis in discum seu cupulam brevem ovulo adnatam dilatatis. Ovula in quoque lobo solitaria, sessilia, erecta. Semen drupaceum, basi lobo laminæ ovuliferæ parum aucto adnatum; testæ stratus exterior carnoso-pulposus, interior durus fere osseus; embryo normalis, 2-cotyledoneus.—Arbor sempervirens, pallida, ramis patentibus, ramulis biformibus, foliiferi novelli sæpius penduli, foliis alternis distantibus, floriferi ad nodos tardius evoluti v. etiam terminales crassi, brevissimi, post annos plures parum elongati. Folia primaria ramorum sterilium v. novellorum longe petiolata, subrhombeo-flabelliformia, inciso-2-loba v. irregulariter ∞-loba, flabellatim venosa; ramuli alii axillares primo anno gemmiformes imbricato-squamati et fasciculum foliorum primariis minorum ferunt, dein quotannis squamas imbricatas caducas infra foliorum fasciculum verticillum duplicem constantes; ramuli hi floriferi tertio v. quarto anno vix semipollicares, in uno specimine 1½-pollicares verticillos cicatricum ultra 15 ostendentes. Flores ad axillas squamarum infra folia tardius evoluta apparent. Semen abortu sæpius unicum, drupaceum, ovoideo-globosum, fere 1½-pollicare, stipite sæpius breviore.

Species 1, Chinensis, olim ex reliquiis palæogeis evidenter in hemisphærio boreali late extensa. *Parlat. in DC. Prod.* xvi. ii. 506. *Van Tiegh. in Ann. Sc. Nat. ser.* 5, x. 276. *L. C. Rich. Conif. t.* 3 *et* 3 *bis.* *Sieb. et Zucc. Fl. Jap. t.* 136. *Wats. Dendrol. Brit. t.* 168 (*Salisburia*). Florum ♀ structuram veram primum elucidavit Van Tieghem l.c., cujus observationes in speciminibus perpaucis hujus sexus in herbariis servatis confirmare potuimus.

16. **Phyllocladus,** *L. C. Rich. Conif.* 129, *t.* 3. (Thalamia, *Spreng. Anleit. Kentn. Gew.* ii. 218.)—Flores monoici (v. dioici?), ♂ ad apices ramorum fasciculati v. in axillis solitarii, bractea unica subtensi. Staminum columna nunc sessilis ovoidea parva, nunc stipitata longiuscule cylindracea; antheræ subsessiles, spiraliter confertæ, loculis 2 parallelis fere innatis majusculis deorsum dehiscentibus, connectivo ultra loculos in appendicem squamiformem acutam v. acuminatam producto. Amenta ♀ nunc in pedunculo solitaria ovoidea v. subglobosa pluri- v. multiflora, nunc parva, in pedunculo ∞, interrupte spicata v. subracemosa, pauciflora; squamæ simplices (e bractea sola constantes) breves, latæ, crassiusculæ, imbricatæ; interdum cum axi confertæ carnosæ; lamina ovulifera a squama libera, sub anthesin breviter v. imperfecte annularis, mox accrescens, tenuis, cupulatus, semini appressus. Ovulum 1, erectum. Strobilus sæpe carnosulus, nunc parvus 1-spermus, nunc globosus v. ovoideus ∞-spermus. Semina ovoidea, e squamis et cupula parum aucta protrusa, testa crustacea v. indurata.—Arbores fruticesve sempervirentes, ramis plerisque subverticillatis, ramulis ultimis distichis v. oppositis in phyllodia coriacea flabellatim v. pinnatim venosa irregulariter dentata v. lobata varie dilatatis. Folia vera minute squamiformia, alterna v. subspiraliter sparsa, interdum omnino abortiva. Strobili carnosi, nunc vix 2 lin. diametro, 1–2-spermi, nunc ovoideo-globosi, 6 lin. longi, seminibus sat numerosis semi-emersis.

Species 3, Tasmaniæ, Novæ Zelandiæ et ins. Borneo incolæ. *Parlat. in DC. Prod.* xvi. ii. 498. *L. C. Rich. Conif. t.* 3. *Labill. Pl. Nov. Holl.* ii. *t.* 221 (*Podocarpus*). *Hook. f. Fl. N. Zel. t.* 53. *Hook. Ic. Pl.* 549, 551, 889. *Carr. in Revue Hort.* 1867, 311, *cum ic. xyl.* *Fl. des Serres, t.* 1331.

Nomen Sprengelianum jure prioritatis gaudet, sed in opere vix noto editum, a botanicis omnibus prætervisum, nunc futile revocatur.

17. **Dacrydium**, *Soland. in Forst. Pl. Escul.* 80. (Lepidothamnus, *Philippi in Linnæa*, xxx. 730.)—Flores dioici, ♂ ad apices ramorum solitarii, inter folia ultima sessiles, sæpius parvuli. Staminum columna ovoidea v. oblonga; antheræ spiraliter confertæ, stipite brevi nunc brevissimo, loculis 2 globosis contiguis stipiti breviter adnatis deorsum liberis 2-valvibus, connectivi appendice squamiformi foliis superioribus subsimili v. parva. Flores ♀ ad axillas squamarum 1–6 summarum vix a foliis ramealibus diversarum sessiles, spicam laxam potius quam amentum formantes, sub quaque squama solitarii. Lamina ovulifera a squama libera, late concava v. cupulata, truncata, mox squamam oblique superans, latere interiore fissa. Ovulum 1, erectum v. obliquum. Squamæ sub fructu parum v. vix auctæ. Semen ovoideum, erectum, intra cupulam auctam sessile qua 2–3-plo longius; testæ stratum exterius tenuiter subcarnosum, interius indurato-crustaceum; albumen æquabile, integumento interiore tenui appresso; embryo normalis, 2-cotyledoneus.—Arbores fruticesve sempervirentes, ramosissimi. Folia parva, numerosa, spiraliter conferta, ramulos undique obtegentia, sæpius biformia, ramorum fertilium crasse squamiformia obtusa appressa arcte imbricata, plantæ junioris v. ramorum sterilium patentia angustiora sæpeque longiora, variant tamen minima v. setiformia v. in *D. Kirkii* majora, lanceolata, fere *Cunninghamiæ*. Flores ♂ 1–2 rarius 2½ lin. longi. Semen interdum vix 1 lin., rarius fere 2 lin. longum, in spica uniflora terminale erectum, in spica pluriflora cupula post anthesin sæpe lateraliter protrudit, semine juniore plus minus obliquo nunquam tamen reverso.

Species ad 10, Archipelagi et peninsulæ Malayanæ, ins. Fiji et Novæ Caledoniæ, Novæ Zelandiæ, Tasmaniæ et Chile australis incolæ. *Parlat. in DC. Prod.* xvi. ii. 494 (*excl. D. tetragono ad Microcachryn et D. taxoidi ad Podocarpum referendis*). *Lamb. Pin. t.* 41, *ed. min. t.* 69. *L. C. Rich. Conif. t.* 2. *Forbes, Pin. Wob. t.* 67. *Blume, Rumphia* iii. *t.* 172 B, *f.* 1 c. *Hook. Lond. Journ.* ii. *t.* 2, iv. *t.* 6; *Ic. Pl. t.* 544 (*Podocarpus?*), 548, 815, 1218, 1219. *Hook. f. Fl. Tasm. t.* 100 A (*excl. f.* 8, 9 *ad Microcachryn pertinentes*). *Kirk in Trans. N. Zeal. Inst.* x. 383, *t.* 18 *ad* 20. *Brongn. et Gris in Bull. Soc. Bot. Fr.* xvi. 328, *et in Nouv. Arch. Mus. Par.* iv. 5, *t.* 2 (*quoad D. araucarioidem*).

D. taxoides et *D. Pancheri*, Brongn. et Gris, nobis tam fructu quam habitu ad *Podocarpum* referenda videntur.

18? **Pherosphæra**, *Arch. in Hook. Kew Journ.* ii. 52, *pro parte*.—Flores dioici, ♂ terminales, solitarii. Staminum columna intra folia ultima subsessilis, parva, subglobosa. Antheræ spiraliter confertæ, stipite brevissimo; connectivum squamiforme, late suborbiculatum, concavum, supra loculos breviter appendiculatum nec dilatatum; loculi 2, subglobosi, introrsum adnati, subdeorsum 2-valves. Amenta ♀ parva, terminalia, ovoidea; squamæ 6–8, laxe spiraliter imbricatæ, basi concavæ, extus quasi gibbæ, specie omnino simplices. Ovulum 1, a basi squamæ erectum. Strobili parvi, ovoidei, recurvi, squamis parum auctis basi incrassatis subpatentibus. Semen ovoideo-oblongum, erectum; testa laxa, subcoriacea, membrana tenui viridi exalata v. utrinque anguste alata inclusa; membrana interna albumini appressa tenuissima. Embryo normalis.—Frutex sempervirens, erectus, dense ramosissimus. Folia parva, squamiformia, appressa, dense spiraliter imbricata, plus minus distincte 4–5-seriata nec decussatim opposita. Strobili ad 1½ lin. longi, squamis 4–8. Semina vix squamis breviora.

Species 1, montium Tasmaniæ incola. *Hook. f. Fl. Tasm.* i. 355, *t.* 99. *Parlat. in DC. Prod.* xvi. ii. 496. *Benth. Fl. Austral.* vi. 245. *Kirk in Trans. N. Zeal. Inst.* x. 378. Ovulum erectum vidimus ut in icone Hookeriana rite depictum, nec junius reversum ut ex confusione cum *Microcachryde* descriptum. De homologia squamarum amenti ♀ et integumentorum seminis incerti sumus, laminam ovuliferam haud distinguimus, an cum bractea arcte conferruminata? an sola squamam efficiens bractea abortiente? an tenuiter membranacea ovulum includens? an revera nulla? ex speciminibus siccis haud patet.

TRIBUS IV. PODOCARPEÆ.

19. **Microcachrys**, *Hook. f. in Hook. Lond. Journ.* iv. 149; *Fl. Tasm.* i. 358, *t.* 100.—Flores dioici, ♂ ad apices ramorum solitarii. Staminum columna intra folia ultima sub-

sessilis, parva, oblonga; antheræ spiraliter confertæ, stipite brevissimo; loculi 2, connectivo lato ultra loculos in appendicem breviter squamiformem incurvam producto adnati, deorsum 2-valves. Amenta ♀ parva, globosa, terminalia; squamæ pauciseriatæ, spiraliter imbricatæ, basi contractæ, dorso valde convexæ, semiglobosæ v. fere cucullatæ, specie simplices carnosæ crassiusculæ, intus concavæ (e lamina ovulifera bracteaque arcte connatis constantes?). Ovulum 1, fere ab apice faciei interioris reversum. Strobilus parvus, subglobosus, squamis subglobosis distinctis at contiguis persistentibusque. Semina squamis obtecta, prope apicem affixa, semiglobosa, dorso convexa, facie interiore plana; testa? duplici, externa membranacea (e lamina ovulifera formata?), membranacea, interna (testa vera?) crustacea; albumen carnosum; embryo normalis.—Frutex sempervirens, prostratus, ramosissimus, ramulis foliatis eleganter 4-gonis. Folia parva, squamiformia, crassiuscula, opposita, decussatim imbricata, obtuse carinata. Flores ♂ 1½ lin. longi. Strobili maturi ad 2 lin. diametro, coccinei, fere fragiformes.

Species 1, montium Tasmaniæ incola. *Benth. Fl. Austral.* vi. 240. *Hook. Ic. Pl. t.* 560 (*Arthrotaxis?*). *Bot. Mag. t.* 5576.

In seminibus examinatis embryonem 2-cotyledoneum invenimus et in uno semine embryones 2. Nescimus qua ratione species ad *Dacrydium* refertur a Parlat. in DC. Prod. xvi. ii. 496, a quo differt squamarum amenti ♀ natura, ovulo reverso, semine, aliisque notis. De homologia squamarum incerti sumus, nec accuratius determinandum nisi in speciminibus vivis floris junioris. Ordo squamarum ♀, ab eo foliorum ramuli florentis diversus, in *Coniferis* rarius observatur.

20. **Saxegothea,** *Lindl. in Journ. Hort. Soc.* vi. 258, *cum ic. xyl.* (Squamataxus, *Senil. seu Nels. Pin.* 168.)—Flores monoici, ♂ in axillis summis subsessiles, spicam brevem formantes, singuli squamis paucis imbricatis stipati. Staminum columna cylindracea, longiuscula, densa; antheræ ∞-seriatæ, spiraliter confertæ, sessiles, 2-loculares, subdidymæ, connectivo inappendiculato, loculis parallelis adnatis subintrorsum 2-valvibus, valvis exterioribus connatis post dehiscentiam squamam reflexam acutam longitudinaliter sulcatam simulantibus. Amenta ♀ terminalia subglobosa; squamæ pauciseriatæ, apice acutæ, erectæ, lamina ovulifera adnata ultra medium crasse carnosæ, arcte confertæ. Ovulum 1, reflexum, a lamina præter basin liberum. Strobilus globosus, crasse carnosus, squamis incrassatis subconnatis, ut videtur indehiscens, bractearum apicibus conicis muricatus, intus ∞-locularis. Semina in loculis solitaria, ovoidea, irregulariter subcompressa, reversa, testa tenui exalata maturitate irregulariter fissa; embryo normalis.—Arbor sempervirens, coma densa. Folia subspiraliter sparsa, sæpe distiche patentia, linearia v. lineari-lanceolata, acuta, rigida, subtus albida. Strobili maturi vix ultra 4 lin. diametro.

Species 1, sylvarum Chile australis incola. *Parlat. in DC. Prod.* xvi. ii. 497. *C. Gay, Fl. Chil.* v 411. Icon citata Lindleyi, Veg. Kingd. 229[b], in variis diariis hortulanorum repetita, quoad antheras parum erronea est.

21. **Podocarpus,** *L'Hér.*; *H. B. et K. Nov. Gen. et Sp.* ii. 2, *t.* 97.—Flores monoici v. dioici, ♂ solitarii v. per 2–5 fasciculati, v. ∞ secus rhachin elongatam laxe spicati, singuli bracteis paucis parvis imbricatis stipati. Staminum columna cylindracea elongata densaque, v. rarius brevior et laxa, supra bracteas sessilis v. stipitata; antheræ spiraliter confertæ, sessiles, loculis 2 parallelis adnatis extrorsum v. sublateraliter 2-valvibus, connectivo supra loculos in appendicem parvam acutam rarius longius lanceolatam incurvam producto. Flores ♀ ad normam solitarii v. rarius gemini, bractea florifera inferioribusque vacuis paucis pedunculo adnatis et cum eo sic dictum *receptaculum* oblongum sæpius carnoso-succulentum formantibus, apicibus solis bractearum v. bracteis 1–2 infimis parvis liberis; rarius flores ∞ secus pedunculum dissite spicati bracteis parvis; lamina ovulifera e bractea florifera stipitata, ovoidea, carnosa, ovulum unicum reflexum includens, eique fere ad apicem adnata. Fructus supra receptaculum sæpius breviter stipitatus, globosus v. ovoideus, drupaceus v. nuceus, strato exteriore (e lamina ovulifera) carnosulo v. exsiccato, interiore seu seminis testa crustaceo v. indurato, undique clauso; embryo in albumine carnoso tenuis, 2-cotyledoneus, radicula deorsum spectante.—Arbores sempervirentes,

rarius frutices. Folia in diversis sectionibus diversa. Flores axillares v. subterminales. Fructus rarius semipollicem diametro excedunt.

Species enumeratæ ultra 60, plurimæ tamen spuriæ et numerus bene cognitarum infra 40 reducitur, in regionibus extratropicis hemisphærii australis utriusque orbis et in Asia tropica montana et orientali frequentes, in America tropica montana pauciores, in Europa Asia occidentali Africa boreali et America boreali desunt. *Parlat. in DC. Prod.* xvi. ii. 507. *Brongn. et Gris in Bull. Soc. Bot. Fr.* xiii. 425, xvi. 325. *Benth. Fl. Austral.* vi. 246.

Apud Eichler in Mart. Fl. Bras. iv. i. 430, lamina ovulifera seu ovarium in *Podocarpo* deest, et lamina adnata cum ovulo incluso supra descripta est ovulum anatropum, cui interpretationi assentiri nequimus.

Genus in sectiones sequentes 4 dividitur, jam a Brownio et Endlichero indicatas:—

1. *Nageia.* Folia opposita v. subopposita, plana, lata, crassiuscula, ecostata, tenuiter parallele multivenia. Inflorescentia *Eupodocarpi.* Species paucæ Asiaticæ, quarum una, sola e toto ordine *Coniferarum*, peninsulæ Indiæ orientalis incola, cum una Novo-Caledonica. *Wall. Pl. As. Rar. t.* 30. *Blume, Rumphia,* iii. *t.* 173. *Hook. Lond. Journ.* i. *t.* 23. *Bedd. Fl. Sylv. t.* 257. *Sieb. et Zucc. Fl. Jap. t.* 135. NAGEIA, *Gord. Pinet.* 135.

NAGEIA, *Gærtn. Fruct.* i. 191, *t.* 39, quoad fructum et syn. *Nagi,* Kæmpf. Amœn. Exot. 773, 874, cum ic., est *Podocarpus Nageia,* Br., sed character floris verisimiliter ob confusionem cum *Myrica rubra,* Sieb. et Zucc., ad genus longe alienum spectat. Nomen igitur Gærtnerianum, etsi antiquius, nequaquam Lheritieriano jam diu bene definito et ab omnibus fere botanicis recepto substituendum.

2. *Eupodocarpus.* Folia sparsa, undique patentia, linearia v. sublanceolata, longa v. brevia, 1-costata, avenia. Fructus solitarii v. rarius 2, receptaculo carnoso-succulento oblongo v. rarius parum incrassato. Species in utroque orbe ∞. *L. C. Rich. Conif. t.* 1 *et* 29. *Hook. Lond. Journ.* i. *t.* 19, 21, 22; *Ic. Pl. t.* 542, 582, 624. *Bot. Mag. t.* 4655; *ic. in Fl. des Serres, t.* 768, *repetita. Blume, Rumphia* iii. *t.* 170, 172. *Becc. Conif. Archip. Ind. t.* 1 *ad* 3. *Sieb. et Zucc. Fl. Jap. t.* 133, 134. *F. Muell. Fragm. Phytogr. Austral.* iv. *t.* 31. *Eichl. in Mart. Fl. Bras.* iv. i. *t.* 113 *ad* 115.

P. chilina, Rich., insignis est florum ♂ columna staminea longa tenuique. *P. alpina,* Br., *P. nivalis,* Hook., *P. ferruginea,* Don, et *P. Totara,* Don, omnes e Nova Zelandia v. e montibus Tasmaniæ et Victoriæ, distinguuntur foliis brevibus linearibus obtusis confertis patentibus recurvisve; inflorescentia *Eupodocarpi* receptaculo tamen minore. In *P. vitiensi,* Seem. Journ. Bot. i. t. 2, et Fl. Vit. t. 77, ex ins. Fiji, et *P. minore,* Parlat., e Nova Caledonia, folia distiche patentia subopposita, sed angusta; costa plus minus prominens, in *P. minore* interdum obscura, sed venæ tenues parallelæ sectionis *Nageiæ* desunt. In *P. taxifolia,* H. B. et K., e Columbia, folia distiche patentia et flores ♂ laxe spicati ut in sect. *Stachycarpo,* sed inflorescentia ♀ omnino *Eupodocarpi.* *Dacrydium Pancheri* et *D. taxoides,* Brongn. et Gris in Bull. Soc. Bot. Fr. xvi. 330, *et in Nouv. Arch. Mus. Par.* iv. *t.* 3, nobis videntur ad *Podocarpum* (*Eupodocarpum*) referenda.

3. *Stachycarpus.* Folia linearia, quam in *Eupodocarpo* minora, sæpe plus minus disticha. Flores utriusque sexus dissite spicati, bracteis parvis in spica ♀ non v. vix carnosis. Species 2, altera Novo-Zelandica, *P. spicata,* Br.; altera e montibus Chile australis. *Hook. Ic. Pl. t.* 543. PRUMNOPITYS, *Philippi in Linnæa* xxx. 731, in Prodromo rite ad *Stachycarpum* relata est, sed sub nomine *P. andinæ* species plures confusæ videntur. Specimina Lechleriana n. 180, 180*a*, et 184 in herb. Kew. certe ad *Saxegotheam* pertinent. Species cæteræ in Prodromo sub *Stachycarpo* enumeratæ, floribus ♀ solitariis nec laxe spicatis ad *Eupodocarpum* referendæ sunt.

4. *Dacrycarpus.* Folia biformia, alia præsertim ramulorum fertilium parva, squamiformia, conferta, sæpiusque appressa, alia, ramulorum sterilium, distiche patentia, anguste linearia v. fere subulata. Flores ♀ et fructus *Eupodocarpi* sed parvi, receptaculo parum incrassato e bracteis 1–2. Species 4, ex Archipelago Malayano, Nova Zelandia et Nova Caledonia. *Benn. Pl. Jav. Rar. t.* 10. *Blume, Rumphia, t.* 172B, *f.* 2. *A. Rich. Fl. N. Zel. t.* 39. *P. Cumingii,* Parlat., a *P. cupressoide* nequaquam differt; *P. tenuifolia,* Parlat., videtur ramus sterilis *P. Vieillardii.*

TRIBUS V. ARAUCARIEÆ.

22. **Cunninghamia,** *R. Br. in Rich. Conif.* 149, *t.* 18. (Belis, *Salisb. in Trans. Linn. Soc.* viii. 315. Raxopitys, *Senil. seu Nels. Pin.* 97.)—Flores monoici, ♂ ad apices ramorum ∞, capitati, singuli basi bractea amplexi, bracteis exterioribus ∞ vacuis pluri-

seriatim imbricatis involucrum capituli formantibus. Staminum columna laxe cylindracea; antheræ subspiraliter multiseriatæ, stipite tenui, connectivi appendice squamiformi ovata vix v. non peltata incurva, loculis 2–4 a basi appendicis pendulis deorsum 2-valvibus. Amenta ♀ subglobosa; squamæ specie subsimplices, multiseriatæ, spiraliter imbricatæ, latissime ovatæ, mucronatæ, basi breviter contractæ, lamina ovulifera tenui arcte adnata infra medium squamæ parum incrassata, squama medium versus linea transversa minute fimbriata (laminæ margine) notata. Ovula ad basin squamarum fertilium 3, reversa, squamis nonnullis exterioribus vacuis minoribusque. Strobilus post anthesin auctus, cæterum parum mutatus, squamis laxiuscule imbricatis parum induratis margine tenuibus apice sæpe squarroso-patentibus persistentibus. Semina reversa, oblonga, testa crustacea duriuscula ala angusta cincta; embryo normalis, 2-cotyledoneus.—Arbor sempervirens, dense foliata, ramis superioribus suboppositis. Folia oblique spiraliter affixa, subdistiche patentia, lineari-lanceolata, sæpe curvula, nitida, acutissima. Capitula ♂ et amenta ♀ ad apices ramorum sæpius 2–3, primum terminalia apparent, mox tamen ramulo excrescente lateralia evadunt. Strobili fructiferi ad 1½ poll. diametro.

Species 1, Japoniæ et Chinæ incola. *Parlat. in DC. Prod.* xvi. ii. 432. *Lamb. Pin. t.* 34; *ed. min. t.* 53 (*Pinus*). *Forbes, Pin. Wob. t.* 57. *Sieb. et Zucc. Fl. Jap.* ii. *t.* 103, 104. *Bot. Mag. t.* 2743.

Amenti ♀ squamæ a pluribus revera simplius dicuntur, lamina tamen ovulifera, etsi arcte adnata, semper distinguenda est, ut bene ait Dicks. in Edinb. New Phil. Journ. ser. 2, xiii. 196, nec perfecte distincta ut errore gallice redditur in Adansonia ii. 73. Nomen Salisburyanum a Brownio et Richardio rejectum fuit ob similiter sonantem *Bellis*, Linn.

23. **Agathis,** *Salisb. in Trans. Linn. Soc.* viii. 311, *t.* 15, *non Gærtn.* (Dammara, *Lamb. Pin. ed.* 1, ii. 14, *t.* 6.)—Flores monoici v. dioici, ♂ in pedunculis axillaribus solitarii, squamis ad apicem pedunculi confertim imbricatis decussatis stipati. Staminum columna intra squamas sessilis, ovoideo-oblonga v. crasse cylindracea; antheræ numerosæ, densissime confertæ, spiraliter multiseriatæ, stipite longiusculo rigido, loculis 5–∞ ex apice stipitis extrorsum pendulis oblongis linearibusve introrsum dehiscentibus, connectivo in appendicem squamiformem sursum inflexam producto. Amenta ♀ ovoidea v. globosa; squamæ (post anthesin) specie simplices, multiseriatæ, spiraliter arcte imbricatæ, apicibus latis appressis v. breviter patentibus, lamina ovulifera squama multo breviore tenuissima arcte adnata vix nisi linea transversa medium versus squamæ conspicua. Ovula solitaria v. sub anthesi 2, uno sæpius mox abortiente (v. omnino deficiente?), reversa, squamæ appressa. Strobilus globosus, squamis latis induratis arcte appressis tardius hiantibus persistentibus. Semen sub quaque squama sæpius 1, unilaterale (altero abortivo?) v. centrale, interdum vere 2 perfecta, reversa, compressa, ovata v. oblonga, testa crassiuscule membranacea latere exteriore v. utrinque in alam latam forma varia expansa; embryo normalis, 2-cotyledoneus.—Arbores excelsæ, resinam copiosam scatentes. Rami subverticillati, gemmis novellis sæpius squamis imbricatis obtectis. Folia subopposita, ovata oblonga v. rarius lanceolata, crasse coriacea, ecostata, tenuiter striato-venulosa. Flores ♂ in pedunculo brevi ½–1-pollicares. Amenta ♀ ramulos breves terminantia. Strobili perfecti in nonnullis speciebus ultra 2 poll. diametro. Semen, si unicum, semper ad unum latus costæ centralis squamæ vidimus.

Species descriptæ 8–10, et forte plures revera distinctæ, etsi vix 4 e speciminibus bene definiendæ. Archipelagi Malayani, ins. Fiji, Novæ Caledoniæ, Novæ Zelandiæ et Australiæ orientalis tropicæ incolæ. *L. C. Rich. Conif. t.* 19. *Parlat. in DC. Prod.* xvi. ii. 374 (*Dammara*). *A. Dicks. in Trans. Soc. Bot. Edinb.* vii. 207, *t.* 5. *Lamb. Pin. ed.* i. *t.* 38 (*Pinus*); *ed. min. t.* 54, 55. *Forbes, Pinet. Wob. t.* 58, 59. *Hook. Kew Journ.* iv. *t.* 4. *Bot. Mag. t.* 5359. *Fl. des Serres* xi. *Misc.* 75, *cum. ic. Seem. Fl. Vit.* 263, *t.* 76. Icones omnes præter L. C. Rich. sub *Dammara*.

Nomen Salisburyanum, a L. C. Richard bene acceptum, jure prioritatis gaudet. *Dammara* ab auctoribus recentioribus Rumphio ascribitur, Rumphius tamen nunquam genus definivit, sed sub hoc nomine arbores tres resiniferas descripsit, quarum una est *Canarii* species, altera *Shorea*, tertia sola ad *Agathin* pertinet. *Dammara*, Gærtn., est *Burseræ* species.

Flores monoicos in hoc genere negat Parlatore, sed specimina Novo-Zelandica in herb. Kew certe simul amenta ♀ et flores ♂ ferunt, ut a Lambertio delineatur.

24. **Araucaria,** *Juss. Gen. Pl.* 413. (Dombeya, *Lam. Dict.* ii. 301, *t.* 828, *non. Cav.*)—Flores dioici v. rarius monoici, ♂ terminales, solitarii, v. rarius ramulis floriferis abbreviatis ad apices ramorum fasciculati. Staminum columna longa, cylindracea, intra folia summa sessilis; antheræ numerosissimæ, dense spiraliter confertæ, multiseriatæ, stipite rigidulo, loculis 6–8 ab apice stipitis pendulis linearibus introrsum dehiscentibus, connectivo ultra loculos in appendicem squamiformem inflexam producto. Amenta ♀ ovoidea v. globosa; squamæ post anthesin specie simplices, multiseriatæ, spiraliter arcte imbricatæ, apicibus sæpius acutis v. acuminatis; lamina ovulifera arcte adnata, tenuis, apice obtusa v. acuta infra apicem bracteæ breviter libera. Ovulum 1, reversum. Strobilus globosus, sæpe magnus, squamis parum incrassatis apice tamen induratis, lateribus attenuatis v. in alas dilatatis. Semen oblongum, reversum, testa cum squama arcte connata; albumen anguste oblongum; embryo normalis, 2–3–4-cotyledoneus.—Arbores elatæ, sempervirentes, dense foliatæ. Folia coriacea, spiraliter multiseriatim affixa, nunc squamiformia laxe imbricata ramulos undique obtegentia, nunc lanceolata, longiuscula, pungenti-acuta, patentia, in nonnullis speciebus biformia. Florum ♂ columna staminea sæpe strobiliformis pluripollicaris. Strobili usque ad 8 poll. diametro, primum terminales, demum ramulo excrescente laterales evadunt.

Species notæ 10, Americæ australis, Australiæ, Novæ Caledoniæ et insularum maris Pacifici australis incolæ. *Parlat. in DC. Prod.* xvi. ii. 369. *L. C. Rich. Conif. t.* 20, 21. *Lamb. Pin. t.* 39, 40 (*Dombeya*), ii. *t.* 4, 5; *ed. min. t.* 56 *ad* 62. *Forbes, Pin. Wob. t.* 50 *ad* 56. *Hook. Lond. Journ.* ii. *t.* 18. *Bot. Mag. t.* 4635; *ic. in Fl. des Serres t.* 733, *repetita. Fl. des Serres, t.* 1577 *ad* 1580, 2221. *Sieb. Fl. Jap. t.* 138 *ad* 140. *Brongn. et Gris in Nouv. Arch. Mus. Par.* vii. 205, *t.* 13 *ad* 16. *Eichl. in Mart. Fl. Bras.* iv. i. 123, *t.* 110 *ad* 112.

Species ab auctoribus in sectiones 2 distribuuntur:—1. *Columbea*, species Americanæ, squamis non v. vix alatis, cotyledonibus 2, germinatione hypogea. COLUMBEA, *Salisb. in Trans. Linn. Soc.* viii. 317. 2. *Eutassa*, species gerontogeæ squamis basi lateraliter alatis, cotyledonibus 4, germinatione epigea. ALTINGIA, *Loud. Hort. Brit.* 403, *non Nor.* EUTASSA, *Salisb. in Trans. Linn. Soc.* viii. 316. EUTACTA, *Link in Linnæa*, xv. 543. Cotyledones tamen numero in eadem specie variare videntur; germinatio in *A. Bidwillii* certe hypogea; folia specierum plurimarum gerontogearum brevia obtusa et imbricata, sed in *A. Bidwilli* ex Australia et *A. Muelleri* e Nova Caledonia, lanceolata et acuta sunt fere ut in *A. brasiliensi*. Incertæ sumus an alæ squamarum sectionis *Eutassæ* ad squamam ipsam (laminam ovuliferam) v. potius ad seminis testam pertinent.

25. **Sciadopitys,** *Sieb. et Zucc. Fl. Jap.* ii. 1, *t.* 101, 102.—Flores monoici?, ♂ ad apices ramorum ∞ dense spicati, singuli bractea subtensi, spica exinvolucrata. Staminum columna subsessilis, ovoidea v. oblonga; antheræ dense subspiraliter confertæ, stipite brevi, loculis 2 ab apice stipitis pendulis breviterque adnatis deorsum 2-valvibus, connectivi appendice lata extus convexa subpeltata loculos obtegente. Amenta ♀ intra bracteas paucas imbricatas sessilia, subglobosa mox oblonga; squamæ numerosæ, arcte subspiraliter imbricatæ, bractea a lamina ovulifera sub anthesi (quo statu a nobis non visa) distincta etsi multo breviore (*Sieb. et Zucc.*) in strobilo juniore alte adnata, apice lata breviter acuminato recurvo, sub margine recurvo laminæ ovuliferæ fere occultata. Ovula 7–9, serie transversa affixa, reversa. Strobilus crassus, durus, ovoideo-oblongus v. breviter cylindraceus; squamæ e lamina ovulifera aucta constantes, lignosæ, arcte imbricatæ, demum hiantes persistentesque, crassæ, late rotundatæ margine patente v. subrecurvo; bractea squama paullo v. sub dimidio brevior eique adnata, acumine deciduo indeque subevanida præter marginem incrassatum truncatum cristam transversam in squamæ dorsam formantem. Semina reversa, compressa, ovato-elliptica, testa membranacea circumcirca in alam expansa; embryo normalis.—Arbor excelsa, sempervirens, coma patente. Phyllodia foliis *Pini* cujusdam similia, linearia, rigida, quotannis ad apicem innovationis brevissimæ ad axillas squamarum in pseudo-verticillum evoluta, stellatim patentia, per annos plures persistentia umbracula intervallo brevi separata simulantia, demum decidua, et hinc inde (ut videtur tarde rariusque) unum alterumve phyllodiorum in ramum persistentem longiorem evolvitur. Strobilus in speciminibus nostris 3-pollicaris, fere 2 poll. diametro.

Species 1, Japonica. *Parlat. in DC. Prod.* xvi. ii. 435. *Fl. des Serres, t.* 1483, *et Diar. plur. Hortul.*; *ic. omnes e Fl. Jap. repetitæ.* De phyllodiorum natura confer *A. Dicks. in Rep. Bot. Congr. Lond.* 1866, 124, *et Carrière in Rev. Hortic.* 1868, 150, *cum ic.*

TRIBUS VI. ABIETINEÆ.

26. **Pinus,** *Linn. Gen. n.* 1077, *pro parte.*—Flores monoici, ♂ ad apices ramorum v. basin innovationum ∞ spicati, singuli in axillis squamarum rhacheos solitarii, subsessiles squamellisque nonnullis membranaceis imbricatis stipati. Staminum columna ovoidea oblonga v. cylindracea; antheræ multiseriatæ, spiraliter confertæ, stipite brevi, loculis 2 oblongis adnatis parallelis longitudinaliter dehiscentibus, connectivo ultra loculos in appendicem incurvam squamiformem cristatam v. rarius brevem tuberculiformem producto; pollinis granulæ utroque latere lobulo globoso v. vesiculo aerifero appendiculatæ. Amenta ♀ ad apices ramorum solitaria v. pauca, sæpe recurva, squamis vacuis paucis imbricatis stipata, globosa v. ovoidea. Squamæ duplices, ∞-seriatæ, spiraliter imbricatæ, laminis a basi v. fere a basi distinctis; bractea v. lamina exterior parva, membranacea, post anthesin immutata; lamina ovulifera jam sub anthesi bractea multo major, superne dilatata v. incrassata, apice rotundata retusa v. plus minus acuminata. Ovula 2, ima basi laminæ ovuliferæ, cum ea continua arcteque reflexa, post anthesin ob basin laminæ accrescentem paullo altius inserta videntur. Strobilus ovoideus conoideus v. oblongus, bracteis immutatis marcescentibus v. evanidis; squamæ e lamina ovulifera sola compositæ, arcte imbricatæ, lignosæ, nunc apice incrassatæ vertice areolas mutua pressione quadratas formantes, nunc apice in acumen durum productæ v. apice rotundatæ attenuatæque, maturitate sæpius hiantes, diu persistentes. Semina sub quaque squama gemina, reversa, pseudosamaroidea, nempe supra insertionem membrana tenuiter scariosa hyalina a strato interiore squamæ soluta coronata et utroque latere marginata; semen verum ovoideo-compressum, ab ala sæpe demum solutum, testa crustacea nuda v. rarius apice angustissime ala vera marginata; embryo normalis, cotyledonibus sæpius 3-∞.—Arbores rarius frutices, sempervirentes. Folia dimorpha, primaria (male ab auct. plur. *perulæ* dicta) parva, squamiformia, scariosa v. hyalina, marcescentia, spiraliter ∞-seriata; secundaria conspicua, ad axillas squamellarum per 2–5 fasciculata, acicularia, longiuscula v. longissima, fasciculis (rarissime ad folium unicum reductis) basi squamis paucis hyalino-scariosis vaginatis et in integrum deciduis. Strobili sæpius sessiles, solitarii v. fasciculati, erectiusculi horizontales v. reflexi, rarissime pollicem tantum longi et interdum usque ad pedales. In paucis speciebus semen delapsum nudum est v. subnudum, membrana aliformi parva v. a squama non solvenda.

Species ad 70, per regiones extratropicas hemisphærii borealis utriusque orbis late dispersæ, perpaucæ intra tropicos in Asia orientali, India occidentali et America centrali extensæ. *Parlat. in DC. Prod.* xvi. ii. 377 (*subgenus*).

Genus apud Linnæum *Abietineas* omnes inclusit, quem secutus est Parlatore in Prodromo, quale tamen ab auctoribus recentioribus plerisque limitatur naturalissimum est, et foliorum dispositione facillime dignoscendum, etsi characteribus floralibus carpologicisve non semper accurate definitum, ab Engelmanno nuper assidue scrutatum in sectiones 2 primarias dividitur:—

1. *Pinaster* (*Pinea*, Parlat.). Antherarum connectivum supra loculos in appendicem squamiformem incurvam productum. Strobili squamæ ante dehiscentiam arcte appresso-imbricatæ, superne crassissimæ lignosæ, areolis terminalibus (inepte *apophysibus* dictis) mutua pressione plus minus quadratis, nunc depressis subplanis, sæpius medio umbonatis v. in mucronem lignosum conicum v. elongatum (in *P. Sabiniano* affinibusque incurvum in *P. Gerardiano* recurvum) productis. Species enumerat Engelmann in litt. 56. *Engelm. Bot. Calif.* ii. 124, *ined.* *L. C. Rich. Conif. t.* 11, 12. *Nees, Gen. Fl. Germ. Monochl. n.* 6. *Reichb. Ic. Fl. Germ. t.* 521 *ad* 529. *Lamb. Pin. ed.* 1, *t.* 1 *ad* 21, *et* ii. *t.* 1, 9, 10; *ed. min. t.* 1 *ad* 29, 79, 80. *Forbes, Pin. Wob. t.* 1 *ad* 26. *Sibth. Fl. Gr. t.* 949. *Brand. For. Fl. t.* 67. *Sieb. et Zucc. Fl. Jap.* ii. *t.* 112 *ad* 114. *Lemon in Trans. Hort. Soc. ser.* 2, i. *t.* 20. *Mich. N. Amer. Sylv.* iii. *t.* 134 *ad* 144. *Nutt. N. Amer. Sylv. t.* 113. *Torr. Bot. Emory Exped. t.* 53 *ad* 58. *Newberry, Bot. Williams. Exped. t.* 4, 5.

P. monophylla, Torr. in Frem. Rep. t. 4, insignis est foliis in vagina specie solitariis teretibus;

in planta culta tamen et interdum in speciminibus sylvestribus variant alia solitaria teretia, alia gemina semiteretia.

2. *Strobus* (*Cembra*, Parlat.). Antherarum connectivum supra loculos tuberculiforme v. breviter cristatum. Strobili (interdum longi, sæpe angusti, nunc vero globosi) squamæ rigidæ duræque sed vix lignosæ et laxius imbricatæ, latæ, concavæ, suborbiculatæ, medio crassiores margine attenuatæ; umbone v. mucrone minuto terminali v. obsoleto. Species enumerat Engelmann in litt. 13, plerasque Americanas cum *P. Cembra* ex Asia et Europa. *L. C. Rich. Conif.* t. 12. *Lamb. Pin. ed.* 1, *t.* 22 *ad* 24; ii. *t.* 3; *ed. min. t.* 30 *ad* 34. *Forbes, Pin. Wob. t.* 27 *ad* 31. *Reichb. Ic. Fl. Germ. t.* 530. *Royle, Ill. Pl. Himal. t.* 84. *Sieb. et Zucc. Fl. Jap. t.* 115, 116. *Mich. N. Amer. Sylv.* iii. *t.* 145. *Nutt. N. Amer. Sylv. t.* 112, 114.

Genus præterea a pluribus auctoribus dividitur ob folia in fasciculo gemina, terna, v. 4–5-na, character non semper constans; Engelmann in litt. subsectiones 20 proponit, imprimis ad conformationem anatomicam foliorum, quam diligenter investigavit, sed character adhuc vix satis probatus, nec bene ad usum practicum idoneus.

De squamarum strobili seriebus spiralibus cfr. *Dicks. in Trans. Roy. Soc. Edinb.* xxvi. 505, *t.* 19 *ad* 22.

27. **Cedrus,** *Loud. in Forbes, Pin. Wob.* 144, *t.* 48, 49.—Flores monoici, ♂ in ramulis lateralibus abbreviatis terminales, intra folia fasciculata stellato-patentia subsessiles, bracteis squamiformibus arcte imbricatis stipati. Staminum columna intra bracteas sessilis, cylindracea; antheræ numerosissimæ, primum densissime mox laxius spiraliter confertæ, multiseriales, in axi subsessiles, loculis 2 oblongo-linearibus arcte adnatis extrorsum longitudinaliter dehiscentibus, connectivo ultra loculos in appendicem squamiformem ovatam inflexam sæpius margine denticulatam producto. Amenta ♀ subglobosa, in ramulis brevibus intra folia sessilia. Squamæ distincte duplices, spiraliter multiseriatæ, arctissime appressæ, imbricatæ, laminis fere a basi distinctis; bractea seu lamina exterior parva, arcte appressa, occlusa; lamina ovulifera jam sub anthesi bractea multo major et specie squamam constituens, apice rotundata, margine tenui. Ovula 2, prope basin laminæ ovuliferæ cum ea continua arcteque reflexa, post anthesin ob laminam basi accrescentem paullo altius affixa videntur. Strobilus subglobosus, amento florente conformis nisi valde auctus, bracteis immutatis, squamæ e lamina ovulifera valde aucta compositæ, rigidæ, parum incrassatæ, induratæ, arctissime imbricatæ, basi inflexæ, diu persistentes post semina delapsa tamen demum deciduæ. Semina (*Pini*) sub quaque squama 2, reversa, pseudo-samaroidea, membrana tenuiter scarioso-hyalina late oblique obovata a strato interiore squamæ soluta coronata et utroque latere marginata, vix demum ab ala soluta, ovato-oblonga, compressa; testa tenuiter crustacea; embryo normalis, sæpius ∞-cotyledoneus.—Arbores elatæ, sempervirentes; ramuli e gemmis imbricato-squamatis evoluti, alii tenues, folia demum dissita spiraliter affixa ferentes, alii (floriferi) crassi, breves, quotannis seriem exteriorem squamarum imbricatarum interioremque foliorum in fasciculum densum fere in verticillum confertorum ferentes. Folia acicularia, sub-4-gona, rigida, prope basin articulata, basibus infra articulationem post folia delapsa diu persistentibus. Florum ♂ columna bene evoluta 1–2-pollicaris. Strobili usque ad 3–4 poll. diametro.

Species v. varietates insignes 3, una Himalaica, altera orientalis, tertia Atlantica. *Parlat. in DC. Prod.* xvi. ii. 407 (*Pini sect.*). *L. C. Rich. Conif. t.* 14. *Lamb. Pin.* ii. *t.* 37 *bis*; *ed. min. t.* 51, 52 (*Pinus*). *Forbes, Pin. Wob. t.* 48, 49 (*Pinus*). *Hook. f. in Nat. Hist. Rev.* 1862, 11, *t.* 1 *ad* 3. Genus a *Pino* (*Strobo*) differt imprimis gemmis multifoliatis persistentibus floriferis, v. axi in ramulum foliatum excrescente; antheræ iis *Pini* (*Pinasteris*) similes.

28. **Picea,** *Link in Abhandl. Akad. Wiss. Berlin*, 1827, 179. (Abies, *Don in Loud. Arb. Brit.* iv. 2329.)—Flores monoici, ♂ ad axillas foliorum superiorum solitarii, subsessiles, bracteis squamiformibus imbricatis stipati, in ramulo perpauci v. dissiti, vix in spicam conferti. Staminum columna oblonga v. cylindracea; antheræ laxiuscule spiraliter confertæ, loculis 2 stipiti adnatis oblongo-linearibus longitudinaliter dehiscentibus, connectivo ultra loculos in appendicem squamiformem incurvam sæpe denticulatam producto. Amenta ♀ terminalia, squamis paucis vacuis imbricatis stipata, ovoidea v.

oblonga. Squamæ distincte duplices, ∞-seriatæ, spiraliter imbricatæ, laminis fere a basi distinctis; bractea membranacea parva, post anthesin vix aucta appressa; lamina ovulifera jam sub anthesi bractea major, demum squamam conspicuam formans, parum incrassata, margine tenui. Ovula 2, ima basi laminæ ovuliferæ cum ea continua arcteque reflexa, post anthesin ob laminam basi accrescentem paullo altius affixa videntur. Strobilus ovoideus v. oblongo-cylindraceus, bracteis immutatis mox occultis; squamæ e lamina ovulifera formatæ latæ, imbricatæ, post semina delapsa persistentes. Semina sub quaque squama gemina, reflexa, pseudosamaroidea, nempe supra insertionem membrana tenuiter scariosa hyalina a strato interiore squamæ soluta coronata et utroque latere marginata; semen verum ovoideo- v. oblongo-compressum, ala sæpius persistente facie exteriore squamam versus continua, seminis margine superiore interdum introrsum prominula; testa crustacea v. membranacea; embryo normalis, 3–∞-cotyledoneus.—Arbores sempervirentes. Folia acicularia, spiraliter sparsa, costa utriusque faciei prominente 4-gona v. subteretia, in petiolum brevissimum articulatum contracta, petioli basi persistente post folium delapsum in ramulo prominente. Strobili erecti v. horizontaliter patentes.

Species ad 12, regionum extratropicarum hemisphærii borealis utriusque orbis incolæ. *Parlat. in DC. Prod.* xvi. ii. 413 (*Pini sect.*). *Engelm. Bot. Calif.* ii. 121, *ined. Nees, Gen. Fl. Germ. Monochl. n.* 7. *Reichb. Ic. Fl. Germ. t.* 532. *L. C. Rich. Conif. t.* 15. *Lamb. Pin. t.* 25 *ad* 29; *ed. min. t.* 35 *ad* 39. *Forbes, Pin. Wob. t.* 32 *ad* 36. *Jaub. et Spach, Ill. Pl. Or. t.* 14. *Ledeb. Ic. Fl. Ross. t.* 499. *Wall. Pl. As Rar. t.* 246. *Sieb. et Zucc. Fl. Jap. t.* 111. *Nutt. N. Amer. Sylv. t.* 146 *ad* 148. *Newberry, Bot. Williams. Exped. t.* 9 (*nonnulli sub Abiete*).

VEITCHIA, *Lindl. in Gord. Pin. Suppl.* 105, videtur *Piceæ* species strobilis monstruosis.

Nomina vernacula *Abietinearum* veteribus notarum apud scriptores tam Græcos quam Romanos valde confusa fuerunt. De *Pino* quidem nullum dubium remanet quin designavit speciem unam alteramve generis *Pini* ab auctoribus recentioribus limitati (e.g. *P. halepensis, P. Pinaster, P. Laricio, P. Pinea,* etc.), et *Larix europea* nostra eadem videtur ac *Larix* Plinii. De *Abiete* et *Picea* tamen multum disputatum est. Commentatores doctiores, contra sententiam Linnæi (qui, ex Linkio Dodonæum secutus est) *Piceam* Plinii agnoscunt in *P. Abiete*, Linn., *Abietem* in *P. Picea*, Linn., sed nil certum e scriptis veteribus nobis exstantibus determinandum est. *Tæda* et *Sapinus* apud Plinium nunc partes diversas nunc status diversos ejusdem arboris nec arbores diversas designaverunt. Nomina igitur generum a *Pino,* Linn., sejunctorum sub jure prioritatis potius quam derivationis recipienda sunt. Linnæus omnes *Abietineas* sub *Pino* inclusit. Jussieu, Gen. Pl. 414, species foliis sigillatim sparsis v. dense fasciculatis sub nomine *Abietis* a *Pinis* veris foliis 2–5-nis separavit. Link primus, in commentatione supra citata, ab auctoribus plerisque sub silentio præterita, *Abietem,* Juss., in genera tria *Piceam, Abietem* et *Laricem* divisit. Don longe serius eadem genera proposuit, sed nomina Linkiana duorum priorum perperam commutavit, quem tamen secuti sunt auctores nonnulli imprimis Britannici.

29. **Tsuga,** *Carr. Conif.* 185.—Flores monoici, ♂ ad axillas foliorum superiorum solitarii, subsessiles, bracteis squamiformibus imbricatis stipati, in ramulo pauci v. dissiti. Staminum columna parva, subglobosa, intra bracteas stipitata; antheræ spiraliter confertæ, stipite brevi, loculis 2 adnatis subglobosis deorsum transverse 2-valvibus, connectivo ultra loculos in umbonem seu apiculum glanduliforme brevissime producto; pollinis granulæ (ex Engelm.) in una specie 2-lobæ, in cæteris discoideæ. Amenta ♀ terminalia, solitaria, squamis paucis vacuis stipata, globosa. Squamæ distincte duplices, laminis a basi v. fere a basi distinctis, bractea membranacea, sub anthesi conspicua; lamina ovulifera jam sub anthesi bracteæ subæqualis, demum squamam conspicuam formans. Ovula 2, ima basi laminæ ovuliferæ cum ea continua arcteque reflexa, post anthesin lamina basi accrescente paullo altius inserta videntur. Strobilus subglobosus, bracteis parum auctis suboccultis; squamæ e lamina ovulifera formatæ, laxe imbricatæ, post semina delapsa persistentes. Semina (*Pini*) sub quaque squama 2, reversa, pseudosamaroidea, membrana tenuiter scarioso-hyalina a strato interiore squamæ soluta coronata et utroque latere marginata, demum ab ala soluta, ovato-oblonga, compressa, testa crustacea; embryo normalis, 3–6-cotyledoneus.—Arbores sempervirentes, ramulis ultimis tenuibus sæpe pendulis. Folia acicularia v. anguste linearia, spiraliter sparsa

interdum distiche patentia, supra plana v. in una specie convexa, prope basin petioli brevissimi articulata, basi persistente post folium delapsum in ramulo distincte v. vix prominente. Strobili sæpius reflexi, pollicares v. breviores v. in una specie paullo longiores.

Species 5, quarum 2 Asiaticæ, 3 boreali-Americanæ. *Parlat. in DC. Prod.* xvi. ii. 427 (*Pini sect.*). *Engelm. Bot. Calif.* ii. 120. *Lamb. Pin. t.* 32; *ed. min. t.* 45 *ad* 47 (*Pinus*). *Sieb. et. Zucc. Fl. Jap. t.* 106 (*Abies*). *Wall. Pl. As. Rar. t.* 247 (*Pinus*). *Nutt. N. Amer. Sylv. t.* 116. *Newberry, Bot. Williams. Exped. t.* 7.

Genus *Piceam* cum *Abiete* arcte connectis, strobili fere prioris, flores ♂ posterioris; folia sæpius plana *Abietis* at delapsa tuberculum eleratum relinquunt fere *Piceæ*.

30. **Pseudotsuga,** *Carr. Conif. ed.* 2, 254, *et in Rev. Hortic.* 1868, 152, *cum ic.* — Flores monoici, ♂ ad axillas foliorum superiorum solitarii, subsessiles, bracteis squamiformibus imbricatis stipati, in ramulo pauci. Staminum columna subsessilis, oblongo-cylindracea; antheræ spiraliter confertæ, stipite brevi, loculis 2 adnatis subglobosis deorsum oblique 2-valvibus, connectivo ultra loculos in umbonem brevissimum producto; pollinis granulæ (ex Engelm.) ovato-subglobosæ. Amenta ♀ terminalia, solitaria, squamis paucis vacuis imbricatis stipata, ovoideo-oblonga; squamæ duplices, ∞-seriatæ, spiraliter imbricatæ, laminis a basi distinctis; bractea membranacea, sub anthesi conspicua, post anthesin parum aucta; lamina ovulifera sub anthesi multo brevior demum aucta squamam conspicuam formans, parum incrassata, apice rotundata, margine tenui. Ovula 2, ima basi laminæ ovuliferæ arcte reflexa, post anthesin lamina basi accrescente paullo altius inserta videntur. Strobilus oblongus; bracteæ conspicuæ, acute 2-lobæ, costa in acumen seu aristam squamam superantem producta; squamæ e lamina ovulifera formatæ, imbricatæ, post semina delapsa persistentes. Semina (*Pini*) sub quaque squama gemina, reflexa, pseudosamaroidea, membrana tenuiter scarioso-hyalina a strato interiore squamæ soluta coronata et utroque latere marginata, demum ab ala soluta, ovato-oblonga, compressa, testa crustacea; embryo normalis, ∞-cotyledoneus.—Arbor sempervirens, procera. Folia (*Abietis*) anguste linearia, spiraliter sparsa, subdistiche patentia, supra plana, ima basi articulata, cicatricem in ramulo haud prominentem relinquentia. Strobili reflexi, pulchri, 3–7-pollicares.

Species 1, in montibus occidentalibus Americæ borealis a Mexico usque ad Oregon extensa. *Parlat. in DC. Prod.* xvi. ii. 430 (sect. *Tsugæ* sp.). *Engelm. Bot. Calif.* ii. 119. *Forbes, Pin. Wob. t.* 45. *Nutt. N. Amer. Sylv. t.* 115 (*Abies*). *Hook. Fl. Bor. Amer. t.* 183 (*Pinus*). *Newberry, Bot. Williams. Exped. t.* 8.

Genus imprimis strobilis reflexis squamis persistentibus ab *Abiete* differt, cui forte melius pro sectione adjungendum, sententia tamen Engelmannii etiam polline aliisque characteribus essentialibus separandum.

31. **Abies,** *Juss. Gen.* 414 *pro parte*; *Link in Abhandl. Akad. Wiss. Berlin*, 1827, 181. (Picea, *Don in Loud. Arb. Brit.* iv. 2293.)—Flores monoici, ♂ ad axillas foliorum superiorum solitarii, subsessiles, bracteis squamiformibus imbricatis stipati, in ramulo perpauci v. dissiti, vix in spicam conferti. Staminum columna cylindracea oblonga v. ovoidea; antheræ spiraliter confertæ, stipite brevi, loculis 2 adnatis subglobosis deorsum oblique v. transversim 2-valvibus, connectivo ultra loculos nudo v. in umbonem brevissime producto; pollinis granulæ utroque latere lobulo globoso v. vesiculo aerifero appendiculatæ. Amenta ♀ terminalia, solitaria, squamis paucis vacuis imbricatis stipita, globosa oveidea v. oblonga; squamæ duplices, ∞-seriatæ, spiraliter imbricatæ, laminis a basi v. fere a basi distinctis; bractea membranacea, sub anthesi conspicua, post anthesin parum aucta, lamina ovulifera brevior v. acumine solo exserto; lamina ovulifera jam sub anthesi interdum bractea major, demum squamam conspicuam formans, parum incrassata, apice rotundata margine tenui. Ovula 2, ima basi laminæ ovuliferæ cum ea continua arcteque reflexa, post anthesin lamina basi accrescente paullo altius inserta videntur. Strobilus ovoideus oblongus v. cylindraceus, bracteis parum auctis acumine tamen sæpe exserto; squamæ e lamina ovulifera formatæ, laxe imbricatæ, cum seminibus deciduæ. Semina (*Pini*) sub quaque squama gemina, reflexa, pseudosamaroidea, membrana tenuiter scariosa

hyalina a strato interiore squamæ solutæ coronata et semi-inclusa, ovoideo- v. oblongo-compressa, ala persistente facie exteriore (squamam versus) cum semine continua, margine superiore seminis introrsum ab ala prominula; testa crustacea v. membranacea; embryo normalis, 3-∞-cotyledoneus.—Arbores sempervirentes. Folia acicularia v. anguste linearia, spiraliter sparsa, interdum distiche patentia, supra plana, subtus sæpe albida, costa parum prominente, ima basi articulata, cicatricem post folium delapsum in ramulo non prominente. Strobili erecti; bracteæ quam in *Picea* majores, plus minus apice dilatatæ, integræ v. 2-lobæ, costa media sæpius in apiculum seu aristam producta.

Species ad 18, per regiones extratropicas imprimis montanas hemisphærii borealis utriusque orbis late dispersæ. *Parlat. in DC. Prod.* xvi. ii. 418 (*Pini sect.*). *Engelm. Bot. Calif.* ii. 117. *L. C. Rich. Conif. t.* 16, 17. *Lamb. Pin. t.* 30, 31; ii. *t.* 2; *ed. min. t.* 40 *ad* 44. *Forbes, Pin. Wob. t.* 37 *ad* 44. *Nees, Gen. Fl. Germ. Monochl. n.* 8. *Reichb. Ic. Fl. Germ. t.* 533. *Hook. Ic. Pl. t.* 379 (*Taxodium?*). *Bot. Mag. t.* 4740, *ic. in Fl. des Serres, t.* 899, *repetita. Boiss. Voy. Esp. t.* 167 *ad* 169. *Fl. des Serres, t.* 1437. *Ledeb. Ic. Fl. Ross. t.* 500. *Sieb. et Zucc. Fl. Jap. t.* 107 *ad* 110. *Nutt. N. Amer. Sylv.* iii. *t.* 117 *ad* 119. *Newberry, Bot. Williams. Exped. t.* 6.

Keteleeria, *Carr. in Rev. Hortic.* 1866, 449, *cum ic.* (*Abies Fortunei*, Lindl.), est verisimiliter *Abietis* species, strobili squamis diu persistentibus.

32. **Larix**, *Mill. Dict.*; *Salisb. in Trans. Linn. Soc.* viii. 313, *excl. Cedro.*—Flores monoici, ♂ in gemmis lateralibus brevibus crassis imbricato-squamatis sæpius aphyllis solitarii. Staminum columna globosa ovoidea v. breviter oblonga, intra squamas sessilis v. longiuscule stipitata; antheræ spiraliter confertæ, stipite brevi, loculis 2 adnatis subglobosis deorsum oblique v. transversim 2-valvibus, connectivo ultra loculos nudo v. in umbonem seu apiculum glanduliforme brevissime producto. Amenta ♀ subglobosa, ad apicem gemmæ lateralis brevis sæpius foliorum fasciculo coronatæ subsessilia. Squamæ distincte duplices, multiseriatæ spiraliter imbricatæ; bractea laminæ ovuliferæ arcte applicita v. basi adnata, membranacea, sæpius acuminata, medio mucronata v. aristata, post anthesin immutata; lamina ovulifera suborbiculata, marginem versus attenuata, sub anthesi bractea brevior, post anthesin valde aucta. Ovula 2, ad basin laminæ reversa, post anthesin lamina basi accrescente paullo altius affixa videntur. Strobilus ovoideus oblongo-conicus v. subcylindraceus; squamæ e lamina ovulifera valde aucta formatæ, appresse v. laxe imbricatæ, orbiculatæ, rigidulæ ad marginem tenues, sæpius in longitudinem striatæ, post semina delapsa persistentes, bracteis nunc emarcidis occultis nunc parum auctis persistentibus. Semina (*Pini*) sub quaque squama 2, reflexa, pseudosamaroidea, membrana tenuiter scarioso-hyalina oblonga v. oblique obovata a strato interiore squamæ soluta coronata et utroque latere marginata, ovato-oblonga, compressa, ab ala demum soluta, testa tenuiter crustacea; embryo normalis, sæpius ∞-cotyledoneus.—Arbores hieme denudatæ, ramulis biformibus, primariis elongatis secundariis lateralibus gemmiformibus. Folia lineari-subulata, tenuia, ima basi articulata, decidua, ramulorum primariorum dissite subspiralia, in gemmis lateralibus intra squamas minimas scariosas imbricatas densissime fasciculata. Florum ♂ columna staminea 2–4 lin. longa. Strobili 1–3-pollicares.

Species ad 8, regionum temperatarum hemisphærii borealis utriusque orbis incolæ. *Parlat. in DC. Prod.* xvi. ii. 409 (*Pini sect.*). *Lamb. Pin. t.* 35 *ad* 37 (*Pinus*); *ed. min. t.* 48 *ad* 50. *L. C. Rich. Conif. t.* 13 (*Abies*). *A. Murray, Pin. Jap.* 100, *f.* 190 *ad* 200 (*Abies*). *Forbes, Pin. Wob. t.* 46, 47 (*errore* 49). *Reichb. Ic. Fl. Germ. t.* 531. *Nees, Gen. Fl. Germ. Monochl. n.* 9. *Hook. f. Ill. Him. Pl. t.* 21 (*excl. f.* 2 *ad* 4, *ad Cedrum pertinentibus*); *ic. in Fl. des Serres, t.* 1267, *repetita. Sieb. et Zucc. Fl. Jap. t.* 105 (*Abies*). *Mich. N. Amer. Sylv. t.* 153. *Nutt. N. Amer. Sylv. t.* 120.

Pseudolarix, *Gord. Pin.* 292, est *L. Kæmpferi*, Carr., species Chinensis a cæteris distincta strobili squamis acuminatis cum seminibus deciduis et foliis potius *Cedri* quam *Laricis* etsi deciduis. Stirps forte *Cedro* adjungenda v. pro genere proprio habenda, flores tamen ♂ adhuc ignoti et locus incertus remanet.

Ordo CLXVI. **CYCADACEÆ.**

Endl. Gen. 70. Lindl. Veg. Kingd. 223. Miquel, Monogr. Cycad. 1842, cum tabb. 8; Prod. Cycad. 1861. Regel. Cycad. Gen. et Sp. in Act. Hort. Petrop. iv.

Flores dioici, strobilacei. *Perianthium* deest in utroque sexu. Fl. ♂: *Strobili* apicem versus trunci v. caudicis subterminales, solitarii, rarius plures, oblongi ovoidei v. cylindracei, rarissime subglobosi; squamæ crasse coriaceæ, alternatim multiseriatæ imbricatæque, v. verticaliter superpositæ et valvatim juxtapositæ, dorso loculos polliniferos gerentes. *Loculi polliniferi* sessiles v. breviter stipitati, sine ordine aggregati v. 2–4-natim interdum stellatim dispositi, oblongi obovoidei v. subglobosi, coriacei, rima longitudinali dehiscentes; pollen ellipsoideum v. subglobosum. Fl. ♀: *Strobili* quam in mare sæpius crassiores; squamæ pariter multiseriatim imbricatæ v. superpositæ, in *Cycade* valde elongatæ, margine 2–pluri-ovuliferæ, apice in laminam planam serratam pectinatam v. fimbriatam dilatatæ; in generibus cæteris fere omnibus squamæ breves plus minusve peltatæ, pelta magna sæpe inordinate incrassata, apice truncata v. varie producta, basi juxta stipitem utrinque 1-ovulifera. *Ovula* orthotropa, sessilia v. subsessilia, in *Cycade* erecto-patentia, in generibus cæteris axim strobili v. deorsum spectantia; integumentum unicum, micropylem versus in tubum brevem productum; nucleus apice tantum liber. *Semina* magna, globosa ovoidea v. oblonga, teretia v. obtuse angulata; testa extus carnosa, carne tenui aurantiaca v. rubra, intus crustacea v. ossea, basi foraminibus vasiferis percursa et strato vasculari interiore instructa. *Endospermium* crasse carnosum, superne tegumento membranaceo quasi pileatum, imo apice ad situm radiculæ spongiosum. *Embryo* in parte superiore endospermii axilis, subcylindraceus; cotyledones omnino v. basi excepta conferruminati; radicula supera, obtusa, in filum spiraliter tortum desinens; plumula squamosa, germinatione e fissura cotyledonum erumpens.

Plantæ perennes, gumma scatentes, aliæ humiles rhizomate v. caudice nudo lobato ramoso v. simplici, aliæ trunco humili v. elato donatæ; truncus indivisus v. raro furcatus v. gemmas foliaceas emittens, apice vegetans, basibus foliorum et prophyllorum persistentibus dense quasi corticatus; systema vasculare ex annulis libri et ligni medullam amplam amylaceam cingentibus, annulis anno unico non respondentibus; medulla interdum fibris lignosis instructa; radices fibrosi, fibris interdum massas coralliformes partim epigæas denique gemmiferas emittentibus. Folia biformia, prophylla et frondosa, seriebus alternis provenientia; prophylla ante frondes et strobilos evoluta, ovato- v. lineari-lanceolata v. subulata, sæpissime lanuginosa; folia normalia v. simul v. unum post alterum evoluta, exstipulata, pinnatifida pinnata v. rarissime bipinnatisecta, petiolo basi articulato, vernatione recta, rarissime inflexa; segmenta (v. pinnæ) opposita et alterna, vernatione recta et imbricativa, v. in *Cycade* circinnatim involuta et medio costata, cæterum enervia; in *Stangeria* costata et nervis transversis instructa; in generibus cæteris nervi paralleli simplices v. furcati. Strobili sessiles v. pedunculati, ♂ anthesi peracta decidui; ♀ in *Cycade* centrales, vegetatione trunci per axim ejus ulterius progredienda et squamas fructiferas amovente; in generibus aliis omnibus post anthesin decidui. Semina magna, hilo basilari v. subbasilari lato.

Species ad 75, maxima copia regiones tropicas utriusque orbis, et temperatas Africæ australis et Australiæ incolentes, una civitates australiores Americæ borealis, altera Japoniam habitantes.

Ordo inter Gymnospermeas distinctissimus, quoad organa sexualia insigniter homomorphus, *Coniferis* magis quam *Gnetaceis* affinis, ab utroque tamen ordine tam habitu quam characteribus floralibus abunde diversus.

CONSPECTUS GENERUM.

Tribus I. Cycadeæ. Strobilus ♀ terminalis, post anthesin proliferus; squamæ elongatæ, marginibus 2–pluri-ovulatis. Ovula erecto-patentia. Truncus cylindraceus, basibus persistentibus

petiolorum et prophyllorum obtectus. Foliorum segmenta vernatione circinnatim involuta, 1-costata, enervia.

1. CYCAS.—*Reg. trop. et subtrop. orbis veteris.*

Tribus II. Encephalarteæ. Strobilus ♀ post anthesin deciduus; squamæ peltatæ, pelta utrinque juxta stipitem 1-ovulata. Ovula axim strobili spectantia. Foliorum segmenta vernatione recta, imbricativa.

Subtribus 1. Euencephalarteæ. *Strobili squamæ seriebus alternantibus imbricatæ. Truncus ovoideus v. cylindraceus, basibus prophyllorum et petiolorum persistentibus obtectus. Foliorum segmenta nervis parallelis longitudinalibus.*

2. DIOON. Strobili squamæ laxæ, breviter stipitatæ, pelta plana erecta ovato-cordata. Ovula processu hamato basi peltæ utrinque inserta. Folia rigida, pinnatifida, segmentis planis pungentibus.—*Mexico.*

3. MACROZAMIA. Strobili ♀ squamæ peltatæ, pelta incrassata ascendente sæpissime in laminam erectam acuminatam producta. Folia pinnata.—*Australia.*

4. ENCEPHALARTOS. Strobili ♀ squamæ peltatæ, pelta incrassata truncata apice decurva. Folia pinnata.—*Afric. trop. et austr.*

Subtribus 2. Stangerieæ. *Strobili squamæ seriebus alternantibus imbricatæ. Rhizoma v. caudex napiformis, nudus. Foliorum segmenta costata et nervosa, nervis utrinque costæ horizontalibus creberrimis simplicibus v. furcatis.*

5. STANGERIA. *Afric. aust. orient. subtrop.*

Subtribus 3. Zamieæ. *Strobili squamæ seriebus verticalibus superpositæ, peltis hexagonis valvatim juxtapositis. Foliorum segmenta ecostata nervis parallelis.*

6. BOWENIA. Squamarum ♂ et ♀ pelta truncata apice planiuscula. Caudex nudus, hypogæus. Folia bipinnatisecta.—*Austral. trop.*

7. CERATOZAMIA. Squamarum ♂ et ♀ pelta apice transverse 2-cornuta. Folia pinnata.—*Mexico, Nov. Grenad., Brasil. occident.*

8. MICROCYCAS. Squamæ ♂ planiusculæ, ♀ peltatæ, pelta magna velutino-tomentosa. Truncus cylindraceus, basibus petiolorum et perularum obtectus. Folia pinnata.—*Cuba.*

9. ZAMIA. Squamarum ♂ et ♀ pelta truncata, apice nuda. Caudex nudus epigæus v. partim hypogæus. Folia pinnata.—*Amer. trop., et bor. subtrop.*

TRIBUS I. CYCADEÆ.

1. **Cycas,** *Linn. Hort. Cliff.* 482; *Gen. n.* 1122.—Fl. ♂: Strobilus pedunculatus, oblongus ovoideus v. subglobosus; squamæ numerosissimæ, multiseriatim imbricatæ, cuneatæ, apice sterili plus minusve dilatata et in mucronem brevem v. elongatum ascendentem producta, subtus loculis polliniferis segregatis v. 2–4-natim aggregatis operta. Fl. ♀: Strobilus sessilis, globosus v. late ovoideus, dense lanatus; squamæ laxe imbricatæ, ascendentes, lineari-elongatæ, apice in laminam ovatam v. orbicularem integram serratam pectinatam v. fimbriatam dilatatæ. Ovula crenis marginalibus squamæ infra apicem dilatatum utrinque 2-plura, rarissime solitaria, sessilia, suberecta, globosa v. late ovoidea. Semina late ellipsoidea v. globosa.—Arbores trunco cylindraceo interdum elato, simplici v. dichotome ramoso, basibus prophyllorum et petiolorum persistentibus induratis obtecto. Folia subverticillata, simul provenientia, prophyllis elongato-subulatis immixta, patentia, petiolata, glabra v. parce furfuracea, lineari-oblonga, pinnata, pinnis lineari-elongatis 1-nerviis, integerrimis, infimis interdum ad spinas reductis, nervis lateralibus nullis, vernatione circinnatim involutis. Strobili ♂ in gemma laterales, ♀ terminales in centro vegetantes.

Species ad 15, inter tropicos Asiæ, Africæ, Australiæ et Polynesiæ obviæ. *A. DC. Prod.* xvi. ii. 525. *Regel in Act. Hort. Petrop.* iv. 279. *Benth. Fl. Austral.* vi. 249. *F. Muell. Fragm. Phyt. Austral.* viii. 169, x. 63, 121. *Miq. Nieuwe Bijdr. tot. Kenn. Cycad. t.* 1, 2; *Monogr. Cycad. t.* 1, 2, 3; *Analect. Ind. t.* 5, *et in Linnæa* xviii. *t.* 4, 5, 6, xix. *t.* 1. *L. C. Rich. Mem. Conif. et Cycad. t.* 24 *ad* 26. *Smith in Trans. Linn. Soc.* vi. *t.* 29, 30. *Thou. Hist. Veg. Iles. Afr. t.* 1, 2. *Oudem. in*

Archiv. Neerland. ii. *t.* 1, 2, 3. *Blume, Rumph. t.* 176[b], 176[c]. *Griff. Ic. Pl. As. t.* 360 *ad* 362, 377, 378 (ubi, anno 1854, pollen in cavo apicali nuclei ovuli receptum primum depictum). *Bot. Mag. t.* 2826, 2827, 2963, 2964. *Lemaire, Ill. Hortic.* 1864, *t.* 405 *bis. Fl. des Serres, t.* 2118, 2119. *Fl. Jardin.* v. *t.* 129. *Rheede, Hort. Malab.* iii. *t.* 13 *ad* 21 (*Todda Panna*). *Rumph. Herb. Amboin. t.* 20 *ad* 24 (*Arbor Catappoides*).

TRIBUS II. ENCEPHALARTEÆ.

2. **Dioon,** *Lindl. Bot. Reg.* 1843, *Misc.* 59 (Dion). (Platyzamia, *Zucc. in. Abhandl. Bayer. Akad.* iv. 23, *t.* 4.)—Fl. ♂: Strobilus cylindraceus; squamæ numerosæ, multiseriatim imbricatæ, elongato-cuneatæ, apice dilatato incurvo late triangulari obtuso lanuginoso, subtus loculis polliniferis sessilibus oblongis opertæ. Fl. ♀: Strobilus ovoideus; squamæ imbricatæ, subpeltatim stipitatæ, stipite gracili; lamina magna, ovata, subacuta, dense lanuginosa, deorsum breviter in auriculam semicircularem concavam producta, basi utrinque juxta stipitem geniculatim inflexa et ibidem uni-ovulifera. Ovula ovoidea, processibus rotundatis baseos inflexi laminæ inserta, subhorizontalia, axin strobili spectantia. Semina magna.—Truncus brevis, primum ovoideus, demum crassus, cylindraceus, prophyllis lanatis persistentibus dense obtectus. Folia simul verticillatim provenientia, numerosa, erecto-patentia, breviter petiolata, elongato-lanceolata, rigida, plana, profunde pinnatifida, juniora pilosa, segmentis angustis approximatis strictis planis pungenti-acuminatis tenuiter striato-nervosis ecostatis interdum dentatis, infimis in spinas petiolum marginantes desinentibus, vernatione stricta. Strobili magni, subsessiles, basi prophyllis lanceolatis lanuginosis stipati.

Species 2, Mexicanæ. *A. DC. Prod.* xvi. ii. 537. *Regel in Act. Hort. Petrop.* iv. 296. *Miq. in Verhandl. Ned. Inst.* 1851, *t.* 3, 4. *Lemaire, Ill. Hort.* ii. 91. *Bot. Mag. t.* 6184.

3. **Macrozamia,** *Miq. Monogr. Cycad.* 36, *t.* 4, 5; *et in Linnæa* xvii. *t.* 2; xix. *t.* 2, 3. Fl. ♂: Strobilus ovoideus oblongus v. cylindraceus; squamæ multiseriatim imbricatæ, breves v. elongatæ, apice dilatato medio acutato v. in spinam incurvam v. erectam producto, subtus loculis polliniferis globosis breviter stipitatis onustæ. Fl. ♀: Strobilus ovoideus v. subglobosus; squamæ imbricatæ, peltatæ; pelta crassa, lata, transverse oblonga, vertice ascendente obtuso acuto v. in spinam ascendentem producto, basi utrinque 1-ovulifera. Ovula sessilia, subglobosa, axin strobili spectantia. Semina ordinis, sæpe magna.—Truncus erectus, ovoideus v. cylindraceus, prophyllis basibusque petiolorum persistentibus obtectus. Folia pinnata, foliolis angustis integerrimis v. apices versus paucidentatis, nervis longitudinalibus parallelis, basi sæpe calloso-incrassatis, vernatione stricta imbricativa. Strobili magni.

Species ad 7, Australiæ tropicæ et temperatæ incolæ. *Benth. Fl. Austral.* vi. 250. Genus in sectiones 2 commode dividitur:—

1. *Eumacrozamia.* Folia deinceps evoluta. Prophylla demum fibroso-lacera. Truncus sæpius ovoideus. *Miq. Monogr. Cycad. t.* 4, 5 *et* 6 (*Encephalartos*), *et in Linnæa* xix. *t.* 2, 3. *Heinzel in Nov. Act. Nat. Cur.* xxi. i. *t.* 10 *ad* 13. *Hook. f. Bot. Mag. t.* 5943. MACROZAMIA, *Regel in Act. Hort. Petrop.* iv. 317. *A. DC. Prod.* xvi. ii. 534, *excl.* § 2.

2. *Lepidozamia.* Folia simul evoluta. Prophylla nunquam fibroso-lacera. Truncus cylindraceus. LEPIDOZAMIA, *Regel in Bull. Soc. Imp. Nat. Mosc.* 1871, i. 182, *t.* 4, *f.* 20, 21; *Gartenfl.* 1857, *t.* 186, *f.* 23 *et* 31, 1870, *t.* 660; *et in Act. Hort. Petrop.* iv. 294. *A. DC. Prod.* xvi. ii. 547. CATAKIDOZAMIA, *T. Hill in Gard. Chron.* 1865, 1107.

4. **Encephalartos,** *Lehm. Pugill.* vi. 9, *t.* 1 *ad* 5. (Arthrozamia, *Reichenb. Conspect.* 40, *nomen tantum*; *Handb. Nat. Pfl. Syst.* 69, *ex Vriese in Ann. Sc. Nat. ser.* 2, x. 153.) — Fl. ♂: Strobilus oblongus ovoideus v. cylindraceus; squamæ multiseriatim imbricatæ, lato- v. elongato-cuneatæ, crassæ, sæpe rugosæ, apice sterili angustato prismatico-truncato plus minusve decurvo, subtus loculis polliniferis ovoideis opertæ. Fl. ♀: Strobilus crassus, ellipsoideus v. oblongus; squamæ numerosæ, multiseriatim imbricatæ, peltatæ, stipite gracili, pelta reniformi crasso basi utrinque in sinu ovulifero, vertice lato subtriangulari v. prismatico v. convexo lanuginoso. Ovula sessilia,

ovoidea, deorsum spectantia. Semina ellipsoidea v. oblonga, endocarpio e segmentis pluribus demum coalitis formato (ex A. DC.).—Arbores trunco cylindraceo v. medio tumido crasso, prophyllis basibusque petiolorum persistentibus dense obtecto. Folia simul subverticillatim provenientia, numerosa, patenti-recurva, petiolata, lineari-oblonga, glabra v. villosa, viridia v. (interdum insigniter) glauca, pinnata, foliolis rigidis multijugis sessilibus integris spinosis v. spinuloso-dentatis crasse coriaceis lineato-nervosis, vernatione rectis, infimis sæpe spinescentibus, petiolo basi exauriculato. Strobili magni, ♂ interdum 2–3-ni. Folia in *E. brachyphyllo* uno post alterum provenientia vidimus, foliolis basi semi-tortis.

Species ad 12, Africæ tropicæ et australis incolæ. *A. DC. Prod.* xvi. ii. 530. *Regel in Act. Hort. Petrop.* iv. 285; *Gartenfl. t.* 477, 822. *Gærtn. Fruct. t.* 3 (*Zamia*). *Miq. Monogr. Cycad. t.* 2, 6; *Comm. Phyt. t.* 13, *et in Linnæa* xix. *t.* 4, 5. *De Vriese, Nov. Sp. Cycad. t.* 3, 4, 5, *et Descr. Pl. Nouv. cum tabb.* 2. *Lehm. et De Vriese in Tijdschr. Nat. Gesch.* ii. *t.* 9; iv. *t.* 8 *ad* 7, 9, 10; vi. *t.* 3, 4. *Jacq. Fragm. t.* 25 *ad* 31 (*Zamia*). *Bot. Mag. t.* 4903, 5371. *Lemaire, Ill. Hortic. t.* 557.

5. **Stangeria,** *T. Moore in Hook. Lond. Journ.* v. 228.—Fl. ♂: Strobilus cylindraceus; squamæ multiseriatim dense imbricatæ, obovato- v. cuneato-quadratæ, trapezoideæ, obtusæ, angulis obtusis, subtus loculis polliniferis stipitatis obovoideo-oblongis opertæ; pollen late ellipsoideum. Fl. ♀: Strobilus brevior, oblongo-cylindraceus; squamæ dense multiseriatim imbricatæ, vix stipitatæ, ovato-rotundatæ, ascendentes, ima basi utroque latere excavatæ, et ovulum unicum fossa gerentes. Ovula subglobosa, deorsum spectantia. Semina globosa, pro ordine parva.—Truncus v. caudex pedalis, fere subterraneus, subcylindraceus napiformis v. deformis, nudus, glaber, lenticellis sparsis exceptis lævis, 1–oligo-cephalus. Folia pauca, longe petiolata, pinnata, glaberrima, vernatione inflexa; pinnæ oppositæ et alternæ, lineari-lanceolatæ, obtusæ acutæ v. acuminatæ, spinuloso-serrulatæ v. subcrenatæ, rarius pinnatifido-lobatæ, inferiores petiolulatæ interdum ad basin 2-fidæ, superiores sessiles basi lata margine inferiore decurrente, vernatione rectæ; costa valida, nervis horizontalibus creberrimis parallelis simplicibus v. basi v. altius furcatis. Strobili pedunculati, villosi, pedunculo basi prophyllis 2–3-seriatis imbricatis orbiculatis concavis tomentosis cincti.

Species 1 v. 2, Africæ subtropicæ austro-orientalis incolæ. *A. DC. Prod.* xvi. ii. 530. *Bot. Mag. t.* 5121. *Regel, Gartenfl. t.* 798, *et in Act. Hort. Petrop.* iv. 284.

6. **Bowenia,** *Hook. Bot. Mag. t.* 5398 *et* 6008.—Fl. ♂: Strobilus ovoideo-oblongus, parvus; squamæ multiseriatim superpositæ, cuneato-rotundatæ, apicibus truncatis transverse oblongo-hexagonis valvatim juxtapositis, subtus basin versus loculis polliniferis globosis sessilibus opertæ. Fl. ♀: Strobilus masculo multo major et crassior; squamæ pauciseriatim superpositæ, valvatim juxtapositæ, peltatæ, stipite brevi cuneiformi; pelta transverse oblonga, basi utrinque stipitis 1-ovulifera, vertice crasso transverse hexagono, medio depresso margine areolæ depressæ crenulato. Ovula ovoidea, axin strobili spectantia. Semina parva, globosa.—Caudex humilis, deformis, simplex lobatus v. subramosus, nudus, ramis lobisve foliiferis, pro maxima parte hypogæus. Folia pauca, longe gracile petiolata, seriatim provenientia, ampla, ambitu orbicularia, 2-pinnatisecta, pinnis primariis paucis stipitatis inferioribus subverticillatis, pinnulis oblique ovato- v. falcato-lanceolatis v. rhombeis acuminatis striato-nervosis integerrimis v. spinuloso-serratis nitidis, vernatione stricta. Strobili glabri, basi prophyllis paucis brevibus rotundatis concavis coriaceis cincti, ♂ pedunculati, ♀ sessiles. Semina magnitudine nucis avellanæ.

Species 1 v. 2, Australiæ boreali-orientalis incolæ. *A. DC. Prod.* xvi. ii. 534. *Benth. Fl. Austral.* vi. 254.

7. **Ceratozamia,** *Brongn. in Ann. Sc. Nat. ser.* 3, v. 7, *t.* 1, *partim.* (Dipsacozamia, *Lehm. in Lindl. Veg. Kingd.* 225, *nomen tantum.*)—Fl. ♂: Strobilus oblongo-cylindraceus; squamæ multiseriatim superpositæ, valvatim juxtapositæ, breviter stipitatæ, obovato- v. quadrato-cuneatæ, vertice sterili complanato angustato in cornua 2 lateralia pungentia desinente, subtus loculis polliniferis late ellipsoideis sessilibus dense obtectæ. Fl. ♀: Strobilus

masculo multo major et crassior, squamæ multiseriatim superpositæ, peltatæ, stipite crasso; pelta magna, complanata, subquadrata, marginibus rotundatis, vertice transverse hexagono medio in carinam transversam 2-cornutam contracto, cornubus lateralibus pungentibus. Ovula ad basin peltæ utrinque stipitis solitaria, sessilia, intus spectantia. Semina majuscula, ovoidea.—Truncus erectus, cylindraceus, simplex v. basi furcatus v. proliferus, basibus petiolorum et prophyllorum persistentibus obtectus. Folia simul provenientia, subverticillata, longe petiolata, pinnata, petiolo basi subvaginante, rhachi elongata, foliolis elongatis basi lata sessilibus lineari-lanceolatis integerrimis v. apices versus denticulatis, parallele multinerviis, vernatione imbricativa stricta. Strobili glabri.

Species enumeratæ 6, Mexicanæ. *A. DC. Prod.* xvi. ii. 546. *Regel in Act. Hort. Petrop.* iv. 297.

8. **Microcycas**, *Miq. in Fl. des Serres*, vii. 141. (Zamiæ, *sect.*).—Fl. ♂: Strobilus cylindraceus; squamæ multiseriatim laxe superpositæ, cuneiformes, dimidio inferiore subtus loculis magnis polliniferis operto, superiore sterili latiore semicirculari crasso obtuso dense velutino-tomentoso. Fl. ♀: Strobilus masculo longior et crassior; squamæ subvalvatim juxtapositæ, peltatæ, stipite brevi crasso; pelta magna, elongata, globoso-ovoidea, obtusa v. apice truncata, velutino-tomentosa. Ovula utrinque stipitis ad basin peltæ solitaria, sessilia, axin strobili spectantia. Semina . . .—Truncus humilis, gracilis, cylindraceus, basibus prophyllorum et petiolorum persistentibus obtectus. Folia simul subverticillatim provenientia, patentia, petiolata, pinnata, petiolo inermi, foliolis anguste lineari-ensiformibus curvis basi lata articulata sessilibus obtuse acuminatis striato-nervosis, marginibus integerrimis tenuiter recurvis, vernatione recta. Strobili pedunculati, pedunculo basi prophyllis elongatis subulato-lanceolatis molliter lanuginosis cincto.

Species 1, Cubensis. *A. DC. Prod.* xvi. ii. 538. *Regel in Act. Hort. Petrop.* iv. 303.

9. **Zamia**, *Linn. Gen. n.* 1227.—Fl. ♂: Strobilus oblongo-cylindraceus; squamæ multiseriatim superpositæ, valvatim juxtapositæ, peltatæ, stipite crasso; pelta valde incrassata, transverse hexagona v. oblique heptagona, vertice truncata, subtus in latere inferiore et secus stipitem loculos polliniferos sessiles gerentes. Fl. ♀: Strobilus masculo consimilis, sed major et crassior, pelta basi utrinque 1-ovulata. Ovula sessilia, ovoidea.—Caudex, interdum truncus humilis, simplex lobatus v. ramosus, lævis v. cicatricatus, nudus epigæus v. fere hypogæus. Folia pauca, unum post alterum provenientia, pinnata, petiolo lævi v. spinuloso, pinnis latis v. angustis basi lata articulata insertis integerrimis v. serratis parallele nervosis, vernatione stricta; prophylla sæpius dentata. Strobili pro ordine inter minores, glabri v. rarius furfuracei, solitarii v. 2-∞-ni.

Species enumeratæ ad 30, Americæ tropicæ et subtropicæ borealis incolæ. *A. DC. Prod.* xvi. ii. 538. *L. C. Rich. Mem. Conif. et Cycad. t.* 27, 28. *Eichl. in Mart. Fl. Bras.* iv. i. *t.* 109. *Wedd. in Ann. Sc. Nat. ser.* 3, v. *t.* 4; *ic. in Mart. Fl. Bras. t.* 108, *iterata. Miq. Monogr. Cycad. t.* 7, 8; *Cycad. Amer. t.* 1, 2. *Seem. Bot. Her. t.* 43. *Jacq. Hort. Schœnbr. t.* 397, 398. *Ic. Rar. t.* 635, 636. *Bot. Mag. t.* 1741, 1838, 1851, 1969, 2006, 5242. *Lemaire, Ill. Hortic. t.* 133, 134, 195.

Genus a Regelio in Act. Hort. Petrop. iv. in 2 divisum: 1. ZAMIA, *Regel, l. c.* 304, et AULACOPHYLLUM, *Regel, Gartenfl.* 1876, 141, *et in Act. Hort. Petrop.* iv. 300, nullo modo diversum nisi 'foliolis nervis immersis,' character diagnosticus nobis effugit.

MONOCOTYLEDONES.

ORDO CLXVII. HYDROCHARIDEÆ.

Endl. Gen. 160. Lindl. Veg. Kingd. 141.

Flores regulares, unisexuales v. rarius hermaphroditi, intra spatham tubulosam 2-fidam v. 2-partitam v. bracteas 2 complicatas (spatham dyphyllam dictas) solitarii v. masculi plures. *Perianthium* ad apicem pedicelli in flore ♂, supra ovarii rostrum in flore ☿ v. ♀, patens, a basi partitum, segmentis 1- v. 2-seriatis in quaque serie 3 rarius 2; exteriora calycina, sæpius tenuiter membranacea, virentia v. subcolorata, valvata v. induplicata; interiora dum adsint plus minus petaloidea, exterioribus majora minora v. rarius æqualia. *Stamina* in flore ♂ v. ☿ 3, 6, 9, v. 12, rarius ∞ v. abortu pauciora, filamentis sæpius brevibus distinctis. *Antheræ* erectæ v. adnatæ, lineares oblongæ ovatæ v. rarius subglobosæ, 2-loculares, loculis distinctis parallelis, a latere longitudinaliter dehiscentibus; staminodia nonnulla in flore ♀ sæpe adsunt. *Ovarii* rudimentum in flore ♂ interdum in centro floris breve carnosulum pulvinatum v. lobatum v. stylis 3 capillaribus nudis coronatum. *Ovarium* floris ♀ v. ☿ inferum, 1-loculare, placentis 3–6 rarius paucioribus v. pluribus nunc vix prominulis nunc 2-lamellatis in medio cavitatis conniventibus ovarium in loculos 3–6 subperfectos dividentibus, supra loculum plus minus in rostrum farctum (rarius cavum ?) productum. *Stylus* a basi integra rarius breviter evoluta in ramos stigmatosos v. stigmata tot quot placentæ oblonga v. linearia integra emarginata 2-fida v. 2-partita divisus. *Ovula* in quaque placenta plurima, sæpius numerosa, nunc supra faciem interiorem lamellarum placentæ sparsa, nunc in placenta tenui sub-2-seriatim superposita, pendula v. præsertim inferiora ascendentia anatropa, v. (ex Caspary) interdum orthotropa. *Fructus* globosus ovoideus oblongus v. linearis, siccus v. plus minus pulposus, maturitate irregulariter ruptus v. hinc fissus, 1-locularis v. placentis medio coalescentibus 6–∞-locularis; pericarpium membranaceum v. rarius crassiusculum. *Semina* ∞, sæpe numerosa, oblonga, testa (an semper ?) duplici, sæpius membranacea extus plus minus pulpa siccitate spongiosa v. filamentosa involuta, v. rarius crustacea demum indurata echinataque. *Albumen* 0. *Embryo* semini conformis, extus lævis v. in longitudinem tenuiter lineatus, ante maturitatem in generibus normalibus specie homogeneus et siccitate interdum farinosus, bene maturus ubi notus a latere fissura parva parum conspicua notatus, intra quam plumula minima omnino recondita; in *Thalassieis* (omnibus ?) cotyledon extra radiculam crassam prominens.

Herbæ submersæ. Caules nunc ad basin aquæ brevissimi v. reptantes v. in aqua natantes stoloniformes, nunc in aqua elongati undique foliati. Folia nunc in caule brevi conferta, omnia sessilia linearia v. lanceolata v. interiora cujusve fasciculi rarius omnia petiolata lamina expansa supra aquam natante, nunc secus caulem elongatum submersum brevia, verticillata v. sparsa. Spathæ nunc ♀ v. omnes in scapo elongato per anthesin emersæ, nunc ♂ v. omnes ad axillas foliorum sessiles, solitariæ v. rarius geminæ; unisexuales variant monoicæ v. dioicæ.

Species notæ vix 40; *Glycydræ* per regiones calidiores temperatasque utriusque orbis late dispersæ, quarum genera 2 Americana, cætera gerontogea, ex his species 2 solæ etiam in America

obviæ; *Marinæ* maris Indici incolæ exceptis *Thalassia testudinum*, Koen. ex India occidentali et speciebus Americanis 2 valde dubiis *Halophilæ*.

Ordo distinctissimus, a nonnullis *Naiadeis* adjunctus ob habitum fluitantem v. natantem et semina exalbuminosa, longe tamen differt ovario infero syncarpieo, placentis parietalibus ∞-ovulatis. Habitus idem observatur in aliis pluribus ordinibus, e.g. in *Pontederiaceis*, in *Cyperaceis* paucis; ut etiam in dicotyledonibus nonnullis. Semina *Glycydrarum* iis *Burmanniacearum* similiora quam *Naiadearum*; embryo *Marinarum* ei *Zosterearum* paullo propius accedit.

CONSPECTUS GENERUM.

Series I. Glycydræ. Herbæ in aqua dulci submersæ v. natantes. Plumula, ubi nota, minima, intra embryonis substantiam omnino recondita.

Tribus I. Hydrilleæ. Caulis elongatus, submersus, undique foliatus, foliis parum elongatis. Spathæ parvæ, ad axillas sessiles. Placentæ in ovario parum prominentes.

1. Hydrilla. Folia verticillata. Spathæ ♂ subglobosæ, 1-floræ. Perianthium duplex. Stamina 3. Styli 3, indivisi. Ovula anatropa.—*Asia trop., Australia.*

2. Elodea. Folia verticillata rarius opposita. Spathæ ♂ 1–3-floræ. Perianthium duplex. Stamina 3, 6 v. 9. Styli 3, emarginati v. 2-fidi. Ovula orthotropa.—*Amer. bor. et austr., in Eur. inquilina.*

3. Lagarosiphon. Folia sparsa. Spathæ ♂ multifloræ. Perianthium duplex. Stamina perfecta 3. Styli 3, emarginati v. 2-fidi. Ovula orthotropa.—*Asia trop., Madag., Africa.*

Tribus II. Vallisnerieæ. Caulis brevissimus, interdum stolones reptantes v. natantes emittens. Folia conferta, immersa, sessilia, elongata. Spathæ pedunculatæ. Placentæ in ovario parum prominentes.

4. Vallisneria. Spathæ ♂ ovoideæ, floribus numerosis fere in globum confertis; ♀ cylindraceæ 1-floræ. Perianthium simplex. Stamina 1–3. Fructus linearis, erostris.—*Utriusque orbis reg. calid. et temp.*

5. Blyxa. Spathæ utriusque sexus cylindraceæ, ♂ ∞-floræ, ♀ 1-floræ. Perianthium duplex. Stamina 3–9. Ovarium longe rostratum. Fructus linearis.—*Asia trop., ins. Mascar., Australia.*

6. Hydrotrophus. Flos ☿ in spatha cylindracea solitarius. Perianthium duplex (interius interdum 2-merum). Stamina 3. Ovarium longe rostratum. Fructus linearis. Semina echinata, rostrata.—*Bengalia.*

Tribus III. Stratioteæ. Caulis brevissimus. Folia conferta, alia sessilia submersa, alia (excepta *Stratiote*) longe petiolata, lamina natante. Spathæ pedunculatæ. Placentæ 2-lamellatæ, valde intrusæ, ovarium in loculos 6 subperfecte dividentes.

7. Limnobium. Spathæ 2-phyllæ, ♂ 2–3-floræ, ♀ 1-floræ. Perianthium duplex. Stamina 3–9. Styli 3. Fructus ovoideus v. oblongus.—*Amer. bor. et trop.*

8. Hydrocharis. Spathæ ♂ 2-phyllæ paucifloræ, ♀ 1-phyllæ complicatæ 1-floræ. Perianthium duplex. Staminum filamenta 6, 2-fida, quorum 3 2-antherifera, 3 1-antherifera. Styli 6, 2-fidi. Fructus ovoideus v. oblongus.—*Eur. As. med., in Australia et ins. Mascar. inquilina.*

9. Ottelia. Flos ☿ in spatha tubulosa solitarius. Perianthium duplex. Stamina 6–∞. Ovarium rostratum. Styli 6, 2-fidi. Fructus oblongus, sæpe 3–6-alatus.—*Orb. vet. reg. trop. et subtrop., Brasilia.*

10. Boottia. Spathæ tubulosæ, ♂ 3–∞-floræ, ♀ 1-floræ. Perianthium duplex. Stamina 6–10. Ovarium crasse rostratum. Styli 6–15, 2-fidi. Fructus ∞-costatus, exalatus.—*Burma, Afr. trop.*

11. Stratiotes.—Spathæ 2-phyllæ, ♂ 2–∞-floræ, ♀ 1-floræ. Perianthium duplex. Stamina 11–15. Ovarium rostratum. Styli 6, 2-fidi. Fructus pedicello recurvo e spatha exsertus. Folia submersa spinuloso-serrulata, nec natantia.—*Europa.*

Series II. Marinæ, seu Tribus IV. Thalassieæ. Herbæ marinæ submersæ. Cotyledon ubi nota extra radiculam crassam prominens.

12. Enhalus. Spathæ 2-phyllæ, ♂ subsessiles multifloræ, ♀ longe pedunculatæ 1-floræ. Perianthium duplex. Stamina 3. Ovarium longe rostratum. Styli 6–12, filiformes. Folia submersa longissima, basi per 2–3 vagina tenui stipata.—*Mare Indicum.*

13. Thalassia.—Spathæ 2-phyllæ, basi breviter tubulosæ, utriusque sexus 1-floræ. Perianthium simplex. Stamina 6. Ovarium longe rostratum. Fructus demum in lobos ∞ dehiscens. Folia longa, basi per. 2–3 vagina membranaceo-scariosa stipata.—*Ind. Occid., Mare Rubrum et Indicum.*

14. Halophila. Spathæ 2-phyllæ, utriusque sexus 1-floræ. Perianthium simplex. Stamina 3. Ovarium longe rostratum. Styli 3. Fructus globosus. Folia ad nodos e squama membranaceo-scariosa gemina, petiolata, pennivenia.—*Mare Indicum ab Africâ usque ad Austral. et Mare Pacif.*

Tribus I. Hydrilleæ.

1. **Hydrilla,** *L. C. Rich. in Mem. Inst. Par.* 1811, 9, 61, *t.* 2. (Epigynanthus, *Blume in Flora* 1825, 679, *et in Hassk. Cat. Hort. Bog.* 53, *nomen tantum.* Hydrospondylus, *Hassk. in Flora,* 1842, ii. *Beibl.* 33).—Spathæ unisexuales, 1-floræ, ad axillas foliorum sessiles, ♂ subglobosæ membranaceæ, muricatæ, sub anthesi irregulariter ruptæ. Flos breviter pedicellatus. Perianthium duplex, 3-merum; segmenta exteriora ovata v. obovata, interiora angustiora nec longiora. Stamina 3, filamentis crassiusculis; antheræ ovatæ. Pistilli rudimentum 0. Spathæ ♀ tubulosæ, ore 2-dentato. Flos sessilis. Perianthium supra ovarii rostrum mari similis nisi segmentis angustioribus. Staminodia 0. Ovarium spatha inclusum, ultra spatham in rostrum longissimum filiforme productum, 1-loculare, placentis 3, rarius 2, parum prominulis; styli stigmatosi 3, rarius 2, lineares, crassiusculi, indivisi; ovula haud numerosa, (ex Caspary) anatropa. Fructus angustus, e spatha fissa subexsertus. Semina (ex L. C. Richard) oblonga, testa adnata utrinque minute producta.—Caules submersi, elongati, ramosi, undique foliosi. Folia 3–4-natim verticillata v. inferiora opposita, brevia. Spathæ ♂ parvæ, ♀ tenues.

Species 1, per aquas dulces Asiæ tropicæ et Australiæ latissime dispersa. *Casp. in Prings. Jahrb.* i. 493. *Roxb. Corom. Pl. t.* 164 (*Serpicula*).

Stylus ex Hasskarl intra tubum perianthii (ovarii rostrum) liberum, quod in speciminibus ipsis Javanicis confirmare nequimus. Ovarii rostrum filiforme intus farctum vidimus quale a L. C. Rich. l. c. t. 2 F, G. delineatur.

2. **Elodea,** *Mich. Fl. Bor. Amer.* i. 20 (Udora, *Nutt. Gen. N. Amer. Pl.* ii. 242. Apalanthe *et* Egeria, *Planch. in Ann. Sc. Nat. ser.* 3, xi. 75, 79. Anacharis *et* Apalanthe, *Bab. et Planch. in Trans. Bot. Soc. Edinb.* iii. 27, *t.* 2, *et in Ann. Nat. Hist. ser.* 2, i. 81, *t.* 8).—Spathæ unisexuales v. polygamæ, ovatæ v. tubulosæ, apice 2-lobæ, demum sæpe varie rumpentes, fœmineæ 1-floræ, polygamæ 1–3-floræ. Perianthium ♂ ad apicem pedunculi longi, ♀ v. ☿ in ovarii rostro, duplex, 3-merum; segmenta utriusque seriei petaloidea, interiora sæpius exterioribus latiora. Stamina 3, 6 v. 9, in flore ♀ ad staminodia 3 reducta v. 0; antheræ oblongæ, erectæ. Ovarium in floribus ♀ et ☿ intra spatham inclusum, oblongo-lineare, 1-loculare, placentis 3 parietalibus parum prominulis, in rostrum longissimum filiforme farctum productum; stylus brevissimus, ramis stigmatosis 3 linearibus, apice 2-lobis v. profunde 2-lobis; ovula in placentis numerosa, (ex Caspary) orthotropa. Fructus oblongus, spatha inclusus v. a latere exsertus. Semina ∞, oblonga, filamentis pulposis induta; embryo conformis, plumula parva inclusa.—Caules submersi, elongati, ramosi, undique foliosi. Folia brevia, 3–4-natim verticillata v. inferiora opposita. Spathæ ad axillas foliorum sessiles, parvæ v. tenues.

Species ad 8 in aquis dulcibus Americæ temperatæ v. tropicæ late dispersæ, una etiam in variis locis Europæ obvia, ut videtur inquilina, etsi hodie copiosa. *L. C. Rich. in Mem. Inst. Par.* 1811, 4, 60, *t.* 1. *Caspary in Prings. Jahrb.* i. 497. *Reichb. Ic. Fl. Germ. t.* 59 (*Udora*).

Anacharis, *L. C. Rich. in Mem. Inst. Par.* 1811, 7, 61, *t.* 2, est *E. callitrichoides,* Casp. (*Egeria chilensis* et *Egeria Matthewsi,* Planch.) species Americæ australis extratropicæ, antheris ratione filamenti maximis post pollinis emissionem petaloideo-expansis insignis.

3. **Lagarosiphon,** *Harv. in Hook. Journ. Bot.* iv. 230, *t.* 22.—Spathæ unisexuales, compressæ, ad axillas foliorum sessiles; ♂ ovatæ, apice 2-fidæ, floribus ∞ sæpe numerosis

pedicellatis minimis. Perianthium duplex, 3-merum; segmenta utriusque seriei petaloidea, ovata, interiora exterioribus parum minora. Stamina perfecta 3, sepalis opposita, filamentis brevibus; antheræ ovatæ; staminodia sæpius adsunt 2 v. 3. Pistilli rudimentum 0. Spathæ ♀ oblongæ v. angustæ, mox hinc fissæ, 1-floræ. Perianthium supra ovarii rostrum mari subsimile. Staminodia 0. Ovarium oblongum, 1-loculare, placentis 3 parietalibus parum prominulis, in rostrum longissimum filiforme farctum productum; styli 3, crassi, erecti, stigmatosi, apice emarginati v. 2-fidi; ovula sat numerosa, (ex Caspary) orthotropa. Fructus ovatus oblongus v. fere linearis, pericarpio membranaceo. Semina oblonga, pulpa tenui involuta; embryo conformis, plumula verisimiliter inclusa, a nobis tamen nondum detecta.—Caules submersi, elongati, ramosi, undique foliosi. Folia linearia v. setacea, brevia, sæpe serrulata, sparsa, inferiora sæpissime alterna, floralia haud raro irregulariter verticillata v. conferta. Spathæ interdum ad axillas geminæ, sæpius tamen more affinium solitariæ.

Species ad 5, in aquis dulcibus submersæ, una Indica, altera Madagascariensis, 3 Africanæ. *Caspary in Bot. Zeit.* 1870, 88, *in Pringsh. Jahrb.* i. 503, *in Schweinf. Beitr. Fl. Æthiop.* 200, *t.* 4, *et in Abhandl. Naturw. Ver. Bremen*, vii. 252, *t.* 18.

Nechamandra, *Planch. in Ann. Sc. Nat. ser.* 3, xi. 78, est *L. Roxburghii*, Benth. (*Vallisneria alternifolia*, Roxb.; Wight in Hook. Bot. Misc. ii. 344, t. 11) species Africanis paullo validior, foliis sæpius nec semper longioribus, characteribus tamen omnino iisdem. Planchon l. c. lapsu calami huc citat iconem Roxburghii Pl. Corom. t. 165, quæ *Vallisneria octandra*, Roxb. (*Blyxa*, Thou).

Tribus II. Vallisnerieæ.

4. **Vallisneria,** *Linn. Gen. n.* 1097.—Spathæ dioicæ, breviter 2–3-fidæ, ♂ in scapo brevi ovoideæ, ♀ in scapo longissimo filiformi spirali cylindraceæ, angustæ. Flores ♂ intra spatham numerosi, minimi, longiuscule pedicellati sed in capitulum densum conferti. Perianthium simplex, 3-merum. Stamina 1–3, filamentis crassiusculis; antheræ biglobosæ. Pistilli rudimentum 0. Flos ♀ intra spatham solitarius. Perianthii segmenta quam in mare paullo majora. Staminodia 3, segmentis alterna, parva, 2-fida. Ovarium spatha inclusum, 1-loculare, placentis 3 parietalibus parum prominulis; stigmata 3, brevia, lata, 2-dentata v. 2-fida; ovula numerosa. Fructus spatha parum aucta inclusus, linearis, erostris, pericarpio membranaceo. Semina oblonga, basi parum attenuata, testa membranacea; embryo semini conformis, plumula minima intra fissuram vix conspicuam recondita.—Herba submersa, caule brevissimo interdum stolonifero. Folia conferta, longissime angusteque linearia, basi breviter vaginata. Scapi ♂ sub spatha per anthesin rupti, spathis apertis ad aquæ superficiem natantibus, ♀ florentes apice emersi, fructiferi spiraliter retracti sub aqua maturescentes.

Species 1, in aquis dulcibus per regiones calidiores temperatasque utriusque orbis late dispersa. *L. C. Rich. in Mem. Inst. Par.* 1811, 12, 62, *t.* 3. *Hook. Bot. Misc.* iii. 87, *t. suppl.* 23, 24: *Benth. Fl. Austral.* vi. 258. *Reich. Ic. Fl. Germ. t.* 60. *Nees, Gen. Fl. Germ. Monocot.* iii. n. 50; in his ultimis plumula perperam extra nec intra embryonem delineatur, analysi optimi Richardii male intellecta.

Physkium, *Lour. Fl. Coch.* 662, est *Vallisneria spiralis*, spatha mascula pro pericarpio, florum alabastris pro seminibus descriptis.

5. **Blyxa,** *Thou. Gen. Nov. Madag.* 4 (Diplosiphon, *Dcne. in Jacquem. Voy. Bot.* 166, *t.* 167).—Spathæ unisexuales, utriusque sexus cylindraceæ, apice breviter 2-fidæ. Flores ♂ intra spatham plures, longe pedunculati. Perianthium duplex, 3-merum; segmenta exteriora oblonga, interiora multo longiora, fere filiformia. Stamina 3–9, uno alterove sæpe ad staminodium reducto, filamentis brevibus; antheræ oblongo-lineares, erectæ. Pistilli rudimentum centrale e stylis 3 capillaribus nudis basi breviter carnoso-incrassatis. Flos ♀ intra spatham solitarius, sessilis. Perianthium supra ovarii rostrum mari simile. Staminodia 0 v. minuta. Ovarium longissime lineare, apice rostratum, 1-loculare,

placentis 3 parietalibus parum prominulis; stylus basi brevissimus, ramis stigmatosis 3 filiformibus indivisis. Fructus linearis, spatha inclusus, paricarpio membranaceo. Semina ∞, oblonga, pulpo parco induta; embryo conformis, plumula minima intra fissuram vix conspicuam recondita.—Herba submersa, caule brevissimo. Folia conferta, longe linearia. Scapi intra folia nunc breves omnino immersi, nunc longe filiformes, spatham florentem ex aqua exserentes.

Species 1, aqua dulci Asiæ tropicæ Australiæ et ins. Mascarensium immersa, *L. C. Rich. in Mem. Inst. Par.* 1811, 63, *t.* 4, 5. *Roxb. Corom. Pl. t.* 165 (*Vallisneria*). *Benth. Fl. Austral.* vi. 258. Staminum numerus valde variabilis evadit, in speciminibus Indicis sæpius 3–4, interdum 8, rarissime 9.

6. **Hydrotrophus**, *C. B. Clarke in Journ. Linn. Soc.* xiv. 8, *t.* 1.—Flos hermaphroditus, in spatha lineari solitarius, sessilis. Perianthium supra ovarii rostrum duplex, 3-merum; segmenta exteriora lineari-oblonga, tenuiter herbacea; interiora (sæpius ad 2 reducta? angustissima, tenuiter petaloidea, apice crispa. Stamina 3, filamentis linearibus; antheræ angustæ, erectæ, lateraliter dehiscentes. Ovarium intra spatham inclusum, lineare, ultra spatham in rostrum longum filiforme productum, 1-loculare, placentis parietalibus parum prominulis; styli 3, simplices, basi subconnati. Capsula linearis, spatha inclusa, pericarpio membranaceo. Semina ∞; testa crustacea, duriuscula, medio subgloboso echinata, apice basique in rostrum longum rigidum nudum producta; embryo subglobosus, plumula minima intra fissuram lateralem parum conspicuam recondita.—Herba submersa, caule brevissimo. Folia conferta, longissime angustissimeque linearia. Scapi inter folia filiformes, primum breves, demum valde elongati, florem supra aquam exserentes.

Species 1, in aquis dulcibus Bengaliæ a Clarkeo detecta.

Tribus III. Stratioteæ.

7. **Limnobium**, *L. C. Rich. in Mem. Inst. Par.* 1811, 32, 66, *t.* 8. (Hydromystria, *G. F. Mey. Prim. Fl. Esseq.* 152. Jalambicea, *Llave et Lex. Nov. Veg. Descr.* ii. 12. Trianea, *Karst. in Linnæa*, xxviii. 424).—Spathæ unisexuales, utriusque sexus 2-phyllæ, bracteis complicatis, exteriore interiorem amplectente. Flores ♂ in spatha 2–3, longe pedunculati. Perianthium duplex, 3-merum; segmenta exteriora membranacea, oblonga, interiora petaloidea longiora angusta. Stamina 3–9, filamentis brevibus; antheræ oblongæ v. lineares, erectæ, lateraliter dehiscentes. Ovarii rudimentum centrale, breve, stylis 2–3 brevibus nudis coronatum. Flos ♀ in spatha solitarius, sessilis v. breviter pedicellatus. Perianthium supra ovarium mari simile v. interdum 2-merum. Staminodia 3 v. 2, brevia. Ovarium ovoideum, erostre, placentis valde intrusis centro contiguis fere in loculis 2–6 divisum; styli 3, rarius 2, 2-fidi. Fructus ovoideo-oblongus, apice perianthii reliquiis dentatus. Semina subglobosa, apice basique breviter mucronata, testa membranacea pulpa involuta, siccitate filamentis brevibus patentibus hispida v. fere echinata.—Herbæ in aqua dulci fluitantes, caule stolonifero. Folia ad nodos fasciculata, petiolata, lamina supra aquam natante ovata v. rotundato-cordata, subtus interdum (nec semper) substantia spongiosa incrassata. Scapi inter folia oriundi, breves nunc brevissimi.

Species 3 v. 4, Americæ borealis Mexici et Americæ australis tropicæ incolæ. *Bosc in Ann. Mus. Par.* ix. *t.* 30 (*Hydrocharis*). *Benth. Bot. Sulph.* 175. *Griseb. Fl. Brit. W. Ind.* 506.

Planta a Spruceo distributa e fl. Amazonum n. 1593 sub nomine *Hydrocharellæ echinosporæ* valde affinis est *Limnobio Sinclairi*, Benth., nisi conspecifica. Planta Mexicana Schaffneriana, n. 484, videtur *L. stolonifera*, Griseb.

8. **Hydrocharis**, *Linn. Gen. n.* 1126.—Spathæ unisexuales, ♂ 2-phyllæ, bractea exteriore interiorem amplectente, ♀ 1-phyllæ complicatæ. Flores ♂ in spatha pauci, saepius 3, longe pedunculati. Perianthium 2-seriatum, 3-merum; segmenta exteriora

ovata, herbacea; interiora petaloidea, multo majora, suborbiculata, undulato-plicata. Staminum filamenta 6, 2-fida, crassiuscula, scabra, 3 sepalis opposita ramo utroque anthe-rifero, 3 petalis opposita ramo interiore nudo exteriore antherifero; antheræ in toto 9, loculis brevibus adnatis longitudinaliter dehiscentibus. Ovarii rudimentum in centro floris breve, pulvinatum, carnosum. Flos ♀ in spatha unicus, longe pedunculatus. Perianthium supra ovarium mari simile nisi petalis basi intus tuberculo carnoso instructis. Ovarium oblongo-turbinatum, erostre, placentis valde intrusis medio contiguis subperfecte 6-loculare; stigmata (v. styli rami stigmatosi) 6, crassiuscula, linearia, 2-fida. Fructus ovoideus v. oblongus, pericarpio carnoso, 6-locularis. Semina numerosa, ovoidea, pulpa laxa induta. Embryo conformis, plumula intra fissuram lateralem parum conspicuam recondita.—Herba in aqua dulci fluitans, stolonifera. Folia ad nodos fasciculata, longe petiolata, lamina cordato-orbiculata supra aquam natante. Scapi inter folia oriundi, per anthesin supra aquam exserti. Petala alba.

Species 1, Europæ et Asiæ mediæ incola, in Australia et Madagascaria verisimiliter inquilina. *L. C. Rich. in Mem. Inst. Par.* 1811, 36, 67, *t.* 9. *Reichb. Ic. Fl. Germ. t.* 62. *Nees, Gen. Fl. Germ. Monocot.* iii. *n.* 52.

9. **Ottelia,** *Pers. Syn. Pl.* i. 400 (Damasonium, *Schreb. Gen. Pl.* 242, *non Juss.*).—Flos hermaphroditus, in spatha tubulosa breviter 2-fida solitarius, sessilis. Perianthium supra ovarii rostrum 2-seriatum, 3-merum; segmenta exteriora oblonga v. linearia, rigidule membranacea, interiora petaloidea, multo majora, late obovata v. orbiculata, basi appendicibus brevibus obovoideis carnosis instructa. Stamina 6–∞ (usque ad 15), filamentis sæpe complanatis, antheræ erectæ, oblongæ v. lineares, lateraliter dehiscentes. Ovarium oblongum, plus minus rostratum, placentis valde intrusis in centro loculi conniventibus in loculos 6 fere perfecte divisum; styli 6, lineares, semi-2-fidi; ovula numerosa, placentas seu loculorum parietes undique obtegentia. Fructus spatha ventricosa sæpe 3–6-alata inclusus, oblongus, apice attenuatus, pericarpio crassiusculo. Semina numerosa, parva, oblonga, testa crassiuscula pulpa viscosa induta; embryo conformis, plumula parva, intra fissuram lateralem brevem recondita.—Herbæ aqua dulci submersæ, caule brevissimo. Folia conferta, alia submersa petiolo brevi, alia longe petiolata lamina supra aquam natante ovata oblonga v. latissime cordata. Scapus elongatus; spatha herbacea, sub anthesi emersa, ∞-nervis, costis 2–6 prominulis interdum in alas foliaceas valde inæquales haud raro undulatas dilatatis.

Species notæ 6 v. 7, Asiæ tropicæ, Japoniæ, Australiæ, ins. Mascarensium, Africæ tropicæ et subtropicæ et Brasiliæ incolæ. *L. C. Rich. in Mem. Inst. Par.* 1811, 27, 65, *t.* 7. *Planch. in Ann. Sc. Nat. ser.* 3, xi. 81 (*Damasonium, excl. sp. n.* 2). *Miq. in Ann. Mus. Bot. Lugd. Bat.* ii. 271. *Benth. Fl. Austral.* vi. 256. *Sm. Exot. Fl. t.* 15 (*Stratiotes*). *Roxb. Corom. Pl. t.* 185 (*Damasonium*). *Bot. Mag. t.* 1201 (*Damasonium*).

10. **Boottia,** *Wall. Pl. As. Rar.* i. 51, *t.* 65.—Spathæ unisexuales, tubulosæ demum subfusiformes, breviter 2-fidæ. Flores ♂ intra spatham plures, pedunculati, per anthesin exserti. Perianthium 2-seriatum, 3-merum; segmenta exteriora latiuscule linearia v. oblonga, interiora petaloidea, multo majora, obovato-oblonga. Stamina 6–12, filamentis sæpius complanatis; antheræ erectæ, oblongæ, lateraliter dehiscentes. Pistilli rudimentum in centro floris pulvinatum, carnosum, stylis 3 longis petaloideis 2-fidis coronatum. Flos ♀ intra spatham solitarius, sessilis. Perianthium supra ovarii rostrum mari subsimile nisi paullo minus. Staminodia pauca, parva. Ovarium in rostrum crassiusculum farctum attenuatum, placentis valde intrusis in centro loculi conniventibus in loculos tot quot styli subperfecte divisum; styli 6–15, lineari-filiformes, 2-fidi; ovula numerosa, placentarum facies seu loculorum parietes undique obtegentia. Fructus spatha ventricosa exalata inclusus. Semina numerosa, testa crassiuscula pulpa induta; embryo conformis, plumulam haud deteximus.—Herbæ aqua dulci submersæ, habitu foliisque omnino *Otteliæ*. Spathæ ∞-costatæ, costis 2 lateralibus sæpe magis prominulis, non tamen alatis.

Species 3 v. 4, Burmæ et Africæ tropicæ incolæ, inclusis, præter speciem Wallichianam Burmanicam, 2 v. 3 Africanis. His verisimiliter includendæ *Damasonium aloæfolium*, Planch. in Ann. Nat. Hist. ser. 3, xi. 81, *Ottelia lancifolia*, A. Rich. Fl. Abyss. ii. 280, t. 95, et *Ottelia scabra*, Baker in Trans. Linn. Soc. xxix. 151, spathis fœmineis jam defloratis pro hermaphroditis descriptis. Specimina ♂ Africana spathis ∞-floris adsunt plura in Herb. Kew.

11. **Stratiotes,** *Linn. Gen. n.* 687.—Spathæ unisexuales, diphyllæ, bracteis complicatis exteriore interiorem amplectente. Flores ♂ intra spatham 2–∞, singuli bracteola spathacea complicata stipati, pedicello longo e spatha exserti. Perianthium 2-seriatum, 3-merum; segmenta exteriora ovata v. oblonga, membranacea; interiora petaloidea, multo majora, lata, undulato-crispa. Stamina ∞ (11–15), processubus numerosis brevioribus (staminodiis?) cincta, filamentis basi complanatis; antheræ erectæ, lineares, lateraliter dehiscentes. Pistilli rudimenta 0. Flos ♀ in spatha solitarius, breviter pedicellatus. Perianthium supra ovarii rostrum mari simile nisi paullo minus. Staminodia ∞, linearia, stylis breviora. Ovarium oblongum, sæpius e spatha recurvum in rostrum longe attenuatum; placentis valde intrusis in centro loculi contiguis sub-6-loculare; styli 6, lineares, semi-2-fidi. Fructus pedicello recurvo e spatha lateraliter exsertus, ovoideus, acuminatus, pericarpio carnoso. Semina abortu sæpius pauca, testa crassiuscula pulpa induta; embryo conformis, plumula intra fissuram lateralem recondita.—Herba perennis, submersa, caule brevissimo stolonifero. Folia conferta, omnia sessilia, submersa, lineari-lanceolata, carnosula, acuta, margine dentibus brevibus pungentibus serrata. Scapi breves v. elongati, spatham supra aquam exserentes.

Species 1, Europea. *L. C. Rich. in Mem. Inst. Par.* 1811, 24, 64, *t.* 6. *Nolte, "Stratiotes et Sagittaria," Kopenhagen*, 4to. *t.* 1. *Nees, Gen. Fl. Germ. Monocot.* iii. *n.* 51. *Reichb. Ic. Fl. Germ. t.* 61.

Tribus IV. Thalassieæ.

12. **Enhalus,** *L. C. Rich. in Mem. Inst. Par.* 1811, 64.—Spathæ unisexuales, diphyllæ, bractea exteriore interiorem amplectente. Flores ♂ intra spatham numerosi, minimi, in receptaculo oblongo pedicellati. Perianthium 2-seriatum, 3-merum; segmenta utriusque seriei subæqualia, interioribus magis petaloideis. Stamina 3, ex Zollinger segmentis exterioribus, ex Griffith interioribus opposita, filamentis brevissimis; antheræ oblongæ, erectæ, lateraliter dehiscentes. Pistilli rudimentum 0. Flos fœmineus intra spatham mari longiorem solitarius, sessilis. Perianthium ad apicem rostri ovarii 2-seriatum, 3-merum; segmenta exteriora oblonga, imbricata; interiora multo longiora, linearia, spatham excedentia, subvalvata, extus pulcherrime undulato-plicata, introrsum plicis transversis notata. Staminodia 0. Ovarium longe rostratum, 1-loculare, placentis valde intrusis in centro fere contiguis sub-6-loculare; stylorum rami stigmatosi 6–12, lineari-filiformes; ovula in quaque placenta pauca, 1-seriata, anatropa. Fructus spatha patente v. marcescente suffultus, ovoideus, placentis farinoso-carnosis fere in loculos 6 divisus. Semina pauca, magna, testa cellulosa; embryo conformis; cotyledon exserta, subconica, lateralis, bilabiata; plumula recondita magna polyphylla, foliolo exteriore a basi lineari apice serrulato.—Planta marina, submersa, rhizomate crasso fibris foliorum detritorum crinito. Folia longissima, angusta, plana, per 2–3 vagina tenuiter membranacea stipata, marginibus incrassatis, apice rotundata denticulataque. Spathæ ♂ breves, compressæ, vix ex arena exserta; flores sub anthesi a pedicello soluti, in aquæ superficie natantes. Scapus ♀ primum erectus elongatus, per anthesin spiraliter contractus submersus, post fecundationem iterum emersum fructum maturans.

Species 1, ad oras maris Indici a Zeylania usque ad Australiam extensa. *Linn. f. Suppl.* 268 (*Stratiotes*). *Griff. Notul.* iii. 175; *Ic. Pl. Asiat. t.* 249, 250. *Zoll. Verz. Ind. Archip. Pfl.* ii. 69.

Richard plantam non vidit et genus condidit ad descriptionem Linnæi qui stylorum ramos seu stigmata pro antheris habuit. Specimina nostra plura, in variis locis lecta, flores fœmineos præbent, sed ob pressionem male examinare potuimus. Characterem supra datum præcipue ex descriptione fusiore Griffithii et notis Zollingerianis sumpsimus.

13. **Thalassia,** *Soland. in Koen. et Sims, Ann. Bot.* ii. 96 (Schizotheca, *Ehrenb. ex Schweinf. Beitr. Fl. Æthiop.* 293, *nomen*).—Spathæ unisexuales, lato-lineares, diphyllæ, bracteis basi in tubum breviter connatis, utriusque sexus 1-floræ. Flos ♂ longe pedicellatus. Perianthium 1-seriatum, 3-merum; segmenta ovata, petaloidea. Stamina 6, filamentis brevissimis; antheræ longæ, erectæ, lateraliter dehiscentes. Pistilli rudimentum 0. Flos ♀ primum intra spatham caducissimam subsessilis, mox plus minus stipitatus. Ovarium longe rostratum. Perianthium . . . Styli . . . Fructus supra spathæ cicatricem stipitatus, globosus, lævis rugosus v. fere echinatus, ab apice in lobos plures breves v. demum alte fissos stellatimque patentes dehiscens. Semina ∞, parva, pulpa induta, placentis parietalibus affixa.—Plantæ marinæ submersæ. Rhizoma longe repens, annulatum; caules breves. Folia longe loriformia, basi per 2–3 vaginis longis membranaceo-scariosis stipata. Scapi utriusque sexus e vaginis similibus parum prominentes.

Species 2, altera ad oras insularum Indiæ occidentalis, altera in Mare Rubro et Indico crescens. *Aschers. in Neumayer, Anleit. Wissensch. Beob.* 361.

14. **Halophila,** *Thou. Gen. Nov. Madag.* 2 (Barkania, *Ehrenb. et Hempr. in Abhandl. Acad. Berl.* 1832, 429).—Spathæ unisexuales, diphyllæ, bracteis a basi liberis, utriusque sexus 1-floræ. Flos ♂ pedicellatus. Perianthium 1-seriatum, 3-merum; segmenta subherbacea. Antheræ 3, subsessiles, oblongo-lineares, segmentis alternæ, extrorsum dehiscentes. Pistilli rudimentum 0. Flos ♀ intra spatham sessilis. Perianthii segmenta 3, minuta. Ovarium longe rostratum, 1-loculare; styli 3, simplices, longe filiformes, undique minute papillosi; ovula placentis 3 parietalibus vix prominulis 2-seriatim affixa. Fructus spatha inclusus, subglobosus, rostro ovarii exserto coronatus. Semina ∞, subglobosa, testa membranacea. Embryo crassus, apice excavatus; cotyledon intra depressionem prominens, spiraliter torta, plumulam vaginans.—Herbæ marinæ, submersæ, caulibus repentibus stoloniformibus ad nodos radicantibus foliatisque. Folia ad quemque nodum caulis v. ramuli intra squamam membranaceam v. hyalino-scariosam sessilem caulem amplectentem gemina, petiolata, ovalia v. oblonga, penninervia. Spathæ intra folia solitariæ, sessiles, parvæ.

Species 2 v. 3 ad costas marium Indicorum ab Africa tropica et Mare Rubro usque ad Australiam et Mare Pacificum australe submersæ. *Bailey Balf. in Trans. Bot. Soc. Edinb.* xiii. 290, *t.* 8 *ad* 11 *et* 16. *Aschers. in Nuov. Giorn. Bot. Ital.* iii. 300, *et in Neumayer, Anleit. Wissensch. Beob.* 367. *Benth. Fl. Austral.* vii. 182. *Griff. Ic. Pl. Asiat. t.* 161 C, *f.* 2 (*Diplanthera*).

Characteres tam vegetationis singulares quam florales ample illustravit B. Balf. in dissertatione egregia supra citata. Auctor *H. spinulosam*, Benth. (*Cauliniam spinulosam*, Br.) rite e genere excludit, species est forte ad Naiadeas referenda sed floribus adhuc ignotis quoad affinitates dubia remanet. *H. Beccarii*, Aschers., pariter a Balfourio e genere excluditur ob squamarum sub foliis deficientia; folia tamen frondosa omnino *Halophilæ* et squamæ minutæ adesse videntur. *H. Baillonii*, Aschers., et *H. Engelmanni*, Aschers., species Americanæ, quoad genera omnino dubiæ remanent.

ORDO CLXVIII. **BURMANNIACEÆ.**

Endl. Gen. 163. Lindl. Veg. Kingd. 171.

Flores regulares v. in *Corsieis* parum irregulares, hermaphroditi v. rarissime polygami. *Perianthium* superum, corollinum, tubo supra ovarium vario rarius obsoleto; limbi segmenta 6 v. 3, inter se libera; 3 exteriora viridiora, inter se æqualia, æstivatione valvata v. induplicata, v. in *Corsieis* posticum maximum; 3 interiora sæpius minora, nunc

minima v. obsoleta, rarius exterioribus similia, inter se semper æqualia. *Stamina* 3 v. 6, tubo perianthii inserta inclusaque, v. ad faucem affixa et intra tubum deflexa, v. tubo deficiente exserta, filamentis brevibus nunc brevissimis. *Antheræ* 2-loculares, connectivo varie dilatato v. appendiculato rarius vix evoluto; loculi distincti, transversim v. in longitudinem dehiscentes. *Ovarium* inferum, nunc 3-loculare placentis axilibus, nunc 1-loculare placentis 3 parietalibus. *Stylus* tubo perianthii inclusus v. tubo deficiente brevissimus, apice in ramos 3 breves sæpius brevissimos crassos vertice stigmatosos divisus. *Ovula* in quaque placenta numerosissima, minuta. *Fructus* capsularis, perianthio emarcido v. ejus basi circumscissa coronatus, nunc lateraliter inter costas, nunc vertice irregulariter v. rarius valvatim dehiscens. *Semina* numerosa, parva, testa tenui nunc adnata, nunc laxa hyalina ultra nucleum utrinque longe producta, exalbuminosa. *Embryo* semini v. nucleo conformis, specie homogeneus.

Herbæ annuæ v. e rhizomate perenni, erectæ, simplices v. rarissime in ramos paucos divisæ. Folia nunc evoluta, ad basin caulis conferta v. rarius secus caulem sparsa, linearia v. lanceolata, nunc sæpius omnia ad squamas parvas sparsas cauli concolores reducta. Flos unicus terminalis, v. plures in cyma terminali 2-fida v. rarius dichotoma, secus ramos unilateraliter sessiles v. breviter pedicellati, cærulescentes, flavi v. rarius albidi.

Species ad 54, per regiones calidiores utriusque orbis late dispersæ, usque ad Americam borealem et Chinam extensæ.

Ordo nulli arcte affinis, ovarii et seminum structura hinc *Hydrocharideis* quibus Martius approximavit, hinc *Orchideis* uti bene indicavit Miers, accedit. Ab his tamen perianthio sæpissime et andrœcio semper regularibus longe differt. In tribu *Corsiearum* perianthii segmentum unum maximum primo aspectu labellum *Orchidearum* in mentem revocat, sed ad seriem exteriorem pertinet nec ut in *Orchideis* e segmento interiore cum staminodio verisimiliter confluente sistens.

CONSPECTUS GENERUM.

Tribus I. Euburmanniese. Perianthii tubus cylindraceus 3-gonus v. infundibularis. Stamina 3, intra tubum fere sessilia.

* *Ovarium 3-loculare. Caulis foliatus v. aphyllus.*

1. Burmannia. Perianthii tubus 3-angulatus v. sæpius 3-alatus; limbi segmenta interiora exterioribus minora v. 0. Capsula plus minus 3-alata.—*Utriusque orbis reg. trop., Amer. bor., China.*

2. Campylosiphon. Perianthii tubus angustus, incurvus, exalatus; limbi segmenta omnia subæqualia, linearia. Capsula angusta, exalata.—*Brasilia bor.*

** *Ovarium 1-loculare, rarius ima basi divisum. Caules aphylli.*

3. Gymnosiphon. Perianthii tubus exalatus, post anthesin medio circumscissus. Antherarum connectivum inappendiculatum.—*Amer. et Afr. trop., Archip. Malay.*

4. Dictyostegia. Perianthii tubus exalatus, continuus. Antherarum connectivum parum dilatatum.—*Amer. et Afr. trop.*

5. Apteria. Perianthii tubus exalatus, 3-sacculatus. Filamenta sub anthera late petaloideo-alata.—*Amer. bor. et austr.*

Tribus II. Thismieæ. Perianthii tubus obovoideus v. oblongus, ore sæpius constrictus. Stamina 6, antheris inversis intra tubum deflexis, connectivis dilatatis interdum connatis. Caules carnosi, aphylli.

6. Thismia. Perianthii lobi 3 v. omnes subulati, patentes v. recurvi. Antheræ e tubo haud prominentes.—*Amer. et Asia trop.*

7. Bagnisia. Perianthii lobi 3, unguiculati, apice dilatati, conniventes, calyptram 3-stipitatam formantes. Antheræ e tubo haud prominentes.—*Nov. Guinea.*

8. Geomitra. Perianthium ad os vix constrictum, cæterum *Bagnisiæ*. Antheræ basi e tubo parum prominentes.—*Borneo, Java.*

Tribus III. Corsieæ. Perianthium 6-partitum, segmento postico maximo lato, cæteris 5 subæqualibus lineari-subulatis. Stamina 6. Caules aphylli.

9. Corsia. Flores hermaphroditi. Stamina recurvo-patentia. Ovarii placentæ valde intrusæ.—*Nov. Guinea.*

10. Arachnites. Flores unisexuales. Filamenta erecto-inflexa. Ovarii placentæ parum prominentes.—*Chile.*

GENUS EXCLUSUM.

Stenomeris, Planch., inter **Dioscoreaceas** anomalas quærendum.

Tribus I. Euburmannieæ.

1. **Burmannia**, *Linn. Gen. n.* 397 (Maburnia, *Thou. Gen. Nov. Madag.* 4).—Perianthii tubus prominenter 3-angulatus v. sæpius 3-alatus; lobi 3 exteriores induplicato-valvati, 3 interiores minores nunc minimi v. 0. Antheræ 3, intra tubum infra lobos interiores subsessiles, connectivo lato supra loculos in cristam integram 2-fidam v. 2-partitam producto; loculi ad latera connectivi prominentes, globosi v. clavati, transversim dehiscentes. Ovarium 3-loculare, placentis axilibus; stylus perianthio inclusus, lobis 3 brevibus crassis interdum vix prominentibus vertice stigmatosis; ovula in quaque placenta numerosissima. Capsula perianthio persistente coronata, plus minus 3-alata, inter alas v. costas maturitate varie rupta. Semina minima, oblonga v. fere globosa, testa tenuissima reticulata v. striata, sæpius appressa, rarius laxa et ultra nucleum utrinque longe producta.—Herbæ erectæ, simplices, nunc tenerrimæ, coloratæ, foliis minimis dissitis infimis vix majoribus v. omnibus squamiformibus, nunc rigidiores, foliis inferioribus majoribus, imis ad basin caulis confertis, rarius secus caulem magis evolutis. Flores cærulei albi v. rarius flavi, ad apicem caulis solitarii, v. plures secus ramos cymæ 2-fidæ 1-seriatim erecti.

Species ad 20, per regiones tropicas utriusque orbis late dispersæ, usque ad Americam borealem et Chinam extensæ. *Walp. Ann.* i. 181, vi. 42. *Miq. Fl. Ind. Bat. Suppl.* 616. *Griff. Ic. Pl. Asiat. t.* 272. *Roxb. Corom. Pl. t.* 242. *Benth. Fl. Austral.* vi. 397. *Becc. Malaisia* i. 242, *t.* 14, 15. *Mart. Nov. Gen. et Sp.* i. 9, *t.* 5. *Seub. in Mart. Fl. Bras.* iii. i. 55, *t.* 7.

Tripterella, *Mich. Fl. Bor. Amer.* i. 19, *t.* 3 (Vogelia, *Gmel. Syst.* ii. 107 *ad* Anonymos, *Walt. Fl. Carol.* 68 *descr.*) est species boreali-Americana, tenuis, floribus parvis subcapitatis, perianthii alis fere ad angulos acute prominentes reductis.

Tetraptera, *Miers in Lindl. Veg. Kingd.* 172, nomine tantum signata est, cum synonymo *Tripterella*, Mart. Quantum scimus Martius nullam *Tripterellam* edidit præter boreali-Americanam, et alæ 4 nunquam in *Burmanniaceis* observatæ sunt. Nomen igitur Miersianum delendum est.

Gonyanthes, *Blume Cat. Gew. Plantent. Buitenz. ex Flora* 1825, 123, prius dubie ad *Cytineas* relata, postea in Enum. Pl. Jav. 28, *Burmanniaceis* adjuncta, a *Burmannia* distincta fuit perianthii loborum minorum deficientia, et capsula 1-loculari. Miers in Trans. Linn. Soc. xx. 379, *Gonyanthem* distinxit capsula transversim fenestrata nec in longitudinem dehiscente. Perianthii vero lobi in pluribus speciebus *Burmanniæ* minuti sunt v. omnino evanidi, et in nonnullis a Miersio *Gonyanthi* relatis certe adsunt. Capsula autem nunquam revera 1-locularis est, etsi dissepimenta inter placentam centralem et parietes maturitate haud raro deliquescunt. Capsulæ fissuræ inter costas seu alas sæpe irregulares sunt, et in charactere ipso Blumei capsula rimis 3 lateralibus dehiscere dicitur. Plantæ habitu nequaquam distinguendæ et *Gonyanthes* jam a Beccario ad *Burmanniam* relata, ne pro sectione quidem habenda est.

Cryptonema, *Turcz. in Bull. Soc. Imp. Nat. Mosq.* 1848, i. 590 nomen ab auctore ibid. 1853, i. 287, in Nephrocœlium mutatum, et a Walpersio aliisque lapsu calami *Nephrocodium* scriptum, est *Burmannia cœlestis*, Don, Royle, Ill. Pl. Himal. t. 91, a speciebus typicis nequaquam distinguenda.

Cyanotis et Cyananthus, *Miers in Wall. Cat. Herb. Ind. n.* 9006, 9007, 9008 (Tripteranthus, *Wall. ms.* a Lindleyo et a Miersio citatus), sunt *Burmanniæ* species Indicæ, a Miersio sub *Gonyanthe* descriptæ in Trans. Linn. Soc. xviii. 537, t. 38.

B. longifolia, Becc. Malaisia, i. 244, t. 13, e montibus Archipelagi Malayani, insignis est caule perenni alte foliato, basi indurato foliis marcescentibus vestito, et seminum testa reticulata laxa ultra nucleum utrinque longe producta. *B. Kalbreyeri*, Oliv. in Hook. Ic. Pl. t. 1357, est species Colombiana caule ut in *B. longifolia* perenni alte foliato, sed cyma dichotoma et seminum testa tenui appressa vix apice minute appendiculata.

2. **Campylosiphon,** *Benth. in Hook. Ic. Pl. t.* 1384.—Perianthii tubus tenuis, incurvus, exalatus ; lobi 6, 2-seriati, omnes tamen angusti longiusculi parum inæquales. Antheræ 3, intra tubum infra lobos interiores subsessiles, connectivo latiusculo supra loculos non producto ; loculi ad latera connectivi prominentes, transversim in valvas 2 superpositas dehiscentes. Ovarium elongatum, sub-3-quetrum, 6-costatum, 3-loculare, placentis axilibus crassiusculis, septis tenuissimis ; stylus perianthio inclusus, apice clavatus, in lobos 3 latos brevissimos vertice stigmatosos subdivisus ; ovula in placentis numerosissima. Capsula angusta, incurva, perianthio marcescente coronata, (demum inter costas lateraliter dehiscens ?). Semina numerosissima, angulato-globosa, testa appressa.—Herba tenuis, aphylla, succulenta, caule simplici v. apice 2-fido, squamis nunc numerosis linearibus subimbricatis nunc minimis sparsis instructo. Flores ratione plantæ longiusculi, insigniter incurvi, in racemo simplici v. 2-fido ad axillas bractearum membranaceo-scariosarum breviter pedicellati.

Species 1, in sylvis humidis Brasiliæ borealis a Spruceo et a Traillio lecta.

3. **Gymnosiphon,** *Blume, Enum. Pl. Jav.* 29. (Ptychomeria, *Benth. in Hook. Kew Journ.* vii. 14. Benitzia, *Karst. in Linnæa* xxviii. 420).—Perianthii tubus elongatus, exalatus, infra apicem demum circumscissus ; lobi 3 exteriores lati, induplicato-valvati, lateraliter interdum fere in lobulos expansi ; 3 interiores parvi v. 0. Antheræ 3, intra partem deciduam tubi infra lobos interiores subsessiles v. filamento brevissimo fultæ ; loculi ad latera connectivi inappendiculati crassi, transversim dehiscentes. Ovarium 1-loculare, placentis 3 parietalibus ; stylus perianthio inclusus, apice in lobos 3 breves incrassato-dilatatos vertice stigmatosos interdumque 2-cornutos v. 2-aristatos divisus, ovula placentas dense obtegentia. Capsula subglobosa, turbinata v. oblonga, perianthii tubi parte persistente coronata, apice demum irregulariter rupta v. simul rimis lateralibus dehiscens. Semina minima, angulato-globosa, varie rugosa, testa appressa exappendiculata. —Herbæ annuæ (v. rhizomate perenni ?) teneræ, coloratæ v. hyalinæ, caule erecto simplici, foliis omnibus ad squamulas parvas concolores reductis. Flores parvuli, in cyma bifida sessiles v. breviter pedicellati, sæpissime erecti, interdum tamen patentes v. subnutantes ; cyma nunc laxa, ramis elongatis floribus dissitis, nunc fere in capitulum contracta.

Species ad 12, quarum 2 v. 3 Archipelagi Malayani, 1 Africæ tropicæ, incolæ, cæteræ omnes Americanæ tropicæ. *Walp. Ann.* vi. 38 (*Ptychomeria*) *et* 41 (*Benitzia*). *Beccari, Malaisia*, i. 240, *t.* 14. CYMBOCARPA, *Miers in Trans. Linn. Soc.* xviii. 543, *t.* 38, *f.* 4, est *G. refractus*, species Brasiliensis, quæ a genere nequaquam differt nisi capsula plus minus refracta, interdumque nec semper inæqualiter maturescens. Styli rami 2-cornuti v. 2-aristati observantur etiam in *G. cymoso*, *G. divaricato* et *G. cornuto*.

4. **Dictyostegia,** *Miers in Trans. Linn. Soc.* xviii. 538, *t.* 37.—Perianthii tubus exalatus, continuus ; lobi 3 exteriores valvati, 3 interiores minores. Antheræ 3, intra tubum infra lobos interiores ad cavitates parum conspicuas fere sessiles ; loculi ad latera connectivi parum dilatati prominentes, subglobosi, transversim dehiscentes. Ovarium 1-loculare, placentis 3 parietalibus v. interdum basi placentis medio connatis breviter 3-loculare ; stylus perianthio inclusus, apice in lobos 3 breves crassos vertice stigmatosos divisus ; ovula numerosa, in placentis conferta. Capsula globosa, perianthio supra capsulam plus minus constricto sed persistente coronata, demum inter placentas varie rupta, rarius distincte 3-valvis. Semina minima, linearia ; testa tenuissima, hyalina, reticulata, laxa, nucleo centrali subgloboso 4–6-plo longior.—Herbæ teneræ, coloratæ, caule simplici v. subramoso, foliis ad squamulas parvas concolores reductis, rhizomate interdum parvo oblongo fere tuberiformi. Flores in cyma 2-fida v. rarius in racemo simplici pedicellati, anthesi peracta sæpissime nutantes.

Species 4 v. 5, Americæ et Africæ tropicæ incolæ. *Benth. in Hook. Kew Journ.* vii. 13. *Karst. in Linnæa*, xxviii. 421. *Hook. Ic. Pl. t.* 254 (*Apteria*).

5. **Apteria,** *Nutt. in Journ. Acad. Nat. Sc. Philad.* vii. 64, *t.* 9 (Stemoptera, *Miers in Proc. Linn. Soc.* i. 62).—Perianthii tubus exalatus, continuus, infra lobos interiores in

saccula 3 lata excavatus; lobi 3 exteriores ovati subvalvati, 3 interiores minores erecti. Stamina 3, intra tubum ad basin sacculorum affixa, filamentis utrinque late petaloideo-alatis; antheræ ad apicem filamenti tubo inclusæ; loculi divaricati, plus minus lateraliter stipitati, transversim dehiscentes fere 2-lobi. Ovarium 1-loculare, placentis 3 parietalibus parum prominulis; stylus perianthio inclusus, apice in lobos 3 breves crassos divergentes vertice stigmatosos divisus; ovula in quaque placenta numerosa. Capsula obovoideo-subglobosa, perianthio marcescente v. deciduo denudata, demum ad latera inter costas rupta, (v. fide Miersii apice 3-valvis). Semina minima, obovoideo-oblonga, testa reticulata, laxa, nucleum vix superante.—Herba tenera, colorata, caule erecto simplici v. subramoso, foliis ad squamulas parvas concolores reductis. Flores quam in *Gymnosiphone* et *Dictyostegia* sæpius majores, solitarii v. pauci, pedicellati, nutantes.

Species editæ 3, omnes tamen unius varietates videntur, nec nisi magnitudine plantæ v. floris differunt, Americæ borealis et tropicæ incolæ. *Miers in Trans. Linn. Soc.* xviii. 545, *t.* 38. *Miq. Stirp. Surin.* 216, *t.* 65. *Hook. Ic. Pl. t.* 660.

TRIBUS II. THISMIEÆ.

6. **Thismia,** *Griff. in Trans. Linn. Soc.* xix. 341, *t.* 39.—Perianthii tubus ovoideo-campanulatus v. turbinatus, ore constrictus; lobi 6, nunc omnes longe subulati crassiusculi demum recurvi, nunc 3 subulati, 3 alterni breves ovati. Stamina 6, fauci affixa, intra tubum deflexa, filamentis brevissimis, connectivis late membranaceo-dilatatis, in tubum deflexum connatis v. conniventibus, antherarum loculos distinctos parallelos occultantibus. Ovarium breve, latum, 1-loculare, placentis 3 parietalibus mox a pariete solutis in cavo ovarii columnaribus; stylus brevissimus conicus v. parum elongatus, stigmatibus 3 crassiusculis erectis; ovula in quaque placenta numerosa. Fructus turbinatus, vertice cum perianthio demum circumscisse deciduo cupulatus remanet, pericarpio crasso. Semina numerosa, ovoidea v. subglobosa, rugosa, testa adnata.—Herbæ breves, carnosæ, coloratæ, simplices v. rarius divisæ, foliis omnibus ad squamellas concolores reductis. Flos terminalis, ratione plantæ magnus, v. rarius flores plures breviter pedicellati racemum brevem formant.

Species, si rite omnes in genere unico conservatæ, 7 v. 8, quarum 2 Americæ tropicæ, cæteræ Zeylaniæ, Burmæ v. Archipelagi Malayani incolæ.

Species typica, *T. Brunoniana*, Griff. l. c., a cæteris differt caule plurifloro. Huic addidit Hook. f. in Thw. Enum. Pl. Zeyl. 325, *T. Gardnerianam* (quæ *T. Brunoniana*, Miers in Trans. Linn. Soc, xx. t. 15, f. 20, 21, non Griff.) e Zeylania, et Beccari in Malaisia i. 251, t. 11, 12, species 3 Borneenses. Ab his generice distinguere nequimus plantas 2 Brasilienses, nobis quidem non nisi iconibus et descriptione Miersii notus, viz., OPHIOMERIS, *Miers in Trans. Linn. Soc.* xx. 373, *t.* 15, perianthio incurvo, et MYOSTOMA, *Miers, l. c.* xxv. 474, *t.* 57.

7. **Bagnisia,** *Beccari, Malaisia,* i. 249, *t.* 12.—Perianthii tubus amplus, obovoideo-oblongus, ore constrictus; lobi 3, unguiculati, apice dilatato conniventes, calyptram 3-stipitatam formantes, dentibus 3 parvis cum unguibus alternis. Stamina 6, fauci affixa, intra tubum deflexa; antheræ subsessiles, connectivis maximis membranaceis in tubum deflexum connatis; loculi parvi, distincti, adnati. Ovarium breve, latum, 1-loculare, placentis 3 parietalibus; stylus brevissimus, conicus, stigmatibus 3 brevibus crassiusculis sub-2-fidis patentibus; ovula in quaque placenta numerosissima. Fructus turbinato-cupulatus, perianthio circumscisse deciduo truncatus, v. margine parum elevato cinctus. Semina . . . —Herba carnosa, humilis, colorata, foliis omnibus ad squamas reductis, quarum 1–2 sub flore paullo majores bracteiformes. Flos ratione plantæ magnus Thismiæformis.

Species 1, Novæ Guineæ incola.

SARCOSIPHON, *Blume, Mus. Bot. Lugd. Bat.* i. 65, *t.* 18, est verisimiliter, ut jam indicavit Beccari, specimen defloratum *Bagnisiæ* vel *Geomitræ*, perianthio jam delapso, ovario solo cum stylo superstante et pro flore fœmineo descripto.

8. **Geomitra,** *Beccari, Malaisia,* i. 250, *t.* 10, 11.—Perianthii tubus amplus, obovoideo-oblongus, ore vix constrictus; lobi 3, unguiculati, superne dilatati conniventesque, supra

dilatationem nudi v. in acumina crasse subulata producti, calyptram 3-stipitatam formantes, dentibus 3 minimis cum unguibus alternis. Stamina 6, fauci affixa breviterque exserta, dein abrupte decurva et intra tribum deflexa, filamentis brevissimis crassis; antheræ intra tubum connectivis maximis membranaceo-dilatatis connatæ; loculi parvi, distincti, adnati. Ovarium breve, latum, 1-loculare, placentis 3 jam sub anthesi liberis columnaribus; stylus brevis, stigmatibus 3 brevibus crassis emarginatis; ovula in quaque placenta numerosa. Fructus carnosus, turbinatus, perianthio circumscisse deciduo truncatus, vertice centro dehiscens. Semina minuta.—Herbæ carnosæ, aphyllæ, habitu *Bagnisiæ* simillimæ. (Char. ex Beccari.)

Species 2, altera Borneensis, altera Javensis, a nobis non visæ. Genus forte melius *Bagnisiæ* adjungendum.

TRIBUS III. CORSIEÆ.

9. **Corsia**, *Beccari, Malaisia*, i. 238, *t*. 9.—Perianthium 6-partitum; segmenta sub-2-seriata, postico (seriei exterioris) maximo cordato-subrotundo, cæteris 5 subæqualibus longe lineari-subulatis reflexo-patentibus basi intus callo semilunari instructis. Stamina 6, intra segmenta epigyna, filamentis liberis brevibus crassiusculis recurvo-patentibus; antheræ terminales, loculis parallelis contiguis extrorsum dehiscentibus. Ovarium 1-loculare, placentis tamen 3 parietalibus valde intrusis 2-fidisque fere in loculos 3 divisum; stylus brevis, crassus, stigmatibus 3 brevissimis crassis; ovula in quaque placenta numerosa. Capsula elongata, cylindracea, genitalium exuviis coronata, placentis induratis, in valvas 3 dehiscens. Semina . . . —Herba e rhizomate perenni tenera, erecta, simplex, colorata, foliis ad squamas concolores reductis. Flos unicus, terminalis.

Species 1, Novæ Guineæ incola.

10. **Arachnites**, *Philippi in Bot. Zeit.* 1864, 217, *et in Verh. Zool. Bot. Gesellsch. Wien.* xv. 517, *t*. 12.—Flores abortu unisexuales. Perianthium 6-partitum; segmenta sub-2-seriata, postico (seriei exterioris) maximo ovato-lanceolato erecto v. incurvo, costa media basi glanduloso-incrassata, cæteris 5 subæqualibus longis lineari-subulatis patentibus. Stamina in flore ♂ (a nobis non viso) 6, filamentis brevibus liberis crassiusculis erecto-inflexis; antheræ rima unica dehiscentes. Ovarii rudimentum sub perianthio tenue, styli rudimentum ovoideum, fissuris 3 notatum. Staminodia in flore ♀ minima ad basin segmentorum. Ovarium inferum, breve, latum, 1-loculare, placentis 3 parietalibus parum prominulis; styli 3, breves, crassi, vertice stigmatosi; ovula in quaque placenta numerosa. Capsula globosa v. aperta, cupularis, vertice dehiscens. Semina numerosa, minima; testa laxa, reticulata, ultra nucleum parvum utrinque longe producta; embryo specie homogeneus.—Herba e rhizomate (ex icone fasciculato-tuberoso) tenuis, erecta, simplex, colorata, foliis ad squamas concolores reductis. Flos unicus, terminalis.

Species 1, provinciæ Valdivianæ Chilensis incola. Specimina nostra jam deflorata fructifera, perianthio marcescente.

ORDO CLXIX. ORCHIDEÆ.

Endl. Gen. 185. Lindl. Veg. Kingd. 173; Gen. et Sp. Orch., 8vo, Londini, 1830–40. Blume, Orch. Archip. Ind. et Jap., folio, Amsterdam, 1858. Reichb. f. Xen. Orch., 4to, Leipzig, 1858–81. Pfitzer, Grundzüge einer vergleichenden Morphologie der Orchideen, 4to, 1881. Opera præterea plurima, pulchre illustrata, imprimis hortensia, cum opusculis numerosis auctorum variorum.

Flores hermaphroditi v. rarissime subpolygami, irregulares. *Perianthium* superum, e segmentis 6 petaloideis v. præsertim exterioribus herbaceis liberis v. inter se varie connatis

constans; 3 exteriora, *Sepala* dicta, æstivatione leviter imbricata v. rarius subvalvata, quorum extimum seu posticum (flore a latere aperto spectato) ad normam inferum seu a rhachi remotum, torsione tamen ovarii v. pedicelli sæpius superum liberumque; lateralia inter se æqualia, postico similia v. difformia, libera v. inter se varie connata, v. rarius omnia inter se plus minus connata. Ex interioribus 2 lateralia, *Petala* dicta (*tepala*, Reichb. f.), cum sepalo postico lateralibusque alterna inter se similia et æqualia, sepalis similia v. sæpius minora tenuiora magisque colorata, interdum tamen majora, v. rarius minuta v. omnino abortientia; tertium sepalis lateralibus alternum, *Labellum* dictum, valde polymorphum, rarissime petalis simile, ab iis sæpissime differt, tam forma exteriore, quam lobis callis lamellisve (staminum abortientium rudimentis adnatis?) quibus appendiculatum. *Stamina* ad normam rationalem 6, 2-seriata, sed abortu ad 3, 2, v. sæpissime 1 reducta; 2 lateralia exteriora cum antico interiore omnino desunt, nisi pro staminodiis haberes appendices labelli; posticum seriei exterioris sæpissime perfectum, et lateralia seriei interioris, quæ sæpissime (*Cypripedieis* exceptis) ad staminodia reducta nisi omnino abortiva, cum stylo connatum, *gynostemium* formant centrale v. sepalo postico magis approximatum, quod constat e *columna* tereti v. antice complanata sulcata 2-angulata v. 2-alata, cum *clinandrio* postico et *rostello* antico terminalibus. *Clinandrium* (*androclinium*, auct. nonnull.) interdum vix prominens, sæpe plus minus elevatum, membranaceum et cum alis columnæ continuum verisimiliter marginem liberum indicat filamentorum 3 superiorum stylo adnatorum. *Anthera* perfecta sæpius 1, postica (rarius 2 laterales), margini v. intra marginem clinandrii affixa, articulata v. adnata, erecta incumbens v. rarius prona v. reflexa, introrsum 2-locularis, loculis distinctis parallelis rarius divergentibus v. divaricatis, rima longitudinali 2-valvatim dehiscentibus v. in *Vandeis* plurimis in unum confluentibus. *Pollen* constat e granulis sæpissime per 4 compositis, nunc filis elasticis laxe connexis, nunc sæpius omnibus v. pro maxima parte in massas 2, 4, 6 v. 8 (in quoque loculo 1–4) *pollinia* dictas arcte v. laxe conferta; hæc pollinia variant solida (*cerea* dicta) pulverea, farinacea v. in granulas grossas subregulariter sectilia, globosa oblonga v. sæpe pyriformia v. apice basive in acumen breve v. caudiculam longam producta; ante dehiscentiam in quoque loculo libera v. appendice (a caudicula vera distinguenda) e pollinis parte laxiore constante connexa; per dehiscentiam et sæpe jam in alabastro pollinia plus minus visco tenui extensivo (e rostello emisso?) induuntur quo mediante rostelli dorso v. insectis aliisve corporibus fortuiter adhærent, v. (in *Vandeis*, *Ophrydeis* generibusque aliis paucis) glandulam viscosam polymorpham sæpe in stipitem (errore caudiculam dictam) productam a rostelli dorso solvendam auferunt, et *pollinarium* efficiunt liberum, facile insectis aliisve corporibus extraneis adhærens. *Ovarium* inferum, 1-loculare placentis 3 parietalibus, v. in *Cypripedieis* paucis perfecte 3-loculare placentis axilibus, interdum supra loculum in collum seu tubum vacuum ad perianthii basin clausum productum. *Stylus* columna inclusus, filamentorum tubo adnato velatus, antice tamen inter alas v. costas columnæ verisimiliter nudus, ad apicem columnæ plus minus in *rostellum* productus horizontale v. erectum, antheram a stigmate separans, et supra v. dorso sæpius viscosum v. glandulam v. stipitem viscosum pollen excipientem exserens. *Stigma* in facie columnæ inter alas v. costas sæpius paullo infra rostellum situm, rarius ad basin columnæ v. ad apicem rostelli subterminale leviterque antrorsum inclinatum, variat nunc latum profunde concavum v. crasse pulvinatum, nunc angustum transversum v. longitudinale, interdum didymum v. 2-partitum v. brachiis 2 appendiculatum. *Ovula* in placentis numerosissima, minuta. *Fructus* capsularis, rarius carnosulus subindehiscens, sæpius rimis longitudinalibus 3 v. 6 dehiscens, valvis apice basique diu v. omnino cohærentibus v. demum ab apice patentibus v. omnino solvendis. *Semina* numerosissima, minuta, testa laxa reticulata hyalina sæpe apice basique producta rarius in alam latam expansa, nucleo solido, specie homogeneo.

Herbæ perennes, nunc *terrestres* rhizomate brevi v. repente fibras sæpe carnosulas emittente et quotannis continuo, v. varie tuberifero tuberibus solis perennantibus, nunc *epiphyticæ* caudice (v. rhizomate aerio) sæpius annulato et plus minus vaginis scariosis obtecto arboribus v. saxis mediantibus radicibus adventitiis sæpe carnosulis adhærente.

Caules v. rami foliati v. florentes, v. scapi aphylli e nodis v. ex apice rhizomatis caudicis v. tuberis annotini evoluti, sæpius erecti, simplices v. rarius parce ramosi, annui v. monocarpici v. interdum gemma terminali perennantes in *Epidendreis Vandeisque* haud raro basi v. supra basin in *pseudobulbum* carnosum incrassati. Folia nunc in caule v. ramo florifero solitaria v. ad basin caulis plura conferta v. rarius per paria valde approximata specie opposita, nunc secus caulem alterna sæpius disticha, supinum sæpe v. in scapo aphyllo omnia ad vaginas reducta, v. in pseudobulbo v. ramo sterili brevi solitaria gemina v. pauca, fere semper basi vagina clausa caulem amplectentia ; lamina in vaginam petiolata v. sessilis, membranacea coriacea v. carnosa, integerrima, interdum venis majoribus valde prominentibus plicata. Flores in pedunculo simplici v. secus ramos paniculæ spicati racemosi v. solitari, singuli bractea subtensi, pedicello ebracteolato. Pedunculus communis nunc in caule foliato v. scapo vaginato terminalis, nunc in caule v. ramo distichophyllo axillaris v. lateralis specie suboppositifolius, sed verisimiliter revera ad basin vaginæ axillares infra laminam e vagina erumpens. Inflorescentia cæterum polymorpha, interdum in capitulum sessile conferta v. in paniculam amplam laxissime diffusa.

Species notæ inter 4,500 et 5,000 bene distinguendæ, editæ multo numerosiores, sed plurimæ e speciminibus imperfectis descriptæ v. pro varietatibus hortensibus v. silvestribus formis hybridis habendæ certe delendæ, silvestres per regiones temperatas calidioresque utriusque orbis latissime dispersæ, in alpibus frigidis raræ, in Arcticis Antarcticisque desunt. *Epidendreæ* et *Vandeæ* pro maxima parte inter tropicos vigent, *Ophrydeæ* pleræque regiones extratropicas tam australes quam boreales incolunt, *Neottieæ* et *Cypripedieæ* aliæ inter tropicos aliæ in regiones temperatas inveniuntur.

Generum numerosorum distributio methodica opus est difficillimum et adhuc valde imperfectum. Divisio primaria ex antheræ et pollinarii indole, a Brownio indicata, et a Lindleyo exsecuta adhuc parum mutata remanet. Si *Malaxideas* Lindleyi cum *Epidendreis* jungimus, *Arethuseas* cum *Neottieis*, et *Apostasieas* cum *Cypripedieis*, tribus adsunt quatuor characteribus definitis limitatæ et vix generibus perpaucis parvis subintermediis junctæ ; subtribus tamen interdum limitibus valde incertis circumscriptæ et genera perplurima male definita v. nimis artificialia sunt, nec facile emendantur. Characteres evidentiores e forma appendicibusque labelli et columnæ sæpe cum affinitate naturali minime conveniunt, et validiores ex anthera pollinario rostello et stigmate in speciminibus siccis male observantur. Pfitzer, organa vegetationis Orchidearum adhuc nimis neglecta diligenter scrutatus, in commentatione supra citata ordinis divisiones proposuit ad vegetationis variationes solas limitatos. Hi quidem characteres sæpe magni valoris evadunt, sed rarius ad genera v. tribus definienda sufficiunt, et systema ulterius probandum et cum Lindleyano nostroque imprimis ad florum structuram erectis sedulo comparandum. De capsula et seminum variationibus confer Beer, 'Beitr. zur Morphologie und Biologie der Orchideen,' Wien, 1863, tabb. 12.

Orchideæ hodie, ornamenti gratia copiosissime coluntur, et perplurimæ in diariis hortulanorum descriptæ delineatæque sunt. Species tamen veræ a hortulanis sæpissime cum varietatibus hortensibus v. formis hybridis confusæ, et quas in Gardener's Chronicle aliisque diariis hortulanorum descriptæ v. in operibus ad formas cultas solas illustrandas delineatæ hic sub silentio præterimus et ad Enumerationem Orchidearum cultarum rejicimus a Hemsley in Gard. Chron. 1881 inceptam et in voluminibus sequentibus hinc inde continuatum. Species etiam plures Australienses novas nuperrime descripsit Fitzgerald in eodem diario.

FORMÆ ABNORMES.

Labellum (staminodiorum rudimentis orbatum?) petalis simile constanter in *Thelymitra* (et in *Argyrorchi*?) et in formis abnormibus generum nonnullorum aliorum, e.g. *Dendrobium* (*Aclinia*), *Spathoglottis* (*Paxtonia*), *Selenipedium* (*Uropedium*), etc.

Antheræ 2 laterales perfectæ, constanter in *Cypripedieis*, rarius in formis abnormibus generum nonnullorum aliorum, e.g. in *Arundina* (*Dilochia*).

Ovarium perfecte 3-loculare in *Selenipedio*, *Apostasia*, et *Neuwiedia*.

Fructus carnosus vix v. tardius dehiscens in *Vanillearum* speciebus nonnullis.

CONSPECTUS TRIBUUM (exceptis neglectis).

Tribus I. Epidendreæ. Anthera 1, postica, opercularis, sæpius incumbens, loculis distinctis parallelis. Pollinia cerea, 1-2-seriatim parallela, in quaque serie 2 v. 4 (in quoque loculo 1–4),

libera v. visco parco v. appendicula granulosa in quoque loculo connexa, rarissime v. casu tantum rostello affixa.

Subtribus 1. Pleurothalleæ. *Caulis ebulbosus, folio unico et inflorescentia terminatus.*

Subtribus 2. Malaxeæ. *Inflorescentia terminalis. Anthera erecta v. prona sæpe persistens nec incumbens.*

Subtribus 3. Liparieæ. *Inflorescentia terminalis. Pollinia 4, rarius 8, subæqualia, conferta, sæpius libera, inappendiculata.*

Subtribus 4. Dendrobieæ. *Inflorescentia lateralis v. pseudoterminalis v. in scapo distincto aphyllo. Pollinia 4, rarius 2, 1-seriata, parallela, inappendiculata.*

Subtribus 5.Erieæ. *Inflorescentia lateralis v. pseudoterminalis v. in scapo distincto aphyllo. Pollinia 8, subæqualia, conferta, vix v. non appendiculata.*

Subtribus 6. Bletieæ. *Inflorescentia lateralis v. rarius terminalis. Pollinia 2-seriata (rarius 1-seriata), in quaque serie 4, parallela, omnia ascendentia, appendicula granulosa connexa.*

Subtribus 7. Cœlogyneæ. *Inflorescentia terminalis. Pollinia 8 v. 4, subæqualia, conferta, visco v. appendicula parca connexa.*

Subtribus 8. Stenoglosseæ. *Inflorescentia terminalis. Pollinia 4, 6, v. 8, in locellis distinctis 1–2-seriata, libera v. visco tenui connexa.*

Subtribus 9. Lælieæ. *Inflorescentia sæpissime terminalis. Pollinia 1–2-seriata, in quaque serie 4, collateralia, parallele compressa, appendicula granulosa connexa, inferiora ascendentia, superiora dum adsint descendentia.*

Tribus II. Vandeæ. Anthera 1, postica, opercularis, rostello incumbens v. applicita, loculis sub anthesi sæpissime confluentibus. Pollinia cerea, sæpissime 2 v. 4, per paria sibimet applicita anticum postico, anthera dehiscente (sæpius jam in alabastro) rostelli processu (glandulæ v. stipiti) sigillatim v. per paria affixa, quocum pollinarium liberum efficiunt.

Subtribus 1. Eulophieæ. *Folia pseudobulborum plicato-venosa. Scapi florentes aphylli v. foliati. Labellum calcaratum.*

Subtribus 2. Cymbidieæ. *Folia pseudobulborum plicato-venosa. Scapi florentes aphylli v. foliati. Labellum ecalcaratum. Columna sæpissime apoda.*

Subtribus 3. Cyrtopodieæ. *Folia pseudobulborum plicato-venosa. Scapi florentes aphylli. Columna sæpissime in pedem producta.*

Subtribus 4. Stanhopieæ. *Folia pseudobulborum plicato-venosa. Scapi florentes aphylli. Columna sæpius apoda. Labellum carnosum.*

Subtribus 5. Maxillarieæ. *Folia non plicata. Scapi florentes aphylli v. pedunculi axillares. Columna in pedem producta.*

Subtribus 6. Oncidieæ. *Folia non plicata. Scapi florentes aphylli v. pedunculi axillares. Columna apoda.*

Subtribus 7. Sarcantheæ. *Caules ebulbosi, distichophylli (rarius aphylli), radicantes. Folia non plicata. Pedunculi laterales v. axillares.*

Subtribus 8. Podochileæ. *Rostellum terminale, erectum v. antrorsum inclinatum, postice (v. supra) sæpius concavum antheram fovens. Pollinarii stipes simplex v. duplex, angustus v. apice dilatatus, ab apice rostelli pendulus.*

Tribus III. Neottieæ. Anthera 1, postica, opercularis v. erecta persistensque, loculis distinctis parallelis. Pollinia granulosa, pulverea v. sectilia. Caules ebulbosi.

Subtribus 1. Vanilleæ. *Caules elati, sæpe ramosi, erecti v. alte scandentes. Racemi v. paniculæ terminales v. simul axillares. Anthera subopercularis, rostello brevi incumbens.*

Subtribus 2. Corymbieæ. *Caules elati, interdum ramosi, foliis amplis. Racemi v. paniculæ terminales. Anthera erecta, rostello erecto parallela.*

Subtribus 3. Spirantheæ. *Caules simplices, erecti, foliis membranaceis (rarius 0), rhizomate non tuberifero. Anthera erecta v. antrorsum inclinata, rostello longiusculo parallela.*

Subtribus 4. Diurieæ. *Caules simplices, erecti, aphylli, 1-foliati v. rarius paucifoliati, rhizomate varie tuberifero. Anthera erecta v. antrorsum inclinata, rostello brevi v. rarius longiusculo.*

Subtribus 5. Arethuseæ. *Caules simplices, erecti, aphylli, 1-foliati v. rarissime paucifoliati, rhizomate sæpius varie tuberifero. Anthera opercularis, incumbens v. suberecta.*

Subtribus 6. Limodoreæ. *Caules simplices, erecti, foliati v. rarius aphylli, rhizomate non tuberifero. Anthera opercularis, incumbens v. suberecta.*

Tribus IV. Ophrydeæ. Anthera 1, postica, erecta prona v. reflexa, loculis parallelis v. divergentibus distinctis clinandrio adnatis basique sæpe in rostello continuis. Pollinia granulosa, in quoque loculo basi in caudiculam producta, caudiculis anthera dehiscente extremitate glandulæ a rostello solvendæ affixis, quacum pollinarium deciduum efficiunt.

Subtribus 1. Euophrydeæ. *Anthera erecta. Pollinarii glandulæ in saccolo a dorso rostello elevato inclusæ.*

Subtribus 2. Habenarieæ. *Anthera erecta. Pollinarii glandulæ nudæ v. rarius rostelli lobis canaliculatis v. apice inflexis semi-inclusæ.*

Subtribus 3. Diseæ. *Anthera reclinata v. in dorso columnæ reflexa, rarius suberecta. Stigma amplum, nunc pseudoterminale nunc ab anthera distans labello subadnatum.*

Subtribus 4. Corycieæ. *Sepalum posticum cum petalis sæpius latis in galeam cohærens. Labellum basi columnæ adnatum, ultra antheram varie productum v. appendiculatum.*

Tribus V. Cypripedieæ. Antheræ 2 ad latera rostelli (styli) sessiles v. stipitatæ, polline granuloso; anthera postica in antheridium polymorphum mutata, rarius perfecta v. omnino deficiens.

CONSPECTUS GENERUM.

Tribus I. Epidendreæ. Anthera unica, terminalis, postica, opercularis, supra rostellum horizontale incumbens, v. rarissime (in *Malaxcis*) prona v. a rostello aversa, post dehiscentiam sæpissime decidua; loculi 2, distincti, paralleli, interdum septis longitudinalibus 2-locellati, v. longitudinaliter transverseque in locellos 4 divisi. Pollinia cerea, nunc 2 v. 4 (in quoque loculo 1 v. 2) 1-seriata, nunc 4 v. 8 rarius 6 (in quoque loculo 2, 4 v. rarius 3) 2-seriatim superposita, in quaque serie semper æqualia et parallela, seriei superioris sæpe inferioribus minora, omnia utrinque obtusa v. superne acuminata rarius in caudiculas producta, libera v. intra loculos appendicula granulosa connexa, v. per dehiscentiam antheræ visco tenui extensivo (sæpius e rostello exsudente) juncta, post dehiscentiam rarissime v. casu tantum rostello affixa.—Herbæ pro magna parte epiphyticæ, rhizomate v. caudice cauliformi repente radicante, haud raro pseudobulbosæ, interdum vero terrestres; tubera tamen hypogea perrara.

Excepta: Pollinia stipiti e rostello oriundo affixa in *Tipularia* et *Oreorchi*.

Subtribus 1. Pleurothalleæ. *Caules tenues v. brevissimi, non pseudobulbosi, cæspitosi v. in rhizomate v. caudice cauliformi repente sparsi, folio unico sessili v. rarius petiolato nunquam vaginante terminati, infra folium vaginis 1–∞ sæpius stipati. Pedunculi 1–∞-flori, ad apicem caulis ad axillam folii solitarii v. fasciculati, interdum basi (supra folium) vagina spathacea stipati. Pollinia 2, 4 v. 8, inappendiculata, sæpius parva, subglobosa ovoidea v. pyriformia, libera v. demum apicibus visco parco tenui connexis.*

In *Masdevallia* et in paucis speciebus aliorum generum caulis infra folium brevissimus est v. vix evolutus, et pedunculus (seu scapus) et folii petiolus in rhizomate collateraliter affixi apparent, revera tamen ex eadem gemma evolvuntur, vagina communi stipati, et pedunculus ad normam terminalis est.

* *Pollinia 2 v. 4.*

1. Pleurothallis. Sepala erecta, conniventia v. subpatentia. Petala breviora v. angustiora, sæpe nana. Labellum in basi columnæ sæpius articulatum. Pollinia 2. Folium sæpius sessile. Pedunculi v. flores sæpius fasciculati.—*Amer. trop.*

2. Stelis. Sepala patentia. Petala parva, basi sæpius columnam amplectentia. Labellum cum basi columnæ continuum. Pollinia 2. Folium petiolatum. Racemi sæpius solitarii.—*Amer. trop.*

3. Physosiphon. Sepala basi in tubum connata. Petala parva. Labellum cum basi columnæ articulatum. Pollinia 2. Racemi solitarii.—*Amer. trop.*

4. Lepanthes. Sepala patentia. Petala parva, unguibus columnæ adnatis, laminis transverse oblongis. Labellum sæpe basi columnæ adnatum, lamina divaricato-2-loba. Pollinia 2. Folium sessile, vaginis infra folium plurimis minimis. Pedunculi sæpe fasciculati.—*Amer. trop.*

5. Restrepia. Sepala erecta v. patentia. Petala sæpius filiformia. Labellum in basi columnæ articulatum. Columna elongata. Pollinia 4. Pedunculi 1-flori, solitarii v. plures.—*Amer. trop.*

6. ? Brachionidium. Sepala acuminata v. caudata. Petala subsimilia, paullo minora. Pollinia . . . Folii petiolus cum pedunculo v. scapo vagina unica stipatus, caulibus vix infra vaginam evolutis secus rhizoma seu caudicem elongatum sparsis.—*Andes Amer. austr.*

7. Masdevallia. Sepala basi in tubum conniventia v. a basi patentia, apicibus acuminatis v. caudatis patentibus. Petala sæpius parva. Pollinia 2, sæpe 2-partibilia. Folii petiolus cum scapo vagina unica stipatus, caulibus vix infra vaginam evolutis, confertis.—*Amer. austr. et centr.*

** *Pollinia 8.*

8. Arpophyllum. Caulis longiusculus, vaginis amplis. Spica longa cylindracea, dense floribunda. Clinandrium latum, rostello lato brevius.—*Mexico, Amer. centr., Jamaica.*

9. Octomeria. Caulis evolutus. Folium oblongum v. lineare. Flores dense fasciculati v. capitati, fasciculo v. capitulo sessili. Clinandrium rotundatum, rostello brevi.—*Amer. trop. or., Ind. occid.*

10. ? Meiracyllium. Caules in rhizomate repente brevissimi v. vix evoluti. Folium sessile, latum, cordatum. Flores pauci, breviter pedicellati. Clinandrium sub rostello reclinato suboccultum.—*Mexico, Amer. centr.*

Subtribus 2. Malaxeæ. *Caules basi sæpe pseudobulbosi, foliis 1–3 in vaginam clausam angustatis. Flores parvi sæpe minimi, in racemo simplici terminali. Anthera erecta v. a rostello aversa v. prona, post pollinia delapsa sæpe persistens, loculis sursum dehiscentibus. Pollinia 4, inappendiculata, libera v. apicibus visco parco per paria connexis.*

11. Malaxis. Caules 1–2-foliati, racemo terminali. Innovationes ab apice pseudobulbi annotini oriundæ. Petala parva, latiuscula. Labellum basi cordatum, columnam amplectens. —*Europa.*

12. Microstylis. Caules 1–3-foliati, racemo terminali. Innovationes a basi pseudobulbi annotini oriundæ. Petala angusta, sepalis subæquilonga. Labellum basi cordatum v. auriculatum, columnam amplectens.—*Europa, Asia, ins. Pacific. Amer. bor. et austr.*

(Confer etiam 25, Sunipiam, anthera *Malaxearum*, habitu *Bulbophylli.*)

Subtribus 3. Liparieæ. *Caulis sæpe pseudobulbosus, 1–∞-foliatus v. aphyllus, racemo terminali. Columna in generibus normalibus apoda. Pollinia (excepto Hexalectri) 4, 2-seriata, inappendiculata, apicibus haud raro acuminatis v. etiam breviter caudiculatis, post dehiscentiam libera v. subfasciculata, visco perparco tenui juncta.*

Subtribus ab *Ericis* differt imprimis inflorescentia terminali, a *Cœlogyneis*, polliniis sæpissime liberis inappendiculatis et sæpius habitu tenuiore v. humili, caule sæpius 1-foliato v. aphyllo.

* *Genera normalia, polliniis 4 liberis v. visco perparco demum fasciculatis.*

13. Oberonia. Caulis non pseudobulbosus. Folia plura, disticha, vaginis compressis equitantia. Flores minimi, dense cylindraceo-spicati. Columna brevissima.—*Asia trop., ins. Mascar. et maris Pacif., Australia.*

14. Liparis. Caulis interdum pseudobulbosus, 1-foliatus v. folia pauca in petiolum vaginantem contracta. Flores parvi, racemosi. Columna longiuscula, semiteres v. superne 2-alata, non brachiata.—*Utriusque orbis reg. temp. et calid.*

15. Platyclinis. Caulis vix v. anguste pseudobulbosus, 1-foliatus. Flores parvi, racemosi. Columna brevis, brachiis 2 longiusculis instructa.—*Ind. or., Archip. Malay.*

16. Calypso. Caulis sæpius pseudobulbosus, 1-foliatus, 1-florus. Labellum sepalis longius, lobis lateralibus superne supra lobum medium saccatum connatis. Columna brevis, late alata. —*Europæ, Asiæ et Americæ reg. boreales.*

17. Aplectrum. Caulis pseudobulbosus, 1-foliatus; post folium emarcidum scapifer, floribus racemosis. Labellum sepalis æquilongum. Columna longiuscula, exalata, apoda.—*Amer. bor.*

18. Corallorhiza. Caulis e rhizomate ramoso coralliformi aphyllus, floribus racemosis. Columna in pedem producta, basi et apice anguste 2-alata.—*Europa, Asia temp., Amer. bor., Mexico.*

** *Genera habitu Corallorhizæ, pollinario anomalo.*

19. Tipularia. Caulis pseudobulbosus, 1-foliatus, floribus racemosis. Labellum longe calcaratum. Columna anguste 2-alata. Pollinia 4, demum stipiti filiformi affixa.—*Amer. bor., Himalaya.*

20. OREORCHIS. Caulis pseudobulbosus, foliis 1–2 angustis. Flores racemosi. Labellum ecalcaratum. Columna elongata, exalata, apoda. Pollinia 4, demum stipiti filiformi affixa.—*Asia montana et or.*

21. HEXALECTRIS. Caulis e rhizomate ramoso aphyllus, floribus racemosis. Columna anguste 2-alata, apoda. Pollinia 8, visco granuloso in fasciculum connexa.—*Amer. bor., Mexico.*

Subtribus 4. Dendrobieæ. *Caulis sæpius pseudobulbosus v. carnosus. Pedunculi laterales v. (ex axilla summa oriundi) pseudoterminales, v. scapi aphylli a caule v. pseudobulbo foliato distincti. Columna basi in pedem plus minus producta. Pollinia 2 v. 4 1-seriata, æqualia, parallela, utrinque obtusa inappendiculata, in quoque loculo nunc solitaria ovoidea v. globosa longitudinaliter sulcata, nunc gemina parallele compressiuscula.*

Excepta: Anthera in *Sunipia* prona a rostello aversa.

* *Pedunculi (racemiferi v. 1-flori) in caule foliato v. sub anthesi defoliato laterales v. pseudoterminales, v. in caule abbreviato v. pseudobulbo 1–2-foliato specie (nec vere?) terminales.*

22. DENDROBIUM. Labellum basi in unguem pedi columnæ incumbentem v. adnatum brevissime v. longiuscule contractum.—*Asia calid., Japonia, ins. maris Pacifici, Australia.*

23. LATOUREA. Labellum basi horizontaliter dilatatum in auriculas columnam amplectentes et pone columnam connatas.—*Nov. Guinea.*

** *Scapi aphylli et pseudobulbi 1–2-foliati in rhizomate distincti, contigui v. dissiti.*

24. BULBOPHYLLUM. Racemi longi v. spiciformes, rarissime 1-flori v. subumbelliformes. Sepala sæpissime subæqualia, libera. Labellum cum pede columnæ articulatum.—*Asia et Africa trop., Australia, Nov. Zel., Amer. austr.*

25. SUNIPIA. Anthera a rostello aversa, loculis sursum dehiscentibus. Cætera *Bulbophylli* specierum racemosarum.—*Himalaya, Burma.*

26. CIRRHOPETALUM. Racemus in umbellam contractus. Sepala lateralia postico longiora, sub labia parallele patentia v. alte connata.—*Ind. or., China, Archip. Malay., Australia, ins. Mascar.*

27. MEGACLINIUM. Racemi rhachis dilatata, plana, bracteis floribusque in utraque facie secus costam centralem 1-seriatis. Cætera *Bulbophylli* specierum racemosarum.—*Africa trop.*

28. TRIAS. Sepala æqualiter patentia. Anthera in appendiculam loculis 2–3-plo longiorem producta. Herbæ humiles, pseudobulbis 1-foliatis, scapis tenuibus 1-floris.—*Ind. or.*

29. OSYRICERA. Sepala subæquilonga, lateralia alte connata. Labellum juxta basin ventricosum. Anthera antice lamina suborbiculari glandulosa instructa. Pseudobulbi 1-foliati. Flores in scapo spicati.—*Java.*

30. DRYMODA. Sepala lateralia a postico intervallo longo separata. Pollinia in massam globosam subcohærentia. Pseudobulbi minimi folio caducissimo. Scapus filiformis, 1-florus.—*Malacca.*

31. MONOMERIA. Sepala lateralia lata, a postico intervallo longo separata. Pollinia in massam globosam subcohærentia. Pseudobulbi 1-foliati. Scapus elatus, racemo laxo.—*Ind. or.*

32. DENDROCHILUM. Sepala æqualia, patentia. Pollinia 4, ovoidea, distincta. Pseudobulbi secus caudicem cauliformem angusti, 1-foliati. Scapi tenues, floribus parvis racemosis Liparioideis.—*Malacca, Archip. Malay.*

33. PANISEA. Sepala subæqualia, subpatentia. Labellum basi in unguem longum sigmoideo-inflexum contractum. Pollinia 4, ovoidea, distincta. Pseudobulbi angusti, conferti, 1–2-foliati. Scapi tenues, pauciflori.—*Himalaya.*

(Confer etiam 73, ALAMANIAM.)

*** *Pseudobulbi 1-foliati. Scapi elati, laxe pluriflori. Pollinia 2, globosa, sulcata v. integra.*

(Genera *Dendrobieas Epidendrearum* cum *Cyrtopodieis Vandearum* arcte connectentia.)

34. ACROCHÆNE. Sepalorum mentum breve v. saccatum. Labellum cum pede columnæ articulatum. Anthera sub-1-locularis; pollinia appendicula granulosa connexa. Folium coriaceum.—*Himalaya.*

35. Chrysoglossum. Sepalorum mentum breve v. saccatum. Labellum basi cum pede columnæ continuum. Anthera discrete 2-locularis; pollinia inappendiculata. Pseudobulbus sæpe tenuis. Folium plicato-venosum.—*Archip. Malay.*, *ins. maris Pacifici.*

36. Collabium. Sepalorum mentum longum, calcariforme. Cætera fere *Chrysoglossi.*—*Java.*

Subtribus 5. Erieæ. *Caulis foliatus, pseudobulbosus, v. rarius humilis distichophyllus. Pedunculi v. scapi laterales v. e rhizomate a pseudobulbo foliato distincti, rarius pseudoterminales. Columna basi in pedem producta v. rarissime apoda. Pollinia* 8, *in quoque loculo* 4, *fasciculata, sæpe compressiuscula, apicibus acutis acuminatis v. in caudiculas breves productis, visco parco rarius granuloso plus minus connexa.*

37. Cœlia. Folia longa, angusta, subplicato-venosa. Scapus dense racemifer, rarius 2–3 florus, e rhizomate a pseudobulbo foliato distinctus. Columna brevis, in pedem producta. Capsula 3-alata.—*Ind. occid.*, *Amer. centr.*, *Mexico.*

38. Eria. Folia varia. Pedunculi 1-flori v. racemiferi, in pseudobulbo v. caule foliato laterales v. pseudoterminales. Columna brevis, in pedem producta.—*Ind. or.*, *China austr.*, *Archip. Malay.*

39. Phreatia. Caulis humilis, ebulbosus, distichophyllus. Pedunculi laterales v. scapi e rhizomate aphylli racemiferi, floribus minimis. Columna brevissima, in pedem producta.—*Ind. or.*, *Archip. Malay.*, *ins. maris Pacifici*, *Australia.*

40. Pachystoma. Scapi sub anthesi aphylli, pseudobulbum 1-foliatum interdum tardius evolvitur. Sepala conniventia. Columna elongata, basi in pedem producta. Capsula arcte reflexa.—*Ind. or.*, *Archip. Malay.*, *Afr. trop.*

41. Spathoglottis. Scapus laxe racemifer e rhizomate a pseudobulbo 1–2-foliato distinctus. Folia elongata, elevato-venosa v. subplicata. Sepala patentia. Columna elongata, apoda. Capsula erecta v. nutans.—*Ind. or.*, *China austr.*, *Archip. Malay.*, *ins. maris Pacif.*, *Australia.*

Subtribus 6. Bleticeæ. *Caules* 1–∞-*foliati, basi sæpius pseudobulbosi, pseudobulbis nunc depressis tuberiformibus nunc elongatis tenuibus. Folia sæpius ampla, plicato-venosa. Racemi nunc caules foliatos nunc sæpius scapos aphyllos terminantes. Columna in pedem producta v. apoda. Pollinia* (*excepto Anthogonio*) 8, *a latere compressa,* 2-*seriata, appendicula granulosa copiosa connexa, serici superioris sæpius minora sed omnia sursum appendiculæ adnata.*

42. Acanthephippium. Sepala in urceolum latum obliquum carnosum coalita. Petala inclusa, basi columnæ adnata. Columna brevis, in pedem longum producta. Flores majusculi, in racemo pauci.—*Ind. or.*, *Archip. Malay.*

43. Phaius. Sepala libera. Labelli basi gibbosi v. calcarati lobi laterales lati, circa columnam involuti. Columna longiuscula, apoda. Flores speciosi, racemosi.—*Asia trop.*, *Japonia*, *Archip. Malay.*, *ins. maris Pacifici*, *Australia*, *ins. Mascar.*, *Africa trop.*

44. Bletia. Sepala libera. Labelli ecalcarati lobi laterales erecti, paralleli v. apice patentes. Columna longiuscula, apoda. Racemus longe pedunculatus, laxus, simplex v. ramosus.—*Amer. trop.*, *Japonia*, *China.*

45. Chysis. Sepala lateralia pedi columnæ adnata. Labelli lobi laterales erecti. Columna crassa, 2-alata, basi in pedem producta. Flores speciosi in racemo plures.—*Mexico*, *Columbia.*

46. Nephelaphyllum. Sepala libera. Labellum calcaratum. Columna longiuscula, 2 alata, apoda. Pseudobulbi foliati angustissimi, cum petiolo articulati petiolum medio articulatum simulant. Flores mediocres, in scapo aphyllo laxe v. dense racemosi.—*Ind. or.*, *China austr.*, *Archip. Malay.*

47. Tainia. Sepala lateralia pedi columnæ affixa. Labellum basi gibbum v. calcaratum. Columna longiuscula, pede brevi. Pseudobulbi crassi, 1-foliati. Flores in scapo aphyllo laxe racemosi, sepalis petalisque acutis v. longe caudatis.—*Ind. or.*, *China austr.*, *Archip. Malay.*

48. Anthogonium. Sepala in tubum tenuem coalita. Petala linearia, unguibus intra calycem liberis. Columna elongata, apoda. Pollinia 4 (seriei superioris omnino deficientia). Folia in pseudobulbo pauca, graminea. Flores in scapo aphyllo tenuiter racemosi.—*Himalaya*, *Burma.*

Subtribus 7. Cœlogyneæ. *Caulis nunc pseudobulbosus 2-foliatus, nunc plurifoliatus sæpiusque ebulbosus, pedunculo 1-floro v. racemifero inter folia terminali (sub anthesi interdum aphyllus apparet foliis tardius evolutis). Columna in pedem producta v. apoda. Pollinia 4 v. 8, fasciculata, sæpius compressiuscula, apicibus acutiusculis acuminatis v. in caudiculas productis, appendicula granulosa v. visco tenui plus minus connexa, et interdum post dehiscentiam rostello v. glandulæ (a rostello solutæ?) affixa.*

In *Calanthe* affinibusque polliniorum appendiculæ v. caudiculæ interdum stipites *Vandearum* simulant, sed evidenter e polline ipso nec e rostello oriundæ.

* *Pedunculus elongatus, ramosus v. plurispicatus, caule non pseudobulboso. Flores parvi.*

49. Josepha. Sepala lateralia vix mentum formantia. Columna apoda, longiuscula, anguste 2-alata. Pollinia 4. Paniculæ rami racemiformes.—*Ind. or. penins. et Zeylan.*

50. Earina. Sepala lateralia vix mentum formantia. Columna interdum in pedem brevem producta, brevis, exalata. Pollinia 4. Paniculæ rami sessiles, spiciformes v. fasciculiformes. —*Nov. Zel., ins. maris Pacifici.*

** *Flores parvi, in capitulum sessile conferti. Sepala lateralia cum pede columnæ mentum formantia.*

51. Glomera. Caules foliati, capitulo terminali laxo. Pollinia 4.—*Archip. Malay., ins. maris Pacifici.*

52. Agrostophyllum. Caules foliati, capitulo terminali denso. Pollinia 8.—*Ind. or., Archip. Malay.*

53. Ceratostylis. Capitula pauciflora, ∞-bracteata, ob folium caulem continuans specie lateralia. Columna longe 2-brachiata. Pollinia 8.—*Ind. or., Archip. Malay., ins. maris Pacifici.*

*** *Flores spicati v. racemosi. Sepala lateralia basi in gibbum v. mentum connata.*

54. Callostylis. Caulis pseudobulbosus, foliis alternis. Sepala erecto-patentia. Clinandrium amplissimum. Pollinia 8.—*Java.*

55. Cryptochilus. Pseudobulbi 1–2-foliati. Sepala in tubum apice breviter 3-lobum coalita. Clinandrium breve. Pollinia 8.—*Himalaya.*

56. Trichosma. Caulis non incrassatus, 2-foliatus. Sepala patentia. Clinandrium elevatum, dentatum. Pollinia 8. Flores majusculi, racemosi.—*Khasya.*

**** *Flores spicati racemosi v. solitarii. Sepala libera. Columna apoda.*

† *Pollinia 4. Herbæ epiphyticæ, pseudobulbosæ.*

57. Cœlogyne. Pseudobulbi 2-phylli, secus rhizoma distincti. Labellum sessile, basi concavum, columnam elongatam amplectens v. involvens. Pollinia 4. Flores majusculi, in caule foliato laxe racemosi, v. in scapo solitarii, foliis tardius evolutis.—*Ind. or., Archip. Malay., China austr.*

58. Otochilus. Pseudobulbi 2-phylli, innovationibus subterminalibus seriem continuam formantes. Labellum sessile, basi saccatum, lobis lateralibus auriculiformibus. Columna elongata. Pollinia 4. Flores quam in *Cœlogyne* minores, racemosi, pedunculo sub anthesi terminali plurivaginato aphyllo, foliis tardius evolutis.—*Himalaya, Burma.*

59. Pholidota. Pseudobulbi 2-phylli, nunc ut in *Cœlogyne* distincti, nunc ut in *Otochilo* continui. Labellum basi saccatum. Columna brevis, late 2-alata. Pollinia 4. Flores parvi, racemosi. Bracteæ nunc ovatæ distichæ, nunc angustæ deciduæ.—*Ind. or., Archip. Malay., China austr.*

†† *Pollinia 8. Herbæ sæpius terrestres elatæ.*

60. Calanthe. Labellum sæpissime calcaratum, ungue cum columna in tubum connato. Columna rarius ultra tubum producta. Caules sub anthesi sæpe aphylli, demum sæpius pseudobulbosi, foliis 2 v. paucis amplis, plicato-venosis tardius evolutis, floribus racemosis.—*Utriusque orbis reg. trop. usque ad Japoniam, in America rar.*

61. Arundina. Sepala patentia. Labellum sessile, ecalcaratum, basi concavum, columnam

longiusculam amplectens. Caulis ebulbosus, foliosus. Flores majusculi, in racemo terminali laxo.—*Ind. or., Archip. Malay., China austr.*

62. Elleanthus. Sepala erecta, rigidula. Labellum sessile, ecalcaratum, basi columnam longiusculam involvens. Caulis ebulbosus foliosus. Flores mediocres v. parvuli, in spica nunc densa capituliformi nunc rarius longiore tenui.—*Amer. trop.*

Subtribus 8. Stenoglosseæ. *Inflorescentia terminalis Euepidendri. Pollinia 4, 6, v. 8, 1–2-seriata, in quaque serie parallela ovoidea non v. vix compressa; libera v. visco tenui interdum longe extensivo connexa, appendicula nulla v. perparca.*

Genera pleraque *Epidendro* valde affinia at pollinario diversa, omnia Americana.

* *Labellum basi cum columna in tubum brevem v. cyathum connatum.*

63. Lanium. Pollinia 4, in quoque loculo 2, superposita, septo spurio transverso v. obliquo separata. Herbæ humiles, floribus parvulis in racemo simplici v. rarius 0.—*Brasilia, Guiana.*

64. Amblostoma. Anthera subreniformis; pollinia 4, 1-seriata, parallela, in locellis totidem æqualibus distincta. Caulis foliatus. Flores parvi, paniculati. Labelli lamina 3-partita.—*Brasilia, Peruvia.*

65. Seraphyta. Anthera subglobosa. Labelli lamina indivisa. Cætera *Amblostomatis.*—*Ind. occid.*

66. Diothonea. Anthera subreniformis, discrete 2-locularis; pollinia 4, 1-seriata, in locellis totidem distincta. Caulis foliatus. Racemus simplex, sæpius recurvus. Labelli lamina lata, sepalis longior.—*Columbia, Peruvia.*

67. Stenoglossum. Omnia *Diothoneæ*, nisi flores minores, et labelli lamina linearis.—*Andes Amer. trop.*

68. Hormidium. Anthera subreniformis; pollinia 4, 1-seriata, in locellis totidem æqualibus distincta. Herbæ nanæ, pseudobulbis 1–2-foliatis. Flores fasciculati v. solitarii.—*Amer. trop.*

69. Hexisia. Anthera semiglobosa; pollinia 4, 1-seriata, in locellis totidem distincta. Pseudobulbi 1–2-foliati, innovationibus subterminalibus internodia carnosa caulis formantibus. Racemi pauciflori, pedunculo brevi squamis imbricatis paleaceis obtecto.—*Amer. trop.*

** *Labellum a columna longiuscula liberum.*

70. Scaphyglottis. Pollinia 4, 1-seriata. Caules innovationibus subterminalibus in internodia carnosula apice 2-foliata divisi. Flores inter folia linearia ad basin innovationum fasciculati, pauci, parvi, bracteati.—*Amer. trop.*

71. Hexadesmia. Pollinia 6, 2-seriata, inferiora 4, superiora 2, in locellis distinctis separata. Caulis internodia carnosa et inflorescentia *Scaphyglottidis.*—*Amer. trop.*

72. Octadesmia. Pollinia 8, 2-seriata, in quaque serie 4. Caulis ebulbosus, foliis angustis distichis v. solitariis. Racemus simplex v. ramosus.—*Ind. occid.*

Subtribus 9. Lælieæ. *Inflorescentia sæpissime terminalis. Pollinia 1–2-seriata, in quaque serie 4, ovata, collateralia, parallele compressa, inferiora ascendentia, appendicula in quoque loculo granulosa lineari a basi adscendente margini polliniorum applicita, superiora dum adsint ab apice appendiculæ descendentia sæpe inferioribus minora. Genera omnia Americana.*

* *Genera abnormia, inflorescentia laterali.*

73. ? Alamania. Caules nani, 2-foliati. Scapi floridi laterales, aphylli, vaginis scariosis obtecti, racemo brevi denso. Columna ad medium cum labello connata. Pollinia 4.—*Mexico.*

74. Pleuranthium. Caules distichophylli. Racemi axillares, fasciculiformes. Columna alta cum labello connata. Pollinia 8.—*Amer. trop.*

** *Genera normalia, inflorescentia (una specie excepta) terminali.*

† *Pollinia 4, 1-seriata.*

75. Diacrium. Labellum a basi columnæ patens, inter lobos laterales supra 2-cornutum, cornubus subtus excavatis. Pseudobulbi elongati, apice paucifoliati.—*Guiana, Amer. centr., Mexico.*

76. Isochilus. Labellum a columna liberum, basi contractum, leviter sigmoideo-flexuosum. Caulis distichophyllus, racemo spiciformi secundo.—*Amer. trop.*

77. Ponera. Labellum in pede columnæ basi incumbens. Racemus in ramo distichophyllo terminalis, brevis, subsessilis, additis demum pluribus in ramo annotino lateralibus.—*Mexico, Amer. centr.*

78. Pinelia. Labellum basi columnæ nanæ adnatum. Herba minima, pseudobulbis apice 1-foliatis, pedunculo filiformi 1-floro.—*Brasilia.*

79. Hartwegia. Labellum basi saccatum, columnæ pedi adnatum; unguis concavus, cum columna connatus; lamina abrupte deflexa, dein patens, adscendens. Habitus *Epidendri* sect. *Amphiglottidis.*—*Amer. austr., Mexico.*

80. Epidendrum. Labelli unguis plus minus cum columna apoda connatus, lamina patens. Caulis distichophyllus v. pseudobulbosus, racemo simplici v. paniculato rarissime ad florem unicum magnum reducto.—*Amer. trop., Amer. bor. civit. austral.*

81. Broughtonia. Labellum basi columnam apodam amplectens nec adnatum. Ovarium in collum longum tenuem cavum productum. Pseudobulbi apice 1–2-foliati, racemo simplici v. parce ramoso.—*Ind. occid.*

82. Cattleya. Labellum basi columnam apodam amplectens v. involvens nec adnatum. Pseudobulbi apice 1–2-foliati, floribus speciosis in racemo laxo paucis.—*Amer. trop.*

†† *Pollinia* 8, *2-seriata, seriei superioris inferioribus sæpius multò minora.*

83. Læliopsis. Sepala subereeta. Petala ampliora. Labellum basi columnæ breviter adnatum, lobis lateralibus columnam amplectentibus. Ovarium in collum productum. Pseudobulbi 1-foliati.—*Ind. occid.*

84. Tetramicra. Sepala et petala consimilia, patentia. Labellum a basi patens. Caules non pseudobulbosi, foliis ad basin scapi v. pedunculi longi 1–3, racemo simplici.—*Amer. trop.*

85. Brassavola. Sepala et petala longa angusta patentia. Labelli unguis angustus, columnam amplectens v. involvens, lamina abrupte dilatata, patens. Caules vix incrassati, 1–2-foliati. Flores pauci, majusculi.—*Amer. trop.*

††† *Pollinia* 8, *2-seriata, seriebus parum inæqualibus.*

86. Lælia. Sepala et petala plana. Labelli lobi laterales lati, columnam laxe involventes. Pseudobulbi 1–2-foliati. Flores speciosi nunc maximi.—*Amer. trop.*

87. Schomburgkia. Sepala et petala plus minus undulata. Labelli lobi laterales demum explanati. Pseudobulbi 1–3-foliati. Flores laxe racemosi.—*Amer. trop.*

88. Sophronitis. Sepala et petala plana. Labelli lobi laterales conniventes, columnam occultantes, lamina linguiformis. Herbæ humiles, pseudobulbis confertis 1–2-foliatis 1-floris v. breviter 2–3-floris.—*Brasilia.*

Tribus II. Vandeæ. Anthera unica, terminalis, postica, opercularis, supra rostellum horizontale arcte incumbens, v. (in *Podochileis*) rostello erecto applicita, post dehiscentiam decidua, junior 2-locularis, loculis tamen sub anthesi sæpissime in unum confluentibus (loculis divaricatis apice confluentibus v. interdum parallelis valva interiore mox deliquescente?). Pollinia cerea, 2, globosa v. oblongo-teretia, obtusa, indivisa v. sulco laterali 2-fida, v. singula transversim in 2 (posticum et anticum) sibimet arcte applicita divisa, per dehiscentiam sigillatim v. si 4 per paria glandulæ rostelli v. stipiti affixa; glandula nunc parva crassa v. squamiformis viscidulaque, nunc in stipitem producta, mox a rostello soluta cum polliniis affixis *pollinarium* format, ab insectis v. corpore alieno facillime ablatum.—Herbæ epiphyticæ v. rarius terrestres, erectæ v. caudice cauliformi repente radicante arboribus v. saxis affixa, haud raro pseudobulbosæ, nec tubera hypogæa formantes. Inflorescentia sæpius lateralis, rarius caules foliatos terminans.

Excepta: Pollinia 4, distincta, leviter tantum per paria glandulæ rostelli affixa et forte interdum sigillatim decidua in *Ornithidio* et *Lockhartia*, 8 v. casu 6 in *Appendicula* et *Thelasi*.

(In generibus nonnullis *Epidendrearum*, e.g. *Tipularia, Oreorchi, Amblostomate, Seraphyto*, aliisque, polliniorum appendicula seu viscum in filum extensivum anthera dehiscente rostello adhæret, et stipitem pollinarii *Vandearum* simulat, sed revera est pollinis pars nec a rostello oriunda).

Subtribus 1. Eulophieæ. *Herbæ terrestres v. rarius epiphyticæ, caulibus foliatis sæpius in pseudobulbos incrassatis. Folia plicato-venosa, sæpius angusta. Racemi simplices v. rarius ramosi, scapos aphyllos ∞-vaginatos v. rarius caules foliatos terminantes. Labellum basi gibbum saccatum v. calcaratum. Columna apoda.*

89. Eulophia. Petala sepalo postico similia v. vix latiora. Labellum basi gibbosum saccatum

v. varie calcaratum. Scapi floridi aphylli v. rarius foliati. Glandula rostelli sæpius in stipitem producta.—*Africa trop. et austr., Asia trop., Australia, (Brasilia?).*

90. Lissochilus. Petala sepalis latiora v. majora magisque colorata. Labellum basi saccatum v. in calcar conicum productum. Scapi floridi aphylli.—*Africa trop. et austr.*

91. Galeandra. Petala *Eulophiæ*. Labelli calcar late infundibuliforme. Caules floridi foliati. Glandula rostelli non v. vix in stipitem producta.—*Amer. trop.*

Subtribus 2. Cymbidieæ. *Herbæ epiphyticæ v. terrestres, caulibus foliatis sæpe in pseudobulbos incrassatis. Folia plicato-venosa, ampla v. angusta, v. rarius in caule plurifoliato tenuiter multivenia. Racemi simplices v. rarius ramosi, in scapo aphyllo v. pedunculo laterali v. in caule foliato terminales. Columna apoda, v. rarius brevissime lateque producta. Labellum ecalcaratum. Genera omnia gerontogea, speciebus perpaucis Polystachyæ exceptis.*

Post antheræ dehiscentiam pollinia sæpissimo in glandula squamiformi rostellæ sessilia v. stipiti brevissimi tantum simplici v. duplici imposita, in generibus prioribus sæpissime appendicula granulosa transversa (divaricato-biloba) interposita, hæc vero difficillime nisi in specimine recente observatur et rarissime in iconibus delineatur. In *Cymbidio giganteo* aliisque appendicula distinctissima est, etiam in *Ansellia* et *Grammangi* observavimus parvam.

92. Cymbidium. Sepala et petala parum inæqualia, patentia. Labelli lobi laterales columnam non v. vix alatam laxe amplectentes. Pollinia appendicula transversa granulosa instructa. Caules foliati abbreviati, pseudobulbosi, scapo florente inter folia v. ad basin aphyllo. —*Africa, Asia, Australia.*

93. Ansellia. Sepala et petala subæqualia, patentia. Columna basi in pedem brevem latum 2-lobum producta, exalata. Pollinia appendicula parva instructa. Caules distichophylli, pedunculo terminali ramoso.—*Africa.*

94. Grammangis. Sepalum posticum fornicatum, lateralia patentia. Petala multo minora. Labellum sepalis multo brevius. Columna 2-alata. Caules breves, pseudobulbosi, paucifoliati, scapo florente simplici aphyllo.—*Madagasc., (Java?).*

95. Cremastra. Sepala petala labellumque conniventia, basi longe angusta. Folia in rhizomate tuberoso solitaria. Scapi florentes aphylli, plurivaginati. Racemus secundus, nutans.—*Japonia.*

96. Cyperorchis. Sepala petalaque conniventia v. subpatentia. Labellum a basi erectum, angustum, lobis lateralibus columnam amplectentibus. Caules breves, plurifoliati, vix pseudobulbosi. Scapi florentes aphylli, plurivaginati. Racemus sæpe nutans.—*Ind. or., Archip. Malay.*

97. Geodorum. Sepala et petala erecto-patentia, subæqualia. Labellum sessile, a basi latum, ventricoso-concavum, erectum, fere complicatum. Caules breves foliati et scapi florentes aphylli e rhizomate crasso subtuberoso. Racemus densus, nutans.—*Ind. or., Archip. Malay., Australia.*

98. Grammatophyllum. Sepala petalaque patentia. Pollinia post dehiscentiam lobis v. cornubus glandulæ v. stipitis lunati v. hippocrepidiformis affixa. Caules foliati. Scapi florentes longi, aphylli, Flores speciosi, laxe racemosi.—*Malacca, Archip. Malay.*

99. Dipodium. Sepala petalaque patentia. Pollinia post dehiscentiam stipitibus 2 distinctis affixa. Caules basi foliati v. aphylli, non pseudobulbosi. Scapi florentes aphylli v. pedunculi laterales. Racemi sæpius floribundi.—*Malacca, Archip. Malay., ins. maris Pacif., Australia.*

100. Thecostele. Sepala petalaque patentia. Labellum basi columnæ adnatum, dein patens. Columna ima basi cum labello in tubum brevem connata, dein abrupte deflexa citoque incurvo-ascendens. Pseudobulbi 1-foliati. Scapi florentes aphylli, laterales, recurvi, racemo simplici. —*Malacca, Archip. Malay.*

101. Bromheadia. Sepala petalaque patentia. Labellum erectum, lobis lateralibus columnam amplectentibus. Columna late 2-alata. Caulis florens distichophyllus, non pseudobulbosus, pedunculo terminali interdum ramoso; racemi rhachis sæpe incrassata, bracteis distichis serrata.—*Malacca, Archip. Malay.*

102. Polystachya. Sepala conniventia v. subpatentia, lateralia cum pede brevi columnæ in mentum connata. Columna brevis. Caules florentes breves, paucifoliati, demum pseudobulbosi, pedunculo terminali simplici v. ramoso, floribus parvis.—*Asia et Afr. trop. cum sp. paucis Americanis.*

(Confer etiam, 103, *Plocoglottidem*.)

Subtribus 3. Cyrtopodieæ. *Herbæ terrestres, elatæ v. sæpius epiphyticæ, caulibus foliatis sæpius in pseudobulbum v. basi in tuber incrassatis. Folia plicato-venosa v. venis paucis elevatis percursa. Scapi florentes a basi caulis v. e rhizomate aphylli. Columna (excepta Aganisia) plus minus in pedem producta.*

Genera pro maxima parte Americana, a *Maxillarieis* differunt imprimis habitu, ultima tamen *Stanhopieis* accedunt, priora gerontogea v. amphigea a *Cymbidieis* columnæ pede distinguenda.

* *Terrestres, pseudobulbis tuberiformibus vel caule vix incrassato indistinctis.*

103. ? Plocoglottis. Sepala lateralia v. omnia patentia. Labellum basi breviter saccatum, cum columna plicis membranaceis connexum. Columnæ pes brevissimus. Pollinia stipitibus distinctis filiformibus affixa. Scapi erecti, racemo simplici.—*Archip. Malay.*

104. Cyrtopodium. Sepala patentia. Labellum pedi columnæ breviter adnatum. Pollinia glandulæ v. stipiti brevi lato affixa. Scapi erecti, racemo simplici v. ramoso.—*Asia, Afr. et Amer. trop.*

105. Govenia. Sepala conniventia. Labellum cum pede columnæ articulatum. Columna alata. Pollinia stipiti oblongo v. lato affixa. Racemus in caule paucifoliato terminalis, simplex.—*Amer. trop.*

(Confer etiam 102, Polystachyum.)

** *Epiphyticæ, caulibus foliatis brevibus pseudobulbosis.*

† *Pollinarii stipes v. glandula brevis, lata. Sepalum posticum liberum.*

106. Pteroglossaspis. Sepala patentia mento vix prominente. Columna brevissima, 2-callosa. Scapus simplex, elatus, racemo brevi denso.—*Abyssinia.*

107. Zygopetalum. Sepala patentia. Labellum explanatum, facie basi crista transversa instructa. Columna incurva. Scapi 1-flori v. laxe racemiferi, floribus speciosis.—*Amer. trop.*

108. Grobya. Sepalum posticum erectum, lateralia patentissima. Petala multo latiora. Columna erecta, apice 2-loba v. 2-dentata. Scapi recurvi v. deflexi, racemo simplici denso.—*Brasilia.*

109. Cheiradenia. Herba parvula, folio membranaceo-coriaceo nervoso vix plicato. Flores parvi, in racemo pauci, cæterum fere *Zygopetali.*—*Guiana.*

110. Aganisia. Columna apoda. Flores cæterum *Zygopetali* nisi sæpius minores. Scapi simplices, racemiferi.—*Amer. trop.*

111. Acacallis. Columna ad latera stigmatis utrinque late alata. Labelli unguis longus, apice sacco reverso v. cucullo lato appendiculatus. Cætera *Zygopetali.* Scapus simpliciter racemosus.—*Brasilia bor.*

112. Eriopsis. Sepala patentia. Labelli lobi laterales erecti, columnam laxe amplectentes; medius parvus, patens. Columna longiuscula, exalata. Scapus simplex, racemo longo floribundo.—*Amer. austr. trop.*

113. Warrea. Sepala concava, subpatentia. Labelli lobi laterales parvi, medius expansus, facie lineis elevatis instructus. Scapus simplex, floribus speciosis laxe racemosis.—*Peruvia, Columbia.*

114. Lycomormium. Sepala lateralia latissima. Labellum late cucullatum, lobo medio brevissimo. Columna brevis, crassa, pede longo, clinandrio maximo. Scapus simplex, floribus speciosis dense racemosis.—*Columbia, Amer. centr.*

115. Batemannia. Sepala lateralia ad apicem pedis longi columnæ a postico erecto distantia, patentia. Labelli lobi laterales erecti, columnam longiusculam amplectentes, medius brevis. Scapus simplex, floribus laxe racemosis.—*Guiana.*

†† *Pollinarii stipes simplex elongatusque v. duplex. Sepalum posticum liberum.*

116. Bifrenaria. Sepala erecto-patentia. Columnæ pes elongatus. Pollinia stipitibus 2 brevissimis elongatisve affixa. Scapus simplex. Flores in racemo plures, mediocres v. pauci, rarius solitarii magni.—*Amer. austr. trop.*

117. Xylobium. Sepala erecta, demum subpatentia. Labelli lobi laterales columnam amplectentes, medius brevis. Pollinii stipes simplex. Scapus simplex, floribus racemosis.—*Amer. trop.*

118. LACÆNA. Sepala patentia. Labelli lobi laterales ad latera unguis breves v. angusti; medius stipitatus, latus. Columnæ pes brevis. Pollinarii stipes simplex, linearis. Scapus longus, simplex, floribus majusculis laxe racemosis.—*Amer. centr.*

119. LYCASTE. Sepala erecto-patentia. Labelli lobi laterales ad basin v. apicem unguis lati v. falcati; medius parvus v. elongatus, sæpius ciliatus. Columna longiuscula. Pollinarii stipes longe linearis. Scapus 1-florus, rarius 2-3-florus, flore magno.—*Amer. trop.*

120. ANGULOA. Sepala fere in globum conniventia, latiuscula. Labelli carnosuli lobi laterales ad apicem unguis erecti, medius parvus v. latus ciliatusque. Columna mediocris. Pollinarii stipes longus, planus. Scapus 1-florus, flore magno.—*Columbia, Peruvia.*

(Confer etiam 133, STENIAM.)

††† *Sepalum posticum basi columnæ adnatum, erectum, lateralia patentia.*

121. ? CHONDRORHYNCHA. Petala sepalis multo latiora. Labellum sessile, latum, concavum. Pollinarii stipes brevis, crassus. Caulis ebulbosus. Scapus 1-florus, flore majusculo.—*Columbia.*

122. GONGORA. Petala cum sepalo postico columnæ affixa. Labellum angustum. Pollinarii stipes lineari-cuneatus. Scapus simplex, racemo longo laxo flexuoso, floribus majusculis.—*Amer. trop.*

Subtribus 4. Stanhopieæ. *Herbæ epiphyticæ, caulibus brevibus pseudobulbosis v. carnoso-incrassatis, 1-pauci-foliatis. Folia sæpius ampla, plicato-venosa v. venis elevatis percursa. Scapi florentes ad basin pseudobulborum v. e rhizomate simplices, floribus sæpe magnis laxe racemosis v. rarius solitariis. Labellum sæpius et interdum perianthium totum carnosum. Columna apoda. Genera omnia Americana.*

* *Columna recta, brevis v. longiuscula, sæpius crassa.*

123. CORYANTHES. Sepala patentissima, posticum lateralibus brevius. Labelli lobi laterales in medio ungue longo in appendicem poculiformem connati; medius magnus, galeatus. Pollinarii stipes linearis, glandula parva. Flores magni, in racemo laxo pauci.—*Amer. centr.*

124. STANHOPEA. Sepala patentia, subæquilonga. Labellum varie incrassatum, polymorphum, sæpe undulatum v. subtortum. Pollinarii stipes planus, glandula squamiformi. Flores magni, in racemo laxo pauci.—*Amer. trop.*

125. HOULLETIA. Sepala patentia, subæqualia. Labelli angusti lobi laterales unguem marginantes, postice in processus retrorsum arcuatos producti. Pollinarii stipes angustus, glandula indistincta. Flores majusculi, laxe racemosi.—*Amer. austr. trop.*

126. PERISTERIA. Sepala lata, in globum crassum conniventia. Labelli lobi laterales erecti; medius concavus, inflexus. Columna brevis. Pollinarii stipes cuneatus v. latus. Flores speciosi, laxe racemosi.—*Columbia.*

127. ACINETA. Sepala lata, crassiuscula, demum patentia. Labelli unguis anguste marginatus; lobus medius inflexus, concavus. Columna longiuscula. Pollinarii stipes oblongus, basi in glandulam incrassatus. Flores speciosi, laxe racemosi.—*Columbia, Amer. centr., Mexico.*

128. CATASETUM. Flores polygamo-trimorphi. Sepala crassa, in globum conniventia v. lateralia v. omnia patentia v. deflexa. Labellum sessile, polymorphum. Columna in fl. ♂ longiuscula, cirrhis v. setis 2 reflexis instructa, in fl. ♀ brevis, nuda. Pollinarii stipes loriformis, glandula magna crassa. Flores speciosi, laxe racemosi.—*Amer. trop.*

129. MORMODES. Sepala sæpius angusta, patentia v. deflexa. Labellum sæpius lateribus reflexis convexum, incurvo-ascendens, in unguem contractum. Columna crassiuscula. Clinandrium longe acuminatum. Pollinarii stipes loriformis, glandula magna crassa. Flores speciosi, laxe racemosi.—*Columbia, Amer. centr., Mexico.*

** *Columna longa, tenuis, incurva.*

130. CYCNOCHES. Sepala patentia. Labellum in unguem contractum. Pollinia ovoidea, stipite rigido, glandula magna. Flores speciosi, racemosi.—*Amer. trop.*

131. ? CHRYSOCYCNIS. Sepala patentia. Labelli unguis brevis, laminæ anguli recurvi. Pollinia (ovoidea?) stipite brevi. Scapi 1-flori, flore majusculo.—*N. Grenada.*

132. Polycycnis. Sepala patentia, angusta. Labelli lobi laterales unguem marginantes, apice arcuato-patentes. Pollinia angusta, stipite lineari, glandula parva. Flores speciosi, laxe racemosi.—*Amer. trop.*

Subtribus 5. Maxillarieæ. *Herbæ epiphyticæ, nunc pseudobulbis in rhizomate confertis v. in caule foliato sparsis 1–2-foliatis, foliis coriaceis v. carnosis, nunc rhizomate in caulem distiche foliatum elongato, foliis brevibus vaginis subequitantibus, pseudobulbis raris v. 0. Scapi rhizomatis v. pedunculi axillares 1-flori v. rarissime laxe pauciflori. Columna in pedem producta. Genera omnia Americana.*

133. Stenia. Sepala patentia. Labellum sessile, latum, carnosum, concavum fere saccatum, subintegrum v. fimbriatum. Pollinarii stipes latus, pubescens; pollinia angusta. Pseudobulbi 1–2-foliati. Scapus 1-florus, flore majusculo.—*Guiana.*

134. Schlimmia. Sepalum posticum angustum, lateralia latissima, mentum ample saccatum formantia. Labellum inclusum, angustum, varie lobatum. Pollinarii stipes angustus, cuneatus. Pseudobulbi 1-foliati. Scapus laxe pauciflorus, floribus majusculis.—*Columbia.*

135. ? Clowesia. Sepala cum petalis in globum conniventia. Labellum sessile, carnosum, concavum, erectum, fimbriatum. Clinandrium elevatum, fimbriatum. Pollinarii stipes brevis, apice dilatatus, glandula crassa. Scapus laxe pauciflorus.—*Brasilia.*

136. Mormolyce. Sepala patentia. Labelli lobi laterales erecti, medius brevis. Columna incurva. Pollinarii glandula hippocrepica absque stipite. Pseudobulbi globosi, 1-foliati. Scapus tenuis, 1-florus, flore mediocri.—*Mexico.*

137. Scuticaria. Sepala erecto-patentia. Labellum latum, lobis lateralibus maximis erectis. Columna crassiuscula. Pollinarii glandula transversa, stipitibus brevissimis v. 0. Folium longissimum, carnosum, subteres. Scapus 1-florus.—*Brasilia, Guiana.*

138. Maxillaria. Sepala patentia v. rarius suberecta. Labellum erectum, concavum, lobis lateralibus erectis. Columna crassa. Pollinarii stipes planus, brevis nunc brevissimus. Pseudobulbi 1–2-foliati, foliis planis; rhizoma interdum in caulem dense distichophyllum foliis brevibus productum. Scapi v. pedunculi ad basin pseudobulborum v. axillas foliorum distichorum 1-flori, solitarii.—*Amer. trop.*

139. Camaridium. Sepala patentia et labellum fere *Maxillariæ*. Pollinarii stipes planus, latiusculus. Pseudobulbi 1–2-foliati, rari. Caules dense distichophylli, sæpe ramosi. Pedunculi axillares, solitarii, 1-flori, bracteis paleaceis stipati.—*Amer. trop.*

140. Dichæa. Sepala patentia. Labellum unguiculatum, lamina lata triangulari v. ovata. Pollinarii stipes plana. Caules dense distichophylli, ebulbosi. Flores in axillis pedunculati solitarii, parvi rarius mediocres.—*Amer. trop.*

141. Ornithidium. Sepala erecta v. demum patentia. Labelli lobi laterales erecti. Pollinarii stipes linearis (v. pollinia libera?). Caules denso distichophylli, hinc inde pseudobulbos 1-foliatos emittentes. Pedunculi 1-flori, ad axillas fasciculati, floribus parvulis v. mediocribus. —*Amer. trop.*

Subtribus 6. Oncidieæ. *Herbæ epiphyticæ, caulibus abbreviatis nunc brevissimis, sæpius pseudobulbo 1–2-foliato terminatis v. rarius ebulbosis, foliis paucis subdistiche fasciculatis. Folia non plicata, sæpius coriacea v. carnosa. Scapi v. pedunculi sub pseudobulbo axillares v. ad basin fasciculi laterales. Columna apoda. Genera omnia Americana tropica.*

* *Perianthium calcaratum.*

† *Labelli calcar simplex v. duplex, intra calcar v. gibbum sepalorum inclusum.*

142. ? Cryptocentrum. Calcar sepalorum et labelli longissimum, tenue, ovario arcte appressum quocum in bractea membranacea inclusum. Folia linearia, disticha, vix pseudobulbosa. Scapi 1-flori, flore parvo.—*Ecuador.*

143. Diadenium. Labelli calcaria 2, intra calcar sepalorum longum tenue ab ovario divergens inclusa. Pseudobulbi parvi, 1-foliati. Flores secus ramos paniculæ laxe racemosi, parvi.—*Brasilia, Peruvia.*

144. Comparettia. Labelli calcaria 2, intra calcar sepalorum tenue ab ovario divergens inclusa. Pseudobulbi 1-foliati. Flores in scapo simplici racemosi speciosi.—*Andes Amer. trop.*

145. SCELOCHILUS. Labelli calcar duplex v. didymum, intra calcar v. gibbum sepalorum breve. Pseudobulbi angusti, 1-foliati. Flores in scapo simplici v. subramoso pauci, mediocres, racemosi.—*Andes Amer. trop.*

†† *Labelli calcar simplex, sepalis ecalcaratis.*

146. TRICHOCENTRUM. Labellum basi cum columna in urceolum connatum, calcare longiusculo. Columna brevis, crassa. Pseudobulbi parvi, 1-foliati. Flores in scapo brevi solitarii v. gemini, mediocres v. majusculi.—*Amer. trop.*

147. RODRIGUEZIA. Labellum basi cum columna brevissime connatum v. liberum, calcare brevi nunc ad gibbum reducto. Columna tenuis. Pseudobulbi 1–2-foliati. Flores in scapo simplici racemosi, sæpius speciosi.—*Amer. trop.*

** *Perianthium ecalcaratum. Labellum basi columnæ adnatum.*

148. TRICHOPILIA. Sepala erecto-patentia, libera. Clinandrium amplum, membranaceum, sæpius ciliato-fimbriatum. Pseudobulbi 1-foliati. Scapi e rhizomate breves, floribus speciosis solitariis v. paucis.—*Columbia, Amer. centr., Mexico.*

149. ASPASIA. Sepala patentia, posticum cum petalis basi columnæ adnatum. Clinandrium breve, truncatum. Folia sub pseudobulbo 1-foliato pauca. Pedunculi axillares, simplices, floribus speciosis breviter racemosis.—*Amer. trop.*

150. COCHLIODA. Sepala patentia, libera. Clinandrium truncatum v. 3-lobum. Folia sub pseudobulbo 1-foliato pauca. Pedunculi axillares, floribus (sæpius rubris) laxe racemosis.—*Andes Amer. austr.*

151. DIGNATHE. Sepala patentia, libera. Labellum lamellis 2 columnæ brevissime adnatum. Clinandrium truncatum. Pseudobulbi 1-foliati. Scapus brevis, flore solitario parvo.—*Mexico.*

*** *Perianthii ecalcarati tubus supra ovarium ovoideus v. globosus, apice clausus.*

152. SAUNDERSIA. Sepala patentia. Labelli unguis basi columnæ brevi adnatus, dein latus, sepalis longior, lamina 2-loba. Caulis brevissimus, 1-foliatus, vix pseudobulbosus. Scapus brevis, recurvus, fasciculato-pluriflorus, bracteis obtectus.—*Brasilia.*

153. BRACHTIA. Sepala suberecta. Labellum basi cum columna brevissima continuum, erectum, indivisum. Pseudobulbi 1-foliati. Racemus ad apicem pedunculi simplicis brevis, densus, secundus, bracteis membranaceis subimbricatis.—*Columbia.*

**** *Perianthii ecalcarati tubus supra ovarium tenuis v. sæpius 0. Labellum a columna liberum. Caulis sub pseudobulbo 1-foliato paucifoliatus v. vaginatus (exceptis perpaucis Oncidiis). Sepala patentia.*

a. *Sepala libera v. lateralia basi brevissime connata.*

154. ODONTOGLOSSUM. Labelli unguis (sæpe brevissimus) columnæ parallelus, lamina patens. Columna sæpius longiuscula, exauriculata. Scapi nunc breves floribus paucis v. subsolitariis speciosis, nunc ample paniculato-ramosi, floribus speciosis v. parvis.—*Andes Amer. trop.*

155. ONCIDIUM. Labellum a basi contracta patens v. a columna divergens, lamina sæpius ampla patente. Columna brevis, ad latera stigmatis sæpissime 2-auriculata. Scapi sæpius elongati ramosi, rarius simplices pauciflori.—*Amer. trop.*

156. MILTONIA. Labellum sæpius ad basin columnæ sessile, amplum, patens, indivisum. Cætera *Oncidii*, floribus speciosis.—*Brasilia, Peruvia.*

157. BRASSIA. Sepala et petala longa, angusta, acuminata v. caudata. Labellum ad basin columnæ sessile, planum, latum, sepalis brevius. Columna brevis. Racemi simplices, laxe pauciflori.—*Amer. trop.*

158. SOLENIDIUM. Labellum a basi patens, ungue longo, apice dilatatum, indivisum. Columna erecta, late 2-alata. Racemi simplices, floribus longe pedicellatis.—*Columbia.*

159. LEIOCHILUS. Labellum a basi patens. Columna brevis, exalata, v. infra stigma 2-auriculata. Anthera ultra loculos longe producta. Scapi simplices v. rarius subramosi, floribus parvis racemosis.—*Ind. occid., Amer. centr., Mexico.*

160. SIGMATOSTALIX. Labellum patens, ungue longo. Columna elongata, angustissima.

Pollinarii stipes longe linearis. Scapi simplices, floribus laxe racemosis mediocribus v. parvis. —*Amer. trop.*

161. ERYCINA. Labellum patens, circa basin columnæ adnatum, 3-partitum, facie basi anguste 2-callosum et lobis 2 angustis auctum. Columna brevissima, rostello longo. Pollinarii stipes longe linearis. Capsula echinata. Scapus ramosus.—*Mexico.*

β. Sepala lateralia sæpius alte connata.

162. GOMEZA. Labellum a basi columnæ incurvo-erectum v. a basi erectum, callis 2 columnam amplectentibus. Columna longiuscula, sæpe 2-alata. Pollinarii stipes angusta. Scapus simplex, floribus mediocribus racemosis, sæpius secundis.—*Brasilia.*

163. ABOLA. Sepala lateralia sub labello patentissima, alte connata. Labellum a bas patens, columnam fere amplectens. Columna brevis, 2-alata. Pollinarii stipes tenuis, brevis. Scapus simplex, floribus parvis racemosis.—*Columbia.*

†† *Caules sub pseudobulbo 1-foliato paucifoliati v. vaginati. Sepala basi v. alte erecta.*

164. NEODRYAS. Sepala lateralia alte connata. Labellum erectum. Columna ad latera stigmatis utrinque ala brevi appendiculata. Scapus v. pedunculus apice paniculatus, floribus parvis in ramulis brevibus racemosis.—*Bolivia, Peruvia.*

165. TRIZEUXIS. Sepala lateralia alte connata. Labellum erectum. Columna brevis, exalata. Pedunculus tenuis, superne paniculatus; floribus minimis in ramulis ultimis racemosis. —*Columbia.*

166. ADA. Sepala omnia libera. Labellum patens, angustum, indivisum. Columna brevis, basi in alas labellum amplectentes dilatata. Scapus simplex, floribus in racemo secundo speciosis nutantibus.—*Columbia.*

167. SUTRINA. Sepala lateralia basi in mentum brevissimum cohærentia. Labellum erectum. Columna superne late 2-alata. Rostellum appendice longa lineari instructum. Scapus simplex, floribus racemosis.—*Peruvia.*

168. TRIGONIDIUM. Sepala omnia basi in tubum cohærentia v. conniventia. Labellum erectum, angustum, columnam amplectens. Columna brevis, exalata. Scapi 1-flori.—*Amer. trop.*

††† *Folia in caule brevi v. brevissimo ebulboso conferta fasciculata v. disticha. Pollinarii stipes elongatus, angustus.*

169. IONOPSIS. Sepala erecta. Labelli unguis longus, lamina exserta, late expansa. Columna brevis. Pedunculi longi, tenues, sæpe laxe ramosi, floribus longiuscule pedicellatis.—*Amer. trop.*

170. CRYPTARRHENA. Sepala patentia. Labelli unguis longus. Columna brevis. Anthera sub clinandrio amplo fere occulta. Pedunculi simplices, floribus parvulis laxe racemosis.—*Ind. occid., Amer. centr.*

171. ORNITHOCEPHALUS. Sepala patentia. Labellum subsessile. Columna brevis, rostello horizontali longissimo. Pedunculi simplices, floribus parvis in racemo dissitis.—*Amer. trop.*

172. QUEKETTIA. Sepala erecta, linearia, petaloidea. Labellum erectum, indivisum, sepalis paullo latius. Columna angusta, apice 2-auriculata. Folia lineari-teretia. Scapus filiformis, ramosus, floribus parvis dissitis.—*Brasilia.*

173. ZYGOSTATES. Sepala patentia. Labellum basi lamina erecta et auriculis 2 linearibus apice dilatatis carnosis instructum. Columna arcuata, rostello longissimo apice recurvo. Pedunculi simplices, floribus parvis in racemo dissitis.—*Brasilia.*

174. PHYMATIDIUM. Sepala patentia, tenuissima. Labellum indivisum. Columna tenuis, apice 2-auriculata, rostello brevi. Herbæ pusillæ, dense cæspitosæ, foliis brevibus gramineis. Scapi simplices, tenues, floribus parvis laxe racemosis.—*Brasilia.*

175. CHYTROGLOSSA. Sepala patentia. Labellum sessile, patens. Columna brevis, basi stigmatosa, supra stigma a latere compressa, apice truncata, 2-alata. Herbæ nanæ, foliis fasciculatis, floribus mediocribus laxe racemosis.—*Brasilia.*

176. HOFMEISTERELLA. Sepala linearia, reflexo-patentia. Labellum subsessile, lanceolatum, indivisum. Columna basi late 2-alata, rostello longiusculo reflexo; clinandrium in dentem longum antheriferum productum. Caulis brevissimus, foliis linearibus brevibus. Scapi ancipites, floribus majusculis longe pedicellatis.—*Ecuador.*

(Confer etiam 161, ERYCINAM.)

Genera monotypica imperfecte sæpeque ad specimen unicum descripta quorum characteres distinctivi nobis effugiunt omnia evidenter ad Oncidieds pertinentia.

KEGELIA, *Reichb. f. in Bot. Zeit.* 1852, 670; *Xen. Orch.* i. 45, *t.* 20, e Surinamo, *Lacænæ* affinis dicitur, diversa labello omnino plano basi eplicato immobili, rostello producto apice tridentato, polliniis planis omnino simplicissimis nec ullo pacto extus sulcato-sub-2-lobatis.

PAPPERITZIA, *Reichb. f. in Bot. Zeit.* 1852, 670; *Xen. Orch.* i. 237, *t.* 100, e Mexico, *Rodrigueziæ* affinis.

CUCHNIA, *Reichb. f. in Bot. Zeit.* 1852, 928; *Xen. Orch.* i. 238, *t.* 100, e Guatemala, *Odontoglosso, Oncidio* et *Sigmatostalici* affinis.

PARADISANTHUS, *Reichb. f. in Bot. Zeit.* 1852, 930; *Xen. Orch.* i. 30, *t.* 14, e Brasilia, *Warreæ* subaffinis, *Acacalli* propinquior.

SIEVEKINGIA, *Reichb. f. Beitr. Syst. Pflanzenk.* 3, e Costarica, *Lacænæ* et *Kegeliæ* affinis.

CŒLIOPSIS, *Reichb. f. in Gard. Chron.* 1872, 9, *Sievekingiæ* affinis.

WARMINGIA, *Reichb. f. Otia Hamb.* 87, e Brasilia, *Rodrigueziam* inter et *Macradeniam.*

Subtribus 7. Sarcantheæ. *Caulis non pseudobulbosus, basi v. undique reptans radicans. Folia disticha, coriacea v. carnosa, non plicata, rarius tenuia v.* 0. *Pedunculi secus caulem laterales v. axillares.*

* *Columna apoda. Labellum ecalcaratum v. rarius calcar breve sub lobo medio a basi remotum.*

† *Genera Americana. Folia in caule ascendente dense disticha, brevia. Columna brevis, 2-alata.*

177. LOCKHARTIA. Labellum a basi patens, sepalis longius. Clinandrium breve. Pollinia sæpe libera. Flores parvi, in pedunculo subsolitarii v. laxe paniculati.—*Amer. trop.*

178. CENTROPETALUM. Labellum basi cum alis columnæ in cupulam brevissimam connatum, dein erectum, lamina patente indivisa. Clinandrium amplum, petaloideum. Pollinarii stipites 2 distincti v. in unum coaliti. Flores in axillis solitarii, pedicello bracteis stipato.—*Columbia.*

179. PACHYPHYLLUM. Labellum basi angustum, erectum, lamina indivisa sepala non superante. Clinandrium amplum, petaloideum. Pollinia fere libera. Racemi axillares, breves, rarius 1-flori.—*Andes Amer. trop.*

†† *Genera gerontogea, caule laxius v. parce v. breviter foliato. Columna brevis, exalata.*

180. LUISIA. Sepala et petala conniventia v. subpatentia. Labellum continuum, sepalis sæpius longius, concavum v. superne convexum. Pollinarii stipes planus, ovatus. Folia teretia, carnosula. Spicæ breves, subsessiles, floribus parvulis v. mediocribus.—*Ind. or., Archip. Malay., Japonia.*

181. COTTONIA. Sepala patentissima. Petala angustiora. Labellum continuum, sepalis sæpius longius, planum v. concavum. Pollinarii stipes longus, angustus. Racemi nunc simplices breves, nunc in pedunculo longissimo ramoso, floribus mediocribus.—*Ind. or.*

182. STAUROPSIS. Sepala et petala patentissima, subæqualia. Labellum continuum, angustum, sepala non superans. Pollinarii stipes planus. Racemi nunc simplices breves floribus majusculis, nunc in pedunculo longo ramosi floribus mediocribus.—*Archip. Malay.*

183. ARACHNANTHE. Sepala et petala patentissima, interdum undulata. Labellum articulatum, lobis lateralibus erectis v. obsoletis, medio carnoso, dorso sæpe gibbo v. calcare brevi instructo. Pollinarii stipes planus, e basi lata acutus v. angustatus. Racemi laxi, simplices v. ramosi, floribus speciosis.—*Archip. Malay., Himalaya.*

** *Sepala lateralia basi pedi columnæ adnata, mentum formantia. Labelli calcar 0, v. a basi remotum v. recurvo-ascendens. Genera gerontogea. Sepala et petala patentia.*

184. PHALÆNOPSIS. Labellum a basi patens v. basi breviter erectum, ecalcaratum. Columna erecta, pede brevi. Pollinarii stipes linearis v. spathulatus. Racemi laxi, simplices v. ramosi, floribus speciosis.—*Ind. or., Archip. Malay.*

185. DORITIS. Labellum basi longe unguiculatum, incumbens, ecalcaratum, lamina 3-loba. Columna alato-marginata, pede longo. Pedunculi longi, simplices v. ramosi, floribus parvis v. mediocribus.—*Ind. or., Archip. Malay.*

186. RHYNCHOSTYLIS. Labellum ad apicem pedis columnæ profunde saccatum, supra saccum longe angustatum, lamina linguiformi v. ovata. Columna exalata, pede brevi. Pollinarii stipes subfiliformis. Racemi longi, densiflori, floribus majusculis v. mediocribus.—*Ind. or., Archip. Malay.*

187. Sarcochilus. Labellum basi breviter incumbens v. adnatum, lamina carnosa, polymorpha, apice sæpius inflexa, dorso gibbo v. calcare carnoso a basi distante instructa. Pollinarii stipes linearis v. oblongus. Pedunculi sæpius simplices, floribus parvis v. rarius majusculis.—*Ind. or., Archip. Malay., ins. maris Pacifici, Australia.*

188. Trichoglottis. Labellum basi pedi longo horizontali columnæ adnatum, mentum formans sed ecalcaratum, superne patens non carnosum. Pollinarii stipes angustus. Pedunculi brevissimi, floribus solitariis v. paucis sæpius parvis.—*Archip. Malay.*

189. Aeranthus. Labellum basi pedi longo horizontali columnæ adnatum, mentum formans sed ecalcaratum, apice concavum erecto-patens. Pollinia in glandulis sessilia absque stipite. Pedunculi longiusculi, flore sæpius solitario majusculo.—*Ins. Mascar.*

190. Aerides. Labellum pedi longiusculo columnæ affixum (articulatum), subtus in calcar sub lamina recurvum v. ascendens productum. Pollinarii stipes angustus. Racemi nunc simplices dense floribundi speciosi, nunc laxiores ramosi.—*Ind. or., Archip. Malay., China, Japonia.*

*** *Columna apoda. Labellum basi saccatum v. calcaratum.*

† *Genera gerontogea.*

191. Renanthera. Sepala et petala patentissima, lateralia postico sæpius majora, sub labello brevi sæpius parallela v. medio cohærentia. Pollinarii stipes planus, angustus. Racemi plus minus ramosi.—*Ind. or., Archip. Malay., China.*

192. Vanda. Sepala et petala patentissima, basi sæpius contracta, crassiuscula. Pollinarii stipes latus. Racemi simplices, floribus majusculis.—*Ind. or., Archip. Malay., Australia.*

193. Saccolabium. Sepala et petala patentissima. Pollinarii stipes sæpius tenuis. Racemi simplices v. ramosi, sæpe floribundi, floribus quam in *Vanda* minoribus.—*Ind. or, Archip. Malay.*

194. Uncifera. Sepala et petala erecto-patentia. Labelli calcar valde incurvum. Pollinarii stipes apice dilatato-sub-2-lobus. Flores parvi, racemis dense spiciformibus.—*Khasya.*

195. Acampe. Sepala et petala crassiuscula, concava. Pollinarii stipes tenuis. Racemi breves, rigidi, densiflori, in pedunculo brevi simplici v. in panicula plures, floribus parvulis.—*Ind. or., China, Afr. austr. or.*

196. Sarcanthus. Labelli calcar intus lamina longitudinali antica plus minus divisum, cum v. absque callo postico. Racemi graciles, simplices v. laxe paniculati, floribus parvulis.—*Ind. or., China, Archip. Malay.*

197. Cleisostoma. Labelli calcar intus ad os callo v. lamella postica subclausum, lamina longitudinali 0. Racemi simplices v. ramosi, floribus parvis confertis.—*Ind. or., Archip. Malay., Austral. trop.*

198. Schœnorchis. Omnia *Saccolabii* nisi columna basi appendicibus 2 linearibus erectis instructa. Folia teretia. Racemi breves floribundi, floribus parvulis.—*Java.*

199. Ornithochilus. Sepala patentia, lateralia basi cum ungue labelli in mentum breve coalita. Labelli lamina lata, 2–3-loba, sæpius fimbriata. Pollinarii stipes loriformis. Racemi tenues, simplices v. ramosi, floribus parvis.—*Himalaya, Burma* (*Australia* ?).

200. Tæniophyllum. Sepala conniventia v. subpatentia, sæpe basi connata. Pollinia 4, distincta; pollinarii stipes brevis. Herbæ nanæ, paucifoliatæ v. subaphyllæ, floribus minutis.—*Ind. or., Archip. Malay., ins. maris Pacifici, Australia.*

201. Microsaccus. Sepala et petala patentia. Pollinia 4, distincta, pollinarii stipite lineari. Herbæ parvæ. Folia numerosa, parva, disticha, rigida v. carnosula. Flores minimi, in pedunculis brevissimis solitarii v. gemini.—*Archip. Malay.*

202. Diplocentrum. Labellum juxta basin breviter 2-calcaratum. Cætera fere *Saccolabii.*—*Ind. or. penins.*

203. Angræcum. Sepala et petala patentia. Labelli calcar longum tenue nunc longissimum, limbus patens v. erecto-patens. Pollinarii stipes planus, simplex v. in 2 bene distinctos divisus. Flores magni v. rarius mediocres.—*Afr. trop. et austr., ins. Mascar., Japonia, China.*

204. Cryptopus. Sepala et petala patentia, petalis 2-lobis. Labelli calcar longum, limbus patens lobo medio 3-lobo. Pollinarii stipites 2, cupuliformes, glandulis 2 distinctis planis antice ciliato-fimbriatis. Flores speciosi, laxe racemosi.—*Ins. Mascar.*

205. Œonia. Sepala et petala erecto-patentia. Labelli erecti calcar conicum v. obtusum, lobi laterales circa columnam convoluti, medius integer v. 2-lobus. Pollinarii stipites 2, fili-

formes, glandula sæpius unica. Racemi simplices, floribus mediocribus v. majusculis.—*Ins. Mascar.*

206. Mystacidium. Sepala et petala patentia. Labelli calcar tenue v. ad extremitatem saccatum v. clavatum, lamina patens. Pollinarii stipites 2, filiformes v. apice parum dilatati. Racemi breves in pedunculo simplici interdum elongato floribundi, v. (in sect. *Pectinaria*) folia parva numerosa, floribus solitariis subsessilibus. Labellum sæpe superum.—*Africa trop. et austr.*

†† *Genera Americana.*

207. Dendrophylax. Sepala et petala patentia. Labelli erecti calcar longum, ad os dilatatum, lobus medius divaricato-2-lobus. Pollinarii stipites 2, planæ. Scapi e fasciculis radicum aphylli, flore nunc unico magno, nunc ∞ mediocribus v. parvis racemosis.—*Ind. occid.*

208. Campylocentron. Sepala et petala erecto-conniventia. Labelli calcar sæpius recurvum, obtusum v. vesicatum, lobus medius integer. Pollinarii stipites 2, filiformes, nunc brevissimi. Flores minuti, spicati.—*Amer. trop.*

Subtribus 8. Notylieæ. *Caules nunc abbreviati, pseudobulbo unifoliato terminati, nunc tenues absque pseudobulbo, foliis parvis distichis. Rostellum terminale, erectum v. antrorsum inclinatum, rarius fere horizontale. Anthera pone rostellum cui parallela, sæpius arcte applicita; pollinia 2, 4 v. 8, stipiti longo lineari v. apice dilatato simplici v. duplici affixa.*

Subtribus ab omnibus *Vandeis* differt rostello et anthera iis *Neottiearum* plurimarum subsimilibus, a quibus differt polliniis cereis. Genera 2 ultima a *Vandeis* omnibus distant polliniorum numero.

* *Pollinia* 2, *in Acriopside rarius* 4.

209. Cirrhæa. Sepala et petala angusta, patentia. Labelli lobi laterales ad apicem unguis longi patentis reflexi v. recurvi. Clinandrium parvum. Pseudobulbi 1-foliati, folio amplo plicato-venoso. Scapus simplex, racemo laxe floribundo.—*Brasilia.*

210. Macradenia. Sepala et petala patentia. Labelli lobi laterales erecti, columnam amplectentes. Clinandrium membranaceum, late cupulatum. Anthera longe acuminata. Caulis brevis, foliis coriaceo-carnosis, vaginis distichis mox pseudobulbosis. Pedunculi axillares, simplices, racemo laxo.—*Ind. occid.*

211. Notylia. Sepala erecta v. demum patentia, lateralia interdum connata. Labelli unguis erectus, lamina triangularis v. hastata. Clinandrium parvum. Anthera longe acuminata. Caulis brevis, foliis coriaceo-carnosis, vaginis distichis superioribus mox pseudobulbosis. Pedunculi axillares, simplices, racemo laxo v. denso.—*Amer. trop.*

212. Acriopsis. Sepala angusta, patentia, lateralia connata. Petala latiora. Labelli unguis cum columna in urceolum latum connatus. Clinandrium membranaceum, amplum, incurvo-cucullatum. Pollinarii stipes simplex. Pseudobulbi 1–2-foliati, foliis angustis. Scapi tenues, simplices v. ramosi, floribus parvulis laxe racemosis.—*Burma, Archip. Malay.*

** *Pollinia* 4.

213. Telipogon. Sepala angusta, patentia. Petala multo latiora, uti labellum subsimile patentissima. Columna hispida, clinandrio brevi. Pollinarii stipes simplex. Folia in caule brevi disticha. Pedunculi pseudoterminales, simplices, floribus speciosis laxe racemosis.—*Andes Amer. austr.*

214. Trichoceros. Sepala et petala patentia. Labelli lobi laterales ad basin oblongi v. elongati, medius petalis subsimilis. Clinandrium amplum, 2–3-lobum, setosum. Pollinarii stipes simplex. Pedunculus sub pseudobulbo 1-foliato lateralis v. in caule pseudoterminalis, simplex. floribus laxe racemosis sæpe parvis.—*Peruvia, Columbia.*

215. Podochilus. Sepala erecta. Labellum in pede columnæ articulatum. Pollinarii stipites 2. Caules non pseudobulbosi, foliis parvis distichis. Racemus terminalis, floribus parvis nunc minimis.—*Ind. or., Archip. Malay.*

*** *Pollinia* 8.

216. Appendicula. Sepala erecta. Labellum in pede columnæ continuum. Pollinarii stipites 2. Caules non pseudobulbosi, foliis distichis. Racemi laterales, brevissimi, pauciflori, v. longiores pseudoterminales, multiflori, floribus parvis nunc minimis.—*Malacca, Archip. Malay.*

217. Thelasis. Sepala erecta. Labellum erectum, indivisum. Columna apoda. Pollinarii stipes simplex. Herbæ nunc minimæ pseudobulbis 1-foliatis, nunc Oberonioideæ distichophyllæ. Flores minimi in racemo terminali.—*Ind. or., China, Archip. Malay.*

Tribus III. Neottieæ. Anthera unica, terminalis, postica, nunc opercularis supra rostellum incumbens, nunc sæpius pone rostellum erecta, decidua v. persistens; loculi 2, distincti, paralleli, interdum septo longitudinali imperfecte 2-locellati. Pollinia granulosa, nunc pulverea fere farinacea et primum interdum subsolida apparent, nunc grosse et subregulariter granulosa (sectilia), in quoque loculo plus minus distincte gemina v. 2-partita, v. granulis mox solutis indistincta, per dehiscentiam ex apice rostelli pendula, v. irregulariter rostello affixa v. libera, rarius stipiti ex apice rostelli pendulo affixa. Herbæ sæpissime terrestres, non pseudobulbosæ, rhizomate repente v. vario tubérifero, caule erecto simplici basi foliato v. aphyllo; in subtribubus 2 prioribus elatæ foliatæ interdum ramosæ v. supra arbores alte scandentes subepiphyticæ.

Subtribus 1. Vanilleæ. *Caules elati, sæpe ramosi, erecti v. supra arbores altissime scandentes, radices adventitias interdum emittentes. Racemi v. paniculæ terminales v. simul axillares. Columna elongata, rostello brevi. Anthera suboperculàris, incumbens; pollinia laxe granulosa, demum sæpe rostello insidentia sed glandulam non auferentia.*

* *Caules alte scandentes, foliis coriaceis carnosis v. 0. Sepala patentia v. late concava.*

218. Galeola. Folia 0 v. rarius in ramo sterili. Labellum sessile, latum, concavum, columnam laxe involvens. Flores mediocres v. majusculi.—*Ind. or., Japonia, Archip. Malay., Nov. Caled., Australia.*

219. Vanilla. Caules foliati v. rarius aphylli. Labelli unguis columnæ adnatus, limbus latus concavus, basi columnam involvens. Flores magni.—*Utriusque orbis reg. trop.*

** *Caules erecti, elati, foliis subplicato-venosis. Sepala basi erecta.*

220. Sobralia. Sepala basi connata, calyculo nullo. Flores magni.—*Amer. trop. mont.*

221. Epistephium. Sepala libera, urceolo dentato (sic dicto calyculo) cincta. Flores magni. —*Amer. trop.*

222. Sertifera. Sepala libera, erecto-patentia. Labellum sessile, latissime ventricosum, intus lamella oblique transversa divisum. Flores parvi.—*Andes Amer. austr.*

Subtribus 2. Corymbieæ. *Herbæ elatæ, interdum ramosæ, foliis amplis subplicato-venosis v. arundinaceis. Racemi v. paniculæ terminales. Anthera pone rostellum erectum ei parallelum; pollinia granulosa, demum stipiti filiformi a rostelli glandula dependenti affixa.*

223. Corymbis. Sepala et petala angusta, diu in tubum subcohærentia. Labellum a basi lineare. Columna elongata. Racemi paniculati, laxe pauciflori.—*Utriusque orbis reg. trop.*

224. Tropidia. Sepala lateralia basi in mentum breve connata. Labellum sessile, concavum v. basi saccatum v. breviter calcaratum. Columna brevis. Spicæ breves, densæ, ad apices ramorum solitariæ v. paucæ.—*Ind. or., Archip. Malay., ins. maris Pacifici.*

Subtribus 3. Spirantheæ. *Caules e rhizomate repente v. brevi non tuberoso ascendentes v. erecti, simplices, foliati v. rarius aphylli, foliis membranaceis. Spica v. racemus terminalis. Anthera pone rostellum longiusculum erectum v. antrorsum inclinatum ei parallela; pollinia demum a glandula rostelli pendula v. interdum stipiti a glandula dependenti affixa.*

§ 1. *Genera pro maxima parte Americana v. extratropica, polline sæpissime pulvereo-granuloso.*

* *Labellum cum sepalorum mento dum adsit superum.*

† *Columna brevis. Clinandrium postice breve v. vix prominens (excepta Prescottia).*

225. Altensteinia. Sepala libera v. basi breviter connata. Labellum basi columnam amplectens eique subadnatum; lamina erecta, lata, plana v. concava, indivisa, sæpe ciliato-fimbriata. Caules basi foliati v. florentes aphylli, spica sæpius densa.—*Andes Amer. trop.*

226. Pterichis. Sepala libera. Labellum sessile v. basi columnæ subadnatum, erectum, late concavum v. galeatum, lobi laterales columnam occultantes, medius angustus, recurvus. Folia ad basin caulis pauca. Spica densa.—*Amer. austr. trop.*

227. Cranichis. Sepala libera. Labellum erectum, concavum, fornicatum v. subsaccatum, columnam amplectens, indivisum. Columna anthera et rostello brevior. Folia ad basin caulis subradicalia. Flores parvi, sæpe minimi.—*Andes Amer. trop.*, *Ind. occid.*

228. Prescottia. Sepala basi in cyathum v. tubum connata. Labelli lamina erecta, concava cucullata v. fere clausa. Clinandrium postice in filamentum productum. Folia ad basin caulis conferta v. radicalia. Flores parvi, in spica densa v. tenui numerosi.—*Amer. trop.*

229. Ponthieva. Sepala libera v. lateralia connata. Petala ab apice columnæ patentia. Labelli unguis columnæ adnatus, lamina dilatata, patens. Folia ad basin caulis subradicalia, ovata v. lanceolata. Racemus laxus, sæpe glanduloso-pubescens. Flores mediocres.—*Amer. trop. et subtrop.*

230. Wullschlægelia. Sepala lateralia basi in mentum breve v. elongatum calcariforme connata. Labellum basi intra sepala saccatum v. calcaratum. Scapus tenuissimus, aphyllus, floribus minimis.—*Ind. occid.*, *Bras. bor.*

231. Pseudocentrum. Sepala lateralia basi in mentum longissimum calcariforme connata. Labellum longe lineare, ab apice columnæ intra sepalorum calcar descendens. Caules foliati, spica floribunda.—*Andes Amer. austr. et centr.*, *Jamaica.*

†† *Columna elongata. Clinandrium membranaceum, elevatum.*

232. Gomphichis. Sepala libera, a basi patentia. Folia secus caulem lanceolata v. elongata. Spica densa v. rarius interrupta.—*Andes Amer. austr.*

233. Stenoptera. Sepala basi in tubum tenuem connata. Folia ad basin caulis subradicalia. Spica densa v. tenuis.—*Amer. trop. mont.*, *Ind. occid.*

** *Labellum inferum, sæpe pendulum.*

234. Neottia. Sepala et petala libera, demum patentia. Labellum sepalis longius, apice 2-lobum. Columna longiuscula. Caulis aphyllus, vaginis concoloribus.—*Eur.*, *Asia bor. et mont.*

235. Listera. Sepala et petala libera, patentia. Labellum sepalis longius, integrum v. 2-lobum. Columna brevissima. Caulis subopposite 2-foliatus.—*Eur.*, *Asia temp. et mont.*, *Amer. bor.*

236. Spiranthes. Sepalum posticum cum petalis galeatum, lateralia ovario oblique affixa v. longe decurrentia. Columna basi in ovario sæpius decurrens nec in pedem liberum producta. Caules foliati v. florentes aphylli. Spica densa v. laxa, haud raro secunda v. spiralis.—*Utriusque orbis reg. temp. et trop.*

237. Baskervilla. Sepala lateralia alte connata, basi mentum latum formantia. Petala angusta, basi contracta. Labelli unguis 2-auriculatus, lamina basi late saccata. Columna brevissima, rostello magno crasso carnoso, stigmate in vertice excavato. Folia ad basin caulis pauca. Spica densiuscula, floribus parvis.—*Peruvia.*

238. Pelexia. Sepala lateralia basi in appendicem calcariformem longe linearem connata. Labellum lineare, basi in laminam linearem intra calcar sepalorum productum. Rostellum longe subulato-acuminatum. Folia ad basin caulis conferta, subradicalia.—*Amer. trop.*

§ 2. *Genera pro maxime parte gerontogea tropica, polline (an semper?) sectili. Sepalum posticum sæpius cum petalis in galeam connivens v. cohærens.*

* *Labellum basi in saccum seu calcar inter sepala lateralia prominens productum.*

239. Physurus. Labellum supra calcar cavum, patens, abrupte contractum, lamina integra v. 2-loba. Clinandrium parum prominens. Folia ovata v. lanceolata, membranacea.—*Asia et Amer. trop.*

240. Anœctochilus. Labelli ungius supra calcar longus, patens, fimbriatus, lamina 2-loba. Clinandrium cyathiforme. Folia ad basin caulis conferta, ovata, sæpe picta.—*Ind. or.*, *Archip. Malay.*

241. Vrydagzenia. Labellum sessile, lamina supra calcar seu saccum parva v. 2-loba; calli 2, longe stipitati, a basi columnæ intra calcar descendentes. Caules foliati, foliis membranaceis.—*Archip. Malay.*, *ins. maris Pacifici.*

242. Cystorchis. Labellum sessile, basi ad latera calcaris obtusi v. sacci sæpius 2-vesiculosum, lamina lanceolata, indivisa. Folia ad basin caulis conferta, ovata, discoloria v. picta.—*Archip. Malay.*

243. Herpysma. Labellum erectum, concavum, marginibus cum columna connatis, calcare longo; lamina patens, lata, integra v. 3-loba. Clinandrium alte cucullatum. Pollinia in caudiculas rigidas producta. Caulis foliatus.—*Himalaya.*

** *Labellum ecalcaratum v. sacco dum adsit intra sepala incluso.*

† *Pollinia stipiti lineari v. cuneato v. glandulæ a rostello descendenti affixa.*

244. Zeuxine. Sepala inter se libera. Columna inappendiculata. Caules foliati. Flores parvi.—*Ind. or., Archip. Malay., Afr. trop.*

245. Cheirostylis. Sepala ad medium in tubum connata. Columna apice brachiis 2 linearibus erectis rostello æquilongis instructa. Caules debiles, foliati. Flores laxiuscule racemosi. —*Ind. or., Archip. Malay., Afr. trop.*

†† *Pollinia (haud raro in caudiculas attenuata) in glandula rostelli sessilia. Columna (excepta Platylepide) brevis v. brevissima.*

a. Labellum supra basin ventricosam unguiculatum.

246. Odontochilus. Sepala lateralia basi in mentum breve connata. Labelli unguis (ut in *Anæctochilo*) fimbriatus v. dentatus, lamina sæpius 2-loba. Clinandrium breve. Caules foliati. Flores mediocres, laxe spicati.—*Ind. or., Archip. Malay., ins. maris Pacifici.*

247. Myrmechis. Sepala petaloidea, basi breviter connata, suberecta. Petala libera. Labelli basis ventricosa pedi columnæ affixa, unguis integer, lamina 2-loba. Clinandrium breve. Caules foliati. Racemus breviter pedunculatus, pauciflorus.—*Java, Japonia.*

248. Hæmaria. Sepala inter se libera. Labelli unguis concavus integer, lamina 2-loba. Clinandrium cyathiforme, fere cucullatum. Caules foliati. Flores mediocres, laxe spicati, subracemosi.—*China, Archip. Malay.*

249. Dossinia. Sepala inter se libera. Labelli lobi laterales erecti, unguis integer, lamina 2-loba. Columna antice appendice longa intra ventrem labelli intrusa instructa. Clinandrium breve. Caules foliati. Spica laxa.—*Borneo.*

β. Labellum basi late ventricosum sessile v. columnæ adnatum, lamina sæpius parva non unguiculata.

250. Macodes. Sepala libera. Labellum (superum) erectum, lobis lateralibus parvis, medio lineari v. spathulato. Columna antice laminis 2 verticalibus parallelis appendiculata. Clinandrium cyathiforme. Folia ad basin caulis pauca, ovata, marmorata. Flores parvuli, longe racemosi.—*Java.*

251. Hylophila. Sepalum posticum cucullatum, lateralia cum pede columnæ ovarii apici oblique adnata. Labellum (inferum) basi saccato-cucullatum, lamina parva lineari inflexa. Caulis foliatus, elatus. Flores parvi, longe spicati.—*Malacca, Archip. Malay.*

252. Goodyera. Sepala inter se libera. Labellum (inferum) erectum, lamina parva indivisa. Clinandrium cyathiforme. Caulis laxe ascendens v. erectus, elatus, infra medium foliatus. Flores parvuli, spica laxa secunda v. longa densaque.—*Eur., ins. Mader., Asia trop. et temp., Nov. Caled., ins. Mascar., Amer. bor. et centr.*

253. Lepidogyne. Sepala libera, conniventia. Labellum basi columnæ adnatum, lobis lateralibus eam amplectentibus, lamina angusta, recurva. Columna antice lamina erecta instructa. Clinandrium cyathiforme. Caulis elatus, foliatus, spica longa densa.—*Java.*

254. Hetæria. Sepala libera v. basi connata. Labellum (sæpius superum) basi plus minus columnæ adnatum, lamina integra v. divaricato-2-loba. Clinandrium breve. Caulis foliatus. Flores parvi, in spica tenui.—*Ind. or., Archip. Malay., ins. maris Pacifici, Australia., Afr. trop.*

255. Mœrenhoutia. Sepala libera, erecta. Alæ columnæ latissimæ, subpetaloideæ, cum marginibus labelli (inferi) continuæ. Cætera *Hetæriæ* nisi flores paullo majores.—*Ins. maris Pacifici.*

256. Platylepis. Sepala circa columnam in tubum angustum arcte conniventia, apice subpatentia. Labellum (inferum) marginibus columnæ leviter cohærentibus, lamina parum dilatata. *Columna elongata.* Clinandrium postice oblongum, erectum. Caulis foliatus. Flores angusti, dense spicati.—*Afr. trop. et subtrop., ins. Mascar.*

257. Manniella. Sepalorum petalorum labellique ungues in tubum connati. Columna elongata tubo alte adnata. Folia radicalia, petiolata. Spica longa, floribus parvulis.—*Afr. trop. occid.*

γ. *Labellum a basi angustum, indivisum.*

258. Eucosia. Sepala inter se libera. Labellum angustum, concavum. Columna brevis. Clinandrium breve; anthera tamen longe stipitata. Pollinia in caudiculas longas rostello non affixas producta. Habitus *Goodyeræ.—Java.*

259. Gymnochilus. Sepala angusta, conniventia. Labellum angustum, concaviusculum. Columna brevis. Clinandrium breve, anthera sessili. Pollinia ecaudata, demum glandulæ rostelli affixa. Habitus *Goodyeræ.—Ins. Mascar.*

260. ? Argyrorchis. Sepala inter se libera. Labellum petalis consimile. Columna brevissima, antice 2-cristata. Clinandrium cyathiforme. Folia ad basin caulis pauca, ovata, discoloria, picta. (Habitus et char. *Macodis* excepto labello).—*Java.*

Subtribus 4. Diurideæ. *Caules e rhizomate sæpissime varie tuberifero erecti, simplices, aphylli 1-foliati v. rarius 2-pauci-foliati. Spica v. racemus terminalis. Anthera erecta v. antice inclinata, sæpius persistens. Rostellum erectum, sæpius abbreviatum nunc brevissimum, rarius antheræ æquilongum. Pollinia pulvereo-granulosa interdum fere solida. Genera gerontogea pro magna parte Australiana.*

* *Genera Asiatica. Herbæ tenues aphyllæ. Rostellum brevissimum.*

261. Lecanorchis. Perianthium urceolo dentato (calyculo) cinctum. Columna elongata. Clinandrium elevatum.—*Java, Japonia.*

262. Aphyllorchis. Calyculus 0. Columna longiuscula. Clinandrium elevatum.—*Ind. or., Archip. Malay.*

263. Stereosandra. Calyculus 0. Columna brevis. Clinandrium vix prominens. Pollinia in caudiculas longas producta.—*Java.*

** *Genera Australasica (speciebus perpaucis Asiaticis). Herbæ 1-pauci-foliatæ rarius aphyllæ. Rostellum interdum longiusculum. Pollinia demum a glandula rostelli pendula v. stipiti pendulo affixa.*

† *Labellum inferum.*

264. Thelymitra. Sepala, petala et labellum subæqualia, patentia. Columna brevis, alis latis cum clinandrio in cyathum integrum v. lobatum continuis. Pollinarii stipes 0. Caulis 1-foliatus.—*Australia, N. Zel., N. Caled., Archip. Malay.*

265. Epiblema. Labelli unguis lobis 2 erectis instructa, lamina indivisa. Cætera *Thelymitræ.—Australia austr. occid.*

266. Diuris. Sepalum posticum basi columnam amplectens, superne patens, cum petalorum apicibus sæpissime coloratum, lateralia sub labello longe linearia. Columna brevissima, rostello longo. Pollinarii stipes 0. Folia ad basin caulis pauca, angusta.—*Australia.*

267. Orthoceras. Sepalum posticum incurvum, fornicatum, lateralia linearia, incurvo-erecta. Columna brevissima, apice brachiis 2 rostello lato longioribus instructa. Pollinarii stipes 0. Folia pauca, angusta.—*Australia, N. Zel.*

†† *Labellum superum.*

268. Cryptostylis. Sepala et petala angusta, convoluto-subulata. Labellum basi columnam involvens, lamina lata indivisa. Columna brevissima, rostello lato crasso. Pollinarii stipes 0. Folia pauca.—*Australia, Ind. or., Archip. Malay.*

269. Prasophyllum. Sepalum posticum concavum v. fornicatum, lateralia erecta. Labellum basi concavum, indivisum. Columna brevissima, apice 2-brachiata. Pollinarii stipes longe linearis v. filiformis. Caulis 1-foliatus.—*Australia, N. Zel., N. Caled.*

*** *Genera Australasica (speciebus perpaucis Asiaticis). Herbæ 1-foliatæ rarius aphyllæ v. pauci-foliatæ. Rostellum brevissimum. Pollinia libera v. dorso varie rostello affixa.*

270. Microtis. Sepalum posticum erectum, latum, concavum, lateralia patentia. Labellum sessile, integrum v. 2-lobum. Columna brevissima. Folium 1, elongatum, teres. Flores parvi, dense spicati.—*Australia, N. Zel. (Java?).*

271. Corysanthes. Sepalum posticum incurvum galeatum v. stipitatum, lateralia parva, linearia v. filiformia. Labellum sub galea laxe tubulosum, lamina parva v. concava. Columna brevis, 2-alata v. 2-auriculata. Caules nani. Folium 1. Flos 1, majusculus.—*Australia, N. Zel., Archip. Malay.*

272. Pterostylis. Sepalum posticum galeatum, lateralia basi connata in labium 2-lobum v. longe 2-caudatum. Labellum articulatum, unguiculatum, lamina basi in appendiculam producta. Columna elongata, ad latera stigmatis 2-appendiculata. Folia ad basin caulis pauca v. scapus aphyllus. Flores solitarii v. racemosi.—*Australia, N. Zel., N. Caled.*

273. Caleana. Sepala et petala linearia. Labellum articulatum, unguiculatum, lamina lata peltata. Columna elongata, late 2-alata. Folium 1, angustum. Flores solitarii v. pauci. —*Australia extratrop.*

274. Drakæa. Sepala et petala linearia. Labellum articulatum, unguiculatum, lamina angusta peltata. Columna elongata, 2-auriculata, exalata. Folium 1, latum, v. scapus florens aphyllus. Flores solitarii v. pauci.—*Australia.*

275. Acianthus. Sepalum posticum concavum, lateralia filiformia. Petala brevia. Labellum sessile, indivisum. Columna elongata. Folium 1, latum. Flores solitarii v. racemosi.—*Australia or., N. Zel., N. Caled.*

276. Eriochilus. Sepalum posticum concavum, lateralia patentia stipitata. Labellum breve, lobis lateralibus erectis, medius recurvus, villosus, indivisus. Columna longiuscula. Folium 1, ovatum v. lanceolatum. Flores solitarii v. pauci.—*Australia.*

277. Lyperanthus. Sepalum posticum latum, concavum, lateralia angusta. Labelli unguis latus, lamina ovata v. lanceolata, recurva, indivisa, papillosa. Columna longiuscula, exalata. Folia pauca, rarius 1 radicale. Flores in racemo pauci.—*Australia, N. Zel., N. Caled.*

278. Burnettia. Sepala erecta v. conniventia. Labellum sessile, concavum, erectum, indivisum, apice recurvum, medio lamellatum. Columna longiuscule 2-alata. Scapus aphyllus, 2-3-florus. Folium e rhizomate serotinum.—*Tasmania.*

279. Cyrtostylis. Sepalum posticum lineare v. lanceolatum, erectum, lateralia anguste linearia, patentia. Labellum patens, planum, indivisum. Columna longiuscula, breviter 2-alata. Folium ad basin caulis latum. Flores solitarii v. pauci.—*Australia, N. Zel.*

280. Caladenia. Sepalum posticum sæpius erectum, lateralia plana, patentia, petalis latiora. Labellum erectum, lobis lateralibus erectis v. 0, medius recurvo-patens, fimbriatum dentatum v. varie callosum. Columna longiuscula, 2-alata. Folium angustum. Flores pauci, laxe racemosi.—*Australia, N. Zel.*

281. Glossodia. Sepala patentia. Labellum sessile, indivisum, nudum, sed calli e basi 2 longi erecti columnæ appliciti. Columna longiuscula, 2-alata. Folium oblongum v. lanceolatum.—*Australia.*

282. Adenochilus. Sepalum posticum subgaleatum, lateralia patentia. Labellum erectum, lobis lateralibus latis, medius recurvo-patens, varie callosum. Columna longiuscula, late 2-alata. Folium in medio caule ovatum. Flos unicus. Bractea appendiculam stipitiformem includens. —*Australia, N. Zel.*

283. Chiloglottis. Sepalum posticum incurvum, concavum, basi contractum, lateralia linearia v. teretia. Petala lanceolata. Labellum ovatum, indivisum, varie callosum. Columna elongata, apice late 2-alata. Folia 2, subradicalia. Scapus tenuis, 1-florus.—*Australia, N. Zel.*

284. Calochilus. Sepalum posticum erectum, concavum, lateralia patentia. Petala multo minora. Labellum sepalis longius, patens v. pendulum, indivisum, supra dense ciliato-fimbriatum. Columna brevis, late 2-alata. Folium angustum, elongatum.—*Australia or.*

Subtribus 5. Arethuseæ. *Caules e rhizomate sæpius varie tuberifero erecti, simplices, aphylli 1-foliati v. rarissime paucifoliati. Spica v. racemus terminalis. Anthera opercularis, incumbens v. rarius suberecta. Pollinia varie granulosa. Rostellum brevissimum.*

285. Arethusa. Sepala incurvo-erecta, basi cohærentia. Labellum (inferum) angustum, basi columnæ adnatum et brevissime calcaratum. Columna longiuscula, superne 2-alata. Caulis 1-foliatus v. scapus florens aphyllus, gemmis sterilibus 2-3-foliatis.—*Amer. bor., Japonia.*

286. Calopogon. Sepala patentia. Labellum (superum) ascendens, ad apicem unguis barbatum. Columna elongata, superne 2-alata. Folium gramineum.—*Amer. bor.*

287. Pogonia. Sepala erecta v. rarius patentia. Labellum (inferum) erectum v. declinatum,

indivisum v. 3-lobum. Columna elongata, exalata. Caulis 1–pauci-foliatus, v. scapus florens aphyllus, folio e gemma distincta serotino.—*Amer. et Asia trop. et temp., Africa trop.*

288. Pogoniopsis. Sepala erecta. Labellum basi saccatum, lineare, antrorsum dilatatum, in lacinias ∞ lineares solutum. Scapus florens aphyllus, racemo densiusculo.—*Brasilia.*

289. ? Chlorosa. Sepala erecto-patentia, angusta. Labellum angustum, indivisum, columnam amplectens. Columna brevissima. Scapus aphyllus. Folium in gemma distincta late ovatum, petiolatum.—*Java.*'

290. Leucorchis. Sepalum posticum cum petalis in labium superum 3-fidum, lateralia in labium inferum 2-fidum connata. Labellum latissimum, indivisum. Columna longiuscula, pede brevi. Herbæ tenues, aphyllæ, floribus parvis.—*Ind. or., Archip. Malay., ins. maris Pacifici.*

291. Gastrodia. Sepala cum petalis in tubum late ventricosum 5-lobum antice fissum connata. Labellum indivisum. Columna sæpius elongata, pede brevi nunc brevissimo. Herbæ aphyllæ.—*Ind. or., Asia occid., Archip. Malay., Australia, N. Zel.*

292. Yoania. Sepala carnosa, libera, patentia. Labellum cum petalis campanulato-connivens, apice subfornicatum. Columna plana, quadrata, 2-alata. Pollinarii stipites 2, filiformes. Herba aphylla.—*Japonia.*

293. Epipogon. Sepala libera, angusta. Labellum basi late concavum saccatum v. breviter calcaratum. Columna brevis, stigmate a rostello distante. Pollinarii stipites 2, filiformes. Herbæ aphyllæ.—*Orbis veteris reg. temp. et trop.*

Subtribus 6. Limodoreæ. *Caules e rhizomate brevi v. repente non tuberifero erecti, simplices, plurifoliati v. rarius aphylli, sæpius elati. Spica v. racemus terminalis. Anthera opercularis, incumbens v. suberecta. Rostellum breve. Pollinia pulvereo-granulosa, anthera dehiscente dorso v. basi rostello affixa. Genera extratropica.*

294. Limodorum. Sepala erecta, incurva. Labellum basi cum columna in cupulam latam connatum, longe calcaratum. Columna elongata. Caulis elatus, aphyllus. Flores majusculi. —*Reg. Mediterr., Eur. centr.*

295. Chloræa. Sepala patentia v. posticum erectum. Labellum ecalcaratum, a basi incurvo-ascendens v. brevissime columnæ adnatum. Columna longiuscula v. mediocris. Caulis foliatus.—*Amer. austr. extratrop.*

296. Bipinnula. Sepala lateralia elongata, apice fimbriato-multifida. Cætera *Chloræa.* —*Amer. austr. extratrop.*

297. Cephalanthera. Sepala conniventia. Labellum supra basin concavam v. breviter saccato-calcaratam constrictum. Columna longiuscula. Caulis foliatus, floribus capsulisque erectis.—*Eur., Afr. bor., Asia temp., Amer. bor. occid.*

298. Epipactis. Sepala patentia. Labellum supra basin latam concavam constrictum. Caulis foliatus, floribus capsulisque nutantibus v. pendulis.—*Eur., Asia temp., Amer. bor.*

Tribus IV. Ophrydeæ. Herbæ terrestres, rhizomate sæpius brevi, fibras fasciculatas emittente, quarum una quotannis in tuber indivisum v. lobatum incrassatur, e quo planta nova evolvitur, tubere annotino demum deliquescente; rarius fibræ e rhizomate perenni plures crasso-carnosæ. Caulis annuus, erectus, simplex, plus minus foliatus, spica v. racemo terminatus. Flores sessiles v. breviter pedicellati, ad axillam bracteæ solitarii, spica rarius ad florem unicum reducta. Anthera 1, cum apice columnæ sæpius brevissimæ continua, connectivo a clinandrio non distincto, erecta rostello supera, v. reclinata a rostello aversa; loculi adnati, paralleli v. divergentes, quasi reversi, apicibus nempe inferis nunc brevibus nunc elongatis dorsoque rostelli lobis lateralibus applicitis v. adnatis; pollinia in loculis solitaria v. rarius gemina, grosse v. rarius tenuiter granulosa, in caudiculam læviorem producta, caudiculis anthera dehiscente glandulæ a dorso rostelli solvendæ affixis (an rarius glandula e polline ipso formata?). Capsula semper erecta.

Tribus a cæteris distinctissima antheræ loculis dorso usque ad rostellum adnatis, nec a basi facie rostellum spectantibus.

Subtribus 1. Serapieæ. *Anthera erecta. Polliniorum glandulæ in sacculo a dorso rostelli elevato inclusæ.*

299. Orchis. Labellum calcaratum. Polliniorum glandulæ 2 distinctæ v. in unam coalitæ, semper in sacculo unico inclusæ.—*Hemisph. borealis reg. temp. imprimis Europa.*

300. SERAPIAS. Labellum ecalcaratum, lobo medio sæpius linguiformi, basi lamina glandulosa instructum. Antheræ connectivum ultra loculos productum. Polliniorum glandulæ in sacculo unico inclusæ sæpius connatæ.—*Regio Mediterr.*

301. ACERAS. Labellum ecalcaratum, pendulum, angustum, basi nudum. Antheræ connectivum non productum. Polliniorum glandulæ in unum connatæ, sacculo unico. Flores parvi.—*Europa, Reg. Mediterr.*

302. OPHRYS. Labellum ecalcaratum v. rarius brevissime subcalcaratum, lamina convexa. Polliniorum glandulæ discretæ, in sacculis 2 distinctis inclusæ.—*Europa, Asia occid., Africa bor.*

Subtribus 2. Habenarieæ. *Anthera erecta. Polliniorum glandulæ nudæ v. rarius rostelli lobis canaliculatis v. apice inflexis semi-inclusæ.*

* *Labellum ecalcaratum.*

303. HERMINIUM. Herbæ tenues v. humiles, paucifoliatæ, parvifloræ. Anthera immarginata.—*Europa, Asia temp. et mont.*

304. STENOGLOTTIS. Herba foliis subradicalibus, parviflora. Antheræ (v. clinandrii) margines incrassati, apice lobo brevi terminati.—*Africa austr.*

305. ARNOTTIA. Herba habitu *Cynorchis*, foliis 1–2 subradicalibus. Flores in spica laxa parvuli, sepalis concavis demum patentibus.—*Ins. Mascar.*

** *Labellum calcaratum. Rostelli lobus medius dentiformis angustus v. obsoletus, erectus v. rarius latior deflexus.*

306. BARTHOLINA. Petala et sepala angusta, subæqualia, erecta. Labellum patens, latum, longe fimbriato-multifidum. Anthera longissima, angusta. Rostelli lobus medius deflexus. Herba 1-flora, basi 1-phylla.—*Afr. austr.*

307. HUTTONÆA. Petala longe unguiculata, lamina concava v. cucullata, fimbriata. Herbæ plurifoliatæ, spica laxe ∞-flora.—*Afr. austr.*

308. HOLOTHRIX. Sepala subæqualia. Petala et labellum sepalis longiora, erecta. Herbæ basi 1–2-foliatæ, caule patenter v. reverse piloso. Flores in spica tenui parvi, secundi.—*Afr. trop. et austr.*

309. BICORNELLA. Labelli lobi laterales marginibus calcaris incumbentes, lobos laterales rostelli ferentes. Cætera *Habenariæ* specierum parviflorarum.—*Madagascaria.*

310. HABENARIA. Petala sepalis non longiora, sessilia, polymorpha. Herbæ pauci- v. ∞-foliatæ, rarissime aphyllæ, floribus spicatis v. racemosis.—*Utriusque orbis reg. temp. et trop.*

*** *Labellum calcaratum. Rostelli lobus medius amplus, erectus.*

311. DIPLOMERIS. Petala sepalis majora. Rostelli lobus medius ample membranaceo-dilatatus; stigmatis processus in laminam oblongam connati. Herbæ humiles, 1–3-foliatæ, flore unico magno.—*Himalaya.*

312. BONATEA. Rostelli lobus medius ample galeatus. Cætera *Habenariæ* specierum grandiflorarum, caule elato folioso.—*Afr. austr.*

313. CYNORCHIS. Rostelli lobus medius amplus, complicatus. Stigmatis processus 2, crassi. Herbæ folio unico v. paucis subradicalibus. Racemi laxiusculi, floribus sæpius parvulis.—*Afr. trop., ins. Mascar.*

314. HEMIPILIA. Rostelli lobus medius complicatus. Stigmatis processus 0. Herbæ basi 1-foliatæ, racemo paucifloro.—*Ind. or.*

315. GLOSSULA. Labelli calcar vesiciformis, lobi laterales filiformes. Rostelli lobus medius concavus. Stigmatis processus 2, crassiusculi. Herbæ paucifoliatæ, spica tenui, floribus parvulis.—*China, Cochinchina.*

Subtribus 3. Diseæ. *Anthera reclinata v. in dorso columnæ reflexa rarius suberecta. Stigma amplum, nunc pseudoterminale nunc ab anthera distans labello subadnatum.*

316. SATYRIUM. Labellum erectum, latum, concavum, 2-calcaratum v. 2-gibbum. Stigma pseudoterminale, concavum v. 2-labiatum. Herbæ paucifoliatæ, rarius elatæ foliosæ. Spicæ sæpius floribundæ.—*Ind. or., ins. Mascar., Africa trop. et austr.*

317. ? PACHITES. Calcar 0. Stigma sub rostello crassissimo carnoso brachiis 2 linearibus

erectis appendiculatum. Herba foliosa, foliis linearibus. Spica longa, teres, crassa, floribus parvis numerosis.—*Afr. austr.*

318. Disa. Sepalum posticum calcaratum concavum v. subplanum. Rostelli lobi laterales erecti v. recurvi, medius parvus. Stigma a rostello distans ad basin columnæ v. labelli, pulvinatum v. cupulatum, integerrimum. Pollinarii glandulæ distinctæ. Herbæ elatæ foliosæ, v. tenues paucifoliatæ. Flores magni subsolitarii, v. parvi dense spicati, v. intermedii.—*Afr. trop. et austr., ins. Mascar.*

319. Herschelia. Sepalum posticum calcaratum. Rostelli lobi 3, erecti, æquilongi, laterales incurvi. Stigma a rostello distans, ad basin columnæ pulvinatum, didymum. Pollinarii glandulæ in unam integram concretæ. Herbæ elatæ, foliis radicalibus longe lineari-filiformibus. Flores mediocres, laxe spicati.—*Afr. austr.*

320. Monadenia. Sepalum posticum calcaratum. Stigma sub rostello amplo membranaceo ad basin labelli crasse pulvinatum, integrum. Pollinarii glandulæ in unam concretæ. Herbæ foliosæ, floribus parvulis sæpius dense spicatis.—*Afr. austr.*

321. Schizodium. Sepalum posticum calcaratum. Columna *Disæ*, stigmate tamen a labello discreto. Herbæ tenues, foliis subradicalibus parvis ovatis insigniter petiolatis.—*Afr. austr.*

322. Brownleea. Calcar 0. Stigma latum, vix pulvinatum, a labello discretum. Cætera *Disæ*. Herbæ debiles, medio 1–2-foliatæ. Racemus laxe pauciflorus v. spica densa floribunda. —*Afr. austr.*

323. ? Forficaria. Calcar 0. Petala setacea. Labellum nanum, carnosum. Stigma excavatum. Habitus *Disæ* sect. *Trichochili*. Folia subulata, rigida, in rhizomate fasciculata. Scapus aphyllus. Spica laxa, pauciflora.—*Afr. austr.*

324. Brachycorythis. Calcar 0. Labelli unguis brevis, latus, cavus, subcarnosus. Stigma magnum, concavum, a labello liberum. Herbæ foliosæ, foliis in bracteas foliaceas abeuntibus. Spica floribunda, foliata.—*Afr. austr. et trop*

325. Schizochilus. Sepalum posticum ecalcaratum. Labellum calcaratum, ungue cæterum brevi lato cavo. Herbæ glabræ, infra medium foliatæ, foliis angustis. Spicæ densæ, bracteis angustis.—*Afr. austr.*

326. Platycoryne. Sepalum posticum ecalcaratum. Labellum longe calcaratum. Stigma pulvinatum, labello subadnatum. Herba foliis paucis parvis angustis. Spica laxa, brevis.—*Madagascaria.*

Subtribus 4. Corycieæ. *Sepalum posticum cum petalis sæpius latis in galeam cohærens. Labellum basi columnæ adnatum, ultra antheram varie productum v. appendiculatum.*

327. Pterygodium. Sepala lateralia libera, plana. Labellum, præter laminam v. appendiculam terminalem, dorso lamina indivisa v. 2–3-loba instructum. Stigma transversum, sæpius 2-brachiatum. Habitus nunc *Ophrydis* nunc *Habenariæ* specierum majorum.—*Africa austr.*

328. Disperis. Sepala lateralia libera, dorso calcarata v. saccata. Labellum apice 2-labiatum v. varie dilatatum v. appendiculatum. Stigma transversum. Folia pauca dissita, v. 2 subopposita. Flos unicus v. spica laxa.—*Ind. or., Afr. trop. et austr., ins. Mascar.*

329. Corycium. Sepala lateralia usque ad apicem in labium anticum connata. Labellum apice transversum v. varie 2-lobum, dorso sæpe appendiculatum. Stigma parvum v. 2-pulvinatum. Herbæ foliatæ, foliis angustis. Spica densa.—*Afr. austr.*

330. Ceratandra. Sepala lateralia libera, plana. Labellum apice transversum, appendiculatum v. nudum. Rostelli lobi laterales elongati erecti. Stigma transversum. Herbæ foliatæ, foliis angustis. Flores dense spicati, rarius laxe racemosi.—*Afr. austr.*

Tribus V. Cypripedieæ. Herbæ terrestres, rhizomate brevi v. repente non tuberifero. Caulis erectus, simplex, foliatus, non pseudobulbosus. Columna sub rostello (stylo) brevis. Antheræ 2, ad latera rostelli sessiles v. stipitatæ, loculis parallelis contiguis, polline granuloso; anthera postica cæterum tribuum sæpius sterilis, vario difformis (antheridium), rarius perfecta lateralibus similis, v. omnino deficiens. Rostellum seu stylus inter antheras perfectas plus minus elongatum, apice in discum obliquum antice stigmatosum dilatatum.

331. Cypripedium. Sepala patentia, lateralia sæpius connata. Labellum inflato-calceiforme. Antheræ perfectæ 2; antheridium late laminiforme v. carnosum. Ovarium 1-loculare, placentis parietalibus. Flores solitarii rarius pauci.—*Europa, Asia temp. et trop., Amer. bor., Mexico.*

332. SELENIPEDIUM. Perianthium et antheræ *Cypripedii* (nisi labellum abnorme). Ovarium 3-loculare, placentis axilibus. Pedunculus simplex v. ramosus, ∞-florus.—*Amer. austr. montana.*

333. APOSTASIA. Sepala petala et labellum libera, consimilia. Antheræ perfectæ 2; antheridium angustum v. 0. Ovarium 3-loculare, placentis axilibus. Spicæ simplices v. ramosæ, ∞-floræ.—*Ind. or., Archip. Malay., Australia trop.*

334. NEUWIEDIA. Sepala et petala libera, consimilia; labellum paullo latius. Antheræ perfectæ 3. Ovarium 3-loculare, placentis axilibus. Spica densa, simplex, floribus parvis.—*Malacca, Archip. Malay.*

TRIBUS I. EPIDENDREÆ.

1. **Pleurothallis**, *R. Br. in Ait. Hort. Kew. ed.* 2, v. 211. (Humboldtia, *Ruiz et Pav. Fl. Per. et Chil. Prod.* 121, *t.* 27; *Syst. Veg.* 233.)—Sepala subæquilonga, erecta v. subpatentia, posticum liberum v. ima basi lateralibus brevissime connatum, lateralia basi v. alte connata in unum integrum 2-fidum v. fere 2-partitum, sub pede columnæ sæpius concavum v. leviter gibbum. Petala sepalis breviora v. angustiora, nunc minima rarius sepalis subæquilonga. Labellum petalis brevius v. rarius paullo longius, basi sæpius contractum et cum columnæ basi plus minus distincte articulatum; lobi laterales erecti columnam amplectentes v. parvi dentiformes v. obsoleti, medius integerrimus v. emarginatus, subpatens. Columna labello æquilonga v. paullo brevior, semiteres, angulis interdum membranaceo-marginatis nec vere alatis, basi sæpius in pedem brevissimum producta; clinandrium parvum v. plus minus membranaceo-productum, obliquum, integrum v. breviter 3-lobum. Anthera terminalis v. intra marginem clinandrii opercularis, incumbens, 1–2-locularis, pollinia 2, cerea, globosa ovoidea v. pyriformia, libera v. apicibus visco parco cohærentia. Capsula erecta, obliqua v. fere nutans, subglobosa ovoidea v. oblonga, 3-costata 3-quetra v. 3-dyma.—Caules cæspitosi v. rami caulis repentis v. rhizomatis simplices, longiusculi breves v. brevissimi, apice 1-foliati, infra folium interdum 1–∞-vaginati, vaginis in una specie in folia productis, non pseudobulbosi. Racemi ad basin folii intra vaginam seu spatham longiusculam brevem v. minimam 1–∞, simplices, floribundi v. laxe pauciflori, v. in paucis speciebus abbreviati 1–3-flori denseque aggregati. Flores parvi, nunc minimi v. in paucis speciebus mediocres v. majusculi, in racemis floribundis sæpius secundi. Bracteæ parvæ, rarius magis evolutæ, breviter ocreiformes, nonnullæ sæpe in pedunculo infra flores vacuæ, nunc omnes minutæ v. obsoletæ.

Species descriptæ fere 350 et verisimiliter numerosæ adhuc ineditæ in montibus Americæ tropicæ latent, ubi genus a Brasilia et Bolivia usque ad Mexicum et Indiam occidentalem extenditur. *Lindl. Fol. Orch.* 1859. *Reichb. f. in Walp. Ann.* vi. 167; *Beitr. Orch. Centr. Amer.* 58, 96; *Xen. Orch. t.* 28, 60, 108, 137, 210 *et* iii. 24; *in Hamb. Gart. Zeit.* xvi. 15, 180; xxi. 294; *Otia Hamb.* 18, 92; *in Flora*, 1865, 275; *in Linnæa* xli. 13, 47, 93, 117, 132.

Genus vastum, quoad inflorescentiam petalorum formam etc. polymorphum, etsi characteribus essentialibus bene limitatum, sed nondum in sectiones distinctas divisum. Lindley, in Bot. Reg. 1842, Misc. 68, series proposuit 4, imprimis ex inflorescentia et habitu sat naturales, quas serius in Foliis Orchidaceis usque ad 10 extendit, non semper æque feliciter. *Spathaceæ* e.g. species continet inter se habitu dissimiles, vagina ad basin inflorescentiæ seu spatha solito majore junctas. Hæc spatha tamen in toto fere genere adest et in speciebus inter se quam maxime affinibus magnitudine valde differt; in speciminibus nonnullis *P. Matthewsii*, Lindl., inter *Macrophyllas fasciculatas espathaceas* collocatæ, spatham vidimus ultrapollicarem. Florum structura interior, quoad formam petalorum labelli et columnæ, si revera characteres præbet cum variationibus habitus et inflorescentiæ convenientes, adhuc in perpluribus speciebus imperfecte descripta v. sæpe in flore unico semel tantum observata ad sectiones naturales definiendas haud sufficit. Interea series sequentes e Lindleyanis selectæ, etsi male definitæ, quoad species plerasque naturales videntur.

1. *Elongatæ floribundæ.* Racemi sæpius plures v. in paucis speciebus solitarii, folio multo longiores, floribus numerosis sæpius parvulis breviter pedicellatis secundis. Huc referrimus species plerasque e *Spathaceis* Lindleyi cum nonnullis ex *Elongatis* et *Acuminatis*. *H. B. et K. Nov. Gen. et Sp. t.* 90

(*Stelis*). *Pœpp. et Endl. Nov. Gen. et Sp. t.* 84 *ad* 86. *Hook. Ic. Pl. t.* 50; *Exot. Fl. t.* 123. *Bot. Mag. t.* 3030. *Bot. Reg. t.* 1968. *Lodd. Bot. Cab. t.* 949, 1571.

Crocodilanthe, *Reichb. f. Xen. Orchid.* i. 10, *t.* 6, est *P. crocodilanthe*, Lindl., species inter *Elongatas* insignis racemis solitariis, floribus ut in affinibus numerosis breviter pedicellatis secundis sed solito multo majoribus (8–9 lin. longis). Genus ab auctore primum distinctum fuit labello basi lata vix distincte cum columna articulato, sed articulatio in pluribus species parum distincta est, et auctor ipse serius (in Walp. Ann. vi. 172) speciem inter *Pleurothalles* admisit, ubi *C. tricarinatæ*, Pœpp., pluribus notis accedit.

2. *Elongatæ minores.* Racemi solitarii v. pauci, folio longiores, laxi, floribus mediocribus v. parvulis dissite pedicellatis. Species sæpe humiles, caule tamen infra folium evoluto. Huc pertinent *Elongatæ* pleræque in Fol. Orchid. enumeratæ. *Pœpp. et Endl. Nov. Gen. et Sp. t.* 87. *Hook. Ic. Pl. t.* 55. *Bot. Mag. t.* 3897, 4142. *Knowles et West. Fl. Cab. t.* 19. *Saund. Ref. Bot. t.* 118, 119. *Karst. Ausw. Venez. Gew. t.* 7 (*Rhynchopera*).

3. *Rhynchopereæ.* Racemi plures rarius solitarii, folio sæpius parum breviores, laxi, floribus majusculis paucis (interdum solitariis?) pedicellatis sæpius bene coloratis, petalis quam sepala parum brevioribus acuminatis v. angustis. Caules bene evoluti et folium sæpe majusculum. Rhynchopera, *Klotzsch in Link Kl. et Otto Ic. Pl. Rar.* 103, *t.* 41. Huc pertinent *P. Matthewsi*, Lindl., affinesque, *P. lanceolata*, Lindl., etc. In hac Lindley pollinia observavit 4, in flore tamen a nobis examinato ex specimine Fendleriano n. 1476 2 tantum ad normam generis vidimus.

Talpinaria, *Karst. Fl. Colomb.* i. 153, *t.* 76, est ex ic. et descr. species *Rhynchoperæ* affinis, pedicellis subgeminis e spatha exsertis, labelli lobis lateralibus latis brevibus insigniter fimbriato-laceris.

Acronia, *Presl, Symb.* ii. 9, *t.* 57, ex icone videtur species e serie *Rhynchoperearum* sepalis petalisque angustissimis caudato-acuminatis, petalis pro labello descriptis, labello vero omisso.

Species paucæ e variis seriebus petalis angustissimis apud Lindleyum seriem formant *Restrepioidearum.*

P. atropurpurea, Lindl. Fol. Orchid. Pleuroth. 19 (*Masdevallia fenestrata*, Lindl., in Bot. Mag. t. 4164), species ex India occidentali flore majusculo bene colorato insignis est sepalis apice basique arcte confertis cohærentibusque medio tantum a latere apertis, sepalis lateralibus ut in pluribus speciebus usque ad apicem connatis. Nobis rite videtur ad *Pleurothallem* relata, ubi a cæteris *Rhynchopereis* differt statura humili pedunculis 1-floris.

4. *Fasciculatæ.* Pedunculi sæpius 1–3-flori, plurimi interdum numerosi, folio breviores. Folium sessile, basi sæpius cordatum, sinu interdum clauso v. in caulem decurrente. Flores mediocres v. parvulæ. *Macrophyllæ fasciculatæ*, Lindl. Fol. Orch. cum *Sicariis* paucis. *Pœpp. et Endl. Nov. Gen. et Sp. t.* 83. *Wawra, Pr. Max. Reise, Bot. t.* 104, *f.* 1. *Lindl. in Journ. Hort. Soc.* ii. 247, *cum ic.* *Reichb. f. Xen. Orch. t.* 28, *f.* 2. *Hook. Exot. Fl. t.* 197. *Bot. Mag. t.* 3261. *Bot. Reg. t.* 1298. *Lodd. Bot. Cab. t.* 1908.

Sicariæ, Lindl., includit species e diversis seriebus imprimis e *Fasciculatis* et *Aggregatis*, caule superne plus minus compresso ancipiti v. bialato.

5. *Aggregatæ.* Pedunculi brevissimi, 1-flori rarius 2-flori, ad basin folii densissime aggregati, inflorescentia sessili fere capituliformi. *Aggregatæ* Lindl. cum *Sicariis* nonnullis. *Pœpp. et Endl. Nov. Gen. et Sp. t.* 82. *Wawra, Pr. Max. Reise, Bot. t.* 104, *f.* 2. *Saund. Ref. Bot. t.* 95.

Myoxanthus, *Pœpp. et Endl. Nov. Gen. et Sp.* i. 50, *t.* 88, est *P. Reymondi, Lindl. Bot. Mag. t.* 5385, species *Aggregatarum* petalis sepalisque angustis elongatis. Dubois-Reymondia, *Karst. in Bot. Zeit.* 1848, 397 (prius Duboisia, *Karst. Walp. Ann.* i. 773, *non R. Br.*) a Reichb. f. in Walp. Ann. iii. 520 rite ad *Pleurothalles Aggregatas* refertur. Lindley speciem in *Restrepioideis* includit ob petala medio angustata. Acianthera, *Scheidw. in Allgem. Gartenz.* 1842, 292, etiam ad *Aggregatas* a Lindleyo refertur.

6. *Apodæ*, Lindl. (olim *Muscosæ*). Species parvæ nunc pusillæ v. nanæ, inflorescentia fere *Elongatarum minorum*, caule infra folium abbreviato v. brevissimo. *Pœpp. et Endl. Nov. Gen. et Sp. t.* 89a, 90 (*Specklinia*). *Miq. Stirp. Surin. t.* 64. *Reichb. f. Beitr. Orch. Centr. Amer. t.* 10. *Wawra, Pr. Max. Reise, Bot. t.* 104, *f.* 4. *Bot. Mag. t.* 3682. *Bot. Reg. t.* 1797, 1825. *Saund. Ref. Bot. t.* 120. Centranthera, *Scheidw. in Allgem. Gartenz.* 1842, 293.

7. *Caulescentes*, Lindl. Species gracilis multicaulis Ecuadorensis (*P. caulescens*, Lindl.) vaginis infra folium pluribus in laminam foliaceam productis; folium summum tamen more generis non vaginans. In *P. diptera* tamen caules vidimus ut in *P. macrorhiza* secus rhizoma cauliforme 1-foliatos.

SPECKLINIA, *Lindl. Gen. et Sp. Orch.* 8, species includit plures inter minores, a genere olim separatas ob calycis labium inferius (e lobis 2 lateralibus connatis) basi evidentius gibbum, serius tamen ab auctore ipso in seriebus diversis *Pleurothallis* distributas.

P. peduncularis, Hook. Journ. Bot. iii. 308, t. 9, e Guatemala, errore quodam a Lindleyo ad *P. aphthosam* relata, est *P. ophiocephala*, Lindl., rite a Reichenbachio cum *P. Miersii*, Lindl., ad *Restrepiam* translata. *P. Gardneri*, Lindl., species Brasiliensis *P. Miersii* similis, est pariter *Restrepiæ* species polliniis 4.

2. **Stelis**, *Swartz in K. Vetensk. Acad. Nya Handl. Stockh.* xxi. 248; *Fl. Ind. Occid.* iii. 1549.—Sepala sæpius subæqualia, lata v. triangularia, patentia, breviter v. alte connata, rarius angustiora et minus patentia v. posticum paullo longius v. altius solutum. Petala multo breviora, lata, marginibus incrassatis, columnam et labellum sæpe subincludentia. Labellum ad basin columnæ sessile, petalis æquale et subsimile v. angustius et interdum breviter 3-lobum. Columna labello æquilonga v. brevior, nunc brevissima, lata, superne sæpius crassior truncata, v. antice utrinque angulo v. lobo carnoso instructa, apoda; clinandrium parum prominens, truncatum. Anthera terminalis, opercularis, incumbens, semiglobosa, 2-locularis; pollinia 2, cerea, ovoidea v. pyriformia, apice sæpius visco parco connexa. Capsula parva, ovoidea v. oblonga, erostris, sæpe 3-quetra.—Caules cæspitosi v. caulis repentis rami simplices, apice 1-phylli, infra folium sæpe 1–3-vaginati, non pseudobulbosi. Folium coriaceum, basi sæpe in petiolum contractum, petiolo sæpe concavo v. canaliculato et interdum prope basin articulato, non tamen in vaginam clauso. Flores parvi nunc minimi, in racemo elongato ad basin folii terminalis breviter pedicellati, secundi, rarius subdistichi. Bracteæ alternæ, sæpe distichæ, nunc minimæ concavæ, nunc ocreiformes v. laxæ pedicellum æquantes, rarius elongatæ acuminatæ.

Species editæ ad 150, Americæ tropicæ incolæ, a Brasilia et Peruvia usque ad Indiam occidentalem et Mexicum extensæ. *Lindl. Fol. Orchid.* 1858. *Reichb. f. in Walp. Ann.* vi. 198; *Orch. Centr. Amer.* 57, 93, *t.* 8, 9; *Xenia Orch. t.* 60, *f.* 7, *et* iii. 25; *in Wawra, Pr. Max Reise, Bot. t.* 104, *f.* 3; *Otia Hamb.* 19; *in Linnæa* xli. 7, 118. *Jacq. Stirp. Amer. t.* 133, *f.* 2 (*Epidendrum*). *Pœpp. et Endl. Nov. Gen. et Sp. t.* 79 *ad* 81. *Sm. Exot. Bot. t.* 75. *Hook. Ic. Pl. t.* 62; *Exot. Fl. t.* 158. *Bot. Mag. t.* 3975, 6521. *Bot. Reg. t.* 935. *Lodd. Bot. Cab. t.* 442, 1011.

Genus in sectiones 2 dividitur: 1. *Eustelis*, Lindl. (*Trivalves*, Reichb. f.), sepalis æqualibus æqualiterque patentibus; et 2. *Dialissa*, Lindl. (*Bivalves*, Reichb. f.), sepalis sæpe minus patentibus v. angustioribus, postico nunc longiore nunc altius soluto. DIALISSA, *Lindl. in Ann. Nat. Hist. ser.* 1, xv. 107. Lindley insuper in Fol. Orchid. species nonnullas a *Dialissis* typicis ab *Eustele* parum distinctis separavit sub sectione tertia *Labiata*, sepalis angustioribus minus patentibus obscure subbilabiatis. Hæ quodammodo *Pleurothalli* accedunt, etsi petalis labelloque bene distinctæ. Species *Stelidis* præterea variant columnæ forma, lobis lateralibus v. brachiis plus minus distinctis. *S. disticha*, Pœpp. et Endl. l. c. t. 81, insignis est calyce late campanulato-patente obscure sinuato-3-lobo. In *S. purpurascente*, A. Rich., species Mexicana, Lindley pollinia 8 vidit, quod tamen adhuc ex aliis observationibus non confirmatur, in flore a nobis examinato anthera jam delapsa fuit; characteres cæteri omnino *Stelidis* et specimina illis *S. Liebmanni*, Reichb. f., simillima sunt.

3. **Physosiphon**, *Lindl. Bot. Reg. sub n.* 1797.—Sepala basi in tubum ovoideum v. urceolatum connata, superne æqualiter libera, patentia. Petala in fundo tubi nana, carnosa, obovali-cuneata. Labellum parvum, cum basi columnæ articulatum, oblongo-cuneatum, concavum, medio utrinque lobo brevi auctum. Columna subteres, exalata, apoda v. in pedem brevem producta; clinandrium breve, sæpius obtuse 3-lobum. Anthera terminalis, opercularis, incumbens, decidua; pollinia 2, cerea, ovoidea, apice visco parco subcohærentia.—Caules in rhizomate repente breves, simplices, apice 1-phylli, infra folium 1–2-vaginati, non pseudobulbosi. Folium coriaceum, basi angustatum. Flores parvi, in racemo elongato ad basin folii terminalis pedunculati, plures, breviter pedicellati, secundi. Bracteæ breves, ocreatæ.

Species ad 4, Americæ tropicæ a Brasilia usque ad Mexicum incolæ. *Hook. Ic. Pl. t.* 508. *Bot. Mag. t.* 4869. *Lodd. Bot. Cab. t.* 1601 (*Stelis*). *Saund. Ref. Bot. t.* 96. *Reichb. f. in Bot. Zeit.* 1866, 385.

Genus *Stelidi* valde affine, nec differt nisi perianthio exteriore urceolato-tubuloso.

4. **Lepanthes,** *Swartz in K. Vetensk. Acad. Nya Handl. Stockh.* xxi. 249, *t.* 8; *Fl. Ind. Occid.* iii. 1555.—Sepala tenuia, lata, subæqualia, basi breviter connata v. sæpius lateralia altius connata, postico sublibero. Petala multo breviora, ungue brevi basi columnæ adnata, lamina irregulariter transverse eblonga, sæpe varie appendiculata. Labellum, ungue brevi columnæ arcte applicita v. adnata, divaricato-2-lobum, lobis polymorphis alas columnæ simulantibus. Columna brevis, angusta, apice dilatata, exalata, apoda; clinandrium breve. Anthera terminalis, opercularis, subcucullata, incumbens, semiglobosa; pollinia 2, cerea, ovoidea v. acuminata, libera v. apice visco parco cohærentia. Capsula parva, globosa v. ovoidea, subtriquetra.—Herbæ sæpius parvæ epiphyticæ, caule v. ramulis caulis repentis apice 1-phyllis, infra folium vaginis sæpius plurimis dissitis brevibus laxisque v. longioribus ocreiformibus instructis. Folium sæpius cordatum v. parvum, rarius in petiolum brevissimum contractum interdum eleganter transverse venosum. Racemi terminales, ad basin folii solitarii v. pauci, nunc tenues recti bracteis eleganter distichis floribundi, nunc longiores graciliores, rhachi flexuosa, floribus dissitis. Flores parvi, nunc minuti.

Species ad 40, Andium Americæ australis et centralis, Indiæ occidentalis et Mexici incolæ. *Lindl. Gen. et Sp. Orch.* 10. *Reichb. f. Xen. Orch.* i. 140, *t.* 49, 50; *in Walp. Ann.* iii. 523; vi. 196; *in Flora* 1865, 275; *Orch. Centr. Amer.* 56, 90, *t.* 9, 10; *in Linnæa* xli. 46. *Hook. Journ. Bot.* i. *t.* 114. *Bot. Mag. t.* 4112, 5259. *Bot. Reg. t.* 1762.

Genus quoad species normales a *Pleurothalli* facile dignoscitur habitu petalis &c. *L. nummularia,* Reichb. f., sola differt caule filiformi repente ramulis floriferis numerosis brevissimis 1-foliatis 1-floris sub folio 1-vaginatis, ita ut prima facie flores ad axillas foliorum distiche alternorum apparent.

5. **Restrepia,** *H. B. et K. Nov. Gen. et Sp.* i. 366, *t.* 94.—Sepalum posticum liberum, lateralia basi v. alte connata in unum integrum 2-dentatum v. 2-fidum basi æquale v. leviter gibbum. Petala libera, filiformia v. setaceo-acuminata, apice sæpe glanduloso-dentata, v. rarius parva latioraque. Labellum oblongum v. ovatum, basi sæpius contractum et cum columnæ basi articulatum, planum v. basi concavum, utroque latere sæpius dente v. lobo brevi v. arista auctum. Columna elongata, angusta, nuda v. angustissime marginata, cæterum exalata, apoda; clinandrium truncatum v. vix postice productum, rarius alte cucullatum. Anthera terminalis, opercularis, incumbens; pollinia 4, cerea, globosa v. anguste pyriformia, apice per paria visco parco cohærentia. Stigma infra antheram transversum, vix prominulum v. spongioso-incrassatum.—Caules cæspitosi v. rami caulis repentis simplices, longiusculi v. rarius brevissimi, apice 1-foliati, infra folium sæpius 1-3-vaginati. Pedunculi ad basin folii solitarii v. pauci, vagina spathiformi sæpius brevi stipati, 1-flori, folio breviores, sæpius graciles. Flores quam in *Pleurothalle* sæpius majores, rarius parvi.

Species descriptæ ad 20, nonnullæ tamen reducendæ, Americæ tropicæ a Brasilia usque ad Mexicum incolæ. *Lindl. Fol. Orch.* 1859. *Reichb. f. in Walp. Ann.* vi. 203; *Xen. Orchid t.* 60, *f.* 1 *ad* 3, *t.* 206, *f.* 2, 3; *Orch. Centr. Amer.* 57, 92, *t.* 10; *in Bonpl.* 1855, 70, 225; *in Hamb. Gart. Zeit.* xxi. 300; *in Linnæa* xli. 45, 133; *et in Wawra, Pr. Max. Reise, Bot.* 150, *t.* 104, *f.* 5. *Hook. Journ. Bot.* iii. 308, *t.* 9 (*Pleurothallis*). *Lindl. in Journ. Hort. Soc.* iii. 314, *ic. xyl. Karst. Ausw. Gewächs. Venez. t.* 2. *Bot. Mag. t.* 5257, 5966, 6288. *Lemaire, Illustr. Hortic. t.* 601. *Fl. des Serres t.* 743.

Genus *Pleurothalli* valde affine, distinguitur polliniis 4; habitus fere idem, sed pedunculi constanter 1-flori videntur, et flores sæpius nec semper majores. *R. Miersii,* Reichb. f. (*Pleurothallis,* Lindl.), et *R. Gardneri,* Benth. (*Pleurothallis,* Lindl.), species ab ea paullulum diversa foliis angustioribus et floribus plus duplo majoribus, insignes sunt caule nano filiformi prostrato intricato-ramoso et floribus parvis. Lindley distinctionem generis potius in petalorum forma et columna elongata petivit.

6. ? **Brachionidium,** *Lindl. Fol. Orch.* 1859.—Sepala basi brevissime connata v. a basi patentia, in acumen v. caudam producta, lateralia sæpius altius connata. Petala sepalis conformia nisi paullo minora. Labellum parvum (cum basi columnæ articulatum?), sessile,

indivisum. Columna brevis, erecta, crassiuscula, apoda; clinandrium 3-lobum, lobis seu brachiis anticis falcatis carnosis. Anthera . . . Capsula . . .—Herbæ epiphyticæ, caudice seu rhizomate prostrato elongato sæpe ramoso vaginis scariosis semitecto. Caules (seu rami) 1-foliati, infra folium brevissimi v. vix ulli, vaginis 1–2 scariosis inclusi. Folium coriaceum, parvulum, basi in petiolum sæpius brevem non vaginantem contractum. Pedunculus cum petiolo in vagina scariosa inclusus, 1-florus. Flos mediocris v. majusculus.

Species 3, Colombianæ v. Bolivianæ. Genus *Masdevalliæ* affine videtur, differt rhizomate cauliformi elongato et petalis magis evolutis quam in cæteris *Pleurothalleis*. Quodammodo incertum tamen remanet polliniis adhuc non observatis.

7. **Masdevallia,** *Ruiz et Pav. Fl. Per. et Chil. Prod.* 122, *t.* 27; *Syst. Veg.* 238.—Sepala nunc basi v. altius in tubum connata v. conniventia, nunc a basi patentia, lateralia postico altius connata sæpeque eo longiora, omnia in acumen v. caudem patentem producta. Petala multo minora, sæpius angusta. Labellum parvum, polymorphum, cum pede columnæ articulatum, incumbens v. superne patens, columnæ æquilongum v. rarius magis evolutum. Columna erecta, superne v. apice solo marginata v. alata, basi sæpius in pedem brevem producta; clinandrium obliquum, nunc breve truncatum, nunc latum concavum v. fere cucullatum, cum alis columnæ continuum, margine varie dentatum. Anthera terminalis v. intra clinandrium affixa, opercularis, incumbens, convexa v. cucullata, 1-locularis; pollinia 2, cerea, ovoidea, sæpe 2-partibilia, inappendiculata, libera v. apice visco parco cohærentia. Capsula erostris.—Herbæ epiphyticæ, cæspitosæ v. rhizomate repente, non pseudobulbosæ. Caules 1-foliati, infra folium brevissimi v. vix ulli, vaginis 1–2 scariosis inclusi. Folium coriaceum, basi in petiolum longum basi non vaginantem contractum. Pedunculus scapum simulans, basi cum petiolo in vagina scariosa inclusus, ipse 1–3-vaginatus, 1-florus v. laxe racemoso-pluriflorus. Flores mediocres v. majusculi, sæpe pulchre colorati v. varie picti.

Species editæ ultra 100, plures tamen hortulanis potius quam botanicis distinctæ, Americæ tropicæ a Peruvia usque ad Mexicum incolæ, in Brasilia et Guiana perpaucæ, in India occidentali adhuc ignotæ. *Reichb. f. in Walp. Ann.* i. 774, iii. 523, vi. 188; *Xen. Orch. t.* 3, 74, 75, 185, 186, 195, 203; iii. 25; *Otia Hamb.* 13; *Orch. Centr. Amer.* 93; *in Linnæa* xli. 8, 118; *et in Bot. Zeit.* 1873, 390. *H. B. et K. Nov. Gen. et Sp. t.* 89. *Pœpp. et Endl. Nov. Gen. et Sp. t.* 108. *Karst. Fl. Colomb. t.* 153. *Bot. Mag. t.* 4921, 5476, 5505, 5739, 5962, 5990, 6152, 6159, 6171, 6190, 6208, 6258, 6262, 6273, 6368, 6372.

M. triaristella, Reichb. f. ex ic. et descr. in Bot. Mag. t. 6268 ab omnibus differt caudis sepalorum lateralium infra apicem sepali lateralibus nec terminalibus. *M. fenestrata,* Lindl., est *Pleurothallis purpurea,* Lindl., perianthio clauso sepalis muticis et characteribus vegetationis omnino *Pleurothallis.*

8. **Arpophyllum,** *Llav. et Lex. Nov. Veg. Descr.* ii. 19.—Sepala æquilonga, inter se libera, patentia, lateralia postico paullo latiora, basi concava, pedi columnæ adnata. Petala sepalo postico subsimilia. Labellum pedi columnæ affixum, ima basi concavum subsaccatum, supra saccum contractum incumbensque, dein erectum; lobi laterales apice rotundati interdum a terminali rotundato patente parum distincti, margine crenulati. Columna erecta, leviter arcuata, exalata, basi in pedem brevem producta; clinandrium parum dilatatum, breviter 3-dentatum, rostello lato brevius. Anthera opercularis, incumbens, subglobosa, 2-locularis; pollinia 8, in quoque loculo 4, obovoidea, acuta v. breviter acuminata, visco parco in phalanges 2 cohærentia. Capsula (oblonga?), 6-costata, erostris.—Herbæ terrestres (v. epiphyticæ?), caulibus e caudice repente erectis apice 1-foliatis, infra folium vaginis amplis obtectis. Folium coriaceum v. carnosum, interdum longissimum, basi complicatum at non in vaginam clausum. Pedunculus terminalis, supra folium 1–2-vaginatum; spica longa, densa, cylindracea, floribus numerosis mediocribus sessilibus pulchre coloratis. Bracteæ minimæ.

Species ad 6, inter se parum distinctæ, Mexici v. Americæ centralis incolæ, quarum una etiam in

Jamaica nuperrime detecta. *Lindl. Gen. et Sp. Orch.* 151. *Reichb. f. in Walp. Ann.* vi. 448; *Orch. Centr. Amer.* 42, 89. *Bot. Mag. t.* 6022. *Baill. Dict. Bot. cum tab.*

Genus bene distinctum *Pleurothalleas* quodammodo cum *Liparieis* connectens.

9. **Octomeria,** *R. Br. in Ait. Hort. Kew. ed.* 2, v. 211. (Aspegrenia, *Pœpp. et Endl. Nov. Gen. et Sp.* ii. 12, *t.* 116.)—Sepala subæqualia, patentia, basi brevissime connata. Petala sepalis subconformia v. paullo breviora, patentia. Labellum multo brevius, columnam tamen superans et cum ejus pede articulatum, infra medium utrinque lobo brevi auctum, apice patens v. reflexum. Columna petalis multo brevior, erecta, leviter incurva, semiteres, basi in pedem producta, superne exalata; clinandrium cavum, erectum, rotundatum. Anthera terminalis, opercularis, incumbens, extus 2–4-sulcata, 2-locularis; pollinia 8, in quoque loculo 4, cerea, oblongo-clavata, acuminata, visco parco in phalanges 2 cohærentia. Capsula parva, breviter oblonga, 6-costata, erostris.—Herbæ epiphyticæ, caulibus cæspitosis apice 1-foliatis infra folium 1–3-vaginatis. Folium sessile v. in petiolum brevissimum non vaginantem contractum, coriaceum, oblongum lineare v. subteres. Flores mediocres v. parvi, ad apicem caulis ad basin folii dense fasciculati, subcapitati, pedicellis tenuibus brevibus nunc brevissimis.

Species descriptæ 10, Brasiliæ, Guianæ et Indiæ occidentalis incolæ. *Lindl. Gen. et Sp. Orch.* 10. *Reichb. f. in Walp. Ann.* iii. 523; vi. 195; *in Hamb. Gart. Zeit.* xiv. 215; xv. 59; xvi. 424; *Otia Hamb.* 93. *Bauer, Illustr. Orch. Gen. t.* 4. *Bot. Mag. t.* 2764. *Lodd. Bot. Cab. t.* 1891.

Genus habitu omnino *Pleurothallis* seriei *Aggregatarum*, nec differt nisi polliniorum numero. Hæc bene a Bauero et a Hookero in phalangibus 2 fasciculata delineata, nec omnia 8 in simplici serie collateralia vidimus ut a Lindleyo descripta.

10. ? **Meiracyllium,** *Reichb. f. Xen. Orch.* i. 12, *t.* 6; iii. 13, *t.* 209.—Sepala subæqualia, erecto-patentia, lateralia basi subcohærentia mentum breve formantia. Petala sepalis subsimilia. Labellum cum basi columnæ continuum, erectum, concavum v. basi saccatum, sepalis subæquilongum, latiusculum, indivisum. Columna brevis, crassiuscula, curvula, exalata, vix basi in pedem brevissimum producta, rostello terminali suberecto v. retrorsum inclinato, stigmate antice ad angulum rostelli subhorizontali; clinandrium pone rostellum latiusculum, a rostello fere obtectum. Anthera dorso rostelli incumbens, imperfecte 2-locularis, convexa, ultra loculum non producta; pollinia 8, cerea, in fasciculos 2 disposita, ovoidea v. oblonga, acuminata, in quoque fasciculo per paria inæqualia, apice visco parco v. appendicula parva granulosa fere glanduliformi connexa, a rostello libera. Capsula . . . .—Herbæ epiphyticæ, humiles, rhizomate repente crassiusculo radicante vaginis brevibus obtecto. Caules e rhizomate brevissimi, 1-foliati, non pseudobulbosi. Folium breve, latum, sessile, crasse carnosum. Pedunculus ad basin folii brevissimus, 1–2-florus. Flores parvuli, pedicellati. Bracteæ minimæ.

Species 3, Mexici et Americæ centralis incolæ. *Reichb. f. in Walp. Ann.* vi. 859; *Orch. Centr. Amer.* 72; *et in Bonpl.* 1856, 214. Habitus *Pleurothallearum*, pollinia potius *Eriearum*, columna rostello elongato retrorsum nec antrorsum rostrato in ordine insignis.

11. **Malaxis,** *Swartz in K. Vetensk. Acad. Nya Handl.* xxi. 233, *ex parte.*—Sepala libera, subæqualia, patentissima. Petala multo minora, patentia. Labellum sessile, erecto-patens, petalis longius, basi cordatum, sinu columnam amplectens. Columna brevissima, teres, vertice excavata, utrinque dente aucta. Anthera in apice cavo columnæ pone stigma sessilis, suberecta, persistens, loculis discretis sursum dehiscentibus, per dehiscentiam contractis; pollinia 4, cerea, obovoideo-oblonga, per paria in loculos antheræ segregata, dehiscentia antheræ exserta.—Herba humilis, paludosa, inter muscos quasi epiphytica, caule basi in pseudobulbum incrassato, quotannis ex apice pseudobulbi accreto folia et pseudobulbum nova formante, caule pseudobulboque anni præteritis infra novum diu persistentibus. Folia 2–3, parva, haud disticha, basi breviter vaginantia. Flores

minimi, in racemo terminali pedunculato laxe spiciforme brevissime pedicellati, torsione ovarii resupinati.

Species 1, per Europam præcipue borealem late dispersa. *Lindl. Gen. et Sp. Orch.* 23. *Bauer, Illustr. Gen. Orch. t.* 1. *Reichb. f. Ic. Fl. Germ. t.* 494. *Nees, Gen. Fl. Germ. Monocot.* iii. *n.* 14. De vegetatione cfr. *Hornsch. in Flora* 1838, 257, *t.* 2; de fœcundatione, *Darw. Fertil. Orch.* 130. Species numerosas huic generi a Reichenbachio associatas ad *Oberoniam* restituimus.

12. **Microstylis,** *Nutt. Gen. N. Amer. Pl.* ii. 196. (Achroanthes, *Raf. ex Endl. Gen.* 189. Pedilea, *Lindl. Orch. Scel.* 27, *cum ic.* Crepidium, *Blume, Bijdr.* 387. Pterochilus, *Hook. et Arn. Bot. Beech. Voy.* 71, *t.* 17.)—Sepala libera, subæqualia, patentia. Petala sepalis subæqualia, sæpius angustiora, nunc filiformia. Labellum sessile, erectum v. patens, petalis brevius, sæpius latissimum, concavum, basi cordatum v. auriculis elongatis columnam amplectens, integrum 2–3-lobum v. dentato-fimbriatum. Columna brevissima, teres, vertice excavata, antice utrinque dente aucta; clinandrium sæpius prominens, obliquum, membranaceum. Anthera intra clinandrium sessilis, erecta, a rostello aversa, loculis distinctis sursum dehiscentibus post dehiscentiam persistens; pollinia 4, cerea, ovoidea, in quoque loculo 2, visco parco cohærentia v. libera. Capsula parva, ovoidea, erostris.—Herbæ terrestres, caule foliato basi sæpe in pseudobulbum incrassato. Folia 1–3, sæpius lata, membranacea, basi in petiolum vaginantem v. immediate in vaginam contracta. Flores parvi, sæpe minimi, rarius majores, in racemum terminalem nunc elongatum laxumque nunc fere in umbellam contractum dispositi. Bracteæ parvæ, angustæ.

Species ad 40, Europæ, Asiæ et Americæ borealis et australis incolæ. *Lindl. Gen. et Sp. Orch.* 18. *Reichb. f. in Walp. Ann.* iii. 525, vi. 206; *Otia Hamb.* 36, 94; *Orch. Centr. Amer.* 99; *in Linnæa* xli. 97; *et in Seem. Fl. Vit.* 302. *Reichb. f. Ic. Fl. Germ. t.* 493. *Wight, Ic. t.* 901, 902, 1631, 1632, *et t.* 1630 (*Dienia*). *Pœpp. et Endl. Nov. Gen. et Sp. t.* 111. *Bot. Mag. t.* 5403.

Genus *Malaxi* quam maxime affine, primo aspectu in sectiones 2 dividitur quæ tamen vix limitibus certis definiendæ. 1. *Umbellulatæ*, racemis abbreviatis fere in umbellam contractis, floribus longe pedicellatis. Huc *M. fastigiata*, Reichb., species Mexicana in *Bot. Reg. t.* 1290 pro *M. ophioglossoide*, Nutt., delineata, *Link et Otto, Ic. Pl. Rar. t.* 5. *Bot. Mag. t.* 4103. Species typica Nuttallii, boreali-Americana, nobis distincta videtur floribus evidentius racemosis, etsi racemus brevior et densior quam in plerisque racemifloris.

2. *Laxifloræ*, racemo elongato floribus breviter pedicellatis dissitis, v. pedicellis brevissimis floribus fere in spicam longam cylindraceam confertis. Hæc series includit species omnes gerontogeas cum pluribus ex Americanis.

DIENIA, *Lindl. Gen. et Sp. Orch.* 22, a *Microstyle* separata fuit ob labellum erectum nec patens, character tamen nequaquam constans et genus rite a Reichenbachio ad *Microstylem* revocatur.

Pterochilus plantaginea, Hook. et Arn., eadem species videtur ac *M. platycheila*, Reichb. f.

Anthera in diversis speciebus diversa videtur, in speciebus typicis boreali-Americanis, loculi bene discreti per dehiscentiam superne aperti, polliniis more *Malaxeos* exsertis; in speciebus Indicis anthera pariter erecta sed loculis arcte contiguis longior; nunquam tamen vidimus more *Liparis* calyptriformem v. incumbentem et deciduam.

M. Josephiana, Reichb. f.; Bot. Mag. t. 6325, insignis est floribus solito majoribus, sepalis petalisque latiusculis, labello maximo valde concavo fere cucullato sepalis vix breviore.

13. **Oberonia,** *Lindl. Gen. et Sp. Orch.* 15; *Fol. Orch.* 1859.—Sepala libera, subæqualia, erecta v. posticum minus et reflexum. Petala sepalis angustiora v. breviora. Labellum sessile, concavum, basi dilatata sæpe pulvinatum v. carinatum columnam plerumque amplectens eamque longiuscule superans, margine interdum fimbriatum v. apice 2–3-lobum. Columna brevissima, teres, basi contracta, apoda, apice utrinque angulato-marginata; clinandrium parum prominens. Anthera terminalis, opercularis, incumbens; pollinia 4, cerea, per paria arcte contigua et interdum inæqualia, omnia apice visco parco cohærentia et in massam decidua. Capsula parva, globoso-triquetra v. breviter oblonga.—Herbæ epiphyticæ, cæspitosæ, absque pseudobulbis. Folia disticha, vaginis compressis equitantia, in caule brevissimo pauca v. secus caulem elongatum sæpe flexuosum alterna,

coriacea v. membranacea planaque v. rarius carnosa subteretia. Flores minimi, in spica v. racemo denso subcylindraceo numerosi, sessiles v. brevissime pedicellati, secus rhachin conferti v. interrupte fasciculati. Bracteæ minimæ.

Species notæ fere 50, Asiæ tropicæ, Australiæ, ins. Mascarensium et maris Pacifici incolæ. *Reichb. f. in Walp. Ann.* vi. 207; *Otia Hamb.* 56; *in Linnæa* xli. 98; *et in Trans. Linn. Soc.* xxx. 154 (*Malaxis*). *Benth. Fl. Austral.* vi. 274. *Lindl. Sert. Orchid. t.* 8. *Brongn. in Duperrey Voy. Bot. t.* 40 B. *Griff. Ic. Pl. Asiat. t.* 286. *Wight, Ic. t.* 1622 *ad* 1629. *Bot. Mag. t.* 4517, 5056.

Genus a Reichb. f. l.c. infeliciter *Malaxi* adjunctum, a qua nostro sensu valde diversum est tam antheræ indole quam vegetatione foliis et patria, a nonnullis cum *Phreatia* confusum, sed præter polliniorum numerum facile distinguitur inflorescentia terminali.

Titania, *Endl. Prod. Fl. Norf.* 31, ex ins. Norfolk, est *Oberonia Titania*, Lindl. (*O. palmicola*, F. Muell.). *O. myosurus*, Lindl., e Nepalia et Burma, ab omnibus differt foliis carnosis angustis fere teretibus, sed characteres omnino *Oberoniæ*.

14. **Liparis**, *L. C. Rich. in Mem. Mus. Par.* iv. 52, *t.* 5, *f.* 10. (Sturmia, *Reichb. Consp.* 69; *Iconogr. Bot. t.* 956. Alipsa, *Hoffmans. ex Linnæa* xvi., *Littbl.* 228.)—Sepala libera, patentia, latiuscula v. sæpius angusta nunc angustissima, æqualia v. posticum angustius. Petala sepalis similia et subæqualia v. sæpe angustiora v. breviora, patentia v. erecta. Labellum basi columnæ affixum v. ei brevissime adnatum, basi ascendens v. erectum v. rarius a basi patens; lobi laterales parum distincti angusti, v. latiores columnam amplectentes; medius oblongus v. in laminam latam patentem v. reflexam expansus, integer v. emarginatus; facie medium versus v. interdum basi 2-tuberculatus. Columna elongata, incurva, semiteres, apoda, apice utrinque marginata v. ala appendiculata; clinandrium breve. Anthera terminalis, opercularis, incumbens; pollinia 4, cerea, ovoidea, interdum acuminata, per paria in loculis segregata, cujusve paris superposita, libera v. apicibus visco parco cohærentia. Capsula sæpius parva, subglobosa ovoidea v. oblonga.—Herbæ terrestres v. epiphyticæ, caulibus foliatis basi interdum in pseudobulbum parvulum incrassatis. Folia pauca, interdum solitaria, ad basin v. infra medium caulis in petiolum vaginantem sæpe demum articulatum contracta, membranacea v. carnosula, æqualiter multivenia v. subplicato-paucicostata. Flores parvi v. rarius mediocres, albidi viridiflavescentes v. rubri, in racemum terminalem pedunculatum dispositi. Labellum in aliis speciebus sepalis subsimile parum conspicuum, in aliis latissimum intense coloratum. Bracteæ parvulæ v. angustæ.

Species fere 100, per regiones temperatas calidioresque utriusque orbis late dispersæ. *Lindl. Gen. et Sp. Orch.* 26. *Reichb. f. in Walp. Ann.* i. 775 *et* iii. 527 (*Sturmia*), vi. 217; *Ic. Fl. Germ. t.* 492 (*Sturmia*); *Otia Hamb.* 37, 56; *Orch. Centr. Amer.* 98; *in Flora* 1865, 184, et 1872, 274, 277; *in Linnæa* xli. 42, 97; *Xen. Orch.* iii. 26; *et in Trans. Linn. Soc.* xxx. 154. *Nees, Gen. Fl. Germ. Monocot.* iii. *n.* 13. *Benth. Fl. Austral.* vi. 272. *Thunb. Ic. Fl. Jap. t.* 10 (*Epidendrum*). *Wall. Pl. As. Rar. t.* 35. *Griff. Ic. Pl. Asiat. t.* 287. *Wight, Ic. t.* 903 *ad* 906, 1633, 1735. *Thou. Orch. Iles Afr. t.* 25 *ad* 27, 89, 90. *Harv. Thes. Cap. t.* 109. *Hook. et Arn. Bot. Beech. Voy. t.* 16. *Hook. Exot. Fl. t.* 116 (*Cymbidium?*). *Bot. Mag. t.* 2004 (*Malaxis*), 2709, 3770, 5529. *Bot. Reg. t.* 882, 1175, 1671. *Andr. Bot. Rep. t.* 65 (*Ophrys*). *Lodd. Bot. Cab. t.* 198, 1097, 1558.

Thouars, Orch. Isles Afr. tab. esp. 3, sectiones 2 bene naturales distinxit: *Cæstichis*, floribus in racemo sparsis, et *Distichis* floribus bracteisque eleganter distichis. Lindley minus feliciter sectiones 2 admisit: *Euliparis*, foliis latioribus plicatis et *Cestichis* (inclusa *Distiche*) foliis subcoriaceis non plicatis. Species prioris pleræque nec omnes terrestres et illius sæpius epiphyticæ, sed distinctio nec constans nec semper facile determinanda, et characteres e florum structura nondum ad genus bene dividendum utuntur.

Empusa, *Lindl. Bot. Reg. sub n.* 825, *Gen. et Sp. Orch.* 17 (Empusaria, *Reichb. Consp.* 69), species Indica, pro genere distincta fuit sepalis lateralibus basi columnæ adnatis, quod tamen in speciminibus nostris non magis apparet quam in pluribus aliis speciebus, et genus rite a Reichb. f. in Walp. Ann. vi. 218 cum *Liparide* jungitur.

Ephippianthus, *Reichb. f. in Schmidt, Reise, Amer. Bot.* 180, *t.* 5, *Xen. Orch. t.* 180, est species parva ex ins. Sachalin folio unico ovato, quam nullo charactere a *Liparide* distinguere possumus. A *Malaxi* bene separatur labello, columna et anthera.

Liparis ramosa, Pœpp. et Endl. Nov. Gen. et Sp. ii. 9, t. 112, et *L. neuroglossa*, Reichb. f., Xen. Orch. iii. 26, species insignes sunt caule elongato ramoso decumbente, foliis pluribus petiolatis ovatis v. cordatis, racemo terminali elongato.

Platystylis, *Blume, Bijdr.* 389 (*Malaxeos* sect.); *Lindl. Gen. et Sp. Orch.* 18 (gen. propr.), habitu et characteribus pluribus *Liparidis*, a Lindleyo distinguitur imprimis columna late alata, sed in *P. atropurpurea* (fide speciminum a Reichb. f. determinatorum) alæ angustissimæ quales in *Liparidibus* veris interdum observantur et genus nobis potius sectio *Liparidis* nuncupandum. Species continet paucas, Indicas et Malayanas.

Gastroglottis, *Blume, Bijdr.* 397, planta Javensis a nemine postea observata, caule foliato, foliis membranaceis plicato-venosis, inflorescentia terminali, floribus parvis, columna apice attenuata, polliniis 4 filis glutinosis adhærentibus 'nec pedicello nec laminæ adnexis,' *Liparidi* haud male convenit. Differre dicitur labello basi ventricoso, sed in pluribus *Liparidibus* labellum basi valde concavum. *Gastroglottis montana*, Kuhl et V. Hasselt, ex auctorum icone in Reichb. f. Xen. Orch. ii. 96, t. 129 edita, a planta Blumeana certe longe aliena est, pseudobulbo 2-foliato, scapo laterali aphyllo, columna brevissima lata etc., sed ex analysi imperfecta genus verum adhuc valde incertum remanet, verisimiliter *Bulbophyllo* affine.

15. **Platyclinis**, *Benth. in Journ. Linn. Soc.* xviii. 295. (Dendrochili sp. *Blume et auct.*)—Sepala libera, patentia, subæqualia, angusta. Petala sepalis subsimilia, v. minora, patentia. Labellum ad basin columnæ sessile v. brevissime unguiculatum, ovatum, concavum, sepalis subæquilongum, basi utrinque lobo parvo auctum v. interdum 2-tuberculatum. Columna erecta, semiteres, subalata, apoda, apice utrinque in acumen seu brachium erectum producta; clinandrium postice elevatum, late membranaceum, concavum v. fere cucullatum, margine erosum v. denticulatum, antice cum brachiis columnæ plus minus continuum. Anthera intra clinandrium opercularis, incumbens, 2-locularis; pollinia 4, cerea, ovoidea, per paria in loculis segregata, cujusve paris superposita, acuminata v. subcaudata apicibus per paria cohærentia. Capsula. . . .—Herbæ epiphyticæ, caulibus e basi cæspitosa v. subramosa simplicibus prope basin 1-foliatis, basi vix incrassatis v. anguste pseudobulbosis, vaginis nonnullis scariosis obtectis. Folium angustum, in petiolum contractum. Flores parvi, in racemo terminali numerosi, breviter pedicellati. Bracteæ lineares v. lanceolatæ, subscariosæ, parvæ v. florem subæquantes.

Species ad 8, Indiæ orientalis et Archipelagi Malayani incolæ. Dendrochili sect. 2, *Blume, Bijdr.* 399. *Lindl. Gen. et Sp. Orch.* 34. *Reichb. f. in Walp. Ann.* vi. 240, 927; *Otia Hamb.* 54; *et in Bonpl.* 1856, 329; 1857, 43. *Bot. Mag. t.* 4853. *Regel, Gartenfl. t.* 604.

Genus *Liparidi* valde affine, differt imprimis columnæ brachiis elongatis et clinandrio late membranaceo. *Microstylis commelynifolia*, Zoll. e Java, caule tenui prostrato folioso non pseudobulboso foliis late ovatis petiolatis et anthera operculari incumbente a *Microstyle* longe diversa, habitu quodammodo *Liparidi ramosæ* accedit, sed columna abbreviata brachiis erectis potius *Platyclinidis*. Pollinia conveniunt. Flores minimi et unicum tantum examinare potuimus.

16. **Calypso**, *Salisb. Parad. Lond. t.* 89. (Cytherea, *Salisb. in Trans. Hort. Soc.* i. 301. Norna, *Wahlenb. Fl. Suec.* 561, *ed.* 2, 582. Orchidium, *Swartz in Svensk. Bot. t.* 518.)—Sepala libera, erecto-patentia, angusta, subæqualia. Petala sepalis similia et subæqualia. Labellum sepalis longius, patens, late ovatum, concavum; lobi laterales plani, patentes, superne supra lobum medium depressum saccatum integrum v. 2-fidum connati. Columna erecta, sepalis brevior, utrinque latissime membranaceo-alata, apoda; clinandrium 3-dentatum. Anthera sub apice dentis postici clinandrii affixa, pendula, discrete 2-locularis; pollinia 4, cerea, in quoque loculo 2, ovata, compressa, sibimet arcte applicita et visco parco connexa. Capsula oblongo-fusiformis, 6-costata.—Herba terrestris, caule basi 1-foliato, sæpius in pseudobulbum incrassato, 1–3-vaginato. Folium petiolatum, ovatum. Flos majusculus, in pedunculo terminali solitarius, pendulus, labello pulchre picto medio fimbriato.

Species 1, per regiones boreales Europæ, Asiæ et Americæ late dispersa. *Lindl. Gen. et Sp. Orch.* 179. *Hook. Exot. Fl. t.* 12. *Bot. Mag. t.* 2763.

17. **Aplectrum,** *Nutt. Gen. Pl. N. Am.* ii. 197.—Sepala subæqualia, libera, lateralia basi non producta. Petala sepalis subconformia. Labellum basi breviter contractum, basi columnæ affixum, erecto-patens, sepalis subæquilongum, lobis 2 lateralibus angustis curvulis, medio lato facie longitudinaliter 2–3-lamellato. Columna longiuscula, erecta, subrecta, exalata, apoda; clinandrium parum prominens, oblique truncatum. Anthera terminalis, opercularis, incumbens, convexa, membranacea, lata, 4-locularis, decidua; pollinia 4, cerea, in loculis segregata, late ovata, inappendiculata, libera. Capsula oblongo-fusiformis, reflexa.—Herba rhizomate tenui quotannis in pseudobulbum globosum viscoso-carnosum incrassato. Folium in pseudobulbo unicum, amplum, coriaceum, striato-plicatum, petiolo longiusculo basi sæpius vagina scariosa incluso. Scapus ex eodem pseudobulbo tardius evolutus, terminalis, simplex, paucivaginatus. Flores in racemo sparsi, mediocres, reflexi, breviter pedicellati. Bracteæ minimæ.

Species 1, boreali-Americana. *Lindl. Gen. et Sp. Orch.* 536. *Torr. Fl. N. York, t.* 127.

Genus quoad characteres florales *Corallorhizæ* affine, sed vegetatio longe diversa.

18. **Corallorhiza,** *R. Br. in Ait. Hort. Kew. ed.* 2, v. 209.—Sepala subæqualia, posticum liberum, lateralia paullo latiora ima basi cum pede columnæ in calcar breve v. gibbum vix prominentem producta. Petala sepalis subconformia v. paullo minora. Labellum basi contractum, in pedem columnæ breviter incumbens, lamina sepala subæquante ovata v. oblonga integra v. utrinque lobo brevi aucta. Columna erecta, incurva, semiteres, basi apiceque utrinque anguste alata, pede brevi in calcar producto v. brevissimo vix prominente; clinandrium parum prominens, truncatum v. sinuatum. Anthera opercularis, lata, septo longitudinali et transverso 4-locularis; pollinia 4, molliter cerea, late ovata, in loculis segregata, inappendiculata, libera v. visco parco cohærentia. Capsula ovoidea, obovoidea v. oblonga, erostris, reflexa.—Herbæ aphyllæ, rhizomate coralloideo nodoso-ramoso articulato minute squamigero. Scapus erectus, prope basin vaginis paucis instructus, simplex. Flores in racemo terminali sparsi, parvuli v. mediocres, breviter pedicellati. Bracteæ minimæ v. rarius pedicellos superantes.

Species editæ ad 12, plures tamen in herbariis valde confusæ, Europæ, Asiæ extratropicæ et præsertim Americæ borealis usque ad Mexicum incolæ. *Lindl. Gen. et Sp. Orch.* 533 (*excl.* § 2). *Reichb. f. in Walp. Ann.* i. 775, iii. 526, vi. 217; *Ic. Fl. Germ. t.* 490, 491. *Nees, Gen. Fl. Germ. Monocot.* iii. *n.* 15. *Hook. Exot. Fl. t.* 174. *Dcne. in Jacquem. Voy. Bot. t.* 165. *Torr. Bot. Whipple Exped. t.* 25.

Pollinia a Neesio et a Decaisneo 2 tantum dicuntur; semper 4 vidimus etsi interdum 2 inferiora diu sub lamina antheram transverse dividenda occulta.

19. **Tipularia,** *Nutt. Gen. N. Amer. Pl.* ii. 195. (Anthericlis, *Raf. in Journ. Phys.* lxxxix. 261. Plectrurus, *Raf. Neogen.* 4.)—Sepala subæqualia, libera, patentia, angusta. Petala sepalis similia. Labellum a basi columnæ erectum, sessile, basi in calcar longum tenue productum, sepalis subæquilongum; lobi laterales parvi, medius planus, oblongus, integer v. retusus. Columna sepalis brevior, erecta, angusta, superne anguste 2-alata; clinandrium parum prominens. Anthera terminalis, opercularis, incumbens, convexa, latiuscula, 2-locularis; pollinia 4, cerea, in quoque loculo 2, ovoidea, perfecte distincta, inappendiculata, anthera dehiscente stipiti filiformi brevi basi in glandulam incrassato affixa. Capsula ovoideo-clavata incurva v. oblonga rectaque, erostris, reflexa.—Herbæ terrestres, caulibus 1-foliatis basi demum in pseudobulbum tuberiformem incrassatis. Folium ovatum, petiolo longiusculo basi vagina spathiformi incluso. Scapus ex eodem pseudobulbo elongatus, simplex, prope basin paucivaginatus. Flores parvuli, pedicellati, laxe racemosi. Bracteæ minutæ v. obsoletæ.

Species 2 inter se valde affines sed bene distinctæ, altera boreali-Americana, altera Himalaica. *Lindl. Gen. et Sp. Orch.* 252, *et in Journ. Linn. Soc.* i. 174.

Genus *Oreorchi* valde affine, labello calcarato facile distinctum, utrumque quoad locum in systemate ambiguum, nobis rite juxta *Corallorhizam* collocanda videntur. Pollinia omnino *Liparisarum* etsi post antheram delapsam sæpissime stipiti e rostello oriundo more *Vandearum*, affixa apparent.

20. **Oreorchis,** *Lindl. in Journ. Linn. Soc.* iii. 26.—Sepala subæqualia, libera, angusta, incurvo-incumbentia, mox patentia. Petala sepalis similia. Labellum sepalis æquilongum, basi columnæ affixum, ecalcaratum, ungue erecto, lobi laterales breves, angusti, erecti, medius latior, patens, indivisus. Columna elongata, subteres, superne leviter clavata, exalata, apoda; clinandrium parum prominens, truncatum. Anthera terminalis, opercularis, incumbens, valde convexa, 1-locularis; pollinia 4, subglobosa, distincta, inappendiculata, anthera dehiscente sæpius stipiti filiformi in rostello persistenti affixa. Capsula oblonga v. subfusiformis, erostris, costata, reflexa.—Herba terrestris, caulibus 1–2-foliatis, basi demum in pseudobulbum tuberiformem incrassatis. Folia longa, angusta. Scapus ex eodem pseudobulbo simplex, elongatus, basi paucivaginatus. Flores racemosi, mediocres v. parvuli, brevissime v. tenuiter pedicellati. Bracteæ lineares v. minimæ.

Species editæ 4, Himalayæ, Asiæ Sibiricæ et Japoniæ incolæ. *A. Gray in Mem. Amer. Acad. ser.* 2, vi. 410. *Regel, Fl. Ussur. Tent.* 160, *t.* 11.

21. **Hexalectris,** *Rafin. Neogen.* 4.—Sepala subæqualia, erecta v. subpatentia, libera, posticum incurvum, lateralia leviter falcata. Petala sepalis subconformia. Labellum a basi columnæ erectum, basi contractum, sepalis æquilongum, obovatum, lobis lateralibus brevibus suberectis. Columna longiuscula, erecta, incurva, semiteres, superne anguste 2-alata, apoda; clinandrium obliquum, postice elevatum, obtusum, concavum, integrum. Anthera intramarginalis, opercularis, incumbens, convexa, distincte 2-locularis, loculis imperfecte 4-locellatis. Pollinia 8, cerea, in quoque loculo 4, sub-2-seriatim fasciculata, ovoidea, acutiuscula, subæqualia, apicibus visco granuloso cohærentibus. Capsula oblongo-fusiformis, reflexa.—Herba aphylla, rhizomate nodoso subarticulato brevissime squamigero. Scapus erectus, simplex, vaginis brevibus dissitis instructus. Flores in racemo terminali sparsi, mediocres, breviter pedicellati. Bracteæ angustæ, pedicellum sæpius superantes.

Species 1, civitatum australium Americæ borealis et Mexici incola. *Blume, Orch. Jav.* 18, *t.* 6 (*Bletia aphylla*, Nutt. Gen. Pl. N. Amer. ii. 194).

Genus potius *Corallorhizæ* quam *Bletiæ* affine, a priore differt polliniis 8 visco granuloso copiosiore, ab hac habitu, et polliniis more *Liparicarum* fasciculatis nec ut in *Bletieis* discrete 2-seriatis.

22. **Dendrobium,** *Swartz in K. Vet. Acad. Stockh. Nya Handl.* xxi. 244. (Ceraia, *Lour. Fl. Cochinch.* 518, *ex Lindl.* Callista, *Lour. l.c.* 519, *ex Reichb. charactere utriusque generis imperfecto.* Desmotrichum, *Blume, Bijdr.* 329, *t.* 35. Pedilonum, *Blume, l.c.* 320, *t.* 36. Onychium, *Blume, l.c.* 323, *t.* 10.)—Sepala subæquilonga, posticum liberum, lateralia basi obliqua pedi columnæ adnata, mentum nunc breviter gibbiforme nunc longe calcariforme formantia, superne libera v. rarius altius connata. Petala sepalo postico æquilonga v. rarius paullo longiora v. breviora, sæpe angustiora, interdum latiora. Labellum ad apicem pedis columnæ, basi contracta at rarius articulata, in pedem incumbens v. ei adnata, supra basin in lobos latos columnam amplectentes v. angustiores patentesque utrinque expansum, v. lobis obscuris v. obsoletis integrum, apice in laminam patentem angustam v. latissimam planam convexam concavam v. calceiformem acutam obtusam v. retusam expansum, disco sæpe longitudinaliter 2–3-lamellato. Columna breviuscula v. brevissima, apice plus minus 2-alata v. 2-brachiata, basi in pedem sæpe longiusculum producta; clinandrium antice 2-angulatum v. in dentes 2 breves productum. Anthera terminalis, opercularis, incumbens, convexa obtuse conica v. cucullata, 2-locularis; pollinia 4, cerea, ovoidea v. oblonga, obtusa, a latere compressa, per paria in loculis collateralia v. plus minus cohærentia, æqualia v. cujusve paris inæqualia, inappendiculata, libera. Capsula ovoidea v. oblonga, rarius elongata, erostris.—Herbæ epiphyticæ. Caules v. ramuli floriferi cæspitosi v. sæpius secus rhizoma v. caulem repentem ad axillas vaginarum, simplices, 1-∞-foliati, nunc brevissimi v. in pseudobulbum brevem incrassati, nunc elongati, tenues v. varie ad basin v. superne carnoso-incrassati. Folia varia, sæpius coriacea v. carnosa, non plicata. Flores speciosi v. rarius parvi, racemosi, racemis simplicibus elongatis laxisque v. brevibus densis v. ad flores

perpaucos v. florem unicum reductis, specie terminalibus (pseudoterminalibus) v. ad nodos lateralibus; flores singuli ad axillam bracteæ sæpius parvæ nunc minutæ v. fere obsoletæ breviter pedicellati.

Species editæ fere 300, genuinæ, per regionem Indo-Australianam late dispersæ, præsertim in Archipelago Malayano frequentes, a Zeylania et Peninsula usque ad Japoniam, Australiam, Novam Zelandiam et insulas maris Pacifici australis extensæ; plures tamen in diariis hortulanorum ad specimina culta descriptæ ad varietates v. formas hybridas reducendæ. *Lindl. Gen. et Sp. Orch.* 74, *et in Journ. Linn. Soc.* iii. 1. *Reichb. f. in Walp. Ann.* vi. 279; *in Trans. Linn. Soc.* xxx. 149; *Xen. Orch. t.* 146, 169, 193, 194, 202, 206; *Otia Hamb.* 36; *in Bot. Zeit.* 1862, 214; 1863, 128; 1865, 99; 1867, 230; *in Linnæa* xli. 39, 88. *Benth. Fl. Austral.* vi. 275. *Fitzger. Austral. Orch. cum tabb.* 6.

Genus vastum at bene limitatum, quoad inflorescentiam, florum numerum et magnitudinem, sepalorum et præsertim labelli formam etc. sat polymorphum, haud facile tamen in sectiones distinctas dividendum. Lindley 10 proposuit inter quas *Aporum* solum characteribus certis limitatur. Quæ sequuntur, a Lindleyanis paullo mutatæ, inter se speciebus intermediis nimis frequenter connexæ sunt, quoad maximam tamen partem sat naturales videntur.

1. *Aporum.* Caules plus minus complanati, foliosi. Folia disticha, verticalia, cum vaginis complanatis linea sæpius obliqua articulata. Flores parvuli v. mediocres, in axillis superioribus solitarii v. pauci fasciculati. Sectio facile pro genere distincto habenda. Species ad 12. *Lindl. in Journ. Linn. Soc.* iii. 3. *Bot. Reg. t.* 1239. *Bot. Mag. t.* 3608. *Lodd. Bot. Cab. t.* 1895. *Reichb. f. in Trans. Linn. Soc.* xxx. *t.* 31 B. APORUM (floribus subsolitariis) *Bl. Bijdr.* 334, *t.* 39. *Lindl. Gen. et Sp. Orch.* 70. *Griff. in Calc. Journ.* iv. *t.* 17, v. *t.* 25. OXYSTOPHYLLUM (floribus parvis subcapitatis); *Bl. Bijdr.* 335, *t.* 38; *Rumphia, t.* 193, *f.* 4, *et* 198 C. *Lindl. Gen. et Sp. Orch.* 71. MACROSTOMUM, *Bl. Bijdr.* 335, *t.* 37; *Lindl. Gen. et Sp. Orch.* 60. SCHISMOCERAS, *Presl, Rel. Hænk.* i. 96, *t.* 13, *f.* 2.

2. *Rhizobium.* Folia parvula, crassa, carnosa, ut in *Cadetia* solitaria, sed ad axillas vaginarum caulis v. rhizomatis repentis sessilia, nec ramulo nec pseudobulbo fulta, sæpe carnosa. Racemi v. pedunculi ad basin foliorum pauciflori. Species 3, Australianæ. *Benth. Fl. Austral.* vi. 284. *Sm. Exot. Bot. t.* 11. *Bot. Mag. t.* 5249.

3. *Cadetia.* Ramuli breves, sæpe in pseudobulbum incrassati, apice 1-foliati, secus caulem repentem v. prostratum seu rhizoma ad axillas vaginarum scariosarum dispositi. Pedicelli specie terminales, ad basin folii solitarii v. pauci. Flores parvuli. Species ad 12, quarum 3 Australianæ, *Benth. Fl. Austral.* vi. 282 (*sect. Monophyllæa*) cæteræ Asiaticæ v. ex ins. maris Pacifici, ab auctoribus in variis sectionibus distributæ. Inter Australianas *D. cucumerinum*, Lindl. Bot. Reg. 1843, t. 37, Bot. Mag. t. 4619, insignis est foliis crassissimis subteretibus costatis pseudobulbos simulantibus. Ad sectionem pertinent: CADETIA, Gaud. in Freyc. Voy. Bot. 422, t. 33, Bl. Rumphia, t. 192 f. 4 et 198 E, *D. hispidum* A. Rich. Sert. Astrol. t. 5 et *D. heteroideum* Bl. Rumphia, iv. t. 193 f. 6, utrumque forte ad *Cadetiam umbellatam* Gaud. referendum, *D. funiforme*, Bl. l. c. t. 193 f. 5, omnes ex Archipelago Malayano v. ins. maris Pacifici, *D. Macræi*, Lindl., e Zeylania, *D. nodosum*, Dalz., e Peninsula, *D. Rabani*, Lindl. e Khasia, cum specie *D. Macræi* valde affini e Borneo. Huc etiam referendæ videntur icones Reichb. f. Xen. Orch. t. 110, f. 1 et t. 118.

D. nitidissimum, Reichb. f. in Journ. Linn. Soc. xv. 113, ex ins. Admiralty, est species distinctissima ab auctore pro sectione (*Diplocaulobio*) proposita, sed scapis etsi tenuibus elongatisque apice 1-phyllis 1-floris et pseudobulbis 1-foliatis bene *Cadetiæ* convenit.

4. *Sarcopodium.* Ramuli breves, sæpe in pseudobulbum incrassati, apice 2-foliati, secus caulem repentem v. prostratum seu rhizoma ad axillas vaginarum dispositi. Pedunculus inter folia basi vaginatus, florem unicum majusculum (v. rarius flores paucos?) ferens. SARCOPODIUM, *Lindl. Fol. Orch.* 1853, *quoad* § 1. Species 5 v. 6, Indiæ orientalis v. Archipelagi Malayani incolæ. *Wall. Pl. As. Rar. t.* 29. *Griff. Ic. Pl. As. t.* 304, 309. *Reichb. f. in Gard. Chron.* 1871, 136, *et in Trans. Linn. Soc.* xxx. 138 (*D. Cœlogyne*).

Sarcopodii § 2, Lindl., est *Bulbophylli* sect. *Sestochilus.*

5. *Stachyobium.* Flores racemosi, racemo in caule foliato v. rarius denudato specie terminali, additis rarius racemis paucis in axillis superioribus. Species numerosæ, intermediis paucis cum *Eudendrobio* connexæ, in series sequentes distribuendæ:—

a. *Humiles.* Caulis brevissimus, in pseudobulbum carnosum depressum globosum v. ovoideum incrassatus. Folia sæpius 2, decidua. Racemus tenuis, floribus parvulis, sepalis petalisque angustis tenuibus. *A. Rich. in Ann. Sc. Nat. ser.* 2, xv. *t.* 8. *Wight, Ic. t.* 1643.

b. *Geminatæ.* Caules breves v. brevissimi, in rhizomate fasciculati v. secus caudicem subramosum vaginis obtectum brevissimi. Folia gemina, diu persistentia. Pedunculi inter folia uni- v. pauciflori. Sepala et petala sæpius angusta. In *D. geminato*, Lindl., et *D. labuano*, Lindl., caules secus caudicem brevissimi, anguste bulbiformes, et folia specie secus caulem vaginatum geminatim subsessiles; in cæteris speciebus, caules 1–2-pollicares, carnosuli sed non bulbiformes, in rhizomate fasciculati.

SARCOSTOMA, *Blume Bijdr.* 339, *t.* 45, species Javanica, a Lindleyo *Dendrobio* refertur; a Blumeo tamen et serius a Reichenbachio in Bonplandia 1857, 54, cum *Ceratostyle* comparatur, cui habitu accedere videtur, sed pollinia more *Dendrobii* a latere compressa parallele 1-seriata. A *Dendrobiis* plerisque differt polliniis ex ic. Blumei acutiusculis visco parco connexis, ex Reichenbachio in caudiculas filiformes (visco extensivo?) exeuntibus. An revera species *Dendrobii* ad *Stachyobia Geminata* referenda dubium remanet. Fragmentum tantum vidimus in herb. Lindl. absque floribus, cum analysi rudi Reichenbachii.

Geminatis habitu similis videtur ex icone SCAREDEDERIS *scandens*, Thou. Orch. Iles Afr. t. 91 (SCANDEDERIS in tabula) sed ob descriptionem mancam genus valde dubium remanet.

c. *Ericæfloræ.* Caules humiles, interdum demum longiusculi, carnosuli at non bulbiformes. Folia alterna, membranacea, sub anthesi interdum decidua. Racemi graciles, præter pseudoterminalem sæpe 1–∞ laterales. Sepala et petala tenuia, angusta, acuta v. acuminata. *Wight, Ic. t.* 909, 1649. *Griff. Ic. Pl. As. t.* 307, *f.* 2.

THELYCHITON *macropus*, Endl. Prod. Fl. Norf. 33, ex specimine imperfecto videtur *Dendrobii* species *D. Kingiano*, Bidw., affinis nisi eadem. *T. brachypus*, Endl. l. c., forte etiam *Dendrobii* species valde dubia remanet. *T. argyropus* est potius *Bulbophylli* species.

d. *Elatiores.* Caules quam in *Ericæfloris* longiores, magis carnosi, sub anthesi foliis sæpissime denudati. Flores in racemis numerosiores sæpeque majores, racemi laterales rari. *Wight Ic. t.* 910. *Bot. Mag. t.* 5430, 5537.

e. *Speciosæ.* Caules longiores, plurifoliati v. rarius sub anthesi aphylli. Racemus unicus pseudoterminalis, nunc elongatus floribundus, rarius pauciflorus v. ad florem unicum reductus. Flores sæpius majusculi; sepala et petala latiuscula v. angusta, interdum undulata v. petala sepalis longiora. *Sm. Exot. Bot. t.* 10. *A. Rich. Sert. Astrol. t.* 6. *Miq. Choix Pl. Jard. Buitenz. t.* 21. *Bot. Mag. t.* 2906, 3074, 4527, 4755, 4898, 5261, 5285, 5444, 5459, 5540, 5956. *Bot. Reg. t.* 1610; 1839, *t.* 37; 1841, *t.* 52.

f. *Ramosissimæ*, caulibus tenuibus ramosis paucifoliatis floribus parvis in racemo brevi pseudoterminali paucis. *Wight Ic. t.* 1648.

6. *Strongyle.* Caules sæpe ramosi, elongati tenuesque v. breviores rigidique non pseudobulbosi. Folia teretia v. subteretia, modo distantia tenuia v. filiformia, modo brevia disticha rigida recurvopatentia. Racemi tenues pseudoterminales v. laterales, floribus parvulis. *Endl. Iconogr. t.* 99. *F. Muell. Fragm.* i. *t.* 6. *Miq. Choix Pl. Jard. Buitenz. t.* 22, *f.* 3 (*Podochilus*) *et t.* 23. *Reichb. f. Xen. Orch. t.* 109. *Bot. Mag. t.* 4711. *D. uncatum*, Lindl., speciesque aliæ brevifoliæ quodammodo *Aporis* accedunt.

7. *Eudendrobium.* Caules indivisi, apice v. undique foliati, sub anthesi sæpe denudati, haud raro basi v. superne v. ad nodos v. undique carnoso-incrassati. Racemi axillares v. ad nodos laterales, multiflori v. ad fasciculum 2–pauci-florum v. ad florem unicum reducti. Species numerosissimæ, infeliciter a Lindleyo ad caulis crassitudinem v. florum colorem aliisque characteribus in sectiones nec naturales nec bene definitas distributæ, nobis melius videntur in series sequentes ordinandæ.

a. *Pycnostachyæ.* Racemi densi laterales v. subterminales, floribus numerosis parvis v. angustis secus rhachin confertis, mento sæpe calcariformi. Caules sub anthesi sæpius defoliati. *Miq. Choix Pl. Jard. Buitenz. t.* 20, *f.* 1. *A. Rich. Sert. Astrol. t.* 7. *Seem. Fl. Vit. t.* 91. *Bot. Mag. t.* 4352, 5703. *Bot. Reg. t.* 1291.

b. *Formosæ.* Flores speciosi, laxe fasciculati, fasciculis ad apicem caulis confertis. Folia per anthesin sæpe persistentia. *Wall. Pl. As. Rar. t.* 39. *Griff. Ic. Pl. As. t.* 305? *Bot. Reg. t.* 1315. *D. Lowei*, Hook. Bot. Mag. t. 5303, huc potius quam ad *Fasciculatas* pertinere videtur. Sectio *Pedilonum*, Lindl., continet *Pycnostachyas* et *Formosas.*

c. *Calostachyæ.* Racemi laterales, laxi, plus minus elongati, floribus sæpius speciosis. Caules sub anthesi sæpe defoliati et haud raro incrassati, interdum tamen per anthesin foliati. *Wall. Pl. As. Rar. t.* 40. *Gaudich. in Freyc. Voy. Bot. t.* 38. *A. Rich. Sert. Astrol. t.* 9. *Hook. Exot. Fl. t.* 71, 184. *Seem. Fl. Vit. t.* 92. *Bot. Mag. t.* 3418, 3643, 3837, 4160, 4659, 5053, 5451, 5459, 5564, 5649, 5780, 5918, 5968, 6013, 6226, 6383. *Bot. Reg. t.* 1695, 1779; 1847, *t.* 36.

Huc pertinet *D. pulchellum*, Roxb., Lindl. Gen. et Sp. Orch. 82, non Lodd. Bot. Cab. t. 1935, nec Bot. Mag. t. 5037, quæ species ad *D. Devonianum* inter *Fasciculatas* referenda.

d. *Fasciculata.* Racemi laterales, ad fasciculos laxe paucifloros interdum ad flores 1–2 reducti. Flores sæpe speciosi. Caules sub anthesi sæpe aphylli v. folia perpauca ferentes, haud raro varie carnoso-incrassati, interdum basi foliati sterilesque, superne aphylli, nodis 1–2-floris, apice attenuati nudi, racemum terminalem elongatum interruptumque simulantes. *Wight, Ic. t.* 908, 1644 *ad* 1647. *Griff. Ic. Pl. As. t.* 303, 306, 308. *Miq. Choix Pl. Jard. Buitenz. t.* 24. *Lindl. Sert. Orch. t.* 3, 18, 35. *Hook. Exot. Fl. t.* 9. *Bot. Mag. t.* 2584, 4013, 4153, 4429, 4450, 4477, 4640, 4663, 4686, 4708, 4886, 4937, 4944, 4970, 4993, 5003, 5011, 5037, 5058, 5130, 5441, 5446, 5454, 5470, 5482, 5488, 5515, 5520, 5652, 5679, 5766, 5825, 6007, 6050, 6199, 6319, 6438. *Bot. Reg. t.* 548, 1299, 1314, 1756, 1864; 1839, *t.* 20, 22; 1843, *t.* 6, 17, 54, 60; 1844, *t.* 53. *Lodd. Bot. Cab. t.* 1935. *Paxt. Fl. Gard. t.* 57. *Reichb. f. Xen. Orch. t.* 110, *f.* 2, *t.* 145, 152, 155.

Dichopus, *Blume, Mus. Bot. Lugd. Bat.* ii. 176, planta Novo-Guineensis nobis ignota et quoad characteres florales ad iconem Latourei descripta, est verisimiliter *Dendrobii* species hujus subsectionis, columna sub stigmate appendice cuneiformi instructa insignis.

e. *Foliosæ.* Caules floriferi foliati, foliis alternis sæpe angustis. Flores axillares, breviter pedicellati, sæpius parvuli, gemini v. fasciculati. *A. Rich. Fl. Nov. Zel. t.* 26. Grastidium, *Blume, Bijdr.* 333.

Aclinia, *Griff. Notul.* iii. 320; *Ic. Pl. As. t.* 351 A, *f.* 21, cum aliis speciebus ad varias sectiones imprimis *Stachyobio* pertinentes, a Lindl. Journ. Linn. Soc. iii. 9, sectionem propriam format floribus abnorme subregularibus.

23. **Latourea**, *Blume, Rumphia*, iv. 41, *t.* 195 *et* 199 C.—Sepala subæqualia, acuminata, undulata, patentia; posticum liberum, lateralia basi obliqua pedi columnæ adnata, mentum breve formantia. Petala sepalis similia nisi angustiora. Labellum basi cum pede columnæ saccatum, elongatum, patens, undulatum, basi in lobos 2 membranaceos undulatos horizontales columnam amplectentes et pone eam connatos productum. Columna brevis, latiuscula, exalata; clinandrium parum dilatatum postice in dentem brevem productum. Anthera denti postico affixa, opercularis, incumbens, plano-convexa, imperfecte 2-locularis; pollinia 2, oblonga, a latere compressa, inappendiculata, libera. Capsula . . .—Caules carnoso-incrassati, apice paucifoliati. Pedunculi laterales, laxe longeque racemiferi. Flores speciosi, sepalis petalisque insigniter undulatis (*Char. ex Blum.*).

Species 1, Novæ Guineæ incola, a nobis non visa, et a Blumeo ipso ex figura et analysi in loco natali a Latoureo delineatis descripta. Genus quadammodo incertum, evidenter *Dendrobio* valde affine, nec nisi labelli lobis basalibus pone columnam connatis et polliniis 2 nec 4 diversum; hic tamen character ulterius probandus. Habitus omnino *Dendrobii.*

24. **Bulbophyllum**, *Thou. Orch. Iles Afr. tab. esp.* 3 *et ic. t.* 93 *ad* 97 *et* 99 *ad* 110. (Bolbophyllum, *Spr. Syst.* iii. 681. Gersinia, *Neraud in Gaud. Bot. Freycin. Voy.* 27. Diphyes, *Blume, Bijdr.* 310, *t.* 66. Tribrachium, *Lindl. Collect. Bot. t.* 41. Anisopetalum, *Hook. Exot. Fl. t.* 149.)—Sepalum posticum liberum, erectum v. patens, lateralibus subæquilongum v. rarius conspicue brevius; lateralia basi oblique dilatata et pedi columnæ adnata, mentum breve gibbiforme v. parum prominens formantia, superne patentia libera v. rarius altius connata. Petala sepalis breviora rarius subæquilonga, sæpius parva v. angusta. Labellum basi contractum cum pede columnæ articulatum v. mobile, in pedem incumbens; lobi laterales parvi, erecti, sæpius auriculiformes v. dentiformes, medius integer v. plumoso-ciliatus, recurvus, angustus v. latiusculus, sæpe varie incrassatus v. medio 2-lamellatus. Columna erecta, sæpius brevis, basi in pedem longiusculum producta, superne 2-alata; clinandrium breve, postice sæpe in dentem antheriferum productum, antice 2-brachiatum, 2-dentatum v. 2-angulatum, et interdum alæ columnæ infra brachia utrinque dente minore appendiculatæ. Anthera terminalis, opercularis, incumbens, depresso-hemisphærica v. obtuse conica, 2-locularis v. rarius septo evanido 1-locularis; pollinia cerea, ad normam 4, per paria in loculis segregata, sæpe tamen cujusve paris plus minus connata v. uno minimo ita ut duo tantum in anthera appareant, hæc etiam interdum

dorso connata, inappendiculata nisi rarius visco parco subgranuloso cohærentia. Capsula globosa ovoidea v. oblonga, erostris.—Herbæ caule seu rhizomate in saxa arboresque repente radicante, vaginis scariosis plus minus obtecto. Pseudobulbi ad axillas vaginarum sessiles, apice folia 1–2 ferentes, et rarius caulis apex 2–3-foliatus absque pseudobulbis. Scapi floriferi ad latera pseudobulborum v. rarius in rhizomate sparsi, aphylli, simplices, basi v. sparse ∞-vaginati. Flores nunc parvi v. minuti in racemo terminali numerosi, nunc majores rarius magni in scapo solitarii v. pauci, in paucis speciebus pedicellis ad apicem scapi approximatis subumbellati. Bracteæ sæpius parvæ, in paucis speciebus flores subæquantes imbricatæque, subdistichæ.

Species ad 80, pro maxima parte per regiones tropicas Africæ et Asiæ dispersæ, perpaucæ Austro-Americanæ v. Australianæ, una sola in Nova Zelandia obvia. *Lindl. Gen. et Sp. Orch.* 47, *et in Journ. Linn. Soc.* vi. 125. *Reichb. f. in Walp. Ann.* vi. 243, *pro parte; in Bonpl.* 1857, 57; *in Bot. Zeit.* 1863, 237, 1865, 99; *in Flora*, 1865, 184; *in Linnæa* xli. 92; *Otia Hamb.* 94, 118; *et in Trans. Linn. Soc.* xxx. 150. *Benth. Fl. Austral.* vi. 286.

Genus florum numero et magnitudine polymorphum, quoad species plerasque naturale, sed non semper a finitimis accurate limitatum, nec facile in sectiones bene definitas dividendum. Sequentes, imprimis ad inflorescentiam conditæ, formis intermediis haud raro junguntur etsi plures a variis auctoribus pro generibus propriis propositæ sint.

1. *Sestochilos.* Flores majusculi v. magni, in pedunculo v. scapo basi paucivaginato v. nudo solitarii. In plerisque speciebus pseudobulbi 1-foliati, columnæ dentes laterales breves, anthera magna valde convexa v. obtuse conica. Species Indicæ v. Archipelagi Malayani. *Griff. Ic. Pl. As. t.* 292, 295. *Bot. Mag. t.* 4532. *Bot. Reg.* 1844, *t.* 13. *Reichb. f. in Saund. Ref. Bot. t.* 116. SESTOCHILOS, *Breda, Orch. Kuhl et Hass. cum ic.* SARCOPODII § 2, *Lindl. Fol. Orch.* 1853.

2. *Leopardinæ.* Pedunculi breves, laxe 2–3-flori, rarius 1-flori, floribus majusculis. Sepala lata, patentia. Petala multo minora. Columnæ angulæ anticæ vix in dentes productæ. Anthera opercularis, convexa v. depresso-hemisphærica. Species Indicæ. *Wall. Tent. Fl. Nap. t.* 28 (*Dendrobium*). *Griff. Ic. Pl. Asiat. t.* 296, *f.* 2. *Reichb. f. in Trans. Linn. Soc.* xxx. *t.* 32 B.; *Xen. Orch. t.* 144; *et in Saund. Ref. Bot. t.* 115. *Bot. Mag. t.* 5408 (*Sarcopodium*), 5605, 6119.

3. *Elegantes.* Pedunculi v. scapi graciles, laxe pluriflori v. interdum 1-flori, floribus mediocribus. Columnæ angulæ in dentes prominentes v. brachia productæ. Pseudobulbi 1-foliati. Species Indicæ v. Archipelagi Malayani. *Miq. Choix Pl. Jard. Buitenz. t.* 20, *f.* 2, *t.* 22, *f.* 2. *Reichb. f. in Trans. Linn. Soc.* xxx. *t.* 32 A.

His affinis est inter Americanas *B. Napelli*, Lindl. (*B. balæniceps*, Reichb. Xen. Orch. t. 157, ex ic. et descr. ?) e Brasilia.

EPICRANTHES, *Blume, Bijdr.* 306, *t.* 9, ex ic. et descr. est verisimiliter *Bulbophylli* species *Elegantibus* affinis, pseudobulbis 1-phyllis, scapis 2-floris; differt columna 'inferne utroque latere processubus antenniformibus 7 pendulis' cincta. Hi processus sunt forte petalorum nanorum laciniæ. In collectione Parishiana flores 2 soli supersunt, in quibus processus lineares breviter stipitati ad utrumque latus columnæ 3 v. 4 omnino locum petalorum tenere videntur. Reichb. f. in Walp. Ann. vi. 265 *Monomeriam* cum *Epicranthe* junxit, serius tamen in Trans. Linn. Soc. xxx. 143 iterum distinxit.

4. *Racemosæ.* Scapi ∞-vaginati, sæpe elongati, floribus in racemo sæpius numerosis breviter pedicellatis parvis v. mediocribus. Columnæ anguli in dentes prominentes v. brachia producti et interdum columna infra brachia utrinque 1-dentata. Pseudobulbi 1-foliati v. præsertim in speciebus nonnullis Africanis 2-foliati. Species ultra 40, Asiaticæ et Africanæ cum paucis Americanis. *Wall. Pl. As. Rar. t.* 69. *Wight, Ic. t.* 1650, 1749. *Griff. Ic. Pl. As. t.* 297. *Bot. Mag. t.* 4166, 5050, 5309, 5316, 5329. *Bot. Reg. t.* 963 (*Tribrachia*), 1964. *Reichb. f. in Saund. Ref. Bot. t.* 117. *Xen. Orch. t.* 207. TAUROSTALIX, *Reichb. f. in Bot. Zeit.* 1852, 933, *ex char.*

Bolbophylla typica racemosa pluribus notis polymorpha sunt. *B. variegatum*, Thou. Orch. Iles Afr. t. 105, e Mauritio, insignis est scapis elatis ∞-vaginatis plerisque more generis ad latera pseudobulborum sitis, terminalis tamen supra vaginas 2-foliatus. *B. clavatum*, Thou. Orch. Iles Afr. t. 99, e Mauritio, distinguitur rhachi incrassata carnosa; flores tamen sparsi, nec ut in *Megaclinio* in faciebus rhacheos planæ 1-seriati. In *B. occulto*, Thou. l.c. t. 93, 94, e Mauritio, et *B. lupulino*, Lindl., ex Africa tropica, bracteæ solito majores, imbricatæ, membranaceæ, flores parvos fere occultantes. *Ptiloglossum*, a Lindleyo, in Journ. Linn. Soc. vi. 125, pro sectione propositum, species

continet plures Africanas labelli lamina angusta longiuscula margine longe denseque plumoso-ciliata. *Bot. Mag. t.* 4088, 5288. *Bot. Reg. t.* 1942, 1970. Sectio tamen minime naturalis et labellum etiam in speciebus nonnullis Asiaticis margine plus minus ciliatum est. *B. fusco-purpureum*, Wight, Ic. t. 1651, ab omnibus distinguitur petalis antenniformibus e basi nana in aristam longam apice clavatam productis. In *B. lemniscato*, Par., Bot. Mag. t. 5961, e Moulmein, sepala dorso infra apicem arista longiuscula instructa sunt. In *B. Careyana*, Spr., affinibusque ex India orientali, racemus sæpius dense spiciformis, crassus, cylindraceus, floribus ∞-seriatim subimbricatis.

IONE, *Lindl. Fol. Orch.* 1853; *Reichb. f. in Walp. Ann.* vi. 635, a *Bulbophyllo* separatur et ad *Vandeas* transfertur ob 'pollinia per paria glandulis 2 distinctis cartilagineis ovalibus adnata.' Species 3 priores Lindleyi examinare nequimus, in *I. paleacea*, Lindl., Bot. Mag. t. 6344, pollinia vidimus omnino *Bulbophylli*, nisi visco extensivo in uno flore vix conspicuo in altero distinctiore lineari per paria connexa. In speciebus angustifoliis Lindleyi, quæ omnes *Bulbophyllo reptanti*, Lindl., simillimæ sunt, pollinia nunc omnino libera, nunc in quoque loculo visco extensivo tenuissimo connexa vidimus. Characteres cæteri tam vegetationis quam floris omnino *Bulbophylli*. *I. paleacea* distinguitur statura elatiore, bracteis solito majoribus paleaceis. *B. reptans* affinesque humiles sunt floribus minoribus.

DIDACTYLE, *Lindl. Fol. Orch.* 1852, genus propositum fuit ad species 7 austro-Americanas, columna utrinque infra brachia terminalia dente brevi instructa, quod tamen observatur in speciebus plurimis Africanis racemosis et character species aliter valde dissimiles jungit.

XIPHIZUSA, *Reichb. f. in Bot. Zeit.* 1852, 919, *et in Walp. Ann.* vi. 242, species continet paucas austro-Americanas, a *Didactyle* separatas, sepalis lateralibus angustis alte coalitis et labelli lobis lateralibus longiusculis erectis, medio ligulato dependente. Character sumptus est a *B. chloroptero*, Reichb. f., cujus fragmenta cum icone picta adsunt in herb. Lindl. cum iconibus specierum 2 a Reichenbachio cum *B. chloroptero* comparatarum: *Didactyle gladiata*, Lindl., sepalis *B. chloropteri* sed labelli lobis lateralibus brevibus latis, et *D. Weddellii*, Lindl., habitu multo majore et sepalis omnibus liberis angustis subæqualibus.

MALACHADENIA, *Lindl. Bot. Reg.* 1839, *Misc.* 67, *Bot. Mag. t.* 4334, ex specimine imperfecto in herb. Lindl. et ic. et descr. citatis videtur *Bulbophylli* species Brasiliensis, columnæ brachiis longis reflexis. Pollinarii 'glandula mollis cubica' est verisimiliter visci massa e rostello extrusa, qualis in *Liparieis Dendrobieisque* haud raro observatur.

BOLBOPHYLLARIA, *Reichb. f. in Bot. Zeit.* 1852, 934; *Orch. Centr. Amer.* 60; et *in Walp. Ann.* vi. 241, genus conditum fuit ad *Bulbophyllum bracteolatum*, Lindl. Bot. Reg. 1838, t. 57, speciem Americanam pseudobulbis 2 foliatis, scapo elato, habitu et floribus in rhachi incrassata carnosa sparsis *B. clavatum*, Thou., e Madagascaria referentem, sed ovarium apice bracteolis 2 parvis inter sepalum posticum et lateralia sitis instructum est. Species primum descripta fuit ad specimen cultum plantæ Guianensis et sylvestre e Venezuela, ad eandem speciem tamen referrimus *Pleurothallem pachyrhyncham*, A. Rich. Fl. Cub. iii. 234, t. 74, e Cuba, et *B. sordidum*, Lindl., e Guatemala, nec ex charactere dato distinguimus *Bolbophyllariam Œrstedii*, Reichb. f., ex America centrali. *Didactyle meridensis*, Lindl., e Venezuela (*D. exaltata*, Lindl., e Guiana), est species *B. bracteolato* affinis, foliis crassioribus, racemi rhachi non v. vix incrassata et bracteolis minoribus, quæ tamen certe adsunt.

Bulbophyllum bisetum, Lindl., Griff. Ic. Pl. As. t. 296, f. 1 (*B. cirrhopetaloides*, Griff. Notul. iii. 290), ex India orientali, a Reichb. f. l. c. *Bolbophyllariæ* refertur ob bracteolas ad apicem ovarii bene evolutas lineari-setaceas vix perianthio breviores sed habitus inflorescentia et flores cæterum ab illis *B. bracteolatæ* longe recedunt; inflorescentia fere *B. fusco-purpurei*, Wight, folia solitaria acuta *B. lemniscati*. In *B. clavato*, Thou., a Reichenbachio l. c. ad *Bolbophyllariam* relato, bracteolas non invenimus.

LYRÆA, *Lindl. Gen. et Sp. Orch.* 46, genus conditum fuit ad descriptionem iconemque A. Rich. Orch. Iles Fr. et Bourb. 62, t. 8, *Bulbophylli prismatici*, Thou. Orch. Iles Afr. t. 109, cum charactere *Bulbophylli* nequaquam convenientes sed forte falsæ, nam Blume genus ad *Bulbophyllum* restituit. Icon rudis Thouarsii habitum ostendit specierum *Racemosarum* et nemo post Richardium plantam examinavisse videtur. Specimina nobis desunt.

5. *Umbellatæ*. Scapi ∞-vaginati, sæpe elati, floribus mediocribus v. majusculis longiuscule pedicellatis, racemo ad apicem scapi abbreviato umbelliformi v. capituliformi fere *Cirrhopetali*, sed sepala omnia patentia parum inæqualia. Species paucæ Indiæ v. Archipelagi Malayani. *Breda Orch. Kuhl et Hass. cum ic. Bot. Mag. t.* 4267. *Bot. Reg.* 1845, *t.* 44.

COCHLIA, *Blume, Bijdr.* 320, *t.* 59; *Lindl. Gen. et Sp. Orch.* 46, species Javensis a nobis non visa, nec ab auctoribus recentioribus descripta, a Reichb. f. in Walp. Ann. vi. 265, ad *Bulbophyllum* reducitur, si revera congener, ad hanc seriem pertinet racemo capituliformi subgloboso.

6. *Brachystachyæ.* Herbæ tenues, reptantes, pseudobulbis parvulis 1-foliatis. Flores parvuli, pauci, longiuscule pedicellati, ad apicem scapi brevis tenuis subumbellati, brevissime laxeque racemosi v. capitati; sepala tenuiter acuminata. Species ad 20, Asiaticæ. *Griff. Ic. Pl. As. t.* 294, *f.* 2. ODONTOSTYLES, *Breda, Orch. Kuhl et Hass. cum ic.*

His affinis videtur *B. Regnellii,* Reichb. f. Xen. Orch. t. 157, e Brasilia.

7. *Oxysepalæ.* Caules v. rhizomata elongata, prostrata, ramosa, multivaginata, pseudobulbis parvis nunc minimis 1-foliatis. Scapi breves nunc brevissimi, tenues, pauciflori, sæpe vix e vaginis prominuli. Flores parvuli, sepalis acuminatissimis. Columnæ brachia longa.—Species ad 6, Asiaticæ v. Australianæ. *Griff. Ic. Pl. As. t.* 293. OXYSEPALUM, *Wight, Ic.* v. 17, *t.* 1736. Huc pertinet inter alia *B. Shepherdi,* F. Muell.; Fitzger. Austral. Orch. cum tab., ubi pedunculi brevissimi delineantur, in speciminibus nostris interdum semipollicem excedunt.

Thelychiton argyropus, Endl. Prod. Fl. Norf. 32, Iconogr. t. 29, ex ins. Norfolk, est verisimiliter *Bulbophylli* species nana.

25. **Sunipia,** *Lindl. Gen. et Sp. Orch.* 179; *Orch. Scel.* 25, *ic.*; *Sert. Orch. Frontisp. n.* 8; et *Fol. Orch.* 1853.—Sepala libera, æqualia, patentia. Petala sepalis multo minora, lato-ovata. Labellum ad basin columnæ sessile, erectum, sepalis parum brevius; lobi laterales prope basin angustam breves, auriculiformes, obtusi, medius crassiusculus, oblongus, concavus, marginibus subrecurvis. Columna brevissima, lata, exalata, apoda; clinandrium breve. Anthera intra clinandrium sessilis, suberecta, mox a rostello aversa, loculis distinctis globosis sursum in valvas 2 persistentes dehiscentibus; pollinia 4, in quoque loculo 2, cerea, ovoideo-compressiuscula, libera v. demum visco parco cohærentia. —Herba epiphytica, breviter reptans, caulibus brevissimis novellis plurivaginatis, mox in pseudobulbum 1-phyllum carnosum incrassatis. Folium coriaceum, tenuiter multivenium. Scapi laterales, elongati, aphylli, ima basi vaginati. Flores parvi, in racemo terminali distichi, intra bracteas distichas scariosas v. subcoriaceas concavas sessiles, iisque fere occulti.

Species 1, Himalaica et Burmanica.

Genus antherarum indole nulli nisi *Microstyli* accedere videtur. Habitus potius *Bulbophylli,* quod olim a Lindleyo cum *Ione* (*Bulbophylli* specie) associatum, nec bene ab hoc genere longe separandum ut proposuit Benth. in Journ. Linn. Soc. xviii. 294.

26. **Cirrhopetalum,** *Lindl. Bot. Reg. sub t.* 832; *Gen. et Sp. Orch.* 58. (Zygoglossum, *Reinw. in Syll. Pl. Soc. Ratisb.* ii. 4. Hippoglossum, *Breda, Orch. Kuhl et Hass. cum ic.* Ephippium, *Blume, Bijdr.* 309, *t.* 65.)—Sepalum posticum liberum, breve, lateralia multo longiora angusta v. acuminata, interdum longe caudata, basi parum dilatata, columnæ pedi adnata, parallele patentia v. dependentia, interdum alte cohærentia. Petala sepalis lateralibus multo breviora, sæpius postico subsimilia, ovata v. lanceolata, integra v. eleganter ciliato-serrata. Labellum basi contractum, cum pede columnæ articulatum v. mobile, in pedem incumbens, superne recurvum, integrum v. ad basin laminæ utrinque auriculatum. Columna erecta, brevis, basi in pedem producta, superne 2-alata, alis utrinque in dentem v. brachium erectum productis; clinandrium postice truncatum v. in dentem brevem productum. Anthera terminalis, opercularis, incumbens, depresso-hemisphærica, inappendiculata, decidua; pollinia cerea, ad normam 4, per paria in loculos segregata, sæpius tamen cujusve paris plus minus connata ita ut duo tantum in anthera appareant, inappendiculata. Capsula ovata v. oblonga, nunc fere fusiformis.—Herbæ caule seu rhizomate repente radicante, habitu *Bulbophylli.* Pseudobulbi ad axillas vaginarum scariosarum apice 1-foliati. Scapi floriferi ad latera pseudobulborum aphylli, ∞-vaginati. Flores sæpe speciosi, racemo in umbellam contracto, circa apicem scapi penduli, rarius pedicellis abbreviatis subcapitati v. pedicellis dissitis laxius racemosi.

Species ad 30, pro maxima parte Indiæ Orientalis v. Archipelagi Malayani incolæ, cum una Mascarensi altera Chinensi, tertia parum anomala Australiana. *Thou. Orch. Iles Afr. t.* 98 (*Bulbophyllum*). *Wall. Pl. As. Rar. t.* 67. *Griff. Ic. Pl. As. t.* 298, 299. *Wight Ic. t.* 1652 *ad* 1658. *A. Rich. in Ann. Nat. Hist. ser.* 2, xv. *t.* 7 (*Bulbophyllum*). Bot. Mag. t. 4391, 4418, 4422, 4753, 4977, 4996. *Bot. Reg.* 1842, *t.* 12, 1843, *t.* 49.

Genus certe *Bulbophyllo* valde affine, cui reducitur a Blumeo et a Reichb. f. in Walp. Ann. vi. 259, Otia Hamb. 49, in Trans. Linn. Soc. xxx. 153, in Bot. Zeit. 1863, 237, et in Flora, 1872, 275, 278; passim tamen ab hoc auctore in Gard. Chron. retinetur, et quoad species fere omnes naturalissimum est, et tam inflorescentia quam perianthio facile dignoscitur. *C. Wallichii*, Lindl. (*C. refractum*, Zoll.), tamen *Bulbophyllo* accedit racemo elongato, sed sepala lateralia elongata parallele dependentia omnino *Cirrhopetali*, sepalo postico petalis subsimili. Species Australiana sola, *Cirrhopetalum* v. *Bulbophyllum Elisæ*, F. Muell. Fragm. Phyt. Austral. vi. 120, t. 57, racemo adhuc laxiore sepalo postico petalis conspicue longiore in Fl. Austral. sub *Bulbophyllo* recensita, revera intermedia videtur.

Bolbophyllopsis, *Reichb. f. in Bot. Zeit.* 1852, 933, est ex auctore in Walp. Ann. vi. 243, *C. maculosum*, Lindl., species vera *Cirrhopetali* et ut videtur eadem ac *C. bootanense*, Griff. Notul. iii. 296; Ic. Pl. Asiat. t. 299.

27. **Megaclinium,** *Lindl. Bot. Reg. t.* 989; *Gen. et Sp. Orch.* 47; *et in Journ. Linn. Soc.* vi. 128.—Sepalum posticum liberum, patens, lateralia minora, acuminata, basi lata columnæ basi v. pedi adnata. Petala minora, angusta. Labellum cum pede columnæ articulatum, mobile, basi inflexum, superne recurvo-patens, integrum v. supra medium margine denticulatum. Columna brevis, utrinque alato-dilatata, basi in pedem brevem nunc brevissimum producta, vertice in clinandrium antice 2-angulatum expansa. Anthera terminalis, opercularis, incumbens, 2-locularis; pollinia 4, cerea, per paria plus minus connata, paribus interdum dorso breviter connatis, inappendiculata. Capsula . . .—Herbæ epiphyticæ; rhizomate seu caule repente; pseudobulbi sæpius 4-goni, apice 2-foliati (rarius 1-foliati?). Scapi e rhizomate ad latera pseudobulborum aphylli, plurivaginati. Racemus terminalis, rhachi insigniter dilatato-compressa, flores in utraque facie secus costam centralem v. parum excentricam 1-seriati, breviter pedicellati, parvi. Bracteæ sub floribus parvæ, sæpe latæ, in rhachi *transversæ*. Sepalum posticum variat nunc lateralibus vix dimidio majus breviter acuminatum marginibus leviter involutis, nunc lateralibus 2–3-plo longius oblongum, obtusum, marginibus apicem versus incrassatis coloratis recurvis labellum simulans.

Species ad 9, Africæ tropicæ et australis subtropicæ incolæ. *Reichb. f. in Walp. Ann.* vi. 257 (*Bulbophylli sect.*). *Bot. Mag. t.* 4028, 5936. *Bot. Reg. t.* 1959.

Genus *Bulbophyllo* proxime affine, sed inflorescentia singulari bene definitum videtur.

28. **Trias,** *Lindl. Gen. et Sp. Orch.* 60.—Sepala subæqualia, patentia; lateralia basi pedi columnæ adnata. Petala parva, oblonga v. linearia. Labellum ad apicem pedis columnæ mobile, inflexum, incumbens, apice subpatens, angustum, crassiusculum. Columna brevis, lata, antice concava, alis apice antice angulatis v. in dentem brevem productis; clinandrium breve. Anthera erecta, caducissima, loculis bene distinctis, connectivo in appendicem oblongam truncatamque v. teretem loculis 2–3-plo longiorem producto; pollinia 4, cerea, per paria in loculis segregata, cujusve paris subcohærentia; inappendiculata. Capsula . . .—Herbæ humiles, cæspitosæ v. caule seu rhizomate repente radicante. Pseudobulbi parvuli, subglobosi, apice 1-foliati. Scapi laterales, tenues, aphylli, 1-flori, præter vaginas ad basin 1–2 parvas ebracteati.

Species 3, quarum 2 in vicinibus Moulmeyn crescentes: *Wall. Pl. As. Rar. t.* 70; *Reichb. f. in Trans. Linn. Soc.* xxx. 150 (*Bulbophyllum*); tertia, adhuc inedita, e Peninsula Indiæ Orientalis primo aspectu Moulmeynianis simillima sed antherarum appendice tereti subdorsali nec complanata truncataque facile distincta.

Genus *Bulbophyllo* valde affine et habitu *B. gracili*, Lindl., aliisque paucis speciebus e Java quodammodo accedit, vix tamen ad *Bulbophyllum* ipsum reducendum ut proposuit Blume, qui tamen characterem ab anthera sumptum haud memorat.

29. **Osyricera,** *Blume, Bijdr.* 307, *t.* 58.—Sepala patentia, subæquilonga, lateralia usque ad apicem coalita. Petala multo minora. Labellum in pede columnæ articulatum, sepalis brevius, juxta basin ventricosum fere saccatum, indivisum, lamina lateribus reflexis valde convexa, utrinque undique glandulosa. Columna erecta, semiteres, apice alis seu brachiis membranaceis 2–3-fidis instructa, basi in pedem brevem producta; clinandrium

breve. Anthera terminalis, opercularis, incumbens, convexa, 2-locularis, antice lamina suborbiculari glandulosa appendiculata; pollinia 2, cerea, in quoque loculo solitaria, ovoidea, inappendiculata, libera.—Herba epiphytica, pseudobulbis 1-foliatis. Folium lineari-lanceolatum. Scapi e rhizomate erecti, spica terminali simplici, floribus sessilibus purpurascentibus. (*Char. ex Blume ic. et descr.*)

Species 1, Javensis, a nobis non visa, nec ab auctoribus recentioribus descripta. *Lindl. Gen. et Sp. Orch.* 13.

Genus verisimiliter *Bulbophyllo* affine, labelli forma et antheræ appendicula insigne.

30. **Drymoda,** *Lindl. Sert. Orch. t.* 8 C.—Sepala patentia, posticum liberum ovatum, lateralia majora ad apicem pedis columnæ a postico intervallo longo separata. Petala parva, lata. Labellum ad apicem pedis columnæ (articulatum ?), ungue longo incurvo demum suberecto, lamina patente ovata 3-loba, disco convexo piloso. Columna brevissima, antice alis seu brachiis 2 longis falcatis parallele horizontalibus instructa, basi in pedem longum producta; clinandrium breve. Anthera terminalis, opercularis, incumbens, valde convexa, 2-locularis; pollinia 4, cerea, in quoque loculo 2, ovoidea, compressiuscula, inæqualia, apice massæ globosæ concolori affixa. Capsula parva, obovoidea, erostris.—Herba epiphytica, pusilla, pseudobulbis confertis depressis orbicularibus medio umbonatis folium parvum caducissimum ferentibus. Scapi sub pseudobulbo oriundi, erecti, filiformes, 1-flori, basi squamellis paucis minimis instructi. Flos parvus. Bractea minuta.

Species 1, Peninsulæ Malayanæ incola. *Bot. Mag. t.* 5904. Stirps primo aspectu *Eriam extinctoriam*, Oliv., in mentem revocat, sed scapus sub pseudobulbo apice cicatrice folii delapsi notato affixus, nec in medio pseudobulbo, et characteres plerique *Bulbophylli*, a quo differt sepalis lateralibus ut in *Monomeria* ad apicem pedis longi columnæ affixis, et polliniorum appendice globosa de cujus natura incerti sumus; in flore unico examinato imperfecta erat, ex icone Griffithiana in herb. Lindl. polliniis concolor et cum iis continua est, sed ex anthera exserta.

31. **Monomeria,** *Lindl. Gen. et Sp. Orch.* 61.—Sepalum posticum liberum, erectum, concavo-complicatum, acutum; lateralia multo majora, plana, pedi columnæ adnata, intervallo longo a postico separata. Petala brevissima, lata, fimbriata, secus pedem columnæ sæpius irregulariter decurrentia. Labellum ad apicem pedis columnæ articulatum, carnosulum, complicatum, basi incumbens; lobi laterales breves, medius erecto-patens, indivisus, facie lamellatus. Columna brevis, erecta, lata, anguste 2-alata, basi in pedem longum producta; clinandrium breve, dente postico duobusque anticis brevibus. Anthera terminalis, opercularis, incumbens, convexa, 1-locularis; pollinia 4, cerea, in massam globosam cohærentia v. concreta, inappendiculata. Capsula . . .—Herbæ rhizomate repente duro. Pseudobulbi 1-foliati, carnosi, costati, pyramidati v. oblongi. Folium longum, planum, coriaceum, rigidum, basi complicatum in petiolum contractum. Scapi e rhizomate elati, aphylli, simplices, vaginis paucis dissitis. Racemus laxus, floribus mediocribus longiuscule pedicellatis. Bracteæ pedicellis breviores.

Species 2, inter se valde affines, altera Nepalensis, altera Burmanica. *Reichb. f. in Trans. Linn. Soc.* xxx. 143, *t.* 28.

Genus *Bulbophyllo* quam maxime affine nec ad *Vandeas* transferendum. Pollinia in floribus 2 speciminum Wallichianorum invenimus qualia a Lindleyo descripta et in herb. Lindl. delineata. Accuratissimus tamen Parish ex specimine unico Burmanico pollinarii stipitem et glandulam delineavit, sed forte error quidam hic latet, nam polliniorum in stipite insertione ab omnibus *Vandeis* nobis notis discrepat.

32. **Dendrochilum,** *Blume, Bijdr.* 398, *t.* 52, *quoad sect.* 1.—Sepala subæqualia, patentia, posticum liberum, lateralia basi vix dilatata, columnæ pedi brevi adnata. Petala sepalis paullo minora, patentia. Labellum cum pede brevi columnæ articulatum, subsessile, breviter incumbens, dein erecto-patens, oblongum. Columna brevis, utroque latere dente seu brachio erecto instructa, basi in pedem brevem producta; clinandrium concavum v.

fere cucullatum. Anthera intra clinandrium opercularis, incumbens, convexa, 2-locularis; pollinia 4, cerea, ovoidea, distincta, inappendiculata, apicibus vix acutiusculis visco parcissimo cohærentibus. Capsula . . .—Herbæ epiphyticæ, caule seu caudice reptante ramoso squamis scariosis vaginato, pseudobulbis ad axillas vaginarum angustis 1-foliatis. Folium angustum, coriaceum, planum. Scapi ad latera pseudobulborum e caudice oriundi, basi imbricato-vaginati, aphylli, tenues, simplices. Flores in racemo gracili, parvi, brevissime pedicellati. Bracteæ parvæ.

Species 2 v. 3, Malaccæ et Archipelagi Malayani incolæ. *Lindl. Gen. et Sp. Orch.* 34. *Reichb. f. in Walp. Ann.* vi. 927. Genus ad sectionem primam auctorum limitatum nobis bene distinctum videtur. Racemi tenues et flores parvi primo aspectu iis *Liparidis* subsimiles, sed columna in pedem producta et pollinia paullo diversa; characteres vegetationis omnino *Bulbophylli* nec *Liparidearum*. Sectio secunda auctorum nobis genus proprium format *Platyclinis*, supra n. 15.

33. **Panisea,** *Lindl. Gen. et Sp. Orch.* 44 (Cœlogynis *sect.*); *Fol. Orch.* 1854 *pro parte* (Androgyne, *Griff. Notul.* iii. 279.)—Sepala et petala subæqualia, libera, angusta, erecta v. subpatentia. Labellum cum basi columnæ continuum, sepalis subæquilongum, angustum, integrum, basi in unguem longum sigmoideo-flexuosum rugosulum contractum. Columna longiuscula, erecta, superne late 2-alata, basi vix in pedem brevem producta; clinandrium parvulum, integrum v. leviter sinuatum. Anthera subterminalis, opercularis, distincte 2-locularis; pollinia 4, ovoidea, cerea, inappendiculata, libera v. visco parco cohærentia. Capsula ovoidea v. anguste oblonga.—Herba epiphytica, dense cæspitosa. Pseudobulbi angusti, in rhizomate conferti, apice 1–2-phylli. Racemi tenues, laxi, sub pseudobulbo laterales, floribus paucis mediocribus v. parvulis breviter pedicellatis. Bracteæ persistentes, pedicello sæpe longiores.

Species 1 v. 2, Himalaicæ, habitu *Bulbophyllo reptanti*, Lindl., accedentes.

Genus a *P. parviflora* et *P. reflexa*, Lindl., forte speciei unius varietatibus conditum, tam inflorescentia quam floribus potius *Bulbophyllo* quam *Cœlogyni* affine videtur. *P. apiculata* et *P. uniflora* a Lindleyo serius additæ ob cristarum labelli deficientiam, quoad formam et situm labelli omnino *Cœlogyni* conveniunt, et prior jam rite a Reichenbachio ad hoc genus revocata. Hic auctor tamen infeliciter *C. bilamellatam*, Lindl., ad *Paniseam* transfert, nam labellum omnino *C. proliferæ* basi breviter saccatum, nec flexuosum, uti ex specimine margine læsione eroso in herb. Lindl. delineatur.

34. **Acrochæne,** *Lindl. Fol. Orch.* 1853.—Sepala æquilonga, inter se libera, patentia; lateralia basi lata obliqua pedi columnæ adnata. Petala sepalis paullo breviora, angustiora. Labellum cum pede columnæ articulatum eique basi incumbens, dein erectum, abrupte supra unguem brevem dilatatum; lobi laterales induplicati, apice faciei labelli adnati, medius lanceolatus. Columna brevissima, crassiuscula, basi in pedem longiusculum producta; clinandrii dentes breves. Anthera terminalis, opercularis, incumbens, transverse oblonga, convexa, 1-locularis; pollinia 2, cerea, globosa, appendicula granuloso-viscosa breviter laminiformi demum 2-partita connexa. Capsula . . .—Herba epiphytica, pseudobulbis 1-foliatis ovoideis v. globosis. Folium longe petiolatum, oblongum, coriaceum, striatum. Scapi laterales, erecti, aphylli, basi 2–3-vaginati. Racemus simplex, longiusculus, laxus, floribus mediocribus breviter pedicellatis. Bracteæ lanceolatæ, membranaceæ, pedicello longiores, persistentes.

Species 1, Sikkimensis.

35. **Chrysoglossum,** *Blume, Bijdr.* 337, *t.* 7; *Orch. Archip. Ind.* 161, *t.* 46, 47.—Sepala subæquilonga, posticum liberum, lateralia basi paullo latiora, cum pede columnæ in mentum breve v. saccatum connata. Petala sepalo postico subsimilia. Labellum basi cum pede columnæ continuum et mento sepalorum intus adnatum, dein erectum, lamina explanata lobis lateralibus ovatis, medio majore; discus lamellatus. Columna erecta v. arcuata, semiteres, medio v. altius 2-auriculata v. 2-cornuta, v. præter angulos clinandrii nuda, basi in pedem brevem producta; clinandrium postice prominens, antice 2-angulatum v. breviter 2-dentatum. Anthera terminalis, opercularis, incumbens, convexa, discrete

2-locularis, ultra loculos breviter producta; pollinia 2, cerea, in quoque loculo solitaria, collateralia, globosa v. a latere interiore compressa, inappendiculata, libera. Capsula longiuscula, erostris, basi attenuata.—Herbæ terrestres v. epiphyticæ. Folia in rhizomate repente solitaria, majuscula, plicato-venosa, petiolo longiusculo basi haud raro in pseudobulbum incrassato. Scapi e rhizomate erecti, aphylli, plurivaginati, elati. Flores mediocres, in racemo laxo breviter pedicellati. Bracteæ ovario breviores.

Species 3, Archipelagi Malayani et insularum maris Pacifici incolæ, cum quarta nuper a C. B. Clarke in Sikkim detecta. *Lindl. Gen. et Sp. Orch.* 13. *De Vr. Illustr. Orch. Reichb. f. in Seem. Fl. Vit.* 304. Characteres præcipue ex descr. et ic. optimis Blumei sumpsimus, flores in solo *C. vesicato*, Reichb. f. ex ins. Fiji, et in *C.* (*Diglyphosa*) *latifolio*, Blume, examinavimus, cui columnæ auriculæ seu anguli parum prominulæ nec corniformes ut in speciebus Blumeanis, quo solo charactere distinguitur Diglyphosa, *Bl. Bijdr.* 336, *t.* 60; *Reichb. f. Xen. Orch. t.* 80 (Diglyphis, *Bl. Præf. Fl. Jav.*; *Orch. Archip. Ind.* 163, *t.* 55) quam ad *Chrysoglossi* speciem reducimus. Genus cæterum a *Cyrtopodio* vix nisi pollinario distinguendum.

36. **Collabium,** *Blume, Bijdr.* 357.—Sepala subæquilonga, posticum liberum, lateralia basi cum pede columnæ in mentum longum calcariforme connata. Petala sepalo postico subsimilia. Labellum basi unguiculatum, in pedem columnæ incumbens, superne erectum, lobis lateralibus parvis, medio lato patente margine lacero-fimbriato. Columna erecta, incurva, vix alata, basi in pedem longum reflexum producta; clinandrium erectum, obliquum, edentulum. Anthera terminalis, opercularis, incumbens, distincte 2-locularis; pollinia 2, cerea, in quoque loculo solitaria, late ovata, compressiuscula, inappendiculata, libera. Capsula . . .—Herbæ terrestres, rhizomate repente annulato. Folia secus rhizoma solitaria, ampla, plicato-venosa, petiolo longo basi vagina longa scariosa incluso et demum in pseudobulbum incrassato. Scapi e rhizomate erecti, elati, simplices, aphylli (an basi vaginati ?). Racemus terminalis, elongatus, floribundus; flores quam in *Tainia* minores et longius pedicellati, secus rhachin sparsi. Bracteæ membranaceæ, angustæ, reflexæ.

Species 2, altera Javanica, *Lindl. Gen. et Sp. Orch.* 96, *Miq. Choix, t.* 26; altera Borneensis, *Reichb. f. in Gard. Chron.* 1881, i. 462. Fili elastici polliniorum (caudicula, *Lindl.*) proveniunt verisimiliter e viseo in *Dendrobiis* sæpe e rostello in antheram dehiscentem intruso et facile in fila elastica extenso, ab appendicula *Epidendrearum* et stipite *Vandearum* valde diversa. De identitate speciei Javanicæ cum typo Blumeano cfr. Miq. l. c.; speciem Borneensem non vidimus. Genus cæterum vix a *Chrysoglosso* differt mento longo calcariformi. Reichenbach in Gard. Chron. l. c. *Chrysoglossa* omnia ad *Collabium* refert.

37. **Coelia,** *Lindl. Gen. et Sp. Orch.* 36, *char. emend. in Bot. Reg.* 1842, *t.* 36. (Bothriochilus, *Lemaire, Illustr. Hortic.* iii. *Misc.* 30.)—Sepala subæquilonga, a basi erecta, superne patentia, posticum liberum concavum, lateralia latiora, basi cum pede columnæ in mentum breve v. elongatum connata. Petala sepalo postico subsimilia. Labellum ad apicem pedis columnæ articulatum, angustum, basi incumbens, superne patens, sepala non superans, indivisum, nunc in unguem flexuosum contractum, nunc a basi latiore lanceolatum. Columna brevis, latiuscula, acute marginata at vix alata, basi in pedem brevissimum v. elongatum producta; clinandrium truncatum v. margine breviter dilatato sinuatum. Anthera terminalis, opercularis, incumbens, semiglobosa, perfecte 2-locularis; pollinia 8, cerea, in quoque loculo 4, ovoidea, apicibus visco parco cohærentia. Capsula brevis v. oblonga, erostris, costis (in *C. Baueri*) in alas dilatatis, quarum 3 valde prominentes.—Herbæ epiphyticæ, caulibus plurifoliatis basi mox in pseudobulbum carnosum incrassatis. Folia elongata, angusta, plicato-venosa. Scapi ad basin pseudobulborum sæpius breves, simplices, basi vaginis imbricatis subspathaceis stipati. Flores mediocres, dense racemosi, breviter pedicellati, rarius pauci majoresque. Bracteæ membranaceæ v. paleaceæ, angustæ, flores sæpe superantes.

Species 4 v. 5, Indiæ occidentalis, Americæ centralis v. Mexici incolæ. *Reichb. f. in Walp. Ann.* vi. 218. *Sm. Ic. Pict. t.* 14 (*Epidendrum*). *Bauer, Illustr. Gen. t.* 3 (*quoad antheram et pollinia*

erronea). *Lemaire, Jard. Fleur. t.* 325 (*Bifrenaria*). *Bot. Mag. t.* 4712 (*ic. in Fl. des Serres, t.* 900 *repetita*), 6628.

Genus vix ac ne vix ab *Eria* distinguendum patria, habitu et (saltem quoad speciem typicam) capsula.

38. **Eria,** *Lindl. in Bot. Reg. t.* 904. (Dendrolirium, *Blume, Bijdr.* 343, *t.* 69. Pinalia, *Lindl. Orch. Scel.* 21, *cum ic.* Octomeria, *Don, Prod. Fl. Nepal.* 31, *non Br.*).—Sepala subæqualia, posticum liberum v. basi breviter rarius alte cum cæteris connatum, lateralia sæpius latiora basi pedi columnæ adnata, mentum breve v. rarius calcariforme formantia, superne libera v. rarius altius connata. Petala sepalo postico subconformia. Labellum ad apicem pedis columnæ basi contractum, rarius articulatum, incumbens, superne patens, integrum v. utrinque lobo laterali auctum. Columna brevis, lata, antice cava sæpeque anguste 2-alata, basi in pedem producta; clinandrium margine integrum v. vix antice 2-angulatum et postice 1-dentatum. Anthera terminalis, opercularis, incumbens, interdum valde convexa v. obtuse conica, loculis 2 distinctis imperfecte 4-locellatis; pollinia 8, cerea, in quoque loculo 4, pyriformia v. late ovoidea, parum compressa, acutiuscula v. acuminata, in fasciculos 2 visco parco cohærentia. Capsula oblonga v. linearis, erostris.—Herbæ epiphyticæ v. rarius terrestres, caulibus secus rhizoma sæpius confertis pseudobulbosis, v. longiusculis sæpe carnosis 2–∞-foliatis, v. rarius 1-foliatis. Pedunculi v. scapi pseudo-terminales v. laterales, nec directe rhizomati affixi, simplices, racemiferi v. interdum 1-flori. Flores parvi mediocres v. rarius majusculi, secus rhachin racemi sparsi v. rarissime distichi. Bracteæ parvæ v. angustæ.

Species ad 80, Indiæ orientalis, Chinæ Australis et Archipelagi Malayani incolæ. *Lindl. Gen. et Sp. Orch.* 65, et *in Journ. Linn. Soc.* iii. 45 (*excl. Trichosmate*). *Reichb. f. in Walp. Ann.* vi. 266; *in Bonpl.* 1857, 54; *Otia Hamb.* 54; *in Bot. Zeit.* 1864, 415; *in Flora*, 1872, 275; *in Linnæa* xli. 86; et *in Trans. Linn. Soc.* xxx. 147 (*excl. spp. paucis*).

Genus habitu polymorphum, in sectiones sequentes a nonnullis pro generibus propriis habitis dividitur:—

1. *Porpax.* Plantæ nanæ, pseudobulbis depresso-globosis v. deplanatis demum rete fibroso obtectis, foliis 2 orbiculatis ovatisve mox deliquescentibus coronatis. Flores inter folia solitarii v. 2–3-ni, subsessiles v. brevissime pedicellati, mediocres. Species 7, Peninsulæ Indicæ v. Burmæ Britannicæ incolæ. Porpax, *Lindl. Bot. Reg.* 1845, *Misc.* 62. Aggeianthus et Lichenora, *Wight, Ic.* v. 18, *t.* 1737, 1738. Reichenbach f. in Bot. Zeit. 1862, 214, et in Trans. Linn. Soc. xxx. 148, species 2 typicas, *E. reticulatam* et *E. Jerdonianam*, ad *Cryptochilum* refert ob sepala lateralia fere ad apicem inter se et ad medium cum postico coalita, sed nobis tam habitu quam floribus a *Cryptochilis* veris longe differre videntur, et in *E. lichenora*, Lindl., *E. ustulata*, Reichb. f., et *E. Parishii*, Lindl., sepala lateralia inter se ultra medium et basi cum postico coalita sunt.

2. *Conchidium.* Herbæ nanæ, pseudobulbis foliisque *Porpacis*, sed pedunculi tenues, longiusculi, 1-flori v. rarius 2-flori, floribus quam in *Porpace* sæpius multo minoribus. Pedunculus post folia delapsa in centro pseudobulbi terminalis apparet sed revera ad cicatricem foliorum v. gemmæ terminalis lateralis est. Species 5–6, Peninsulæ Indicæ, Zeylaniæ, Burmæ Britannicæ et Chinæ australis incolæ. *Wight, Ic. t.* 1637 *et* 1734 (*Phreatia*). *Bot. Mag. t.* 5910 (*quoad pollinarium erronea*). Conchidium, *Griff. Notul.* iii. 321, *t.* 310.

E. pleurothallis, Par. et Reichb. f. in Trans. Linn. Soc. xxx. 147, t. 30, e Burma, pedunculo tenui, flore unico parvo, *E.* (*Conchidio*) *pusillæ*, Lindl., subaffinis, differt pedunculo e basi imbricato-vaginato in pseudobulbum non incrassato.

3. *Bryobium.* Herbæ parvæ, pseudobulbis *Conchidii* v. interdum ovoideis. Folia in caule brevi 2–3, v. pedunculus per anthesin aphyllus tenuis. Flores parvi nunc minimi, in racemo plures, breviter pedicellati. Species ad 8, Indiæ Orientalis et Archipelagi Malayani incolæ. *Wight, Ic. t.* 1642 (*Dendrobium*). Bryobium, *Lindl. Introd. Nat. Syst. ed.* 2, 446; *Bot. Reg.* 1838, *Misc.* 79 (e Java). Alvisia, *Lindl. Fol. Orch.* 1859 (e Zeylania).

In speciebus typicis tam *Bryobii* quam *Alvisiæ* pseudobulbi ovoidei arcte conferti rhizoma moniliforme simulant, flores minimi, sepalis latiusculis. In plerisque speciebus flores paullo majores sepalis angustis acuminatis fere *Dendrobiorum Stachyobiorum*, et mediante *E. Dalzelli*, Lindl., *Hymenereis* accedunt.

4. *Mycaranthus.* Caules basi vaginati, parum incrassati v. demum anguste pseudobulbosi, apice 2-foliati. Racemi e nodis summis 1–2, stricti, floribus numerosis parvis secundis breviter v. brevissime pedicellatis albo-tomentosis. Sepala brevia, lata. Species 2 v. 3, Indicæ. *Wight, Ic. t.* 1733. *Griff. Ic. Pl. As. t.* 301. *Lindl. Collect. Bot. t.* 41 B. MYCARANTHUS, *Bl. Bijdr.* 352, *t.* 57.

5. *Eriura*, Lindl. Caules quam in *Mycarantho* elatiores, ∞-foliati, racemis e nodis summis sæpe pluribus, cæterum uti flores *Mycaranthi.* Species 4–5, Indicæ. *Wall. Pl. As. Rar. t.* 36.

6. *Hymeneria*, Lindl. Caules seu rami floriferi e rhizomate oriundi, foliati, per anthesin haud incrassati, post anthesin uti caules steriles sæpius in pseudobulbos incrassati. Racemi pseudo-terminales solitarii, v. in axillis superioribus pauci, floribus mediocribus v. parvulis. *Griff. Ic. Pl. As. t.* 300. *Wight, Ic. t.* 1634, 1635. *Bot. Mag. t.* 5415. Huc potius quam ad *Dendrolirion* pertinent *E. scabrilinguis* et *E. vittata*, Lindl.

7. *Urostachya*, Lindl. Caules floriferi validi, sæpe incrassati, interdum longe pseudobulbiformes, apice foliati. Racemi laterales pauci v. plurimi, floribus sæpius parvulis, rarius majusculis. *A. Rich. in Ann. Sc. Nat. ser.* 2, xv. *t.* 9. *Bot. Mag. t.* 4163, 5391. *Bot. Reg.* 1841, *t.* 62; 1844, *t.* 29; 1847, *t.* 63. *Reichb. f. Xen. Orch. t.* 168.

8. *Dendrolirion.* Scapi floriferi vaginati, a basi v. prope basin pseudobulbi oriundi, pseudobulbis oblongis v. elongatis 1- v. pauci-foliatis. Racemi laxi, pauci- v. multiflori v. rarius dense floribundi. Flores lanati v. glabri, parvi v. majusculi.—*Hook. Exot. Fl. t.* 124 (*Dendrobium*). *Bot. Reg. t.* 904; 1841, *t.* 42.

Sectio quodammodo polymorpha series plures includit; in speciebus typicis flores majusculi lanati. *Hook. Exot. Fl. t.* 124 (*Dendrobium*). *Bot. Mag. t.* 5391. *Bot. Reg.* 1841, *t.* 42. *Reichb. f. Xen. Orch. t.* 136. In *E. sicaria*, Lindl., affinibusque folia sæpe subteretia et flores parvi lanati. *Griff. Ic. Pl. As. t.* 300, *f.* 2. In *E. acridostachya*, Reichb. f. ex Lindl. in Journ. Linn. Soc. iii. 48, vaginæ scapi floriferi crassæ, distichæ, superiores sæpe in folium breve productæ; flores in racemo denso parvi, breviter pedicellati, mento longo calcariformi. In *E. rosea*, Lindl. Bot. Reg. t. 978, e China et in affinibus Indicis (XIPHOSIUM, *Griff. Itin. Not.* 78; *Ic. Pl. As. t.* 316) vaginæ superiores pariter interdum in folia productæ, sed flores majusculi glabri in racemo laxo sæpe pauci. In *E. stellata*, Lindl. Bot. Reg. t. 904, Bot. Mag. t. 3605, speciebusque affinibus inclusa OCTOMERIA *vaginata*, Breda, Orch. Kuhl et Hass. cum ic., racemus elongatus laxus floribundus. *E. barbata*, Reichb. f. in Saund. Ref. Bot. t. 114, Griff. Ic. Pl. As. t. 302 (*Erioidea*), prius a Lindleyo ad *Tainiam* relata, videtur species vera *Eriæ*, *E. stellatæ* subaffinis, sed ab omnibus distincta racemo laxe ramoso.

9. *Trichotosia*, Lindl. Caules robusti, foliati, vix ima basi incrassati nec pseudobulbosi, sæpe pilis patentibus hispidi. Racemi axillares, sæpius folio breviores, nunc brevissimi, pauciflori. Flores breviter pedicellati, angusti, villosi v. rarius glabri. Columna interdum quam in cæteris sectionibus longior. Pollinia sæpe latiuscula. *Griff. Ic. Pl. As. t.* 315. *Bot. Mag. t.* 5807. *Bot. Reg.* 1839, *t.* 35; 1845, *t.* 2. TRICHOTOSIA, *Blume, Bijdr.* 342, *t.* 11.

10. *Cylindrolobus*, Lindl. Caules foliati, glabri, tenues v. superne carnoso-incrassati. Racemi brevissimi, laterales v. subterminales, floribus 2–3 majusculis longe pedicellatis glabris. Sectio a *Trichotosia* imprimis glabritie, ab *Urostachyde* floribus paucis speciosis differt, et hanc sectionem cum *Hymeneriis* brachystachyis connectit. *Wight, Ic. t.* 1636. CERATIUM, *Blume, Bijdr.* 341, *t.* 46. CYLINDROLOBUS, *Blume, Præf. Fl. Jav.* 6.

39. **Phreatia,** *Lindl Gen. et Sp. Orch.* 63.—Sepala libera, subæqualia, conniventia v. patentia, lateralia postico latiora, basi pedi columnæ adnata mentum breve formantia. Petala sepalis minora. Labellum basi contractum, cum pede columnæ articulatum, incumbens, superne patens, latiusculum, lobis lateralibus parum prominentibus v. 0. Columna brevissima, basi in pedem sæpius brevem producta; clinandrium latiusculum, membranaceum, integrum v. sinuatum. Anthera terminalis, opercularis, incumbens, membranacea, 2-locularis, loculis imperfecte 4-locellatis; pollinia 8, cerea, in quoque loculo 4, obovoidea, apicibus visco copioso v. parco connexa. Capsula globosa ovoidea v. oblonga, erostris, sæpius minima.—Herbæ brevicaules, habitu *Oberoniæ.* Folia cum vaginis compressis distichis articulata, e basi complicata plana v. subteretia et canaliculata. Scapi v. pedunculi e rhizomate aphylli, v. axillares, simplices. Flores minimi, in racemo sæpius numerosi, brevissime pedicellati. Bracteæ sæpius minimæ.

Species ad 10, Indiæ orientalis, Archipelagi Malayani, Australiæ et insularum maris Pacifici incolæ. *Lindl. in Journ. Linn. Soc.* iii. 61. *Benth. Fl. Austral.* vi. 289. *Reichb. f. in Bonplandia,* 1857, 54 (*Eriæ sect. excl. E. retusa*); *Otia Hamb.* 54; *in Linnæa* xli. 87; *et in Trans. Linn. Soc.* xxx. 148 (*Eria*).

Genus certe *Eriæ* valde affine cui adjunxit Reichenbach f., sed habitu, characteribus vegetationis, floribus minimis, perianthio sæpius minus irregulari satis distinctum videtur. Rostellum 2-dentatum a Lindleyo indicatum non in omnibus speciebus apparet. In sectiones 2 sequentes dividitur:

1. *Euphreatia*, scapis e rhizomate juxta basin caulis foliati oriundis. Species typica, *P. elegans*, Lindl., ex India orientali, cum 2 v. 3 affinibus ex Archipelago Malayano.

2. *Plexaure*, pedunculis in caule foliato axillaribus v. foliis delapsis lateralibus. Species plures, Archipelagi Malayani, Australiæ et ins. maris Pacifici incolæ. *A. Rich. Sert. Astrol. t.* 2, 3 (*Oberonia*). *Reichb. f. Xen. Orch. t.* 130 (*Eria*). PLEXAURE, *Endl. Prod. Fl. Norf.* 30.

Oberonia Lindleyi, Brongn. in Duperr. Voy. t. 40 A, a Reichenbachio ad *Adenoncum virentem*, Bl., refertur, sed characteres minime conveniunt. Ex icone simillima est *Phreatiæ limenophylaci*; pollinia depicta 2, stipitibus lateralibus rostello seu clinandrii margini affixa, evidenter erronea.

40. **Pachystoma**, *Blume, Bijdr.* 376. (Pachychilus, *Blume, Fl. Jav. Præf.* 7; *Orch. Archip. Ind.* 27.)—Sepala æquilonga, conniventia, lateralia nunc postico subsimilia pedi columnæ brevissimo adnata, nunc basi latiora cum pede columnæ magis evoluto mentum prominens formantia. Petala sepalo postico similia nisi paullo minora. Labellum pedi columnæ affixum eique basi adnatum, nunc pede brevissimo subsaccatum, nunc pedi longiori incumbens, dein erectum; lobi laterales oblongi, erecti, medius brevis, latus, retusus v. 2-fidus; discus medio laminis carnosulis instructus. Columna erecta, longiuscula, arcuata, subteres, basi in pedem brevissimum v. magis evolutum producta, superne clavata; clinandrium cavum, membranaceum, integrum v. sinuato-3-lobum. Anthera terminalis, opercularis, incumbens, distincte 2-locularis, loculis plus minus perfecte 4-locellatis; pollinia 8, cerea, in quoque loculo 4, ovoidea, apice brevissime v. vix acuminata, libera v. visco parco subcohærentia. Capsula (in speciebus typicis) ovoidea v. obovoidea rarius oblonga, parvula, reflexa, costis acutiusculis parum prominentibus.—Herbæ terrestres, e rhizomate nodoso erectæ, sub anthesi (v. omnino?) aphyllæ, caule simplici, basi membranaceo-vaginato, pseudobulbo demum interdum 1–2-foliato. Racemus simplex, floribus mediocribus v. majusculis pendulis. Bracteæ angustæ, membranaceæ, fere hyalinæ.

Species ad 10, quarum una Africæ tropicæ, cæteræ Indiæ orientalis et Archipelagi Malayani incolæ. *Reichb. f. in Walp. Ann.* vi. 462.

Genus quale a Blumeo intelligitur in sectiones 2 dividitur forte melius pro generibus propriis restituendas:—

1. *Apaturia.* Herbæ (tanquam notæ) omnino aphyllæ. Rhizoma crassum, nodosum, scapo terminatum. Vaginæ et bracteæ erectæ, angustæ, scariosæ v. tenuiter membranaceæ. Flores sat numerosi, parvuli v. mediocres. Mentum sæpe parum prominens. Pollinia breviter acuminata. Species plures Indieæ et Archipelagi Malayani. *Blume, Orch. Archip. Ind. t.* 10, 11 (*Pachychilus*). APATURIA, *Lindl. Gen. et Sp. Orch.* 130. *Wight, Ic. t.* 1662.

2. *Ipsea.* Scapi aphylli, ad basin pseudobulbi cormiformis apice 1–2-foliati. Folia plicato-venosa non semper floribus coëtania. Flores in racemo perpauci, sæpe solitarii, majusculi, mento valde prominente. Pollinia sæpius longius acuminata, subcaudata. Species 2, quarum typica, e Zeylania et Peninsula Indica: IPSEA, *Lindl. Gen. et Sp. Orch.* 124; *Wight, Ic. t.* 1663; *Bot. Mag. t.* 5701, a Blumeo Orch. Archip. Ind. 29, t. 22, 23 ad *Pachychilum* relata. Ei bene adjunctum videtur *Pachystoma Thomsonianum*, Reichb. f.; Bot. Mag. t. 6471, ex Africa tropica.

41. **Spathoglottis**, *Blume, Bijdr.* 400.—Sepala libera, subæqualia v. lateralia paullo latiora, patentia. Petala sepalis similia nisi latiora interdumque longiora. Labellum ad basin columnæ sessile, erectum, basi interdum saccatum; lobi laterales juxta basin erecti, parvuli v. majusculi, medius unguiculatus, ligulatus v. ovatus, ungue sæpe supra lobos laterales utrinque dente v. auricula aucto; discus ad basin lobi medii tuberculatus v. cristatus. Columna elongata, semiteres, arcuata, superne subclavata et decurrenti-2-alata;

clinandrium breve, incurvum. Anthera opercularis, incumbens, convexa, perfecte v. imperfecte 2-locularis, ultra loculos sæpius producta, loculis vix locellatis; pollinia 8, in quoque loculo 4, cerea, acuminata v. in caudiculam producta, apice in fasciculos 2 leviter connexa. Capsula oblonga, erostris, erecta v. demum pedicello recurvo nutans, costis acute prominentibus.—Herbæ terrestres. Folia in caudice solitaria v. gemina, elongata, plicata v. prominenter nervosa, petiolis elongatis basi ∞-vaginatis et demum plus minus in pseudobulbum seu tuber incrassatis. Scapi floridi e caudice v. e basi pseudobulborum oriundi, basi ∞-vaginati, aphylli, simplices, nunc elongati floribundi, nunc tenuiores pauciflori, racemo laxo. Flores flavi v. violacei. Bracteæ nunc minimæ erectæ, nunc majores lanceolatæ deflexæ.

Species ad 10, Indiæ orientalis, Chinæ australis, Archipelagi Malayani, insularum maris Pacifici et Australiæ incolæ. *Lindl. Gen. et Sp. Orch.* 119. *Reichb. f. in Walp. Ann.* vi. 455; *et in Linnæa* xli. 85. *Griff. Ic. Pl. Asiat. t.* 311. In series 2 distribuendæ:—

1. *Elatiores*, pseudobulbis parum incrassatis, vaginarum reliquiis fibrosis sæpius obtectis, foliis amplis, racemo multifloro, bracteis conspicuis. Huc pertinent *Limodorum unguiculatum*, Labill. Sert. Austr. Calid. t. 25; *Bletia angustifolia*, Gaud. in Freyc. Voy. Bot. t. 32; *Spathoglottis plicata*, Blume; De Vriese, Orch. cum tab. 1; *S. tomentosa*, Lindl.; *S. Petri*, Bot. Mag. t. 6354; *S. Paulinæ*, F. Muell.; Benth. Fl. Austral. vi. 304; Fitzger. Austral. Orch. cum tab. 1; *S. Vieillardi* et *S. Deplanchei*, Reichb. f. in Linnæa xli. 85, 86. Species omnes inter se valde affines.

Paxtonia, *Lindl. Bot. Reg.* 1838, *t.* 60, est species Manillana, *S. plicatæ*, Bl., valde similis, sed a genere differt labello explanato indiviso petalis simili v. paullo latiore. Lindley nuper suspicatus est *Spathoglottidis* esse peloriam, et Reich. f. in Walp. Ann. vi. 456, speciem sub *Spathoglottide* dubie enumerat.

2. *Tenuiores*, pseudobulbis cormiformibus subnudis, foliis angustis, racemo laxo paucifloro, bracteis parvis. *Wall. Pl. As. Rar. t.* 203. *Wight, Ic. t.* 1739. *De Vriese, Illustr. Orch. cum t.* 1. *Bot. Reg.* 1845, *t.* 19. Hæc series a Reichenbachio ad *Pachystoma* refertur, nostro sensu tamen tam habitu quam perianthii forma valde diversa.

42. **Acanthephippium,** *Blume, Bijdr.* 353, *t.* 47 (Acanthophippium); *Orch. Archip. Ind.* 156, *t.* 49.—Sepala lata, carnosa, in urceolum latum oblique ventricosum cohærentia, posticum fornicatum, lateralia basi pedi columnæ adnata, mentum breve v. conicum in *A. striato* fere calcariforme formantia. Petala sepalis inclusa, ad latera columnæ affixa, sepalis multo angustiora, basi cum marginibus membranaceis pedis columnæ continua. Labellum ad apicem pedis columnæ articulatum, inflexum, sepalis inclusum; lobi laterales lati, erecti; medius recurvus, indivisus. Columna brevis, crassa, superne anguste 2-alata, basi in pedem longissimum medio incurvo-inflexum producta; clinandrium breve, membranaceum. Anthera intra marginem clinandrii affixa, opercularis, incumbens, convexa, 2-locularis, loculis imperfecte locellatis; pollinia 8, in quoque loculo 4, cerea, superiora obovoidea, inferiora longiora, omnia erecta, sursum appendicula granulosa connexa; glandula nulla a rostello solvenda. Capsula magna, oblongo-clavata, erostris, costis 6 prominentibus.—Herbæ terrestres, pseudobulbis oblongis paucifoliatis. Folia ampla, plicato-venosa, in petiolum contracta. Scapi foliis breviores, aphylli, vaginis paucis latiusculis. Flores majusculi, in racemo pauci, pedicellis brevibus post anthesin accretis. Bracteæ membranaceæ, sæpe coloratæ, majusculæ.

Species 3 v. 4, Indiæ orientalis et Archipelagi Malayani incolæ. *Reichb. f. in Walp. Ann.* vi. 460. *Bot. Reg. t.* 1730 *et* 1846, *t.* 47. *Bot. Mag. t.* 4492. *Griff. Ic. Pl. As. t.* 325. *Maund, Botanist, t.* 200. Flores carnosos v. fere spongiosos in speciminibus siccis male servatos examinare nequimus, characteres ex iconibus et descriptionibus auctorum imprimis Blumei sumpsimus. Glandula pollinarii a Lindleyo descripta, est appendicula granulosa anthera inclusa nec squama a rostello solvenda.

43. **Phaius,** *Lour. Fl. Coch.* 529. (Tankervillia, *Link, Handb.* i. 251. Pachyne, *Salisb. in Trans. Hort. Soc.* i. 299.)—Sepala libera, subæqualia, patentia v. suberecta. Petala sepalis similia nisi angustiora. Labellum erectum, concavum v. cucullatum, basi in gibbum cavum v. calcar rectum v. curvulum cum columnæ basi continuum productum;

lobi laterales ampli, erecti, columnam involventes, apice interdum undulati et cum lobo medio confluentes; lobus medius expansus, sæpius brevis latusque, patens v. recurvus, margine sæpe undulatus. Columna longiuscula, subteres, 2-angulata v. 2-alata, apice clavata, apoda; clinandrium breve, obliquum, margine sinuatum. Anthera juxta marginem clinandrii affixa, opercularis, incumbens, convexa, distincte 2-locularis, loculis imperfecte 4-locellatis; pollinia 8, in quoque loculo 4, obovata v. oblonga, a latere parallele compressa, faciebus per paria applicita, paris inferioris cujusve loculi quam superiora sæpius longiora, apice evidentius attenuata, omnia in anthera perfecta cerea, apice appendicula granulosa in anthera juniore loculos fere implente connexa. Capsula oblonga, erostris, costis valde prominentibus.—Herbæ elatiores, terrestres v. epiphyticæ, caulibus in caudice confertis, basi sæpe in pseudobulbum brevem incrassatis. Folia ampla v. elongata, plicata, basi angustata v. in petiolum longum contracta, vaginis sæpius striatis. Scapi v. pedunculi nunc e caudice oriundi, nunc laterales v. terminales. Flores in racemo plures v. pauci, speciosi, pedicellati, flavi violacei v. albi. Bracteæ nunc parvæ lineares, nunc majusculæ membranaceæ v. herbaceæ. Pollinia ut in *Bletia* sæpe (in anthera adhuc imperfecta?) cum appendicula granulosa, in massam unicam in quoque loculo conferta apparent, bene evoluta in omnibus sectionibus more generum affinium cerea et lævia sunt.

Species ad 15, imprimis Asiaticæ tropicæ sed ab Africa tropica et insulis Mascarensibus usque ad Australiam, insulas maris Pacifici et Chinam Japoniamque extensæ. *Lindl. Gen. et Sp. Orch.* 126. *Reichb. f. in Walp. Ann.* vi. 458; *Otia Hamb.* 53; *et in Bonpl.* 1856, 328; 1857, 42.

Genus a Blumeo bene elucidatum in sectiones sequentes dividitur:—

1. *Genuini*, Bl. Scapi racemiferi e caudice oriundi, elati, aphylli, plurivaginati. Labellum basi calcaratum. Columna exalata. Species enumeratæ ad 18, nonnullæ tamen parum distinctæ potius varietates habendæ. *Blume, Orch. Archip. Ind. t.* 1 *ad* 3, *t.* 4, *f.* 2, *t.* 5, D, E. *Benth. Fl. Austral.* vi. 304. *Ait. Hort. Kew. ed.* 1, iii. *t.* 12 (*Limodorum*). *Andr. Bot. Rep. t.* 426 (*Limodorum*). *Bot. Mag. t.* 1924 *et* 2719 (*Bletia*), t. 3960, 4078, 6032. *Lindl. Sert. Orch. t.* 23. *Wight, Ic. t.* 1659–60. *Reich. f. Xen. Orch. t.* 76, 122.

2. *Gastrorchis*, Bl., species includit 4 Mascarenses a *Genuinis* parum diversas calcare ad saccum v. gibbum brevissimum reducto. *Thou. Orch. Iles Afr. t.* 31, 32 (*Limodorum*). *Blume, Orch. Archip. Ind.* 13, *t.* 11 B.

Pesomeria, *Lindl. Bot. Reg.* 1838, *Misc.* 5; *Bot. Mag. t.* 4442, est *P. tetragonus*, Reichb. f. (*Epidendrum*, Thou. Orch. Iles Afr. t. 33, 34) species Madagascariensis calcare ut in *Gastrorchide* ad gibbum reducto, labello imà basi columnæ subadnato.

3. *Thunia.* Racemus in caule foliato terminalis, nutans, bracteis amplis membranaceis, flore omnino *Genuinorum.* Species 3 v. 4, Himalaicæ v. Burmanicæ. *Wall. Pl. As. Rar. t.* 198. *Bot. Reg.* 1838, *t.* 33. *Bot. Mag. t.* 3991. *Knowl. et West. Fl. Cab. t.* 125. Thunia, *Reichb. f. in Bot. Zeit.* 1852, 764, *et Bot. Mag. t.* 5694.

4. *Limatodes*, Bl. Racemi in caule foliato infra folia laterales. Labellum calcaratum. Columna 2-alata, rostello longiusculo. Limatodes, *Blume, Bijdr.* 375; *Linn. Gen. et Sp. Orch.* 252, genus ad sectionem *Phaii* reductum a Blume, Orch. Archip. Ind. 11, t. 4, *f.* 1, *et t.* 11 A. Species 2, Javenses, quibus addidit Lindl. Fol. Orch. 1854, et in Paxt. Fl. Gard. iii. 35, species 4 Asiaticas, inter quas tamen *L. gracilis* et *L. rosea*, potius ad *Calanthem* referendæ sunt.

44. **Bletia,** *Ruiz et Pav. Prod.* 119, *t.* 26; *Syst. Veg. Fl. Per. et Chil.* 229. (Gyas, *Salisb. in Trans. Hort. Soc.* i. 299. Thiebautia, *Colla in Mem. Soc. Linn. Par.* iii. 161, *t.* 4.) —Sepala libera, conniventia v. subpatentia, æqualia v. lateralia basi paullo latiora. Petala sepalo postico similia v. latiora. Labellum basi columnæ affixum, liberum, erectum, basi contractum v. leviter saccatum; lobi laterales latiusculi, erecti, paralleli v. apice patentes, columnam non amplectentes; medius patens, latus, sæpius emarginatus v. 2-lobus; discus sæpius laminis ∞ integris v. denticulato-crispis instructus. Columna elongata, semiteres, 2-angulata, sæpius incurva, interdum basi 2-auriculata v. superne 2-alata, apoda; clinandrii lobi laterales sæpe latiusculi rotundati, posticus dentiformis interdum elongatus. Anthera denti postico clinandrii affixa, opercularis, incumbens v. subpendula, convexa v. elevato-conica, distincte 2-locularis, loculis imperfecte 2-locellatis; pollinia 8, in quoque loculo 4,

per paria superposita, obovata v. oblonga, a latere parallele compressa, faciebus per paria applicita, pari inferiore cujusve loculi superiore sæpius majore, omnia in anthera perfecta cerea, in quoque loculo appendicula granulosa crassiuscule laminiformi sursum connexa; glandula rostelli 0. Capsula oblonga v. fusiformis, erecta, erostris.—Herbæ erectæ, terrestres v. epiphyticæ, pseudobulbis globosis v. depressis crassis fere tuberiformibus. Folia pauca, ampla v. elongata, plicata, in petiolum contracta, v. rarius omnino desunt. Racemus in caule foliato v. in scapo vaginato aphyllo terminalis, laxus, longe pedunculatus, simplex v. laxe ramosus. Flores pedicellati v. fere sessiles, mediocres v. majusculi, sepalis lateralibus cum basi columnæ interdum mentum breve formantibus, labelli sacco tamen ubi adest distincto. Bracteæ parvæ nunc minutæ.

Species ad 20, pleræque Americæ tropicæ incolæ, cum una Chinensi et Japonica. *Reichb. f. in Walp. Ann.* vi. 440 (*quoad species Plicifolias*); *in Bot. Zeit.* 1864, 298; *in Flora* 1865, 278; *et in Linnæa* xli. 7. *Blume, Orch. Archip. Ind.* 15 (*excl. B. aphylla*).

Genus pluribus notis *Phaio* accedit, sed labellum nunquam columnam involvit. In utroque genere pollinia nondum perfecte matura sæpe cum appendicula massam granulosam concolorem formant, perfecta semper cerea et bene distincta vidimus. *Bletiæ* species in sectiones 2 sequentes facile distribuuntur:—

1. *Eubletia.* Scapi in pseudobulbo laterales, aphylli; racemus interdum ramosus. Species omnes Americanæ. *Jacq. Ic. Rar. t.* 602 (*Limodorum*). *Red. Lil. t.* 83 (*Limodorum*). *Pœpp. et Endl. Nov. Gen. et Sp. t.* 95. *Bot. Mag. t.* 930 (*Limodorum*), 3217, 3319, 3518, 5646. *Bot. Reg. t.* 1401 (*B. florida* ex icone sola nobis nota), 1760.

2. *Bletilla.* Scapi in pseudobulbo terminales v. simul laterales, 1–2-foliati v. rarius sub anthesi aphylli; racemus semper simplex. Species Americanæ. *Bot. Mag. t.* 3736. *Bot. Reg.* 1847, *t.* 60, cum *B. hyacinthina*, R. Br., e China et Japonia, columna superne evidentius 2-alata. *Blume, Orch. Archip. Ind.* 17, *t.* 6. *Sm. Exot. Bot. t.* 60 (*Cymbidium*). *Bot. Mag. t.* 1492 (*Cymbidium*). Bletilla, *Reichb. f. in Fl. des Serres* viii. 246. In *B. gracili*, Lindl. Bot. Reg. t. 1681; Lodd. Bot. Cab. t. 1977, pariter ad *Bletillam* referenda, columna basi insigniter 2-auriculata, quod etiam in nonnullis aliis speciebus plus minus observatur. *Tetramicra platyphylla*, Griseb. Cat. Pl. Cub. 264, foliis etsi parvis planis latis venosis bene ad *Bletiam* (*Bletillam*) referenda videtur. *B. montanam*, Reichb. f., pro genere proprio (*Octadesmi*) habemus. *B. aphylla*, Nutt., *Corallorhizæ* affinis, est genus *Hexalectris*, Rafin.

45. **Chysis,** *Lindl. Bot. Reg. t.* 1937, *et* 1841, *t.* 23.—Sepala æquilonga, inter se libera, patentia, lateralia postico latiora, basi obliqua columnæ pedi adnata. Petala sepalo postico similia. Labellum pedi columnæ affixum eique breviter incumbens, dein erectum; lobi laterales ampli, erecti, medius patens v. reflexus, integer v. 2-lobus; laminæ v. venæ disci basi sæpius callosæ. Columna erecta, incurva, crassa, latiuscule 2-alata, basi in pedem producta; clinandrii dentes laterales breves, obtusi, posticus longior. Anthera denti postico affixa, opercularis, incumbens, loculis 2 distinctis imperfecte 2–4-locellatis; pollinia 8, in quoque loculo 4, obovoidea v. oblonga, cerea, appendicula granulosa ampla interdum fere in laminam extensa connexa, paris inferioris cujusve loculi sæpius majora v. inter se valde inæqualia, paris superioris interdum appendiculæ adnata (v. vix ab ea distincta?). Capsula . . .—Herbæ epiphyticæ; caules carnosuli, basi vaginati, superne confertim foliosi, demum (post folia delapsa?) incrassati fusiformes v. longe pseudobulbosi. Folia longiuscula, venis prominulis. Racemus lateralis, sæpius ad axillam folii inferioris; flores plures, speciosi, albi v. plus minus flavi. Bracteæ nunc parvæ nunc foliaceæ, flore paullo breviores.

Species editæ 6–8, nonnullæ tamen potius varietates, Mexici et Columbiæ incolæ. *Reichb. f. in Walp. Ann.* vi. 471. *Bot. Mag. t.* 3617, 4576, 5186, 5265. *Lem. Jard. Fleur. t.* 121. *Fl. des Serres, t.* 671, 675.

Lindley l. c. pollinia superiora cum massa materiæ viscidulæ semifusa descripsit, an in flore adhuc imperfecto vel monstruoso?; in floribus specierum 2 a nobis examinatis pollinia vidimus omnia 8 perfecte distincta, etsi in uno flore valde inæqualia.

46. **Nephelaphyllum,** *Blume, Bijdr.* 372, *t.* 22. (Cytheris, *Lindl. Gen. et Sp. Orch.* 128.) —Sepala subæqualia, libera, patentia, omnia angusta v. lateralia latiora. Petala sepalo

postico subsimilia. Labellum ad basin columnæ sessile, breviter calcaratum, erectum, ovatum obovatum v. oblongum, lobis lateralibus angustis erectis v. obsoletis, medio patente; discus sæpe 2-3-lamellatus. Columna erecta, longiuscula, 2-alata, apoda, vertice in clinandrium latiusculum producta. Anthera opercularis, apice sæpe breviter 2-loba, loculis 2 bene distinctis; pollinia 8, cerea, in quoque loculo 4, compressa, parallela, 2-seriata, appendiculæ lineari sursum adnata, superiora sæpe minora. Capsula reflexa, oblonga, erostris, costis prominulis.—Herbæ terrestres, repentes. Folia solitaria, ovato-lanceolata v. cordata, membranacea, petiolo longiusculo medio articulato v. potius pseudobulbum petioliformem terminantia. Scapus in vagina scariosa cum petiolo inclusus, specie terminalis revera e rhizomate seu caudice distincto oriundus, simplex, plurivaginatus. Flores mediocres, laxe v. dense racemosi.

Species 4, Indiæ orientalis, Chinæ australis et Archipelagi Malayani incolæ. *Blume, Orch. Archip. Ind.* 170, *t.* 61 *et* 54 F. *De Vriese, Illustr. Orch. cum t.* 1. *Reichb. f. Xen. Orch. t.* 88. *Bot. Mag. t.* 5332, 5390.

47. **Tainia,** *Blume, Bijdr.* 354. (Mitopetalum, *Blume, Præf. Fl. Jav.* 8, *et Orch. Archip. Ind.* 157, *t.* 50, 51, 54. Ania, *Lindl. Gen. et Sp. Orch.* 129.)—Sepala subæquilonga, erecto-patentia, posticum liberum, lateralia basi cum pede columnæ breviter adnata. Petala sepalo postico similia v. angustiora. Labellum ad apicem pedis columnæ affixum, erectum, basi in gibbum v. calcar breve productum, lobis lateralibus erectis parallelis v. columnam amplectentibus, intermedio patente brevi lato integro. Columna longiuscula, leviter incurva, antice concava, anguste 2-alata; clinandrium valde obliquum, edentatum. Anthera terminalis, opercularis, incumbens, valde convexa, sæpius didyma 2-cornuta v. 2-cucullata, distincte 2-locularis, loculis septo imperfecto cruciatim 4-locellatis; pollinia 8, in quoque loculo 4, distincta, cerea, ovata, parallele compressa, 2-seriata, visco granuloso laminiformi v. lineari connexa. Capsula . . .—Caules steriles e rhizomate basi plurivaginati, demum in pseudobulbum incrassati, folio unico terminali amplo longe petiolato. Scapi floridi pariter rhizomati affixi, elati, aphylli, basi paucivaginati, racemo terminali simplici. Flores pedicellati, sparsi, majusculi v. mediocres, sepalis petalisque angustis acutiusculis v. longe acuminatis.

Species 6-7, Indiæ orientalis, Chinæ australis et Archipelagi Malayani incolæ. *Reichb. f. in Walp. Ann.* vi. 269, *et in Trans. Linn. Soc.* xxx. 148 (*Eria*). *Bot. Mag. t.* 4669 (*Calanthe*). *Breda, Orch. Kuhl et Hass. cum ic.* 11 (*Octomeria paucifolia, in icone*). *Wight, Ic. t.* 914.

Genus *Eriæ*, quocum junxit Reichenbach f. certe affine, sed columna elongata et habitu nobis bene distinctum videtur et *Bletieis* affinius. *Ania angustifolia*, Lindl., e Silhet et Hong Kong, a Reichenbachio ad *Pachystoma* (*Apaturiam*) relata, est ex speciminibus nostris certe *Tainiæ* species. Species 2 Zeylanicas (*Thw. Enum. Pl. Zeyl.* 301; *Lindl. Bot. Reg.* 1844, *t.* 8) examinare non potuimus; *T. speciosa*, Bl., ab omnibus differt sepalis petalisque longissimis subsetaceo-caudatis.

48. **Anthogonium,** *Lindl. Introd. Nat. Syst. ed.* 2, 341; *Gen. et Sp. Orch.* 425.—Sepala in tubum tenuiter cylindraceum basi supra ovarium breviter productum alte coalita; limbus incurvus, lobo postico concavo fornicato, lateralibus latis falcatis. Petala linearia, sepalis æquilonga, in ungues longos intra calycem liberos contracta. Labellum basi cum columna connatum, superne eam involvens, apice liberum, patens, dilatatum, margine sinuatum, sepalis æquilongum. Columna elongata, tenuis, semiteres, apoda, superne anguste 2-alata; clinandrium breve, dente postico parum prominente, anticis obtusis cum columnæ alis continuis. Anthera terminalis, opercularis, incumbens, parum convexa, 2-locularis; pollinia 4, in quoque loculo 2, cerea, ovata, a latere compressiuscula, omnia parallela, in quoque loculo appendicula granulosa connexa. Capsula angusta, erostris.—Herba (epiphytica?), caulibus foliatis brevibus basi in pseudobulbos breves incrassatis. Folia 1-3, angusta, graminea v. paullo latiora et plicato-venosa, basi in petiolum contracta. Scapi ad latera pseudobulbi simplices, erecti, aphylli, paucivaginati. Racemus tenuis, laxus, floribus mediocribus tenuibus dissitis breviter pedicellatis. Bracteæ parvæ.

Species 1, Himalayæ orientalis et Burmæ incola. *Reichb. f. in Walp. Ann.* vi. 471. *Griff. Ic. Pl. As. t.* 345. Genus a cæteris *Bletieis* differt polliniis 4 tantum 1-seriatis, sed habitu et patria his potius quam *Euepidendreis* referendum videtur.

49. **Josepha**, *Wight, Ic. Pl.* v. 19, *t.* 1742, 1743.—Sepala subæqualia, ovata, conniventia, libera v. basi breviter connata, posticum valde concavum, lateralia basi mentum brevissimum seu gibbum formantia. Petala sepalis angustiora sæpiusque breviora. Labellum basi columnæ affixum, continuum, erectum, concavum, sepalis æquilongum, lobi laterales parum dilatati columnam subamplectentes, terminalis integer, basi facie 1–2-callosus. Columna erecta, semiteres, superne anguste 2-alata, apoda; clinandrium margine breviter membranaceo-dilatatum, vix antice 2-lobum. Anthera terminalis, opercularis, incumbens, ovata, breviter acuminata, parum convexa, 2-locularis, loculis sub-2-locellatis; pollinia 4, cerea, oblonga, parallela, longe acuminata, subcaudata, inappendiculata, anthera dehiscente visco parco rostello sæpe adhærentia, glandula nulla solubili. Capsula oblonga, parva, erecta.—Herbæ epiphyticæ, subacaules, cæspitosæ; vaginæ gemmas novellas involventes, membranaceæ, distiche imbricatæ, compresso-planæ, post folia evoluta sæpius in rete fibrosum resolutæ. Folia in gemma 1–2, rigide coriacea, striata, basi complicata et in una specie in petiolum contracta. Pedunculi v. scapi in gemma solitarii, elongati, tenues, rigiduli, superne ramosi. Flores parvi, secus ramulos ultimos racemosi, breviter pedicellati. Bracteæ parvæ, approximatæ subimbricatæ v. dissitæ.

Species 2, Peninsulæ Indiæ orientalis et Zeylaniæ incolæ.

50. **Earina**, *Lindl. Bot. Reg. sub t.* 1699.—Sepala subæqualia, libera, patentia. Petala sepalis subsimilia. Labellum a basi columnæ v. a pede brevissimo erectum, basi concavum v. ima basi subsaccatum, sepalis æquilongum v. longius, lobis lateralibus nunc latiusculis erectis parallelis nunc parum prominentibus, medio explanato patente lato integro emarginato v. divaricato-2-lobo. Columna brevis v. brevissima, crassiuscula, basi interdum in pedem brevissimum producta, antice concava; clinandrium breve, integrum v. antice 2-angulatum v. 2-dentatum, dente postico antherifero minimo v. obsoleto. Anthera opercularis, incumbens, convexa, 2-locularis, loculis plus minus distincte 2-locellatis; pollinia 4, cerea, in loculis per paria segregata, libera v. apice visco parco cohærentia. Capsula . . .—Herbæ epiphyticæ, foliatæ, non pseudobulbosæ. Flores parvi, secus ramulos brevissimos v. bene evolutos paniculæ thyrsoideæ v. racemiformis sessiles v. breviter pedicellati. Bracteæ parvæ, ovatæ, rigidæ, striatæ, secus ramulos subimbricatæ.

Species editæ 6, Novæ Zelandiæ et insularum maris Pacifici incolæ, bene in sectiones 2 inter se habitu distinctas sed inflorescentia et floribus subsimiles distribuendæ:—

1. *Eucarina.* Caules rigiduli, fere usque ad inflorescentiam foliati et foliorum vaginis obtecti, foliis linearibus v. lanceolatis. Panicula oblonga v. longe racemiformis, ramulis bene evolutis. Labelli lobus medius latissimus emarginatus v. divaricato-2-lobus. Species 2, Novo-Zelandicæ. *Hook. Ic. Pl. t.* 431. *Hook. f. Handb. N. Zeal. Fl.* 261. *Reichb. f. in Walp. Ann.* vi. 220.

2. *Sceptrum.* Folia longa, ad basin caulis conferta, vaginis amplis cartilagineis distiche imbricatis. Pedunculus intra folia elatus, rigidus, aphyllus, sæpe compressus. Panicula angusta, dense racemiformis, ramulis abbreviatis confertis paucifloris. Labelli lobus medius in floribus examinatis ovatus v. rotundatus, integer. Species editæ 4, inter se valde affines, Novæ Caledoniæ et insularum maris Pacifici incolæ. *Reichb. f. in Linnæa* xli. 96; *Otia Hamb.* 54.

51. **Glomera**, *Blume, Bijdr.* 372, *t.* 68.—Sepala erecta, conniventia, æquilonga, lateralia latiora, basi sub labello cum pede columnæ mentum saccatum formantia. Petala sepalo postico subsimilia. Labellum pedi columnæ affixum, basi incumbens, dein erectum, indivisum, sepala non excedens. Columna brevis, exalata, basi in pedem descendentem producta; clinandrium breve, dentibus 2 anticis et dorsali antherifero prominulis; fovea stigmatosa ampla, margine membanaceo undique prominulo superne rostello adnato. Anthera terminalis, opercularis, incumbens, semiglobosa, 2-locularis, loculis imperfecte 2-locellatis; pollinia 4, cerea, in loculis per paria segregata, ovoidea, compressiuscula, in quoque loculo apicibus appendicula parva interdum fere obsoleta connexa v. libera. Capsula . . .—Herbæ epiphyticæ, habitu *Agrostophylli*, caulibus foliatis vaginis obtectis non pseudobul-

bosis. Folia disticha, angusta, membranacea v. tenuiter coriacea. Flores parvuli, in capitulo laxo terminali sessili numerosi, breviter pedicellati, bracteis numerosis intermixti, e quibus tamen semper exserti.

Species 2, Archipelagi Malayani et insularum maris Pacifici incolæ. *Lindl. Gen. et Sp. Orch.* 253. *Reichb. f. Xen. Orch.* ii. *t.* 128, *et in Linnæa* xli. 77.

Genus *Agrostophyllo* valde affine, cui adjungitur in Herb. Lindl., bene tamen differe videtur capitulis laxioribus et polliniis 4 nec 8.

52. **Agrostophyllum,** *Blume, Bijdr.* 368, *t.* 53. (Diploconchium, *Schau. in Pl. Meyen.* 428, *t.* 12 A, *ex Reichb. f., char. vix convenit.*)—Sepala erecta, conniventia, æquilonga, basi connata, lateralia latiora cum pede columnæ sæpius mentum breve formantia. Petala sepalis tenuiora v. angustiora. Labellum basi columnæ v. pedi brevi affixa, a basi subincumbente erectum, latiusculum, sepalis subæquilongum, integrum v. 3-fidum. Columna semiteres, erecta v. incurva, superne incrassata, exalata, basi sæpius in pedem brevem producta; clinandrium obliquum, dorso in lobum brevem productum. Anthera terminalis, opercularis, incumbens, convexa, non acuminata, 2-locularis; pollinia 8, in quoque loculo 4, cerea, ovoidea, breviter v. vix acuminata, libera, inappendiculata, anthera dehiscente interdum visco parco connexa (et glandulæ parvæ affixa?). Capsula parva, ovoidea v. oblonga, inter bracteas persistentes sæpius sessilis, erecta.—Herbæ epiphyticæ, caulibus foliatis cum vaginis imbricatis plus minus complanatis interdumque carnoso-incrassatis. Folia disticha, lato-linearia v. oblonga, tenuiter coriacea, vaginis caulem omnino obtegentibus. Racemi brevissimi, plerique 2-flori, numerosissimi, in capitulum terminale sessile erectum v. nutans densissime conferti. Bracteæ numerosæ, anguste paleaceæ, imbricatæ, flores parvos sæpe fere occultantes.

Species adsunt 5, Indiæ orientalis et Archipelagi Malayanæ incolæ. *Lindl. Gen. et Sp. Orch.* 248. *Reichb. f. in Walp. Ann.* vi. 909; *et in Seem. Fl. Vit.* 296 (*quoad A. callosum*). *Griff. in Calcutta Journ. Nat. Hist.* iv. *t.* 19. *Wight, Ic. t.* 1748 (*Appendicula*).

Genus a nonnullis *Appendiculæ* relatum, nostro sensu toto cœlo diversum tam columnæ fabrica quam habitu et inflorescentia. *A. megalurum*, Reichb. f. in Seem. Fl. Vit. 296, inflorescentia spiciformi elongata, rostello erecto, aliisque notis verisimiliter generis alieni est.

53. **Ceratostylis,** *Blume, Bijdr.* 304, *t.* 56.—Sepala erecta, conniventia, subæquilonga, lateralia latiora, basi cum pede columnæ in mentum calcariforme descendens coalita. Petala sepalo postico angustiora, cæterum similia. Labellum pedi columnæ affixum, ungue longo incumbente, lamina erecto-patente, crassa, concava, indivisa, sepala non excedente. Columna brevis, exalata, apice in lobos clinandrii 2 longos erectos, basi in pedem sæpius longiusculum producta; clinandrii lobus posticus antherifer brevissimus; stigma rostellumque parva. Anthera terminalis, opercularis, incumbens, convexa v. semiglobosa, 2-locularis; pollinia 8, cerea, in quoque loculo 4, ovoidea, parva, apicibus visco parco (v. appendicula parva?) connexa, post antheræ dehiscentiam cum anthera decidua, v. liberata rostello adhærentia, nec glandulæ nec stipiti distincto affixa. Capsula parva, ovoidea v. oblonga, erostris.—Herbæ epiphyticæ, humiles. Caules nunc cæspitosi, fasciculati, sæpe junciformes, basi vaginis scariosis imbricatis stipati, apice 1-foliati (v. interdum aphylli?), nunc breviter diffusi, ramosi, vaginis membranaceis v. scariosis plus minus obtecti, ramulis ad axillas vaginarum apice (more *Pleurothallearum*) 1-foliatis. Folia linearia v. anguste oblonga, coriacea v. carnosula, interdum subteretia. Flores parvi, pauci v. interdum solitarii, inter bracteas imbricatas paleaceo-scariosas capitulum parvum ad axillam folii sessile formantes, inflorescentia sic revera terminalis etsi ob folium erectum caulem continuum sæpe axillaris v. oppositifolia apparet.

Species notæ ad 15, Indiæ orientalis, Archipelagi Malayani et insularum maris Pacifici incolæ. *Lindl. Gen. et Sp. Orch.* 230. *Reichb. f. in Bonplandia,* 1857, 53; *Otia Hamb.* 54; *Xen. Orch. t.* 127. *Griff. Ic. Pl. As. t.* 332 (*Vanda, Appendicula in Notul.*).

Genus *Agrostophyllo* affine, habitu facile distinctum. Specimina sicca sæpe quoad flores valde manca, et structura in perpaucis speciebus rite examinata.

54. **Callostylis,** *Blume, Bijdr.* 340. (Tylostylis, *Blume, Fl. Jav. Præf.* 6.)—Sepala erecto-patentia, lateralia basi connata. Petala sepalis paullo angustiora. Labellum parvum, integrum, convexum, disco elevato instructum, patens, articulatione irritabili cum basi callosa incurva columnæ junctum. Columna incurva, clavata; clinandrium cavum, amplissimum. Anthera terminalis, 2-locularis, loculis 2-locellatis; pollinia 8, in quoque loculo 4, cerea, ovata, compressiuscula, filis elasticis margini stigmatis insidentia. —Herba epiphytica, caulibus foliatis pseudobulbosis. Folia in pseudobulbis alterna, rigida, lanceolata, oblique retusa. Pedunculi solitarii, terminales, spicato-multiflori. Flores pedicellati, bracteati. (*Char. ex descr. Blumei.*)

Species 1, Javanica, a nobis non visa. *Lindl. Gen. et Sp. Orch.* 129. Genus videtur *Agrostophyllo* affine etsi habitu distinctum.

55. **Cryptochilus,** *Wall. Tent. Fl. Nep.* 36, *t.* 36.—Sepala in tubum ovoideum basi antice gibbosum apice contractum breviter æqualiterque 3-lobum coalita. Petala angusta, tubo inclusa. Labellum tubo inclusum, basi angustatum, pedi columnæ affixum incumbensque, dein erectum, angustum, lobis lateralibus obsoletis. Columna erecta, semiteres, labello brevior; clinandrium parum dilatatum, varie dentatum, dentibus 2 lateralibus sæpius magis prominentibus erectis. Anthera denti postico affixa, opercularis, incumbens, semiglobosa, loculis 2 distinctis indivisis; pollinia 8, in quoque loculo 4, cerea, obovoidea v. oblonga, inappendiculata, libera, apice acuta v. parum elongata, demum visco parco connexa. Capsula ovoidea v. oblonga, erostris, costis prominulis.—Herbæ epiphyticæ, pseudobulbis annorum præcedentium secus rhizoma confertis, hornotinis 2–3-vaginatis et 1–2-foliatis. Folia membranacea v. subcoriacea, venis tenuibus striata, basi complicata v. in petiolum brevem contracta. Pedunculus terminalis; spica simplex, laxa, subdisticha. Flores in axillis bractearum subsessiles iisque sæpius breviores.

Species 2, Himalaicæ. *Lindl. Gen. et Sp. Orch.* 193. *Wight, Ic. t.* 1757. *Bot. Reg.* 1838, *t.* 23. *C. reticulatum* et *C. Wightii*, Reichb. f., ad *Eriam* (*Porpacem*) referrimus.

56. **Trichosma,** *Lindl. Bot. Reg.* 1842, *t.* 21.—Sepala subæqualia, patentia, posticum liberum, lateralia latiora, basi pedi columnæ adnata, mentum breve formantia. Petala sepalo postico similia v. angustiora. Labellum cum pede columnæ articulatum, ungue breviter incumbente dein erecto, lamina late 3-loba; discus longitudinaliter lamellatus. Columna brevis, semiteres, exalata, basi in pedem producta; clinandrium elevatum, obliquum, margine irregulariter dentatum. Anthera intra marginem clinandrii affixum, opercularis, incumbens, valde convexa, antice ultra loculos in appendicem rotundatam producta, discrete 2-locularis; pollinia 8, cerea, in quoque loculo 4, late ovata, valde compressa, per paria 2-seriatim collateralia, superioribus (anticis) sæpe minoribus, appendicula granuloso-subviscosa copiosa connexa. Capsula . . . —Herba epiphytica, caulibus ob rhizoma abbreviatum cæspitosis non pseudobulbosis, basi paucivaginatis superne 2-foliatis. Folia carnosula (*Griffith*) subplicato-venosa, basi in petiolum vaginantem contracta. Racemus terminalis, pedunculo basi squamis 2–3 vaginato, laxe pluriflorus. Flores majusculi, albidi. Bracteæ pedicello subbreviores.

Species 1, montium Khasyæ incola, a Lindleyo primum sub *Cœlogyne* descripta, serius in Journ. Linn. Soc. iii. 52, post Reichenbachium ad *Eriam* relata. Habitus *Cœlogynis*.

57. **Cœlogyne,** *Lindl. Collect. sub t.* 33; *Gen. et Sp. Orch.* 38; *Fol. Orch.* 1854. (Chelonanthera, *sect.* 2 *et* 3, *Blume, Bijdr.* 384, *t.* 51. Acanthoglossum, *Blume, Bijdr.* 381, *fide Reichb. f.*)—Sepala subæqualia, erecta v. patentia, libera v. leviter cohærentia. Petala sepalis conformia v. sæpe angustiora nunc angustissima. Labellum ad basin columnæ sessile, erectum, basi concavum et interdum breviter saccatum, lobis lateralibus nunc amplis erectis columnam amplectentibus v. involventibus, nunc brevibus v. fere obsoletis, lobo medio sæpe expanso patenteque indiviso. Columna erecta, longiuscula, superne v. apice sæpe 2-alata, apoda; clinandrium obliquum, sæpe membranaceo-dila-

tatum, integrum dentatum v. antice 2-angulatum. Anthera intra marginem clinandrii affixa, suboperculаris, incumbens, 2-locularis, loculis basi v. fere undique confluentibus; pollinia 4, cerea, obovata v. oblonga, compressa, per paria in loculis segregata, apice appendice granulosa polymorpha connexa. Capsula sæpius oblonga, costis acutissimis et plus minus in alas expansis.—Herbæ epiphyticæ, cæspitosæ v. longe repentes. Pseudobulbi secus rhizoma sæpius crassi insigniter angulato-costati v. subteretes, apice sæpissime 2-phylli. Scapi v. pedunculi alii inter folia terminales basi paucivaginati, alii sub anthesi ad basin pseudobulbi longius imbricato-vaginati, foliis sub pedunculo tardius evolutis, rarius ad apicem rhizomatis in caulem paucifoliatum abeuntes. Flores majusculi v. speciosi, in pedunculo v. scapo solitarii, v. plures laxe racemosi. Bracteæ sæpe coriaceæ v. subpetaloideæ, deciduæ v. persistentes. Labelli superficies sæpe laminis v. lineis prominentibus dentatis ciliatisve cristata.

Species ad 50, per Indiam orientalem et Archipelagum Malayanum late dispersæ, una usque ad Chinam australem extensa. *Reichb. f. in Walp. Ann.* vi. 222 (*excl. Otochilo et Pholidota*); *in Bot. Zeit.* 1862, 214, *et* 1864, 415; *in Flora*, 1872, 277; *in Bonpl.* 1857, 43; *in Trans. Linn. Soc.* xxx. 146, *t.* 30; *et in Linnæa* xli. 116.

Genus naturale, a Lindleyo in sectiones 3 sequentes a nonnullis pro generibus propriis habitus divisum, vix tamen characteribus certis limitandæ videntur:—

1. *Neogyne.* Racemus nutans, floribundus. Sepala conniventia, lateralia basi discrete saccata cum labello breviter saccato florem quasi trisaccatum formantia. Clinandrium latum, petaloideum, margine dentatum et sub-3-lobum. Species 1, Himalaica. *Wall. Pl. As. Rar. t.* 38. *Paxt. Mag.* vi. 73, *cum ic.* Neogyne, *Reichb. f. in Bot. Zeit.* 1852, 931.

2. *Pleione.* Scapi v. pedunculi per anthesin aphylli v. jam 2-foliati foliis deciduis, 1-flori (rarissime 2-flori?), flore magno. Bractea sub flore sæpius ampla, laxe vaginans. Labellum basi sæpius breviter saccatum. Sepala lateralia in gibbum parum prominentem basi connata v. omnino libera. Clinandrium cucullatum, margine dentatum. *Sm. Exot. Fl. t.* 97 (*Epidendrum*). *Wall. Pl. As. Rar. t.* 53, 54. *Lindl. in Paxt. Fl. Gard. t.* 39, 51 (*Pleione*). *Bot. Mag. t.* 4496, 4691, 5072, 5370, 5674, 5753, 6388. *Bot. Reg.* 1840, *t.* 24. *Reichb. f. Xen. Orch. t.* 134, *f.* 1. Pleione, *Don, Prod. Fl. Nepal.* 36. Bolbophyllum, *Zoll. et Mor. Verz. Java Pfl.* 89; *Reichb. f. in Walp. Ann.* i. 775, *fide Lindl.*

3. *Eucœlogyne.* Scapi v. pedunculi per anthesin aphylli v. sæpius jam 2-foliati, laxe ∞-flori v. rarius 1–2-flori. Bracteæ sub floribus dissitæ sæpiusque deciduæ, rarius persistentes. Labellum basi vix v. non saccatum. Clinandrium obliquum, integrum v. denticulatum. Species numerosæ, per totam aream generis dispersæ, in series sequentes inter se parum distinctas distribuuntur:—

a. *Normales.* *A. Rich. in Ann. Sc. Nat. ser.* 2, xv. *t.* 6. *Wight, Ic. t.* 1638 *ad* 1641. *Bot. Mag. t.* 3767, 4645, 4661, 5323, 5462, 5601, 5958. *Bot. Reg.* 1841, *t.* 29, 57; 1846, *t.* 69. *Reichb. f. Xen. Orch. t.* 46, 134, *f.* 2, 153, 155, *f.* 2.

b. *Filiferæ.* Species paucæ petalis angustis nunc angustissimis; variant tamen de specie in speciem. *Miq. Choix Pl. Buitenz. t* 25, *f.* 1. *Bot. Mag. t.* 4440, 4889. *Bot. Reg. t.* 868; 1847, *t.* 23. *Lodd. Bot. Cab. t.* 1425. *Reichb. f. Xen. Orch. t.* 166.

c. *Proliferæ.* Species ad 8, Himalaicæ et Burmannicæ, bracteis vacuis sub racemo pluribus coriaceis arcte imbricatis diu persistentibus, sub floribus caducissimis. *Wall. Pl. As. Rar. t.* 218. *Griff. Ic. Pl. As. t.* 290. *Bot. Mag. t.* 5001.

d. *Flexuosæ.* Racemus laxus, rhachi flexuosa, bracteis caducis nec sub racemo imbricatis, superioribus tamen nonnullis ultra racemum vacuis imbricato-convolutis. Labellum quam in cæteris *Eucœlogynis* evidentius saccatum. Species 2, Archipelagi Malayani incolæ, adhuc non delineatæ.

e. *Flaccidæ.* Racemus recurvus v. pendulus, bracteis omnibus caducissimis v. rarius subpersistentibus. Species ad 5, Malayanæ v. Indicæ. *Bot. Mag. t.* 3318, 4785, 5084, 5494. *De Vriese, Illustr. Orch. cum. tab.* 1. *Bot. Reg.* 1841, *t.* 31. *Reichb. f. Xen. Orch. t.* 85, 121.

58. **Otochilus,** *Lindl. Gen. et Sp. Orch.* 35, *et in Journ. Linn. Soc.* i. 173. (Tetrapeltis, *Wall. in Lindl. Gen. et Sp. Orch.* 212.)—Sepala et petala subæqualia, libera, angusta, patentia. Labellum ad basin columnæ sessile, basi saccatum, lobis lateralibus erectis auriculiformibus, lobo medio elongato linguiformi patente petalis subsimili. Columna elongata, erecta, semiteres, exalata, apoda, superne clavata; clinandrium valde obliquum, concavum, fere cucullatum. Anthera subterminalis, opercularis, incumbens, loculis

perfecte distinctis subglobosis; pollinia 4, cerea, ovoidea, acutiuscula, per paria in loculis segregata, apicibus appendicula granuloso-viscosa haud copiosa cohærentia. Capsula ovoidea, costis parum prominentibus.—Caules seu rhizomata repentes, ramosi, crassiusculi, quasi e pseudobulborum angustorum serie continua constantes; innovationes racemiferæ fere ex apice pseudobulbi annotini oriundæ; racemus sub anthesi pedunculo brevi vaginis imbricatis obtecto fultus, post anthesin pedunculus elongatus, basis intra vaginas in pseudobulbum incrassatur et folia 2 ad apicem pseudobulbi evolvuntur. Specimina florida racemum terminalem ostendunt in pedunculo aphyllo vaginato; racemus fructifer longe pedunculatus inter folia 2 ad apicem pseudobulbi. Flores quam in *Cœlogynis* multo minus conspicui, laxe racemosi, bracteis angustis.

Species 3 v. 4, Himalayæ et Burmæ incolæ. *Wall. Pl. As. Rar. t.* 68. *Griff. Ic. Pl. Asiat. t.* 288, 289. *Bot. Mag. t.* 3921.

Genus *Cœlogyni* affine, ad ejus sectionem reducitur a Reichb. f. in Walp. Ann. vi. 236, nobis tamen satis distinctum videtur tam vegetatione quam floribus.

59. **Pholidota,** *Lindl. in Hook. Exot. Fl. t.* 138; *Gen. et Sp. Orch.* 36; *et in Journ. Linn. Soc.* i. 172. (Ptilocnema, *Don, Prod. Fl. Nep.* 33. Chelonanthera sect. i., *Blume, Bijdr.* 383, *t.* 51. Crinonia, *Blume, Bijdr.* 338, *ex Lindl.*; *ic. t.* 41 *male convenit.*)—Sepala latiuscula subæqualia, libera, carinato-concava, erecta v. patentia. Petala sepalis sæpius minora, tenuiora, plana. Labellum ad basin columnæ sessile, basi valde concavum subsaccatum, lobis lateralibus erectis brevibus, lobo medio multo latiore patente sepalis breviore integro v. 2-fido. Columna brevis nunc brevissima, lata, apoda, alis sæpius latis cum clinandrio lato petaloideo continuis. Anthera sub apice affixa, incumbens, opercularis, loculis distinctis subglobosis distincte 2-locellatis; pollinia 4, cerea, late ovoidea, acutiuscula v. acuminata, per paria in loculis segregata, apicibus appendicula viscoso-granulosa parca connexa v. omnino distincta. Capsula ovoidea, costis parum prominulis.—Caulis seu rhizoma repens, ramosus, pseudobulbis 1–2-foliatis more *Cœlogynis* distinctis v. *Otochili* continuis. Racemi terminales, rhachi sæpe post anthesin flexuosa. Flores parvi, breviter pedicellati. Bracteæ nunc ovatæ, ante anthesin distiche imbricatæ, persistentes, flores subincludentes, nunc angustiores deciduæ.

Species ad 20, Indiæ orientalis et Archipelagi Malayani incolæ, usque ad Chinam australem extensæ. *Reichb. f. in Walp. Ann.* vi. 236; *in Bonpl.* 1856, 329; 1857, 43; *in Flora*, 1872, 277; *Otia Hamb.* 47; *et in Linnæa* xli. 116 (*Cœlogyne*).

Genus a *Cœlogyne* et *Otochilo* columna abbreviata et floribus parvis facile distinctum, in sectiones 2 dividitur:—

1. *Eupholidota.* Innovationes more *Cœlogynis* ad basin pseudobulborum e rhizomate oriundæ. *Wall. Pl. As. Rar. t.* 239. *Wight, Ic. t.* 907. *De Vriese, Illustr. Orch. cum t.* 1. *Bot. Reg. t.* 1213, 1777.

2. *Otochiloides.* Innovationes more *Otochili* fere ex apice pseudobulbi annotini oriundæ, pedunculo tamen jam sub anthesi 1–2-foliato. Huc pertinent *P. articulata* et *P. recurva*, Lindl., adhuc non delineatæ.

P. camelostalix, Reichb. f. Xen. Orch. i, 217, t. 89, species Javensis a nobis non visa, ex icone et descriptione ab omnibus differt columna elongata tereti exalata recurva et pedunculo more *Cœlogynium* proliferarum infra racemum imbricato-squamoso. Flores parvi videntur *Pholidotæ*. An ad *Otochilum* referenda?

Acanthoglossum, *Blume, Bijdr.* 381, species unica Javensis a nobis non visa, a Reichenbachio ad *Pholidotam* refertur.

60. **Calanthe,** *R. Br. in Bot. Reg. sub t.* 573. (Centrosis, *Thou. Orch. Iles Afr. t.* 35, 36. Amblyglottis, *Blume, Bijdr.* 369, *t.* 64. Styloglossum, *Breda, Orch. Kuhl et Hass. cum tab.* 1. Ghiesbreghtia, *A. Rich. in Ann. Sc. Nat. ser.* 3, iii. 28. Preptanthe, *Reichb. f. in Fl. des Serres*, viii. 245.)—Sepala subæqualia, libera, patentia, sæpius patentissima, rarius erecto-patentia. Petala sepalis similia v. angustiora, nunc anguste linearia. Labelli unguis cum columna connatus in tubum cylindraceum v. late turbinatum, ima basi in calcar interdum longum tenueque productus v. rarius ecalcaratus; lamina patens, 3-loba, lobo medio sæpe 2-lobo; discus varie callosus v. lamellatus. Columna brevis, erecta, apoda, alis sæpius usque ad apicem extensis cum ungue labelli connatis, rarius ultra tubum

producta exalataque ; clinandrium membranaceum, parum prominens sed sæpe profunde excavatum. Anthera subterminalis, opercularis, incumbens, obtuse conica v. convexa, antice interdum acuminata, 2-locularis ; pollinia 8, in quoque loculo 4, cerea, oblonga v. inferiore breviora, plus minus complanata, apice attenuata v. caudata, acuminibus v. caudiculis granulosis facile extensivis plus minus apice connatis, anthera dehiscente interdum glandulæ rostelli affixis. Capsula oblonga, parva v. majuscula, sæpe nutans.—Herbæ terrestres (v. interdum epiphyticæ ?), caulibus foliatis brevibus demum sæpe in pseudobulbos incrassatis. Folia pauca, sæpius gemina, ampla, plicato-venosa, in petiolum contracta. Scapi e rhizomate erecti, sæpe elati, sub anthesin sæpe aphylli, basi vaginis plus minus stipati, foliis tardius evolutis. Racemi simplices, laxi v. densiflori. Bracteæ parvæ v. conspicue ovatæ v. lanceolatæ.

Species ad 40, pleræque Asiaticæ tropicæ, nonnullæ per alias regiones calidas dispersæ nempe in Japonia, insulis maris Pacifici, Nova Caledonia, insulis Mascarensibus, Africa tropica et austro-orientali, America centrali, Mexico et India occidentali obviæ. *Lindl. Gen. et Sp. Orch.* 249 ; *Fol. Orch.* 1854 ; *Sert. Orch. t.* 24, 42. *Reichb. f. in Walp. Ann.* vi. 910 ; *Xen. Orch. t.* 79 ; *Otia Hamb.* 53 ; *in Bot. Zeit.* 1878, 74 ; *in Linnæa* xli. 75 ; *et in Bonpl.* 1856, 322, 1857, 37. *Labill. Sert. Austr. Caled. t.* 25 (*Limodorum*). *Wight, Ic. t.* 918, 1664, 1751–2 (*hæc sub Cytheride*). *Griff. Ic. Pl. As. t.* 283, 313, 339. *Fitzgcr. Austral. Orch. cum tab.* 1. *Bot. Mag. t.* 2615, 4541, 4671, 5042, 5375. *Bot. Reg. t.* 720 ; 1840, *t.* 55 ; 1844, *t.* 37. *Fl. des Serres, t.* 816.

Species a Lindleyo in series 2 distribuuntur *Ghiesbrechtia* calcare nullo v. abbreviato, et *Eucalanthe* calcare elongato, sed distinctio vix definita nec cum habitu nec patria conformis. Species tamen nonnullæ, e.g. *C. densiflora*, Lindl. Bot. Reg. t. 1646, *C. curculigoides*, Lindl. Bot. Reg. 1847, t. 8, Bot. Mag. t. 6104 (*Styloglossum*, Breda), a cæteris differunt racemis densis, sepalis petalisque vix patentibus. Columna supra tubum longiuscule producitur in *C. gracili*, Lindl. ; Bot. Mag. t. 4714 (analysi erronea) calcare nullo, in *C. brevicornu*, Lindl. Sert. Orch. t. 9, calcare brevi, et in *C. densiflora*, Lindl., calcare longiusculo, sed tubus latus ex alis columnæ cum labelli ungue formatus semper adest.

Limatodes rosea, Lindl. in Paxt. Fl. Gard. iii. 35, t. 81, Bot. Mag. t. 5312, est *Calanthis* species vera, *C. vestitæ* affinis, cum qua facile in hortis formas hybridas producit. *L. gracilis*, Lindl., est *Calanthe gracilis* supra notata. *Limatodes*, Blume, ab auctore ipso ad *Phaium* reducitur.

61. **Arundina**, *Blume, Bijdr.* 401.—Sepala subæqualia, libera, patentia. Petala sepalis similia v. latiora. Labellum ad basin columnæ erectum, sepalis æquilongum v. brevius, lobis lateralibus columnam amplectentibus, medio latiore patente. Columna longiuscula, erecta, semiteres v. utrinque anguste alata, apoda ; clinandrium elevatum, cavum, postice rotundatum, medio dentiferum, antice breviter 2-dentatum. Anthera terminalis v. sub apice lobi postici affixa, opercularis, incumbens, discrete 2-locularis ; pollinia 8, in quoque loculo 4, ovoidea, parallele compressa, per paria parum superposita, apicibus appendicula granulosa copiosa v. sæpius parva v. visco parco connexis. Capsula majuscula, oblonga v. fusiformis, erostris.—Herbæ terrestres, erectæ, foliosæ. Caules e rhizomate repente vaginis foliorum obtecti, pseudobulbis 0. Folia plana, angusta v. latiuscula, sessilia, cum vagina articulata. Flores majusculi, in racemum terminalem laxum simplicem v. rarius divisum dispositi. Bracteæ nunc parvæ nunc pedicello longiores, ante anthesin distiche imbricatæ.

Species ad 5, Indiæ orientalis, Chinæ australis et Archipelagi Malayani incolæ. *Lindl. Gen. et Sp. Orch.* 125. *Reichb. f. in Walp. Ann.* vi. 456. *Wight, Ic. t.* 1661. *Griff. Ic. Pl. As. t.* 314. *Bot. Reg.* 1842, *t.* 38.

In speciebus typicis flores speciosi, in racemo pauci, bracteæ parvæ, folia angusta. Dilochia, *Lindl. Gen. et Sp. Orch.* 38, *Blume, Orch. Archip. Ind. t.* 8 *et t.* 5 A, *Reichb. f. Xen. Orch.* ii. 13, *t.* 105, est species in Archipelago Malayano late dispersa, foliis latis, racemo floribundo, bracteis coriaceis ante anthesin distiche imbricatis, et pro genere a Lindleyo distincta ob clinandrium 3-antheriferum, lobis nempe lateralibus magis evolutis et antheras perfectas sæpe ferentibus, sed ex Blumeo hæ antheræ laterales intermedia minores sunt interdumque imperfectæ v. omnino deficientes, et Reichb. f. l. c. genus cum *Arundina* junxit. Florem unicum examinare potuimus qui nec cum analysi Lindleyana nec cum Blumeana exacte convenit, sed evidenter columnæ alæ et antherarum evolutio de flore in florem variant.

62. **Elleanthus,** *Presl, Rel. Hænk.* i. 97. (Evelyna, *Pœpp. et Endl. Nov. Gen. et Sp.* i. 32, *t.* 56 *ad* 58.)—Sepala subæqualia, libera, erecta, rigidula. Petala sepalis æquilonga, sæpius angustiora. Labellum basi columnæ affixum, erectum, sepalis æquilongum v. longius, columnam sæpius involvens, ima basi concavum, in cavo callis prominentibus 2 distinctis v. in laminam carnosam connatis instructum, supra cavum sæpius leviter constrictum, nunc lobis lateralibus amplis erectis medio minore patente, nunc lobis parum distinctis late rotundatum, margine integrum v. denticulatum. Columna erecta, semiteres v. medio 2-alata, apoda, interdum antice sub stigmate callo prominente ex Reichb. f. tardius evoluto instructa; clinandrii dentes interdum longiusculi, erecti, postico minore. Anthera denti postico affixa, opercularis, convexiuscula, leviter incumbens, mox erecta, distincte 2-locularis, loculis indivisis; pollinia 8, in quoque loculo 4, cerea, ovoidea, per paria parum superposita, apicibus visco parco v. appendicula parva granulosa connexa. Capsula breviter oblonga, erecta v. patens.—Herbæ terrestres, nunc humiles multicaules, nunc sæpius elatæ, simplices v. ramosæ, foliosæ. Folia supra vaginam sessilia, plicata, ovato-lanceolata v. linearia. Florum spicæ terminales, nunc densæ capituliformes v. oblongæ bracteis rigidulis imbricatis, nunc laxiores distichæ. Bracteæ rarius floribus distincte breviores.

Species fere 50, Americæ tropicæ a Brasilia usque ad Indiam occidentalem et Americam centralem incolæ. *Reichb. f. in Walp. Ann.* vi. 472; *Otia Hamb.* 92. *Aubl. Pl. Gui. t.* 320 (*Serapias*). *Bot. Mag. t.* 5141 (*Evelyna*), 6016.

Reichb. f. l.c. sectiones 2 distinguit: 1. *Cœlelyna*, callis in basi labelli in laminam depressam coalitis. 2. *Euevelyna*, callis labelli 2 distinctis, characteres differentia nulla quoad habitum comitati. In speciebus plerisque utriusque sectionis spicæ densæ bracteis undique imbricatis. In *Evelyna oligantha*, Pœpp., cum specie affini Spruceana, spica laxa, elongata, floribus plus minus dissitis, bracteis minus conspicuis. In *E. linifolia*, Presl (*Evelyna graminifolia*, Pœpp.), affinibusque paucis, flores parvi, pauci, in spica disticha brevi arcte conferti.

63. **Lanium,** *Lindl. in Hook. Journ. Bot.* iii. 81 (Epidendri *sect.*).—Sepala æquilonga, subpatentia, posticum liberum incurvum, lateralia latiora, falcata, basi columnæ tubo adnata, mentum breve obliquum formantia. Petala sepalo postico similia nisi angustiora. Labellum basi cum columna in tubum breve connatum, dein erecto-patens, concavum, acuminatum, indivisum. Columna brevis, marginibus membranaceis cum labelli basi in tubum connatis; clinandrium amplum, membranaceum, lobis lateralibus latis, postico parvo. Anthera terminalis, opercularis, incumbens, convexa, 2-locularis; loculis septo transverso v. obliquo 2-locellatis; pollinia 4, cerea, ovoidea, acuta v. acuminata, in locellis superposita, apicibus visco parco granuloso v. polliniorum superiorum in filum extenso connexis. Capsula . . .—Herbæ epiphyticæ, caulibus e rhizomate repente nanis basi vaginatis, in *L. avicula* pseudobulbosis foliis 2 ovatis coronatis, in *L. microphyllo* vix v. non incrassatis foliis ∞ distichis recurvo-patentibus. Folia rigida v. carnosula. Pedunculus terminalis, tenuis, in *L. avicula* ramosus, in *L. microphyllo* simpliciter racemosus. Flores in utraque specie parvuli, breviter pedicellati, sepalis extus puberulis.

Species 2, altera Brasiliensis, altera Surinamensis, apud Lindl. Fol. Orch. sectionem *Epidendri* formantes, Reichenbachio f. in Walp. Ann. vi. in sectiones *Aulizeum* et *Amphiglottium* sejunctæ; perianthii tamen forma et præsertim antheræ structura ab illis *Epidendri* multum discrepant. *Benth. in Hook. Ic. Pl. t.* 1334, 1335.

64. **Amblostoma,** *Scheidw. in Otto et Dietr. Gartenz.* 1838, 383.—Sepala subæqualia, libera, concava, subpatentia. Petala sepalis angustiora sublongiora, patentissima. Labelli unguis columnæ æquilongus, quacum in urceolum seu cupulam latam connatus; lamina 3-partita, lobis brevibus oblongis; discus ad os urceoli 2-cristatus. Columna brevis, alis cum labelli ungue urceolum formantibus, cæterum apoda; clinandrium breve, lobis lateralibus rotundatis, postico obsoleto. Anthera inter lobos laterales clinandrii terminalis, opercularis, incumbens, parum convexa, transverse oblonga fere reniformis, perfecte et parallele 4-locularis; pollinia 4, cerea, globosa, distincta, inappendiculata, anthera dehiscente per paria visco sat copioso in fila 2 elastice extensivo connexa

et rostello sæpe affixa. Capsula oblongo-fusiformis, erostris, costis parum prominulis.—Herbæ epiphyticæ, caulibus foliatis basi vaginatis carnoso-incrassatis. Folia angusta, tenuiter coriacea, vaginis appressis. Panicula terminalis, tenuis at rigidula, floribus secus ramos confertim racemosis parvis breviter pedicellatis. Bracteæ minimæ.

Species 3, una Brasiliensis (*Epidendrum tridactyla*, Lindl.), altera Peruviana (*E. micranthum*, Hook.), tertia Boliviana. *Reichb. f. in Walp. Ann.* vi. 485; *in Saund. Ref. Bot. t.* 101; *et Xen. Orch.* iii. 22. Pollinia in *A. micrantho* omnino *Amblostomatis* vidimus, ovoidea, in locellis 4 antheræ reniformis distincta, inappendiculata, visco parco extensivo connexa.

65. **Seraphyta,** *Fisch. et Mey. in Bull. Scient. Acad. Sc. Petersb.* vii. (1840) 25.—Sepala subæqualia, libera, acuta, subpatentia. Petala anguste linearia, sepalis æquilonga, patentia. Labelli unguis columnæ æquilongus, quacum in urceolum connatus; lamina late ovata, indivisa, patens; discus ad os urceoli callosus. Columna brevis, alis cum labelli ungue urceolum formantibus, cæterum apoda; clinandrium breve, lobis lateralibus rotundatis, postico obsoleto. Anthera inter lobos laterales terminalis, opercularis, incumbens, subglobosa, dorso crasse carnosa quasi appendiculata, antice 2-locularis, loculis 2-locellatis; pollinia 4, cerea, ovoideo-globosa, distincta, inappendiculata, anthera dehiscente per paria visco sat copioso in fila 2 elastice extensivo connexa, sæpeque rostello affixa. Capsula ovoidea, acuminata, subrostrata, costis parum prominulis.—Herba epiphytica, caulibus foliatis basi vaginatis vix carnosis. Folia coriacea, oblonga v. latiuscula, vaginis arcte appressis. Panicula terminalis, laxe tenuiterque ramosa, floribus parvulis secus ramos laxe racemosis pedicellatis. Bracteæ parvæ.

Species 1, Indiæ occidentalis. *Lodd. Bot. Cab. t.* 846. *Bot. Mag. t.* 3565 (*Epidendrum diffusum*).

Genus *Amblostomati* valde affine, nec differre videtur nisi labelli et antheræ forma.

66. **Diothonea,** *Lindl. in Hook. Journ. Bot.* i. 12. (Gastropodium, *Lindl. in Ann. Nat. Hist. ser.* i. xv. 107.)—Sepala subæqualia, patentia, lanceolata, posticum liberum, lateralia basi leviter obliqua, cum pede v. basi columnæ mentum breve formantia. Petala sepalis subsimilia. Labellum basi cum columna in cyathum latum apertum v. antice saccatum connatum; lobi laterales ad marginem cyathi breves, erecti, medius basi sigmoideo-inflexus v. subrectus, dein patens, ample obovatus, sepalis longior, integer v. obscure lobatus. Columna brevis, usque ad apicem marginibus membranaceis cum labelli basi in cyathum connata v. supra cyathum brevissime lateque erecta, basi in pedem brevem nunc obscurum cum cyatho continuum producta; clinandrium prominens, membranaceum, obliquum, integrum. Anthera intra marginem clinandrii affixa, opercularis, incumbens, subreniformis, leviter convexa, discrete 2-locularis, loculis septo longitudinali vix perfecto 2-locellatis; pollinia 4, cerea, ovoidea, vix compressa, 1-seriata, inappendiculata, libera v. apicibus visco parco in filum extensivo cohærentia. Capsula . . .—Herbæ epiphyticæ, non pseudobulbosæ, sæpe ramosæ, foliosæ, ramis vaginis rigidulis obtectis. Folia coriacea, angusta v. ovata, cum vagina articulata. Flores mediocres v. majusculi, in racemo laxo terminali sæpius recurvo longiuscule pedicellati. Bracteæ parvæ, lineares.

Species 4, Andium Columbiæ et Peruviæ incolæ. *Reichb. f. in Walp. Ann.* vi. 446, *et in Linnæa* xli. 39.

Hemiscleria, *Lindl. Fol. Orch.* 1853, habitu characteribusque omnino *Diothoneæ*, a *D. lloensi* differt floribus minoribus, et columna supra cyathum brevissime producta. Anthera et pollinia ad amussim conveniunt.

67. **Stenoglossum,** *H. B. et K. Nov. Gen. et Sp.* i. 355, *t.* 87.—Sepala subæqualia, erecto-patentia, angusta, posticum liberum, lateralia basi leviter obliqua, cum pede columnæ mentum breve formantia. Petala sepalis similia v. angustiora. Labellum basi cum columna in cyathum latum apertum connatum, lobi laterales a marginibus sinuatis cyathi non distincti, medius patens, anguste linearis, integer. Columna brevis, usque ad apicem marginibus membranaceis cum labelli basi in cyathum connata, basi in pedem

brevem cum cyatho continuum producta; clinandrium prominens, membranaceum, cum margine sinuato cyathi continuum. Anthera intra marginem clinandrii affixa, opercularis, incumbens, subreniformis, convexa, discrete 2-locularis, loculis septo longitudinali 2-locellatis; pollinia 4, cerea, ovoidea, vix compressa, 1-seriata, inappendiculata, libera v. apicibus visco parco cohærentia. Capsula . . .—Herba epiphytica, non pseudobulbosa, subramosa, foliosa, ramis vaginis rigidulis obtectis. Folia coriacea, angusta. Flores quam in *Diothonea* bene minores, in racemo terminali recurvo breviter pedicellati. Bracteæ parvæ.

Species 1, Andium Americæ tropicæ incola. *Lindl. Gen. et Sp. Orch.* 62.

Reichenbach f. in Walp. Ann. vi. 347, speciem Lindleyanam (*Hook. Ic. Pl. t.* 51) rite ad Humboldtianam refert, sed ad *Epidendrum* transfert a quo nobis distinctissima videtur cyatho columnari anthera et polliniis. His tamen characteribus uti habitu ad amussim *Diothoneæ* convenit, a qua vix differt floribus minoribus minus apertis et labelli forma.

68. **Hormidium,** *Lindl. in Hook. Journ. Bot.* iii. 81 (Epidendri *sect.*).—Sepala æquilonga, suberecta v. demum patentia, posticum liberum, lateralia latiora, basi cyatho columnari adnata mentum breve formantia. Petala sepalo postico similia v. angustissima. Labellum basi cum columna in cyathum seu urceolum latum connatum, lamina erecto-patente 3-loba v. indivisa. Columna brevis, marginibus dilatatis usque ad apicem cum labello in cyathum connatis; clinandrium breve, truncatum. Anthera terminalis, opercularis, incumbens, subreniformis, parallele 4-locularis (2-locularis loculis 2-locellatis); pollinia 4, cerea, ovoidea, vix leviter compressa, distincta, inappendiculata, anthera dehiscente apicibus visco parco connexa. Capsula ovoidea v. subglobosa, erostris, costis prominentibus v. anguste alatis.—Herbæ epiphyticæ, nanæ, pseudobulbis secus rhizoma parvis confertis vaginis membranaceis 2–3 stipatis apice 1–2-foliatis. Folia parva, coriacea v. carnosula. Flores parvi, nunc minimi v. in *H. Sophronite* majusculi, in fasciculo terminali breviter pedicellati v. in racemulis brevibus laxis subfasciculatis pauci, fasciculo interdum ad florem unicum bracteis stipatum reducto.

Species ad 7, Americæ tropicæ a Brasilia usque ad Cubam et Mexicum incolæ. *Lindl. Fol. Orch. Epidendr.* 27. *Hook. Journ. Bot.* i. *t.* 118. *Bot. Mag. t.* 3233, 6314. *Pœpp. et Endl. Nov. Gen. et Sp. t.* 101 (*omnes sub Epidendro*). *Brongn. in Duperr. Voy. Bot. t.* 42 A (*Cœlogyne*).

Reichb. f. in Walp. Ann. vi, 346 species 4 Lindleyanas enumerat et sectionem ad *Auliseam* refert, sed characteres florales et pollinia iis *Diothoneæ* affiniores, habitus peculiaris. Pollinia in solis *H. serpente* et *H. Sophronite* bene observavimus, perianthium specierum fere omnium. Speciebus l. c. enumeratis addendæ videntur *Epidendrum leiochilum*, Reichb. f., e Cuba, floribus minutissimis in pedunculis pluribus, et *E. pulchellum*, A. Rich., a Mexico, et *E. Sophronitis*, Reichb. f. Xen. Orch. t. 167, floribus majusculis.

69. **Hexisia,** *Lindl. in Hook. Journ. Bot.* i. 7. (Euothonæa, *Reichb. f. in Bot. Zeit.* 1852, 772.)—Sepala subæquilonga, angusta, ima basi erecta, cæterum patentia, posticum liberum, lateralia basi vix latiora in mentum brevissimum deorsum producta. Petala sepalo postico subsimilia. Labellum erectum, basi cum columna in cyathum antice vix gibbosum connatum, supra cyathum flexuoso-inflexum; lobi laterales obscuri; medius lanceolatus, patens, sepala æquans. Columna brevis, ultra medium cum labello in cyathum connata; clinandrium expansum, 3-lobum, lobis lateralibus erectis postico longioribus. Anthera lobo postico affixa, opercularis, incumbens, semiglobosa, 2-locularis, loculis 2-locellatis; pollinia 4, cerea, ovoidea, collateralia, non compressa, libera v. visco perparco connexa. Capsula . . .—Herbæ epiphyticæ, paucifoliatæ, caulibus subramosis teretibus v. angulatis internodio summo quotannis sæpius incrassato v. longe pseudobulboso; innovationes ad apicem pseudobulbi solitarii v. gemini, basi squamis imbricatis obtecti apice sub racemo 1–2-foliati. Folia angusta, rigidula. Racemi terminales, pauciflori, pedunculo brevi squamis imbricatis coriaceis obtecto; pedicelli squamis sæpius longiores. Flores mediocres, aurantiaci v. purpurei.

Species 3 v. 4, per Americam tropicam a Brasilia usque ad Mexicum dispersæ. *Reichb. f. in Walp. Ann.* vi. 469; *et in Linnæa* xli. 131. *Lindl. Sert. Orch. t.* 40, f. 1 (*Diothonea*).

70. **Scaphyglottis,** *Pœpp. et Endl. Nov. Gen. et Sp.* i. 58, *t.* 97 *ad* 100. (Cladobium, *Lindl. Introd. Nat. Syst. ed.* 2, 446.)—Sepala subæquilonga, erecta v. subpatentia, lateralia postico latiora, basi sæpe in mentum breve cum pede columnæ connata. Petala sepalo postico similia nisi paullo minora. Labellum cum pede columnæ articulatum v. continuum, basi contractum, incumbens, dein erectum, apice patens, indivisum v. obscure lobatum. Columna longiuscula, erecta, semiteres, apice 2-auriculata, basi in pedem brevem sæpe membranaceo-dilatatum producta; clinandrium parum prominens, integrum v. antice 2-dentatum. Anthera terminalis, opercularis, incumbens, 2-locularis; pollinia 4, cerea, in quoque loculo 2, ovoidea v. globosa, haud compressa, inappendiculata, libera v. vix visco parco connexa. Capsula . . .—Herbæ epiphyticæ, ramosæ; rami novelli quotannis ab apice rami annotini solitarii v. gemini basi vaginis paleaceis stipati, apice 2-foliati, demum carnoso-incrassati, pseudobulbos lineares v. anguste fusiformes formantes. Folia angusta nunc linearia, coriacea. Flores inter folia ad basin innovationum gemini v. pauci fasciculati, parvi, pedicellis basi bracteatis.

Species ad 8, Americæ tropicæ a Brasilia usque ad Mexicum incolæ. *Hook. Ic. Pl. t.* 313, 317. *Bot. Mag. t.* 4071. *Bot. Reg. t.* 1901. *Reichb. f. Xen. Orch. t.* 200 (*Ponera*).

Genus a Reichenbachio in Walp. Ann. vi. 452 ad *Poneram* refertur, nobis *Hexadesmiæ* affinius videtur. A. Pœppigio cum *Dichæa* comparatur a qua distinguitur columna late alata, quod tamen in iconibus suis in sola *S. parviflora*, t. 97, delineatur, et hæc species cum *S. pendula*, t. 98, ab omnibus a nobis visis differre videntur pseudobulbis secus caulem hinc inde crassis ovoideis 1–2-phyllis.

71. **Hexadesmia,** *A. Brongn. in Ann. Sc. Nat. ser.* 2, xvii. 44.—Sepala subæquilonga, erecta v. subpatentia, posticum liberum, lateralia paullo latiora, basi cum pede columnæ deorsum in mentum producta. Petala sepalo postico similia v. minora. Labellum cum pede columnæ articulatum v. continuum, basi contractum, incumbens, superne patens, indivisum v. breviter 2-lobum. Columna longiuscula, erecta, semiteres, apice clavata, exalata, basi in pedem deflexum sæpe membranaceo-dilatatum producta; clinandrium 3-lobum, lobo postico inflexo, lateralibus erectis. Anthera terminalis, opercularis, incumbens, 2-locularis, pollinia 6, cerea, ovoidea, haud compressa, apicibus acutis v. attenuatis visco parco connexa, quorum 4 (in quoque loculo 2), collateralia, tertium cujusve loculi iis superpositum, omnia septis imperfectis separata. Capsula parva, ovoidea v. oblonga, erostris.—Herbæ epiphyticæ, ramosæ; rami novelli quotannis ad apicem rami annotini solitarii v. gemini, basi vaginis paleaceis imbricatis stipati, apice 2-foliati, internodio superiore sub foliis sæpius elongato carnoso valde incrassato v. pseudobulboso. Folia carnosa. Flores inter folia ad basin innovationum fasciculati v. breviter denseque racemosi, parvi, bracteis sæpe paleaceis.

Species 4 v. 5, Mexici, Americæ centralis, Indiæ occidentalis et Brasiliæ incolæ. *Reichb. f. in Walp. Ann.* vi. 468; *Xen. Orch. t.* 59; *Orch. Centr. Amer.* 89; *et in Linnæa* xli. 84. *Saund. Ref. Bot. t.* 92, 113.

72. **Octadesmia,** *Benth. in Journ. Linn. Soc.* xviii. 311.—Sepala subæquilonga, subpatentia, posticum angustum liberum, lateralia latiora subfalcata, basi in mentum parum prominulum sub labello connexa. Petala sepalo postico parum latiora. Labellum a basi columnæ suberectum, liberum, oblongum, lobis lateralibus parum prominulis, margine crenulatum, sepalis subbrevius. Columna longiuscula, leviter incurva, semiteres, exalata; clinandrium parum prominens, obscure 3-lobum. Anthera terminalis, opercularis, incumbens, semi-globosa, 2-locularis, loculis obscure 2-locellatis. Pollinia 8, in quoque loculo 4, sub-2-seriata, anticis paullo longioribus, apicibus visco parco connexa. Capsula oblonga v. elongato-fusiformis, in rostrum breve contracta, erectiuscula v. nutans.—Herbæ epiphyticæ, caulibus simplicibus foliatis. Folia lineari-lanceolata, disticha, rigidula nec carnosa. Pedunculus terminalis, simplex v. parce ramosus, ramis dissite paucifloris. Flores mediocres, breviter pedicellati. Bracteæ breves, basi vaginantes.

Species 3, ins. Jamaicæ et San Domingo incolæ: 1. *O. montana*, Benth. (*Octomeria serratifolia*, Hook. Bot. Mag. t. 2823; *Tetramicra montana*, Griseb. Fl. Brit. W. Ind. 622; *Bletia montana*, Reichb. f. in Walp. Ann. vi. 445), foliis pluribus lineari-lanceolatis, racemo plurifloro. 2. *O. elata*,

Benth., *O. montanæ* subsimilis sed multo validior (6-pedalis), foliis lato-lanceolatis, racemo plurifloro bracteis latis laxis rigidis; in monte Moses Jamaicæ legit Syme. 3 *O. monophylla*, Benth. (*Trigonidium monophyllum*, Griseb. Fl. Brit. W. Ind. 629), caule 1-foliato, ∞-vaginato, 1–2-floro. Perianthium majus et magis expansum quam in præcedentibus, sed florum structura eadem, nec generice separanda.

73. ? **Alamania**, *Llav. et Lex. Nov. Veg. Descr.* ii. *Orch. Opusc.* 31.—Sepala subæqualia, erecto-patentia, angusta. Petala sepalis subsimilia. Labellum basi cum columna connatum, erectum, lamina sepalis subsimili, lobis lateralibus parvis dentiformibus. Columna ad medium cum labelli ungue in tubum connata, superne libera, erecta, semiteres, exalata; clinandrii lobus posticus latus, obtusus, oblique truncatus, laterales erecti, falcato-ligulati. Anthera terminalis, opercularis, incumbens, dorso obtuse crasso-conica, loculis parallelis septo longitudinali divisis quasi 4-locularis; pollinia 4, lato-ovata, parallele compressa, utrinque obtusa, inappendiculata v. vix granulis paucis connexa. Ovarium in collum longiusculum superne latius productum. Capsula . . .—Herba epiphytica, caulibus in rhizomate repente nanis leviter incrassatis vix pseudobulbosis apice 2-foliatis. Scapi floridi e rhizomate aphylli, vaginis laxe imbricatis membranaceo-scariosis in bracteas abeuntibus obtecti. Racemus brevis, simplex, terminalis, densiflorus. Flores mediocres, conferti, pedicellis longiusculis tenuibus. Bracteæ angustæ, scariosæ.

Species 1, Mexicana. *Lindl. Gen. et Sp. Orch.* 153. Characterem ex specimine Hartwegiano in Herb. Lindl. confecimus. Character auctorum tamen vix convenit nisi 'Nectarium verum tubulatum infra labelli insertionem productum' partem columnæ cum labello connatam indicet et ovarii collum pro 'segmentis inferioribus basi connatis calcar referentibus' descriptum. Præterea pseudobulbus apice 2-foliatus et racemifer dicitur dum in specimine Herb. Lindl. scapi omnes aphylli, pseudobulbis 2-foliatis omnino ananthis. An genus potius ad *Dendrobieas* juxta *Bulbophyllum* amandandum?

74. **Pleuranthium**, *Lindl. in Hook. Journ. Bot.* iii. 81 (Epidendri *sect.*).—Sepala libera, subæquilonga, patentia, lateralia basi obliqua, brevissime connata. Petala sepalis subsimilia. Labelli unguis erectus, cum columna connatus, lamina patens indivisa. Columna fere ad apicem cum labello connata. Anthera et pollinia *Epidendri*.—Caules elongati, foliati, nec carnosi, nec pseudobulbosi. Folia disticha, vaginis caulem obtegentibus. Racemi ad axillas subsessiles, breves, fasciculiformes, pauciflori v. ad florem unicum reducti. Flores parvuli, breviter pedicellati.

Species 5 v. 6, quarum 1 Brasiliana, 2 Columbianæ v. Peruvianæ, 1 Guatemalensis, 1 Cubensis. (*Ponera adendrobium*, Reichb. f. in Flora, 1865, 278). Genus adhuc dubium, *Epidendro* et *Poneræ* affine. Habitus et inflorescentia a priore valde discrepant et sepala lateralia basi mentum breve formare videntur minus tamen prominens quam in *Ponera*. Flores in speciminibus nostris rite examinare nequimus, et genus v. sectio ulterius scrutandum.

75. **Diacrium**, *Lindl. in Hook. Journ. Bot.* iii. 81 (Epidendri *sect.*).—Sepala subæqualia, libera, patentia, crassiuscule petaloidea. Petala sepalis subsimilia. Labellum a basi columnæ patens, sepalis subæquilongum; lobi laterales patentes v. reflexi, medius longius; discus inter lobos laterales elevatus, supra 2-cornutus, cornubus subtus excavatis. Columna brevis, lata, leviter incurva, in alas angustas crassiusculas expansa; clinandrium obliquum, obtusum. Anthera terminalis, opercularis, incumbens, semiglobosa, 2-locularis, loculis septo longitudinali 2-locellatis; pollinia 4, cerea, lato-ovata, æqualia, a latere parallele compressa, 1-seriata, in quoque loculo appendicula granuloso-viscosa lineari a basi marginibus applicita connexa. Capsula . . .—Herbæ epiphyticæ, caule carnoso vix in pseudobulbum elongatum incrassato. Folia pauca, ad apicem conferta, rigide coriacea subcarnosa, cum vagina brevi articulata. Pedunculus terminalis, simplex, vaginis paleaceis distantibus arcte appressis. Flores speciosi, laxe racemosi, breviter pedicellati. Bracteæ parvæ.

Species descriptæ 4, Guianæ Americæ centralis et Mexici incolæ, inter se evidenter valde affines. *Reichb. f. in Walp. Ann.* vi. 345. *Bot. Mag. t.* 3332 (*omnes sub Epidendro*).

76. **Isochilus,** *R. Br. in Ait. Hort. Kew. ed.* 2, v. 209.—Sepala æqualia, erecta, libera, carinato-concava, basi interdum subsaccata. Petala sepalis æquilonga, plana. Labellum petalis æquale, et cum iis ad basin columnæ affixum sed infra medium contractum et leviter sigmoideo-flexuosum, medium versus in lobos laterales brevissimos dilatatum, cæterum integrum. Columna erecta, longiuscula, semiteres, exalata, apice ad latera stigmatis in acumina 2 erecta producta, apoda; clinandrium parum prominens, dente postico antherifero brevi. Anthera terminalis, opercularis, incumbens, convexa, distincte 2-locularis; loculis septo longitudinali imperfecto, 2-locellatis; pollinia 4, cerea, in quoque loculo 2, æqualia, ovoideo-oblonga, parallele compressa, erecta, appendicula granuloso-viscosa laminiformi a basi ascendente polliniis incumbente. Capsula globosa v. ovoidea, costis parum prominulis.—Caules e rhizomate repente vaginis obtecto erecti, foliorum vaginis obtecti, pseudobulbis 0. Folia disticha, patentia, linearia v. lanceolata, rigidule herbacea, sæpius obtusa v. retusa. Flores mediocres, rosei v. rubidi, in racemum terminalem densum unilateralem dispositi, breviter pedicellati v. subsessiles. Bracteæ herbaceæ, concavæ, flore multo breviores.

Species 4 v. 5, Americæ calidioris a Brasilia usque ad Mexicum et Indiam occidentalem incolæ. *Reichb. f. in Walp. Ann.* vi. 447. *Jacq. Stirp. Amer. t.* 131, *f.* 1 (*Epidendrum*). *Andr. Bot. Rep. t.* 445 (*Epidendrum*). *Bot. Reg. t.* 745. *Lodd. Bot. Cab. t.* 1341.

Species a Lindleyo Gen. et Sp. Orch. 112, *I. lineari*, Br., adsociatæ tardius ab auctore ipso v. a Reichenbachio rite inter genera varia distributa sunt. Hic auctor pollinia 6 vidit in *Isochilo lineari*, antheræ loculis 3-locellatis, quod tamen nec in speciminibus vivis nec in siccis vidimus.

77. **Ponera,** *Lindl. Gen. et Sp. Orch.* 113; *Bot. Reg.* 1842, *Misc.* 19. (Nemaconia, *Knowles et Westc. Fl. Cab.* ii. 127.)—Sepala subæquilonga, posticum liberum, lateralia multo latiora, basi pedi columnæ adnata, mentum sub labello formantia. Petala sepalo postico latiora. Labellum ad apicem pedis columnæ subarticulatum, ungue incumbente, lamina recurvo-patente obovata integra v. dilatato-2-loba. Columna brevis, semiteres, incurva, exalata, basi in pedem producta; clinandrium obliquum, breve v. postice productum incurvumque, antice interdum 2-dentatum. Anthera terminalis, opercularis, incumbens, convexa, 2-locularis, loculis septo longitudinali sub-2-locellatis; pollinia 4, cerea, late ovata, æqualia, a latere parallele compressa, 1-seriata, in quoque loculo appendicula granuloso-viscosa, a basi marginibus applicita connexæ. Capsula subglobosa ovoidea v. oblonga, erostris, costis obtusis carnosulis.—Herbæ epiphyticæ, caulibus foliosis e rhizomate repente elongatis nunc longissimis subramosis. Folia alterna, fere graminea, vaginis arcte appressis persistentibus. Flores parvuli, in racemis brevibus fasciculiformibus pauci, breviter pedicellati. Racemi subsessiles, unus sæpius ad apicem innovationis foliati, cum pluribus ad nodos defoliatos caulis annotini. Bracteæ breves, paleaceæ, caducæ.

Species 4 v. 5, Mexici et Americæ centralis incolæ. *Reichb. f. in Walp. Ann.* vi. 450 (*quoad species ebulbosas*); *Xen. Orch. t.* 19; *in Saund. Ref. Bot. t.* 93; *et in Linnæa* xli. 39.

Genus *Epidendro* valde affine, differt columna in pedem producta et labelli insertione. Antheræ et pollinia omnino *Epidendri*. Inflorescentia in ramulo hornotino terminalis ad fasciculum sessilem paleaceo-bracteatum reducta ut in *E. equitante*, sed annis sequentibus varie irregularis evadit, innovationibus nunc caulem continuantibus nunc ramulos laterales formantibus. In specie typica ramulus terminalis v. ramuli plures superiores plurifoliati sunt, et sæpius racemuli plurimi aphylli ad nodos defoliatos rami annotini v. vetustioris nascuntur. In TETRAGAMESTO, *Reichb. f. in Bonpl.* 1854, 21, saltem in specie typica *T. modesto*, Reichb. f. l. c., et Xen. Orch, t. 19, quam a *Ponera* generice distinguere nequimus, ramulus terminalis apice 2-foliatus est et florum fasciculus inter folia more generis sessilis est sed innovatione inter folia sub fasciculo mox evoluto lateralis evadit, folia pseudo-opposita per plures annos persistentia, et caulis quasi articulatus apparet, foliorum paribus cum inflorescentia sessili ad articulationes sitis. In aliis speciebus quarum paucas tantum vidimus vegetatio plus minus typo uni alterive accedere videtur. *P. adendrobium*, Reichb. f., racemulis omnibus axillaribus potius *Pleuranthio* referenda videtur sed flores in speciminibus nostris jam emarcidi. *Scaphyglottis* a Reichenbachio ad *Poneram* relata longius distare videtur antheris polliniis aliisque notis.

78. **Pinelia,** *Lindl. Fol. Orch.* 1853.—Sepala subæqualia, petaloidea, libera, patula, lateralia basi inæqualia. Petala sepalis conformia at minora. Labellum petalis majus, indivisum, cum columna continuum eique basi adnatum. Columna nana, rectiuscula, fere horizontalis, margine petaloidea. Anthera columnæ apice adnata, carnosa, 4-locularis; pollinia 4, oblonga, collateralia, 1-seriata, appendicula laminiformi 2-partita colligata.—Herba nana, epiphytica, pseudobulbis apice 1-foliatis. Folium carnosum, ovato-lanceolatum, ex icone acuminatum, ex descriptione 3-dentatum. Pedunculus terminalis, filiformis, 1-florus.

Species 1, Brasiliensis, non nisi ex icone notisque Pinelianis in herb. Lindl. nobis nota; a Reichb. f. in Walp. Ann. vi. 204, ad *Restrepiam* refertur, sed pseudobulbi, labellum basi columnæ adnatum, et pollinia mediante lamina connata omnino *Cattleyæ*, abhorrent; planta potius *Sophroniti* affinis videtur, a qua differt polliniis 4 nec 8.

79. **Hartwegia,** *Lindl. Bot. Reg. sub t.* 1970.—Sepala subæquilonga, erecta, conniventia, posticum liberum, lateralia multo latiora, basi pedi columnæ adnata, mentum sub labello formantia. Petala sepalis minora. Labellum basi ventricosum pedique columnæ adnatum, ungue lato concavo erecto marginibus columnæ alte adnatis; lamina patens, basi contracta, abrupte recurva, dein ascendens, ovata, integra, facie basi transverse callosa. Columna supra unguem labelli breviter producta, antice concava, anguste 2-alata, alis apice in auriculas rotundatas erectas productis; clinandrium postice breviter productum. Anthera opercularis, incumbens, late semiglobosa, 2-locularis; pollinia 4, cerea, late ovata, æqualia, a latere parallele compressa, 1-seriata, in quoque loculo appendicula lineari granuloso-viscosa a basi marginibus applicita connexa. Capsula . . . —Herba epiphytica, caule e rhizomate repente erecto, 1-foliato, supra folium longe scapiformi, vaginis pluribus arcte appressis. Folium subsessile, coriaceo-carnosum, anguste oblongum v. fere lineare. Flores mediocres, in racemo terminali brevi denso conferti, breviter pedicellati, addito interdum racemo altero sessili a terminali distante. Bracteæ parvæ, arcte approximatæ.

Species 1, Mexici et Americæ centralis incola. *Reichb. f. in Saund. Ref. Bot. t.* 94.

Genus *Epidendro* et *Poneræ* affine. Habitus *Epidendri* sect. *Amphiglottis*, sed differt labello basi saccato intra sepalorum mentum ei *Poneræ* subsimile formante. Habitu a *Ponera* longe recedit ut et labello columnæ alte adnato.

80. **Epidendrum,** *Linn. Gen. n.* 1016, *pro parte.*—Sepala libera, æqualia, patentia v. reflexa v. rarius suberecta. Petala sepalis subsimilia v. rarius multo angustiora. Labelli unguis erectus, columnæ appressus et cum eo plus minus in tubum connatus; lobi laterales obsoleti v. rarius dilatati columnam amplectentes; lamina patens, indivisa v. 3-fida; discus 2-callosus v. varie laminatus v. callosus. Columna sæpius angusta usque ad apicem ungui labelli adnata, interdum apice libera, semiteres v. rarius 2-alata v. 2-auriculata; clinandrium sæpius breve, lobis lateralibus sæpius rotundatis postico obsoleto, interdum magis evolutum membranaceum, lacero-fimbriatum. Anthera terminalis, opercularis, incumbens, convexa v. semiglobosa, distincte 2-locularis, loculis septo longitudinali 2-locellatis; pollinia 4, cerea, ovata v. lata, æqualia a latere parallele compressa, 1-seriata, in quoque loculo appendicula granuloso-viscosa laminiformi v. lineari a basi marginibus applicita connexa. Capsula ovoidea v. oblonga, erostris v. rostrata, costis sæpe valde prominentibus angulata v. interdum alata.—Herbæ epiphyticæ, caulibus foliatis nunc carnosis v. demum in pseudobulbum incrassatis, nunc tenuioribus interdumque ramosis. Folia coriacea v. rarius graminea. Pedunculus (excepto sect. *Psilanthemo*) in caule foliato terminalis, simplex v. paniculato-ramosus. Flores mediocres v. speciosi, rarius parvuli, secus rhachin simplicem v. ramos paniculæ racemosi, breviter pedicellati, bracteis parvis v. angustis, rarius in racemo brevissimo sessili conferti, bracteis paleaceis subimbricatis.

Species descriptæ ultra 400, per Americam tropicam late dispersæ usque ad civitates australiores Americæ borealis parce extensæ, nonnullæ tamen ad varietates hortenses reducendæ. *Lindl.*

Gen. et Sp. Orch. 96; *Fol. Orch.* 1853 (*excl. sect. Pleuranthio*). *Reichb. f. in Walp. Ann.* vi. 309; *Xen. Orch.* ii. 27, iii. 22 (*excl. Cattleyis aliisque*); *Otia Hamb.* 10, 91; *Orch. Centr. Amer.* 81; *in Flora*, 1865, 277; *et in Linnæa* xli. 6, 36, 78, 112.

Genus apud Linnæum species fere omnes Orchidearum epiphyticarum ei notarum inclusit, a Swartzio bene ad species Americanas columna cum labelli ungue connata limitatum fuit, cujus sententiam secuti sunt fere omnes auctores recentiores, speciebus paucis pro generibus distinctis separatis. Reichenbach fil. tamen genera plurima a cæteris auctoribus recepta, inclusa *Cattleya* labello ima basi libero, cum *Epidendro* coadunavit, sed character generis sic compositi adhuc ineditus remanet, et nobis parum distinctus videtur, potius species omnes excludimus labello a basi libero, v. polliniis non compressis distinctis inappendiculatis, v. inflorescentia laterali.

Ad species ordinandas Lindley 12 proposuit sectiones; ex his tamen 4, *Diacrium* labello a basi patente, *Hormidium* et *Lanium* polliniis non compressis distinctis inappendiculatis, et *Pleuranthium* inflorescentia constanter laterali nobis pro generibus propriis admittenda videntur. *Epicladium* ad *E. aurantiacum*, Batem. Orch. Mex. et Guatem. t. 12, Regel Gartenfl. t. 158, characteres potius *Cattleyæ* ostendit, a qua vix nisi floribus minoribus distinguitur. *E. Boothianum*, a Lindleyo in *Epicladio* inclusum, est potius sectionis *Encyclii* species, *E. pterocarpo* quam maxime affinis. Cæteræ sectiones sequenti modo ordinandæ videntur:—

1. *Barkeria.* Caulis nunc vix carnoso-incrassatus, nunc pseudobulbum anguste fusiformem formans, superne 2–4-foliatus. Columna basi brevissime v. rarius fere ad medium cum labello connata, cæterum ei appressa distincte sæpeque latiuscule 2-alata. Species paucæ Mexicanæ v. Centro-americanæ. Barkeria, *Knowles et Westc. Fl. Cab.* ii. 7, *t.* 49. *Bot. Mag. t.* 4094, 4784. Columna in specie typica *B. elegante*, Kn. et Westc., vix brevissime, in *B. spectabili* evidentius cum labello connata; in *E. Skinneri*, Lindl. Bot. Reg. t. 1881, Batem. Orch. Mex. et Guat. t. 33, Bot. Mag. t. 3951, et in *B. Lindleyana*, Batem. Orch. Mex. et Guat. t. 28, Bot. Mag. t. 6098, columnæ pars adnata parte libera 2-alata parum brevior.

2. *Encyclia.* Caulis in pseudobulbum nunc ovoideum v. plano-compressum nunc elongato-fusiformem incrassatus, superne 1–2- rarius 3-foliatus. Columna basi brevissime v. infra medium cum labello connata, superne libera, ei appressa, nec (tanquam nobis nota) in alas distinctas dilatata. Species numerosæ a Lindleyo in series sequentes distributæ:—

a. *Holochila.* Labellum integerrimum. *Lindl. Sert. Orch. t.* 45. *Bot. Reg* 1840, *t.* 35. *Bot. Mag. t.* 4107, 5336, 5664. *Reichb. f. in Saund. Ref. Bot. t.* 87.

Dinema, *Lindl. Gen. et Sp. Orch.* 111, pro genere propositum fuit ad *E. polybulbum*, Sw.; Hook. Exot. Fl. t. 112, Bot. Mag. t. 4067, quæ species Mexicana et Jamaicensis, insignis pseudobulbis in rhizomate repente numerosis 2-foliatis pedunculo vaginis paleaceis stipato 1-floro, clinandrii lobis anticis longe ligulatis. Habitus ei *Hormidii* accedit sed anthera omnino *Epidendri*. *Dinema paleacea*, Lindl., est *Epidendrum auritum*, Lindl., pedunculo pariter vaginis paleaceis stipato sed longiore 2–4-floro, clinandrium postice elongatum incurvum; anthera dorso insigniter conicocristata.

b. *Sarcochila.* Labellum crassiusculum, breviter dentatum. Flores parvi, paniculati, primo aspectu iis *Amblostomatis* accedentes, sed anthera et pollinia omnino *Epidendri*. Huc pertinent *E. glaucum*, Lindl. (Prosthechea, *Knowles et Westc. Fl. Cab.* ii. 111, *nomen in* Epithecium *mutatum ibid.* 167, *t.* 87), et *E. ochraceum*, Lindl. Bot. Reg. 1838, t. 26, *Saund. Ref. Bot. t.* 88.

c. *Hymenochila.* Labellum 3-lobum, petaloideum, lobis lateralibus in paucis speciebus (*Sarcochila*, Lindl.) rotundatis in cæteris brevibus. *A. Rich. Fl. Cub. t.* 75 *ad* 80. *Batem. Orch. Mex. et Guatem. t.* 10, 17, 18. *Red. Lil. t.* 84. *DC. Pl. Rar. Hort. Gen. Not.* viii. *t.* 3. *Link et Otto, Ic. Pl. Rar. t.* 12. *Lindl. Sert. Orch. t.* 46. *Hook. Journ. Bot.* iii. *t.* 10. *Ic. Pl. t.* 347. *Bot. Mag. t.* 3534, 3557, 3631, 3638, 3765, 3885, 3898, 4572, 4606, 5491. *Bot. Reg. t.* 1415, 1623, 1765, 1879, 1844, *t.* 34 *et* 51, 1847, *t.* 35, 50, *et* 53. *Lindl. et Paxt. Fl. Gard. t.* 30. *Lodd. Bot. Cab. t.* 1084, 1556 (*Macradenia*). *Reichb. f. Xen. Orch. t.* 51, 56, 57; *et in Saund. Ref. Bot. t.* 86, 89, 90, 111. Encyclia, *Hook. Bot. Mag. t.* 2831, 3013.

3. *Auliscum* (incluso *Osmophyte*). Caulis in pseudobulbum sæpius elongato-fusiformem plus minus incrassatus, superne 1–2- (rarius 3-) foliatus. Columna usque ad apicem labello adnata, v. vix apice brevissime libera.

a. *Schistochila.* Labellum 3-partitum v. plus minus 3-lobum. *Red. Lil. t.* 82. *Batem. Orch. Mex. et Guatem. t.* 25, 32. *Bot. Mag. t.* 463, 3778. *Bot. Reg. t.* 783, 784, 1870. *Lindl. in Paxt. Fl. Gard.* ii. *f.* 215. Aulisa, *Salisb. in Trans. Hort. Soc.* i. 294, *absque char.*

b. *Holochila* (*Osmophyta*, Lindl.). Labellum integerrimum. *Pœpp. et Endl. Nov. Gen. et Sp. t.* 102. *Jacq. Ic. Rar. t.* 605. *Link Kl. et Otto, Ic. Pl. Rar. t.* 36. *Andr. Bot. Rep. t.* 13, 645. *Bot. Mag. t.* 152, 572, 1669, 3151, 3595. *Bot. Reg. t.* 1898; 1839, *t.* 11; 1840, *t.* 6; 1842, *t.* 50; 1844, *t.* 45. EPIDENDRUM, *Salisb. in Trans. Hort. Soc.* i. 293. ANACHEILIUM, *Hoffmans. ex Linnæa* xvi, *Litt. Ber.* 229.

4. *Euepidendrum.* Caules foliati non pseudobulbosi. Columna usque ad apicem labelli ungui adnata v. vix apice brevissime libera. Sectio vasta a Lindleyo in tres divisa. *Spathium* pedunculo basi vagina spathacea incluso, *Amphiglottium,* pedunculo sæpius elongato vaginis pluribus appressis instructo et *Euepidendrum*, pedunculo sub inflorescentia brevi nudo v. subnudo. Plures tamen species sub quaque sectione enumeratæ cum charactere sectionali male conveniunt et sæpe vinculo nullo naturali connectuntur. Reichenbach f. divisionem meliorem proposuit ad inflorescentiam 1 umbellatam (v. ad florem unicam reductam) 2 racemosam, et 3 paniculatam, sed species adhuc ad hanc normam non ordinavit. Nos series plures sat naturales vidimus sed, speciebus pluribus adhuc imperfecte notis, limitibus certis definire non audemus. Sequentes insigniores sunt.

a. *Spathaceæ.* Racemus simplex, erectus, floribundus, pedunculo basi vagina spathiformi sæpius ampla coriacea incluso. Huc species Lindleyanæ n. 135 ad 153 exclusis tamen *E. cornuto* et *E. Klotzschiano* ad *Nutantes* et *E. tenello* et *E. parvifloro* ad *Tenuifolias* transferendis. *Pœpp. et Endl. Nov. Gen. et Sp. t.* 114 (*Encyclia*). *Bot. Mag. t.* 6094, 6145. *Bot. Reg. t.* 1867. *Reg. Gartenfl. t.* 69. *Reichb. f. Xen. Orch. t.* 149.

b. *Subumbellatæ.* Racemus simplex, abbreviatus, floribus paucis v. ad unicum reductis sæpius majusculis bene pedicellatis, pedunculo communi brevi intra vaginam spathiformem incluso v. nudo. Huc species Lindleyanæ 154 ad 159 et 247 ad 255. *Jacq. Stirp. Amer. t.* 136, 139. *Pœpp. et Endl. Nov. Gen. et Sp. t.* 103. *Link, Kl. et Otto Ic. Pl. Rar. t.* 46. *Bot. Mag. t.* 2030, 3298, 3410, 4165, 5643. *Bot. Reg. t.* 80, 1961. *Lodd. Bot. Cab. t.* 713.

c. *Nutantes.* Racemus simplex, recurvus, floribundus, pedunculo basi intra vaginam spathiformem incluso v. subnudo. Huc *E. cornutum* affinesque, cum *E. patente,* Sw., affinesque. *Bot. Mag. t.* 3800, 5654, 5656. *Lodd. Bot. Cab. t.* 1537.

d. *Recurvæ.* Caules sæpe ramosi, foliosi. Racemi intra folia summa sessiles, simplices, recurvi, sæpius densiflori. Habitus interdum *Diothonæis* accedens sed antheræ et pollinia omnino *Epidendri* et columna cum labelli ungue angusta. Huc *E. scabrum, E. torquatum, E. Evelynæ,* Reichb., affinesque plures. *Reichb. f. Xen. Orch. t.* 26, 48, *f.* 2.

e. *Tenuifoliæ.* Caules nunc tenues humiles, nunc longiores sæpe ramosi. Folia angusta v. lanceolata, submembranacea. Racemi in pedunculo brevi tenues v. laxi, solitarii erecti v. gemini divaricati. Huc *E. conopseum* ex America boreali, *E. fimbriatum, E. parviflorum, E. ledifolium, E. propinquum* affinesque ex America calidiore. *Hook. Journ. Bot.* iii. *t.* 11. *Bot. Mag. t.* 3457.

ŒRSTEDELLA, *Reichb. f. in Bot. Zeit.* 1852, 932; *Xen. Orch.* i. 39, *t.* 17, ab auctore ipso Beitr. Orch. Centr. Amer. 37 ad *Epidendrum* reducta.

f. *Amphiglottideæ.* Racemi breves, densi, spiciformes, nunc ad apicem pedunculi elongati vaginis appressis dissitis instructi solitarii v. 2–3-ni, nunc secus pedunculum seu rhachin longum dissiti, solitarii v. subfasciculati. *Jacq. Stirp. Amer. t.* 137, 138; *Ic. Rar. t.* 604. *Brongn. in Duperr. Voy. Bot. t.* 43. *Andr. Bot. Rep. t.* 441. *Hook. Exot. Fl. t.* 207. *Bot. Mag. t.* 611, 2844, 3209, 3543, 3666, 5902. *Bot. Reg. t.* 67, 1838, *t.* 53, 1842, *t.* 25. *Lodd. Bot. Cab. t.* 472, 1276, 1867. *Maund, Botanist, t.* 165. *Saund. Ref. Bot. t.* 91. AMPHIGLOTTIS, *Salisb. in Trans. Hort. Soc.* i. 294, *absque char.*

PSEUDEPIDENDRUM, *Reichb. f. in Bot. Zeit.* 1852, 733, species Americæ centralis postea ab auctore ipso ad *Epidendrum* relata est ex ic. et descr. in Bot. Mag. t. 5929 species *Amphiglottidea.* Icon tamen in Reichb. f. Xen. Orch. t. 53, quoad inflorescentiam et bracteas haud convenit.

PHYSINGA, *Lindl. Bot. Reg.* 1838, *Misc.* 32, ex exemplari unico valde manco in herb. Lindl. servato et analysi ibidem delineato, videtur *Amphiglottidearum* species floribus monstruosis sepalis nempe basi in cupulam connatis, et labello basi in vesicam globosam e basi calycis protruso omnino abnormis.

g. *Paniculatæ.* Racemi plures, laxi, paniculati; pedunculus communis plus minus evolutus, vaginis varie stipatus, infima interdum spathiformi, v. subnudus. Huc species Lindleyanæ 160 ad 163, 173 ad 189 et 289 ad 294, exclusis tamen *E. seriato* ad *Encycliam* et *E. porphyrio* potius ad *Amphiglottideas* referendis. *H. B. et K. Nov. Gen. et Sp.* i. *t.* 86. *Batem. Orch. Mex. et Guatem. t.* 34. *Hook. Journ. Bot.* iii. *t.* 7; *Exot. Fl. t.* 50. *Bot. Mag. t.* 2980, 3637, 3791, 5556, 5731.

Bot. Reg. t. 17, 1845, *t.* 4. *Maund, Botanist, t.* 226. *Reichb. f. in Saund. Ref. Bot. t.* 112; *Xen. Orch. t.* 37.

h. *Strobiliferæ.* Caules sæpius diffuse ramosi v. humiles. Spicæ simplices laxe pauciflore v. rarius elongatæ, floribus bracteis latis concavis fere spathiformibus subinclusis. Huc *E. ramosum* et *E. rigidum, Jacq. Stirp. Amer. t.* 132, 134. *Hook. Ic. Pl. t.* 314, affinesque plures.

i. *Sessiliflora.* Flores pauci v. solitarii intra bractearum paleacearum fasciculum subsessiles, fasciculo ad axillam folii summi erecti caulem quasi continuantem sessili. Species paucæ, inflorescentia *Poneræ* v. *Hexisiæ* accedentes inter se habitu diversæ, includunt *E. equitantem*, Lindl., caule simplici plano-compresso foliis equitantibus, et *E. teretem*, Reichb. f., affinesque caule ramoso foliis subteretibus patentibus.

k. *Nanæ.* Caules humiles, diffusi, distichophylli. Flores terminales, sæpius solitarii, intra vaginam latam brevem laxe spathiformem sessiles v. brevissime pedicellati. Columnæ tubus brevis, elinandrium membranaceum. Labellum indivisum, sepalis amplius. Species ad 6, Andium Americæ australis et centralis incolæ. *E. Matthewsii*, Reichb. f. in Linnæa xli. 81, affinesque.

NANODES, *Lindl. Bot. Reg. t.* 1541, species typica, parviflora, Surinamensis et insulæ Trinitatis cum altera grandiflora *N. Medusæ*, Reichb. f.; Bot. Mag. t. 5723, ab *Euepidendris Nanis* distinguitur foliis confertioribus floribus interdum geminis arcte sessilibus et polliniorum appendiculis squamæ a rostello solutæ affixis. Hic character tamen ulterius scrutandus est, in flore unico vix perfecto *N. discoloris* a nobis examinato non vidimus, nec in analysi Foctei in herb. Lindl. delineatur. Descriptio *N. Medusæ* in Bot. Mag. l.c., evidenter ad iconem instructa est.

5. ? *Psilanthemum.* Caules foliati, in pseudobulbum fusiformem incrassati. Scapi floridi aphylli, ample paniculati, e rhizomate oriundi, ramis laxe racemiferis. Columna usque ad apicem cum labelli ungue in tubum tenuem sæpius incurvum connata; elinandrium postice ample membranaceum. Anthera in fundo elinandrii suberecta, mox incumbens, ultra loculos 2 dissitos breviter acuminata; pollinia 4, sub-2-seriata, dura, acuta, subfalcata, a latere compressa fere 3-quetra, appendicula granulosa per paria connexa. Species 1 (v. 2?) Columbiæ et Americæ australis incolæ, *E. Stamfordianum*, Batem. Orch. Mex. et Guatem. t. 11; Bot. Mag. t. 4759 (*E. basilare*, Link Kl. et Otto, Ic. Pl. Rar. t. 45. *E. cycnostalix*, Reichb. f. in Bot. Zeit. 1852, 731). Flores iis *Epidendrorum* nonnullorum simillimi, sed character vegetationis et pollinia forte genus proprium indicant.

81. **Broughtonia,** *R. Br. in Ait. Hort. Kew. ed.* 2, v. 217.—Sepala æqualia, libera, subpatentia. Petala sepalis ampliora. Labellum ad basin columnæ sessile, ab ea liberum v. vix brevissime adnatum, erectum, latum; lobi laterales lati, basi columnam amplectentes, medius latus, patens, sæpe denticulatus. Columna sepalis pluries brevior, erecta, late 2-alata; clinandrii dentes breves. Anthera terminalis, opercularis, incumbens, convexa, distincte 2-locularis, loculis septo longitudinali perfecte 2-locellatis; pollinia 4, cerea, per paria in loculis segregata, ovata, æqualia, a latere parallele compressa, appendicula granuloso-viscosa a basi marginibus applicita connexa. Ovarium in collum cavum (calcar adnatum, *R. Br.*; cuniculum, *Lindl.*) longe productum. Capsula ovoidea, collo ovarii rostrata.—Herbæ epiphyticæ, pseudobulbis ovoideis v. globosis vaginis paucis obtectis apice 1–2-foliatis. Folia coriacea v. carnosa, oblonga v. elongata. Pedunculi terminales, vaginis appressis dissitis. Racemus laxus, simplex v. parce ramosus. Flores mediocres v. majusculi, breviter pedicellati. Bracteæ parvæ, squamiformes.

Species 3 v. 4, Indiæ occidentalis incolæ. *Lindl. Gen. et Sp. Orch.* 118. *Bot. Mag. t.* 3076, 3536. *Lodd. Bot. Cab. t.* 793. *Henfr. Gard. Mag.* iii. 201, *ic. in Lemaire Jard. Fleur. t.* 172 *repetita.*

Genus a Reichenbachio cum *Epidendro* jungitur.

82. **Cattleya,** *Lindl. Collect. Bot. t.* 33 *ad* 37; *Gen. et Sp. Orch.* 116.—Sepala libera, subæqualia, patentia v. rarius conniventia. Petala sepalis latiora v. rarius similia. Labellum basi columnæ affixum (excepta *C. bicolore*), liberum, erectum; lobi laterales lati, columnam amplectentes v. involventes, medius patens polymorphus, a lateralibus bene distinctus v. cum iis continuus. Columna longiuscula, valida, semiteres, exalata, sæpius incurva; clinandrium obliquum, dentibus v. lobis 3 sæpius prominentibus obtusis. Anthera terminalis, opercularis, incumbens, convexus v. semi-globosus, distincte 2-locu-

laris, loculis septo longitudinali 2-locellatis; pollinia 4, cerea, lata, valde compressa, parallela, appendicibus granuloso-viscosis linearibus in laminam subconnatis. Capsula ovoideo-oblonga, erostris v. breviter rostrata, costis sæpius acutis valde prominentibus.—Herbæ epiphyticæ, caulibus pseudobulbosis v. crasse carnosis plurivaginatis superne 1–2-foliatis. Folia coriacea v. carnosa, sæpius crassa. Pedunculi terminales, basi sæpius intra vaginam laxe spathiformem inclusi. Racemus simplex, laxus, floribus sæpius paucis speciosis interdum maximis breviter pedicellatis. Bracteæ parvæ.

Species ad 20, Americæ calidioris a Brasilia usque ad Mexicum incolæ. *Lindl. Sert. Orch. t.* 22. *Karst. Fl. Colomb.* i. *t.* 49. *Batem. Orch. Mex. et Guat. t.* 13. *Reichb. Xen. Orch. t.* 13, 31, 83, 95, 111, 135, 171, 172. *Hook. Exot. Fl. t.* 157, 186. *Bot. Mag. t.* 3669, 3998, 4083, 4085, 4270, 4902, 4916, 5032, 5039, 5048, 5150, 5504, 5618, 5683. *Bot. Reg. t.* 953, 1172, 1406, 1859, 1919; 1840, *t.* 48, 58; 1842, *t.* 1; 1844, *t.* 5 (*cum synopse specierum*); 1845, *t.* 59; 1846, *t.* 1, 35; 1847, *t.* 42.

Icones supra citatæ species illustrant normales, sepalis petalisque patentibus, his majoribus; in speciebus nonnullis Brasiliensibus, *Bot. Mag. t.* 2851, 3265, 3693, petala sepalis similia v. vix latiora omnia patentia. In *C. citrina*, Lindl., e Mexico (*Bot. Mag. t.* 3742, *C. Karwinskii*, Mart. Ausw. Merkw. Gew. t. 10), et *C. luteola*, Lindl.; Reichb. f. Xen. Orch. t. 83, sepala et petala flava omnia conniventia.

C. bicolor, Lindl., Sert. Orch. t. 5, Bot. Mag. t. 4909, ab auctore in Bot. Reg. 1844 sub t. 5 pro sectione separatur, ob labellum ima basi columnæ breviter adnatum dein erectum angustum quasi unguiculatum lobis lateralibus obsoletis. Species est distinctissima columna et labello *Epidendro* accedens, polliniis fere *Tetramicræ*. Flores cæterum iis *C. Forbesii* haud absimiles. *C. Aclandiæ* a Lindleyo l. c. ad eandem sectionem relata est vera *Cattleya* lobis lateralibus bene evolutis, ut apparet ex icone *Bot. Reg.* 1840, *t.* 48. Reichenbach f., in Walp. Ann. vi. 311, et Xen. Orch. ii. 28, *Cattleyas* omnes ad *Epidendri* sectionem *Epicladium* refert. Species nonnullæ ob vaginam spathaceam ad basin pedunculi ad *Cattleyam* ab auctoribus relatæ, nunc ad *Læliam* transferentur, ob pollinia 8 nec 4, de quibus confer sub hoc genere.

MÆLENIA, *Dumort. Not. in Mem. Acad. R. Sc. Bruxelles* ix. *cum ic.*, est ut monet Reichb. f. Xen. Orch. ii. 36, *Cattleyæ Forbesii* specimen flore precociore in scapo aphyllo solitario.

83. **Læliopsis,** *Lindl. in Paxt. Fl. Gard.* iii. 155, *t.* 105.—Sepala subæqualia, libera, erecta v. vix patentia. Petala sepalis ampliora. Labellum basi columnæ in cupulam brevem adnatum, dein erectum; lobi laterales lati, columnam amplectentes, medius latus rotundatus margine sæpe denticulatus. Columna longiuscula, semiteres, supra basin 2-auriculatum v. 2-dentatum; clinandrii dentes laterales prominuli. Anthera terminalis, opercularis, incumbens, convexa, distincte 2-locularis, loculis septo longitudinali 2-locellatis, locellis imperfecte divisis; pollinia 8, cerea, in quoque loculo 4, per paria superposita, a latere compressiuscula et collateraliter 2-seriata, parium superiorum descendentia inferioribus ascendentibus multo minora. Ovarium apice in collum cavum productum. Capsula ovoidea, collo ovarii rostrata.—Herbæ epiphyticæ, pseudobulbis oblongis interdum longiusculis paucivaginatis et apice 1-foliatis. Folium oblongum v. angustum, crasso-coriaceum, subcarnosum. Pedunculus terminalis, sæpius elongatus. Racemus simplex, floribus mediocribus v. majusculis breviter pedicellatis. Bracteæ parvæ, squamiformes.

Species notæ 3 v. 4, Indiæ occidentalis imprimis Cubæ incolæ. Huc pertinent præter speciem typicam e S. Domingo, *Lælia* (*Læliopsis*, Lindl.), *Lindenii*, A. Rich. Fl. Cub. iii. 243, t. 82, et *Læliopsis cubensis*, Lindl.; *Læliis* nonnullis præsertim *L. peduncularī* affinibusque accedunt quoad florum formam, sed habitus et pollinia potius *Tetramicræ*. *Broughtonia chinensis*, Lindl. in Hook. Lond. Journ. i. 492, ab eodem in Paxt. Fl. Gard. iii. 156 ad *Læliopsin* translata, a Hindsio errore pro planta Chinensi accepta, est *Epidendri* species ex America centrali (*E. nonchinense*, Reichb. f.) quæ vix ab *E. nævosa*, Lindl., distincta videtur.

84. **Tetramicra,** *Lindl. Gen. et Sp. Orch.* 119.—Sepala subæqualia, libera, patentia. Petala sepalis similia. Labellum basi columnæ affixum, liberum, patens; lobi laterales in ungue brevi distincti, nunc ampli patentes, nunc parvi auriculiformes; medius latus,

integer, basi contractus. Columna erecta, superne v. a basi late 2-alata ; clinandrii lobi v. dentes laterales sæpe membranacei, posticus parvus. Anthera terminalis, opercularis, incumbens, convexa, loculis 2 distinctis septo longitudinali interdum vix prominente imperfecte 2-locellatis ; pollinia perfecta 4, cerea, per paria in loculis segregata, parallele compressa, appendiculis a basi marginibus applicitis connexa, additis sæpius in quoque loculo polliniis 2 parvis v. imperfectis, ab apice appendicularum descendentibus. Capsula oblonga, erostris.—Herbæ terrestres v. epiphyticæ, rhizomate repente, caulibus foliatis vix incrassatis nec pseudobulbosis. Folia e rhizomate intra vaginas imbricatas ad basin scapi 1–3, linearia, carnosa, semiteretia v. brevissima crassaque, v. fere subulata graminea. Pedunculus terminalis, elongatus, tenuis, rigidus, vaginis membranaceis appressis dissitis. Racemus simplex, laxus, floribus mediocribus pedicellatis. Bracteæ parvæ.

Species ad 6, Americæ tropicæ a Brasilia usque ad Indiam occidentalem incolæ. *A. Rich. Fl. Cub. t.* 83 (*Bletia*). *Bot. Mag. t.* 3098 (*Brassavola*). *Hamilt. Prod. Fl. Ind. Occid.* 53, *cum ic.* (*Cyrtopodium*).

Genus a Reichenbachio f. in Walp. Ann. vi. 438 ad *Bletiam* reducitur a qua nobis tam habitu quam characteribus distinctissimum videtur, et *Cattleyæ Læliæque* affinius.

Leptotes, *Lindl. Sert. Orch. t.* 11, *Bot. Reg. t.* 1625, *Bot. Mag. t.* 3734, est species Brasiliensis pedunculo abbreviato laxe paucifloro v. unifloro, floribus quam in cæteris *Tetramicris* majoribus, labelli lobis lateralibus parvis auriculiformibus. Pollinia ex charactere Lindleyano 2 magna oblonga, 4 superiora parva, in flore examinato ut in icone citata Bot. Mag. inferiora vidimus 4 perfecta oblonga, superiora omnino *Tetramicræ* parva v. imperfecta. In *T. tenera*, Griseb. (*Bletia tenera*, A. Rich.; *B. Eulophiæ*, Reichb. f.), labelli lobi laterales minimi auriculiformes omnino *Leptotis*.

Bletia pratensis et *B. Schomburgkii*, Reichb. f. in Walp. Ann. vi. 439, a *Tetramicra rigida* non distinguendæ videntur. *B. schœnina*, Reichb. f. l. c. 439, est *Tetramicræ* species distinctissima foliis tenuissimis gramineis. *T. platyphylla*, Griseb. Cat. Pl. Cub. 264, ad *Bletiam* referenda videtur. *T. montana*, Griseb. Fl. Brit. W. Ind. 622, ad genus nostrum *Octadesmiam* pertinet.

85. **Brassavola,** *R. Br. in Ait. Hort. Kew. ed.* 2, v. 216.—Sepala libera, æqualia, patentia, linearia v. lineari-lanceolata, sæpe longa, interdum longe setaceo-acuminata. Petala sepalis similia. Labellum ad basin columnæ sessile, erectum, basi breviter v. longiuscule angustum, columnam amplectens v. involvens, dein abrupte v. rarius gradatim expansum in laminam acutam v. acuminatam sæpius latam, planam v. rarius basi concavam v. fere cucullatam. Columna erecta, ungue labelli sæpius brevior, plus minus 2-alata ; clinandrii lobi 3, erecti, prominentes, subæquilongi, omnes v. posticus solus apice dentati. Anthera lobo postico clinandrii affixa, opercularis, incumbens, loculis 2 discretis septo longitudinali 2-locellatis ; pollinia 8, in quoque loculo 4, late ovata et parallele compressa, paris inferioris ascendentia cum paris superioribus descendentibus in quoque loculo appendicula granulosa lineari v. laminiformi connexa. Capsula ovoidea v. oblonga, ovarii collo interdum prælongo rostrata.—Herbæ epiphyticæ, caulibus vix incrassatis, e caudice ramoso ascendentibus v. erectis laxe paucivaginatis v. 1–2-foliatis. Folia carnosa subteretia v. crasse linearia. Flores speciosi, terminales, nunc in pedunculo brevi solitarii v. gemini, nunc ad apicem pedunculi elongati plures, racemosi, pedicellati. Bracteæ breves. Ovarii collum interdum ovario ipso pluries longius. Pollinia seriei superioris sæpe inferioribus more *Tetramicræ* minores.

Species ad 20, Americæ tropicæ a Brasilia usque ad Indiam occidentalem et Mexicum incolæ. *Lindl. Gen. et Sp. Orch.* 114, *Reichb. f. in Walp. Ann.* vi. 433 (*Bletiæ sp.*). *Jacq. Stirp. Amer. t.* 140 (*Epidendrum*). *Bot. Mag. t.* 543 (*Epidendrum*), 2878, 3229, 3722, 3761, 3782, 4021, 4734. *Bot. Reg. t.* 1465, 1561, 1914, 1839 *t.* 5, 1840, *t.* 39.

B. glauca, Lindl., et *B. Digbyana*, Lindl., tam habitu quam floribus nobis videntur potius *Læliæ* species.

86. **Lælia,** *Lindl. Gen. et Sp. Orch.* 115, *et in Bot. Reg.* 1842, *sub t.* 62. (Amalias, *Hoffmans. Preis Verz. Orch. ex Linnæa* xvi., *Littbl.* 228.)—Sepala subæqualia, libera, patentia. Petala sepalis sæpius latiora, interdum longiora. Labellum ad basin columnæ erectum, ab ea liberum ; lobi laterales lati, columnam involventes ; medius patens, nunc

lanceolatus acutus, nunc latus 2-fidus, lobis rotundatis; discus lævis v. lamellatus. Columna longiuscula, antice concava v. anguste 2-alata; clinandrium margine sinuatum v. irregulariter 3–5-dentatum. Anthera denti postico affixa, opercularis, incumbens, convexa, distincte 2-locularis, loculis septo imperfecte longitudinali 2-locellatis, locellis interdum transverse semiseptatis; pollinia 8, in quoque loculo 4, sæpius ovata et parallele compressa, paris inferioris ascendentia, cum paris superioris descendentibus in quoque loculo appendicula granulosa lineari connexa. Capsula interdum in rostrum producta videtur, sed maturam non vidimus et juniorem in perpaucis speciebus.—Herbæ epiphyticæ, pseudobulbis carnosis sæpius oblongis paucivaginatis apice 1–2-foliatis. Folia coriacea v. carnosa, non plicata. Pedunculi terminales, sæpius dissite plurivaginati, interdum more *Cattleyæ* basi vagina majore spathacea inclusi. Racemus simplex, floribus speciosis interdum maximis breviter pedicellatis. Bracteæ spathaceæ v. longiusculæ et membranaceæ.

Species ad 20, Americæ calidioris a Brasilia usque ad Mexicum incolæ. *Reichb. f. in Walp. Ann.* vi. 418; *Otia Hamb.* 92; *Xen. Orch. t.* 61, 91, 114, 115, 135. *Batem. Orch. Mex. et Guat. t.* 7, 23, 38. *Bot. Mag. t.* 3804, 3810, 3817, 3957, 4090, 4099, 4302, 4905, 5144, 5449, 5498, 5553, 5667, 6038. *Bot. Reg. t.* 1751; 1839, *t.* 26, 27, 54; 1840, *t.* 41; 1841, *t.* 24; 1844, *t.* 30; 1845, *t.* 69.

Genus a Reichb. f. in Xen. Orch. ii. 43 ad 62, ad *Bletiam* relatum, a qua nostro sensu bene distinguitur habitu, foliis, florum forma, etc., *Cattleyæ* tamen quam maxime affine est, nec separatur nisi polliniorum paribus inferioribus evolutis. In speciebus typicis vagina spathiformis ad basin peduncul parva est v. omnino deest; species tamen plures habitum omnino *Cattleyæ* præbent, sub quo genere depictæ sunt in Bot. Mag. t. 3656, 3711, 3910, 4700, Bot. Reg. 1172; 1838, t. 2, sed postea ob pollinia 8 nec 4 ad *Læliam* translatæ sunt. Species paucæ Brasilienses (*Bot. Reg.* 1842, *t.* 62) a cæteris distinguuntur petalis vix sepalis latioribus; petala pariter sepalis subsimilia in *Brassavola glauca*, Lindl. Bot. Reg. 1840, t. 44, Bot. Mag. t. 4033, Batem. Orch. Mex. et Guat. t. 16, et in *B. Digbyana*, Lindl. Bot. Reg. 1846, t. 53, Bot. Mag. t. 4474 quæ nobis melius sub *Lælia* quam sub *Brassavola* militare videntur. *Læliæ* facillime cum *Cattleyis* formas hybridas gignunt quarum pollinia variant 8 v. 4.

87. **Schomburgkia,** *Lindl. Sert. Orch. t.* 10, 13.—Sepala subæqualia, libera, patentia, plus minus undulata. Petala sepalis similia et æqualia v. evidentius undulata. Labellum ima basi cum columna brevissime connatum, erectum; lobi laterales explanati v. primum columnam laxe amplectentes, medius rotundatus v. late 2-lobus planusque, v. angustior et undulatus. Columna recta v. incurva, labello incumbens, lobis suis lateralibus sæpius brevior, anguste v. superne latius 2-alata; clinandrii lobi seu dentes laterales breves, posticus longior, v. rarius omnes æquales. Anthera apici dentis postici affixa, incumbens v. subpendula, valde convexa conica v. dorso 2-cornuta, loculis 2 discretis septo longitudinali perfecte 2-locellatis, locellis septo imperfecto transverso divisis, pollinia 8, cerea, in quoque loculo 4, per paria superposita, late ovata, a latere parallele compressa, inferiora ascendentia cum superioribus sæpius minoribus appendicula granulosa interdum laminiformi connexa. Capsula ut videtur erostris, matura tamen nobis deest.—Herbæ epiphyticæ, pseudobulbis v. caulibus carnosis oblongis fusiformibus v. elongatis plurivaginatis apicem versus 1–3-foliatis. Folia ovata oblonga v. elongata, crasse coriacea v. rigide carnosa. Racemus in pedunculo terminali elongato simplex, floribus speciosis pedicellatis. Bracteæ persistentes, rigide membranaceæ v. coriaceæ.

Species ad 12, Americæ tropicæ incolæ. In speciebus typicis Columbianis v. Guianensibus, bracteæ rigide membranaceæ longe lineares v. lanceolatæ, patentes v. demum reflexæ, flores interdum superantes. *Lindl. l. c. et Bot. Reg.* 1844, *t.* 23; 1845, *t.* 53. *Bot. Mag. t.* 3729. Inter illas includimus etiam *S. Lyonsii*, Lindl.; Bot. Mag. t. 5172 (*S. carinatam*, Griseb. Fl. Brit. W. Ind. 621) e Jamaica, quæ insignis est columna valde incurvi, clinandrii lobis lateralibus postico submajoribus acutis et antheris dorso 2-cornutis.

In *S. tibicina*, Lindl. Bot. Reg. 1845, t. 30, Batem. Orch. Mex. et Guat. t. 30, e Honduras et Guatemala, et in *S. Galeottiana*, A. Rich. in Ann. Sc. Nat. ser. 3, iii. 23; Bot. Mag. t. 4476, specie Mexicana priori affini sed ut videtur distincta, bracteæ parvæ, rigidæ, subsquamiformes, et caules sæpissime cavi formices foventes.

Reichenbach f. in Walp. Ann. vi. 418 species omnes ad *Bletiam* refert.

88. **Sophronitis**, *Lindl. Bot. Reg. t.* 1129.—Sepala libera, æqualia, plana, patentia. Petala sepalis similia v. latiora. Labellum ad basin columnæ sessile eique breviter adnatum, erectum ; lobi laterales lati, conniventes, columnam omnino occultantes, medius linguiformis, subrecurvus, integerrimus, acutus, discus nudus v. prope basin transverse cristatus. Columna brevis, crassiuscula, superne ad latera stigmatis subpetaloideo-dilatata ; clinandrium minute 2-dentatum. Anthera terminalis, opercularis, incumbens, convexa, 2-locularis, loculis septo longitudinali perfecte 2-locellatis, locellis septo transverso minus perfecte divisis ; pollinia 8, in quoque loculo 4, cerea, 2-seriata, parallele compressa, superiora pendula cum inferioribus ascendentibus appendicula fere laminiformi connexa.—Herbæ epiphyticæ, humiles. Pseudobulbi in rhizomate conferti, 1–2-foliati. Folia coriacea v. carnosa, complicata, demum explanata, patentia. Pedunculus terminalis, brevis, in specie typica racemum brevem pauciflorum ferens, bracteis subpedicellis minutis, in cæteris speciebus 1-florus, bracteis 1–2 minutis ad basin pedicelli. Flores speciosi coccinei v. violacei.

Species 4 v. 5, Brasilienses (e montibus Orgaos). *Lindl. Sert. Orch. t.* 5, *f.* 2. *Reichb. f. in Walp. Ann.* vi. 465. *Bot. Mag. t.* 3677, 3709. *Fl. des Serres, t.* 1716.

Tribus II. Vandeæ.

✓ 89. **Eulophia**, *R. Br. in Bot. Reg. t.* 686. (Orthochilus, *Hochst.*, *A. Rich. Fl. Abyss.* ii. 284, *t.* 82.)—Sepala subæqualia, inter se libera, lateralia patentia interdum basi columnæ adnata. Petala sepalo postico similia v. vix latiora, cum eo patentia v. erecto-conniventia. Labellum a basi columnæ erectum, supra basin brevissime contractum, inter sepala lateralia in gibbum saccum v. calcar productum ; lobi laterales erecti columnam amplectentes v. rarius obsoleti, medius patens v. recurvus, sæpius latus, integer v. 2-lobus ; discus medio varie cristatus v. lamellatus. Columna brevis, crassa, apoda, sæpius 2-alata ; clinandrium valde obliquum, erectum, integrum. Anthera terminalis, opercularis, incumbens, semi-globosa, obtuse conica v. acuminata, 2-appendiculata v. interdum 2-cornuta, imperfecte 2-locularis ; pollinia 4, ovoidea, cerea, per paria sæpius connexa postico minore, inappendiculata, anthera dehiscente stipiti brevi v. rarius elongato glandulæ disciformis rostelli annexæ. Capsula ovoidea v. oblonga, rarius elongata, erostris, pendula, costis prominulis crassiusculis.—Herbæ terrestres, caulibus foliatis basi demum in pseudobulbos sæpius anguste oblongos v. elongatos incrassatis. Folia disticha, sæpius angusta, elongata, plicato-venosa. Scapi v. pedunculi aphylli ∞-vaginati, in speciebus genuinis ad basin caulis foliati laterales, in desciscentibus in caule foliato terminales. Racemus simplex v. laxe paniculato-ramosus. Flores mediocres v. parvuli, pedicellati, conferti v. dissiti. Bracteæ membranaceæ, longiusculæ v. parvæ.

Species ad 50, pro maxima parte gerontogeæ, imprimis Africanæ, tropicæ v. australes, plures tamen ex Asia tropica, 2 Australianæ, et una saltem in Brasilia obvia. *Lindl. Gen. et Sp. Orch.* 180. *Reichb. f. in Walp. Ann.* i. 785, vi. 644 ; *Xen. Orch. t.* 173, 187 ; *Otia Hamb.* 66, 116 ; *in Bonpl.* 1857, 38 ; *in Flora,* 1865, 186, *et* 1872, 276 ; *et in Bot. Zeit.* 1866, 378. *Blume, Orch. Archip. Ind.* 180 (*quoad sect.* 1). *Benth. Fl. Austral.* vi. 299. *Roxb. Corom. Pl. t.* 38 (*Limodorum*). *Thou. Orch. Iles Afr. t.* 43 *ad* 47 (*Limodorum*). *Wight Ic. t.* 913, 1666, 1667. *Kurz in Journ. Asiat. Soc. Beng.* xlv. *t.* 13. *A. Rich. Fl. Abyss.* ii. 284, *t.* 81 (*Saccolabium in icone*). *Bot. Mag. t.* 2467, 5561, 5579, 6246. *Bot. Reg. t.* 1147, 1433, 1821, 1972. *Lodd. Bot. Cab. t.* 818. *Maund, Botanist, t.* 172 (*Lissochilus*).

In speciebus plerisque, *Genuinis,* Lindl., scapi floriferi aphylli, simplices ; in paucis Austro-Africanis, *Desciscentibus,* Lindl., pedunculi in caule foliato terminales ; in *E. herbacea* affinibusque Asiaticis petala sepalis latiora et magis colorata affinitatem cum *Lissochilo* exhibent ; in *E. campestri* affinibusque ex India Orientali caules foliati et scapi floriferi non coetanii ; in *E. micrantha* ex Africa australi, et *E. lurida,* ex Africa tropica, affinibusque paucis, flores parvi, in racemo paniculato-ramoso.

In specie Sumatrensi Beccari n. 389, labellum columnæ brevi adnatum calcare solito multo longiore obtuso fere clavato, vix tamen a genere separanda.

E. gracilis, Lindl. Bot. Reg. 742, ex Africa tropica, postea ab auctore ad *Galeandram* relata,

nobis videtur vera *Eulophiæ* species, etsi labelli lobi solito minores et calcar superne valde ampliatum.

E. maculata, Reichb. f., stirps Brasiliensis, prius a Lindleyo Collect. Bot. t. 15, et Bot. Reg. t. 618, ad *Angræcum* relata, postea in Gen. et Sp. Orch. 237 ad *Æceocladem* translata, et a Link et Otto Ic. Sel. t. 14 sub *Geodoro* picta, nulli generi bene convenit. Specimina nostra manca, sed verisimiliter rite a Reichenbachio in *Eulophia* collocata.

E. arundinæ, Reichb. in Walp. Ann. iii. 551, e Brasilia, ex specimine nostro imperfecto videtur *Bletiæ* species. *E. helleborine*, Hook. f. Bot. Mag. t. 5875, est *Gymnadenia macrantha*, Lindl.

90. **Lissochilus,** *R. Br. in Lindl. Coll. Bot. t.* 31. (Hypodematium, *A. Rich. Fl. Abyss.* ii. 286, *t.* 83.)—Sepala libera, æqualia, patentia, per anthesin sæpe reflexa. Petala sepalis latiora v. majora magisque colorata, erecto-patentia. Labellum basi columnæ affixum, liberum, supra basin in saccum seu calcar conicum productum; lobi laterales subpatentes, interdum parum prominentes, medius latus, patens. Columna erecta, brevis, semiteres; apoda, angulis sæpe acutis exalatis; clinandrium obliquum, sæpius integrum. Anthera terminalis, opercularis, incumbens, convexa dorsoque sæpe conica v. 2-gibba, 2-locularis; pollinia 4, distincta v. per paria plus minus concreta, cerea, ovoidea, inappendiculata, anthera dehiscente glandulæ rostelli latiusculæ vix in stipitem productæ affixa. Capsula ubi nota ovoidea v. oblonga, erostris, reflexa, angulis obtuse prominulis.—Herbæ terrestres, caulibus breviter foliatis demum in pseudobulbos ovoideos incrassatis. Folia longa, sæpius angusta, elevato-venosa v. plicata. Scapi ad latera pseudobulborum v. e rhizomate elati, aphylli, plurivaginati. Racemus simplex, floribus sæpius speciosis pedicellatis. Bracteæ oblongæ lanceolatæ v. lineares, persistentes.

Species ad 30, Africæ tropicæ et australis incolæ. *Lindl. Gen. et Sp. Orch.* 191. *Reichb. f. in Walp. Ann.* i. 787; iii. 553; *Otia Hamb.* 60, 114; *in Flora*, 1865, 187; *et in Linnæa* xli. 74. *Bot. Mag. t.* 2931 (*Eulophia*), 5486, 5861. *Bot. Reg. t.* 573, 1002 (*Eulophia*), 1844, *t.* 12.

91. **Galeandra,** *Lindl. in Bauer, Ill. Gen. Orch. t.* 8. (Corydandra, *Reichb. Nomencl. ex Endl. Gen. Suppl.* ii. 17.)—Sepala æqualia, libera, patentia. Petala sepalis similia v. paullo latiora. Labellum basi columnæ affixum, in calcar amplum subinfundibuliforme descendens productum, lobi laterales lati, erecti, columnam laxe amplectentes v. involventes, medius patens, rotundatus v. 2-lobus, discus medio varie cristatus v. lamellatus. Columna brevis v. parum elongata, apoda, apice breviter 2-alata; clinandrium valde obliquum, postice acuminatum. Anthera terminalis, opercularis, incumbens, obtuse et interdum longiuscule acuminata, imperfecte 2-locularis; pollinia 4, ovoidea, cerea, per paria sæpius connexa, inappendiculata, anthera dehiscente glandulæ rostelli membraniformi v. disciformi vix in stipitem brevissimum productæ affixa. Capsula erostris.—Herbæ terrestres v. epiphyticæ, caulibus foliatis basi in pseudobulbum tuberiformem v. elongatum incrassatis. Folia disticha, basi vaginantia, angusta, plicato-venosa. Racemi terminales, pedunculati, simplices. Flores speciosi v. medioeres, breviter pedicellati. Bracteæ parvæ v. angustæ.

Species ad 6, Americæ tropicæ a Brasilia ad Mexicum incolæ. *Reichb. f. in Walp. Ann.* vi. 648; *Otia Hamb.* 88. *Lindl. Sert. Orch. t.* 37. *Batem. Orch. Mex. et Guatem. t.* 19 (ic. tamen ex adnot. in herb. Lindl. e plantis 2 diversis composita). *Bot. Mag. t.* 4610, 4701. *Bot. Reg.* 1840, *t.* 49. *Lem. Ill. Hortic. t.* 248. *Maund, Botanist, t.* 231.

G. Beyrichii, Reichb. f., videtur potius *Cyrtopodii* species. *G. gracilem*, Lindl., cum speciebus aliis Africanis scapis floridis aphyllis, ad *Eulophiam* referrimus. Genus, ad species Americanas restrictum, facile pro sectione *Eulophiæ* habendum, habitu *Eulophiis* Africanis desciscentibus sæpe accedit et vix nisi labelli calcare magno infundibuliformi differt.

92. **Cymbidium,** *Sw. in K. Vetensk. Acad. N. Handl. Stockh.* xxi. 236, *pro parte.* (Iridorchis, *Blume, Orch. Jav.* 90, *t.* 26.)—Sepala subæqualia, libera, patentia, lateralia interdum basi sub labello brevissime connata. Petala sepalis similia v. paullo minora. Labellum ad basin columnæ sessile, erectum, basi concavum, lobi laterales latiusculi, erecti, columnam

laxe amplectentes, medius patens v. recurvus, indivisus, disco varie 2-lamellato. Columna longiuscula, semiteres, curvula, exalata v. anguste 2-alata, apoda; clinandrium parum prominulum, truncatum v. obliquum. Anthera terminalis, opercularis, incumbens, valde convexa v. late semiglobosa, 1-locularis v. imperfecte 2-locularis; pollinia 2, late subglobosa, cerea, profunde sulcata v. e duobus sibimet arcte applicitis uno minore conflata, in anthera collateraliter contigua, appendicula parva transversa v. divaricato-2-lamellata connexa, anthera dehiscente mediante appendicula glandulæ squamiformi transversæ affixa. Capsula oblonga, sæpe majuscula, interdum breviter rostrata.—Herbæ epiphyticæ, caulibus foliatis abbreviatis cum foliorum basibus plus minus in pseudobulbum incrassatis. Folia sæpe longissima, coriacea, venis elevatis percursa, v. breviora magis carnosa lævioraque, vaginæ basi dilatatæ in caule imbricatæ, vetustiores sæpe ad fibras diu persistentes reductæ. Pedunculi v. scapi inter folia v. ad basin caulis oriundi, longi, simplices v. rarissime ramosi, basi vaginis laxis interdum fere in folia brevia productis stipati. Flores majusculi, laxe racemosi, breviter pedicellati, racemis haud raro elongatis pendulisque. Bracteæ breves.

Species ad 30, pro maxima parte Indiæ orientalis, Archipelagi Malayani et Chinæ incolæ, cum speciebus 2 Africanis, 3 Australianis, 1 Novo-Caledonica et 1 Japonica. *Lindl. Gen. et Sp. Orch.* 161, *quoad sect. Eucymbidium*; *Sert. Orch. t.* 4. *Reichb. f. in Walp. Ann.* vi. 622 (*excl. sp. paucis*); *in Flora* 1865, 188; 1872, 274; *et in Trans. Linn. Soc.* xxx. 144. *Sm. Spicil. Bot. t.* 24 (*Epidendrum*). *Roxb. Corom. Pl. t.* 44 (*Epidendrum*). *Andr. Bot. Rep. t.* 216 *et* 344 (*Epidendrum*). *Wight Ic. t.* 1687–88, 1753. *Miq. Choix Pl. Jard. Buitenz. t.* 19. *Griff. Ic. Pl. As. t.* 321. *Hook. Exot. Fl. t.* 51. *Bot. Mag. t.* 387, 888 (*Epidendrum*), 1751, 4844, 4907, 5126, 5457, 5574, 5710, 5851. *Bot. Reg. t.* 529, 1976; 1840, *t.* 25; 1841, *t.* 38; 1844, *t.* 24; 1847, *t.* 67. *Lodd. Bot. Cab. t.* 37.

C. tabulare, Sw., et *C. aculeatum*, Sw., ex Africa australi, a Harveyo rite ad *Eulophiam* referentur. *C. Sandersonii*, Harv., tamen cum specie affini ex Africa tropica vera *Cymbidia* videntur, etsi ab Asiaticis different scapo ramoso. *C. Huttoni*, Hook. Bot. Mag. t. 5676, cujus specimina non vidimus, ex ic. et descr. characteres omnino *Grammangis* nec *Cymbidii* offert, sed e Java nec e Madagascaria introducta dicitur.

93. **Ansellia,** *Lindl. Bot. Reg.* 1844, *sub t.* 12, 1846, *t.* 30.—Sepala subæqualia, libera, patentia. Petala sepalis similia. Labellum ad apicem pedis columnæ sessile, erectum; lobi laterales lati, erecti, paralleli; medius patens, ovato-rotundatus; discus 2-lamellatus. Columna erecta, lobis lateralibus labelli æquilonga, leviter incurva, semiteres, marginibus acutis, exalata, basi in pedem brevem latum concavum 2-lobum producta; clinandrium parum prominens, integrum. Anthera terminalis, opercularis, incumbens, convexa, appendice obtuse conica coronata, imperfecte 2-locularis; pollinia 2, cerea, ovato-rotundata, 2-loba v. 2-partibilia, in anthera collateraliter contigua, appendicula parva transversa connexa, anthera dehiscente mediante appendicula glandulæ transversæ squamiformi affixa. Capsula oblonga, erostris.—Herbæ epiphyticæ, caule elato carnoso-incrassato folioso. Folia disticha, longa, plicato-venosa. Pedunculi terminales, ramosi. Flores secus ramos paniculæ amplæ laxe racemosi, speciosi, pedicellati. Bracteæ parvæ.

Species v. varietates insignes 3–4, quoad labelli lamellas magnitudinem florum etc. valde variabiles, per Africam tropicam late dispersæ, una usque ad regionem Natalensem Africæ australis extensa. *Reichb. f. in Walp. Ann.* vi. 627. *Bot. Mag. t.* 4965. *Reg. Gartenfl. t.* 95.

94. **Grammangis,** *Reichb. f. Xen. Orch.* ii. 17.—Sepala subæqualia, posticum subfornicatum, lateralia patentia, libera v. basi brevissime in gibbum didymum connata, omnia carnosula. Petala multo breviora tenuioraque, lata, obliqua. Labellum basi columnæ affixum, erectum, sepalis multo brevius; lobi laterales lati erecti, medius brevis, subpatens; discus lamellatus v. cristatus. Columna erecta, leviter incurva, 2-alata, apoda; clinandrium obliquum, incurvum. Anthera terminalis, opercularis, incumbens, valde convexa, dorso (an semper?) appendiculata, imperfecte 2-locularis; pollinia 2, late subglobosa, sulcata, in anthera collateraliter contigua (appendicula parva connexa?), anthera dehis-

cente (mediante appendicula?) glandulæ latæ squamiformi affixa.—Herbæ epiphyticæ, validæ, caule brevi in pseudobulbum oblongum v. fusiforme carnosum incrassato. Folia pauca, longa, coriacea, parum venosa. Scapi ad basin pseudobulbi longi, simplices. Racemus laxus, floribundus, floribus speciosis longe pedicellatis. Bracteæ parvæ.

Species 2, altera Madagascariensis, *Lindl. in Bot. Mag. t.* 5179 (*Grammatophyllum*), altera (cujus specimina non vidimus) Javensis?. *Hook. Bot. Mag. t.* 5676 (*Cymbidium Huttoni*), utraque ad specimina hortensia ab auctoribus descripta.

95. **Cremastra,** *Lindl. Gen. et Sp. Orch.* 172. (Hyacinthorchis, *Blume, Mus. Bot. Lugd. Bat.* i. 48, *t.* 16.)—Sepala subæqualia, libera, conniventia v. vix patentia, basi longe angustata. Petala sepalis similia nisi paullo latiora. Labellum basi columnæ affixum, ab ea liberum, erectum, lineare, complicatum, basi gibbum subsaccatum; lobi laterales supra medium parvi, medius oblongus, integerrimus, sepala subæquans, basi intus appendice carnosa instructus. Columna longe linearis, erecta, subteres, apice ad latera stigmatis utrinque dilatata, apoda; clinandrium breve. Anthera terminalis, breviter stipitata, opercularis, incumbens, valde convexa, 1-locularis; pollinia 4, cerea, late ovata, fere plana, apposita, in quoque pari sibimet incumbentia, inappendiculata, anthera dehiscente stipiti v. glandulæ planæ squamiformi affixa. Capsula oblonga, erostris.—Herba terrestris, rhizomate repente tuberoso-incrassato. Folia in rhizomate solitaria, rigidule membranacea, venis nonnullis magis elevatis subplicata, in petiolum contracta. Scapi e rhizomate aphylli, vaginis tamen interdum in laminam brevem productis. Racemus simplex, secundus sæpeque apice nutans, floribus majusculis angustis breviter pedicellatis pendulis. Bracteæ lineares, breves.

Species 1, Japonica. Genus *Cymbidio* valde affine, differt perianthio cum labello angusto, et polliniorum appendiculam saltem in speciminibus siccis non deteximus.

DACTYLOSTALIX, *Reichb. f. in Bot. Zeit.* 1878, 74, species japonica a nobis non visa, ex charactere dato a *Cremastra* vix differre videtur columna apice lobulis 2 linearibus lobulatis instructo.

96. **Cyperorchis,** *Blume, Mus. Bot. Lugd. Bat.* i. 48; *Orch. Archip. Ind.* 92, *t.* 48.—Sepala subæqualia, libera, erecta v. subpatentia. Petala sepalis similia. Labellum ad basin columnæ sessile, erectum, angustum, concavum; lobi laterales columnam amplectentes, medius brevis, latus, patens. Columna longiuscula, erecta, semiteres, exalata, apoda; clinandrium obliquum, integrum, margine sinuatum. Anthera terminalis, opercularis, incumbens, valde convexa, breviter et obtuse acuminata, discrete 2-locularis, demum 1-locularis; pollinia 2, ovoideo-pyriformia, cerea, sulcata, acuminata, inappendiculata, anthera dehiscente glandulæ quadratæ absque stipite affixa. Capsula ovoidea v. breviter oblonga.—Herbæ epiphyticæ, caulibus foliatis brevibus sæpe basi induratis vix tamen distincte pseudobulbosis. Folia longa, angusta, vaginis basi parum dilatatis distiche imbricatis, vetustiorum reliquiis sæpe fibroso-persistentibus. Scapi inter folia longi, erecti, vaginis pluribus sæpe in folia brevia erecta productis alte stipati. Racemus floribundus, simplex, sæpius densus, haud raro nutans. Flores speciosi.

Species 2 v. 3, Indiæ orientalis et Archipelagi Malayani incolæ, a Lindleyo auctoribusque plerisque *Cymbidio* inclusæ, sed habitus, perianthii forma et præsertim pollinarii indoles a Blumeo bene illustrati, genus distinctum indicant. Huc pertinent præter speciem typicam Blumei, *Cymbidium elegans*, Lindl. Sert. Orch. t. 14, *C. Mastersii*, Lindl. Bot. Reg. 1845, t. 50, et verisimiliter *C. cochleare*, Lindl., cujus tamen pollinaria ab omnibus floribus in herbariis servatis jam delapsa erant.

97. **Geodorum,** *Jacks. in Andr. Bot. Rep. t.* 626. (Cistella, *Blume, Bijdr.* 293, *t.* 55. Otandra, *Salisb. in Trans. Hort. Soc.* i. 298, *absque char.*)—Sepala subæqualia, libera, erecta v. subpatentia. Petala sepalis similia. Labellum ad basin columnæ sessile, continuum, erectum, a basi latum ventricoso-concavum fere saccatum, indivisum v. late et obscure 2-lobum. Columna breviuscula, erecta, semiteres, exalata, apoda; clinandrium

postice lato-ovatum, erectum. Anthera terminalis, opercularis, incumbens, valde convexa, 1-locularis v. imperfecte 2-locularis; pollinia 2, cerea, lata, profunde sulcata sub-2-loba, inappendiculata, anthera dehiscente stipiti brevi plano affixa, glandula sæpe majuscula. Capsula ovoidea v. oblonga, erostris, reflexa.—Herbæ terrestres, rhizomate sæpe tuberoso-incrassato. Caules plurifoliati, breves. Folia ovato-lanceolata v. elongata, plicato-venosa, in petiolum contracta. Scapi e rhizomate erecti, vaginati, simplices, racemo ad apicem denso nutante. Flores mediocres, brevissime pedicellati. Bracteæ membranaceo-scariosæ, lanceolatæ v. lineares, flores interdum subæquantes.

Species enumeratæ 9, Indiæ orientalis, Archipelagi Malayani et Australiæ incolæ, plures tamen characteribus fere de flore in florem variabilibus distinctæ. *Lindl. Fol. Orch.* 1854. *Reichb. f. in Walp. Ann.* vi. 631. *Roxb. Corom. Pl. t.* 39, 40 (*Limodorum*). *Wight, Ic. t.* 912. *Bot. Mag. t.* 2195. *Bot. Reg. t.* 675, 1687.

98. **Grammatophyllum,** *Blume, Bijdr.* 377, *t.* 20; *Rumphia*, iv. 47, *t.* 191. (Gabertia, *Gaudich. in Freyc. Voy. Bot.* 425. Pattonia, *Wight, Ic. t.* 1750.)—Sepala subæqualia, libera, patentia. Petala sepalis similia. Labellum supra basin columnæ affixum (mobile?), erectum, concavum; lobi laterales latiusculi, erecti, columnam laxe amplectentes, medius brevis, recurvo-patens, angustus v. dilatatus. Columna erecta, labello paullo brevior, semiteres, subclavata, exalata, apoda; clinandrium obliquum, incurvum. Anthera subterminalis, opercularis, incumbens, lata, valde convexa, 2-locularis; pollinia 2, cerea, subglobosa, fere 2-partita, inappendiculata, anthera dehiscente sigillatim lobis v. cornubus glandulæ lunatæ v. fere hippocrepidiformis affixa. Capsula oblongo-fusiformis, erostris.—Herbæ epiphyticæ, validæ, caulibus nunc elongatis multifoliatis plus minus carnosis, nunc brevius pseudobulbosis paucifoliatis. Folia disticha, sæpius longissima, coriacea, venosa. Scapi ad basin caulis laterales, longi, simplices. Racemus laxe floribundus, floribus longe pedicellatis speciosis, nunc magnis carnosisque, nunc minoribus tenuioribus. Bracteæ pedicellis multo breviores.

Species 3 v. 4, peninsulæ et Archipelagi Malayani incolæ. *Reichb. f. in Walp. Ann.* vi. 628; *Xen. Orch.* ii. 16; *et in Linnæa* xli. 107. *Miq. in Ann. Mus. Lugd. Bat.* iv. *t.* 8, 9. *Bot. Mag. t.* 5157 (*quoad pollinarium erronea*). *Bot. Reg.* 1839, *t.* 65, 1842, *t.* 69. *Paxt. Mag. Bot.* vi. 217, *cum ic.*

99. **Dipodium,** *R. Br. Prod.* 330. (Leopardanthus, *Blume, Mus. Bot. Lugd. Bat.* i. 47, *t.* 15. Wailesia, *Lindl. in Journ. Hort. Soc.* iv. 261.)—Sepala subæqualia, libera, patentia. Petala sepalis subsimilia. Labellum erectum, ima basi columnæ adnatum leviterque gibbum v. brevissime saccatum, medio 3-lobum, lobi laterales angusti v. triangulares, medius longior, angustus v. latus, apicem versus facie sæpius pubescens. Columna erecta, semiteres, non v. angustissime alata, apoda; clinandrium varie sinuatum v. dentatum. Anthera terminalis, opercularis, incumbens, convexa v. semiglobosa, 2-locularis; pollinia 2, cerea, globosa, sulcata v. 2-partibilia, inappendiculata, anthera dehiscente stipitibus 2 distinctis brevibus affixa; glandula carnosula, ovata v. rotundata. Capsula angusta.—Herbæ terrestres, non pseudobulbosæ, caulibus basi foliatis v. floriferis aphyllis. Folia dum adsint angusta, coriacea, vaginis in caule imbricatis v. regulariter distichis equitantibusque. Scapi aphylli, elati, basi vaginis nonnullis imbricatis stipati, v. pedunculi in caule foliato longi, erecti. Racemi simplices, sæpe floribundi, floribus majusculis sæpissime punctatis.

Species ad 6, peninsulæ et Archipelagi Malayani, insularum maris Pacifici et Australiæ incolæ. *Lindl. Gen. et Sp. Orch.* 186. *Reichb. f. Xen. Orch.* ii. 15, *t.* 107. *Sm. Exot. Bot. t.* 12 (*Dendrobium*). *Griff. Ic. Pl. Asiat.* iii. *t.* 323, 324 (*Grammatophyllum*). *Hook. f. Fl. Tasm. t.* 127. *Bot. Reg. t.* 1980. *Paxt. Mag. Bot.* xvi. 321, *cum ic.* (*Wailesia*).

100. **Thecostele,** *Reichb. f. in Bonplandia*, 1857, 37; *Xen. Orch.* ii. 133, *t.* 147; *et in Trans. Linn. Soc.* xxx. 144, *t.* 29.—Sepala æqualia, libera, patentia, latiuscula. Petala linearia, sepalis æquilonga. Labellum basi cum columna in tubum latum connatum, dein

patens; lobi laterales ad basin laminæ erecti, falcati, fere circinati; medius patens, elongatus, sinuatus, indivisus, disco velutino. Columna ima basi in tubum brevem cum labello connata, erecta, ad apicem tubi abrupte deflexa citoque incurvo-ascendens elongataque, ad deflexionem in auriculas 2 horizontales supra os tubi producta, apice ad latera stigmatis alis 2 falcatis appendiculata; clinandrium parum prominens. Anthera terminalis, opercularis, incumbens, galeata, 2-locularis; pollinia 2, cerea, globosa, sulcata, inappendiculata, anthera dehiscente glandulæ squamiformi sigillatim affixa. Capsula ovoidea, erostris.—Herba epiphytica, pseudobulbis 1-foliatis carnosis costatis. Folium oblongum, coriaceum. Scapi ad latera pseudobulborum recurvi, aphylli, basi breviter plurivaginati. Racemus simplex, floribus mediocribus breviter pedicellatis. Bracteæ parvæ.

Species 1, Malaccæ et Archipelagi Malayani incolæ. Specimina enim Parishiana e Moulmeyn et Motleyana e Borneo nobis conspecifica videntur, et vix variant nisi labelli loborum latitudine. Pollinarii stipites filiformes, in icone Parishiana tenuissimi, in Trans. Linn. Soc. l.c. nimis incrassati, non veri stipites sunt, sed visci fila elastice extensivo; in flore a nobis examinato pollinia in rostello omnino sessilia erant, glandula nondum soluta. Generis affinitas cum *Stanhopieis* Americanis, a Reichenbachio indicata, nobis effugit.

101. **Bromheadia,** *Lindl. Bot. Reg.* 1841, *Misc.* 89; 1844, *t.* 18.—Sepala subæqualia, libera, patentissima. Petala sepalis subsimilia. Labellum ad basin columnæ sessile, erectum, concavum; lobi laterales latiusculi, erecti, columnam laxe amplectentes, medius brevis, patens, indivisus; discus pubescens, subcristatus. Columna longiuscula, erecta, curvula, late 2-alata, apoda; clinandrium membranaceum, concavum, obliquum. Anthera terminalis, opercularis, incumbens, semiglobosa v. subconica, 1-locularis (v. imperfecte 2-locularis?); pollinia 2, cerea, late ovoidea, sulcata, inappendiculata, anthera dehiscente glandulæ squamiformi fere triangulari affixa absque stipite. Capsula . . . .—Herbæ epiphyticæ (v. terrestres?), non pseudobulbosæ, caulibus foliatis erectis simplicibus. Folia disticha, coriacea, venosa, basi complicata, vaginis persistentibus caulem arcte obtegentibus. Racemus in caule foliato terminalis, simplex v. ramosus, rhachi sæpe incrassata flexuosa, bracteis triangularibus rigidis disticho erectis quasi serrata. Flores majusculi, breviter pedicellati.

Species 2, Malaccæ et Archipelagi Malayani incolæ. *Reichb. f. in Walp. Ann.* vi. 882, *et Otia Bot. Hamb.* 44. *Wight, Ic. t.* 1740. *Bot. Mag. t.* 4001.

102. **Polystachya,** *Hook. Exot. Fl. t.* 103. (Encyclia, *Pœpp. et Endl. Nov. Gen. et Sp.* ii. 10, *quoad t.* 113 *anal. imperfecto.* Epiphora, *Lindl. in Comp. Bot. Mag.* ii. 201.)—Sepala conniventia v. subpatentia, posticum liberum, lateralia latiora nunc latissima, basi pedi columnæ adnata. Petala sepalo postico similia v. angustiora. Labellum (superum) cum pede columnæ articulatum, basi contractum incumbens, dein erectum; lobi laterales parum prominentes, erecti, medius patens v. recurvus, indivisus. Columna brevis nunc brevissima, lata, exalata, basi in pedem producta; clinandrium breve, truncatum. Anthera terminalis, opercularis, incumbens, valde convexa, 1-locularis v. imperfecte 2-locularis; pollinia 4, cerea, late ovata, per paria sibimet arcte applicita v. in 2 connata, postico sæpius minore, inappendiculata, anthera dehiscente stipiti brevi v. glandulæ (an constanter?) affixa. Capsula oblonga v. fusiformis, interdum elongata, erecta v. patens.—Herbæ epiphyticæ, caulibus foliatis brevibus basi vaginatis demum in pseudobulbos carnosos v. tuberiformes sæpe parvos incrassatis. Folia pauca, disticha, oblonga v. angusta, multinervia at non plicata, basi in vaginas contracta. Pedunculus terminalis supra folium paucivaginatus. Racemus in caule foliato terminalis, simplex, v. racemi plures, breves, secus rhachin communem dissiti, paniculam angustam laxam formantes. Flores parvi, rarius mediocres, v. in *P. grandiflora* flos major solitarius videtur. Bracteæ parvæ.

Species ad 40, pleræque Africanæ, tropicæ v. australes, nonnullæ Asiaticæ, Indicæ v. Malayanæ, paucæque Americæ tropicæ incolæ, inter has *P. luteola*, Hook., parum tantum a *P. zeylanica*, Lindl.,

ex orbe vetere distinguitur. *Lindl. Gen. et Sp. Orch.* 72, *et in Journ. Linn. Soc.* vi. 129. *Re*[illegible] *in Walp. Ann.* vi. 637; *Xen. Orch. t.* 207; *Otia Hamb.* 60, 110; *in Bonpl.* 1857, 39; *in Flora*, 1[illegible] 185; *et in Linnæa* xli. 73. *Lindl. Collect. Bot. t.* 20 (*Dendrobium*). *Wight, Ic. t.* 1678, 167[illegible] *Harv. Thes. Cap. t.* 176 *ad* 179. *Bot. Mag. t.* 3707, 4161, 5586. *Bot. Reg. t.* 851. *Lodd. Bot. Cab. t.* 458 (*Dendrobium*). *Fl. des Serres, t.* 1521. *Saund. Ref. Bot. t.* 80, 81.

Pollinarii stipes sæpe brevissima in speciminibus siccis difficillime observatur interdumque deesse videtur, sed anthera et pollinia cæterum omnino *Vandearum.*

103. ? **Plocoglottis,** *Blume, Bijdr.* 380; *Orch. Archip. Ind.* 61, *t.* 14 *ad* 16.—Sepala æquilonga, libera v. lateralia basi latiore columnæ pedi adnata, mentum breve sæpe formantia, omnia patentia v. posticum cum petalis sæpius angustioribus connivens. Labellum ima basi columnæ plicis membranaceis connexum breviterque saccatum, supra saccum erectum; lobi laterales parum prominuli, medius interdum demum elastice reflexus. Columna erecta, crassa, semiteres, exalata, basi in pedem brevissimum producta; clinandrium obliquum, dentibus vix prominulis v. obsoletis. Anthera terminalis, opercularis, incumbens, convexa, distincte 2-locularis, loculis valde imperfecte 2-locellatis. Pollinia 4, cerea, ovata, compressiuscula, per paria in loculis segregata et sibimet incumbentia, inappendiculata, anthera dehiscente per paria stipitibus filiformibus v. linearibus distinctis rostello affixa (absque glandula distincta ?). Capsula oblonga v. elongata, erostris, costis obtuse prominentibus.—Herbæ terrestres, caulibus e rhizomate repente 1–∞-foliatis, basi leviter incrassatis nec distincte pseudobulbosis. Folia ampla, plicato-venosa. Pedunculi v. scapi aphylli, a basi caulium laterales, longi, erecti, paucivaginati. Racemus simplex, floribus mediocribus breviter pedicellatis. Bracteæ nunc minimæ, squamiformes, nunc pedicello sublongiores.

Species ad 8, Archipelagi Malayani incolæ. *Lindl. Gen. et Sp. Orch.* 132. *Reichb. f. in Walp. Ann.* vi. 464; *Xen. Orch.* ii. *t.* 154.

104. **Cyrtopodium,** *R. Br. in Ait. Hort. Kew. ed.* 2, v. 216. (Tylochilus, *Nees in Verh. Gartenb. Gesellsch. Berlin*, viii. 191, *t.* 3. Cyrtopera, *Lindl. Gen. et Sp. Orch.* 189.)—Sepala libera, patentia, subæqualia v. lateralia basi latiora et plus minus in pedem columnæ decurrentia. Petala sepalo postico similia v. paullo latiora brevioraque. Labellum pedi columnæ affixa sæpiusque breviter adnata, quacum mentum format inter sepala lateralia plus minus prominens; lobi laterales latiusculi, erecti v. demum patentes, medius rotundatus, patens, integer 2-lobus v. crispato-dentatus. Columna erecta, basi in pedem mentum formantem producta, semiteres, angulis acutis vix alatis; clinandrium obliquum, integrum. Anthera terminalis, opercularis, incumbens, interdum stipitata, convexa v. dorso 1–2-gibba, imperfecte 2-locularis. Pollinia 2 v. 4, per paria plus minus connata, late ovoidea v. globosa, cerea, in anthera inappendiculata, anthera dehiscente glandulæ rostelli latæ fere membranaceæ v. in stipitem brevem crassum productæ affixa. Capsula oblonga v. elongata, reflexa, erostris, costis sæpius acute prominulis.—Herbæ terrestres, rhizomate in pseudobulbos tuberiformes incrassato, caulibus breviter paucifoliatis. Folia longa, plicato-venosa, in petiolum contracta. Scapi e rhizomate erecti, elati, aphylli, plurivaginati. Racemus simplex v. ramosus, floribus mediocribus v. speciosis breviter pedicellatis. Bracteæ lineares v. lanceolatæ.

Species ultra 20, Asiæ, Africæ et Americæ tropicæ et Madagascariæ incolæ. *Lindl. Gen. et Sp. Orch.* 188. *Reichb. f. in Walp. Ann.* vi. 666, 667; *Otia Hamb.* 35, 44, 68, 88, 116; *in Bonpl.* 1857, 38; *in Flora*, 1865, 189; 1872, 274, *et in Trans. Linn. Soc.* xxx. 144 (*Cyrtopodium et Cyrtopera*).

In specie typica, *C. Andersonii*, Br., in *C. punctata* affinibusque pluribus Americanis vix non *C. Andersonii* varietatibus, racemus ramosus et sepala lateralia basi vix dilatata, brevissime tantum pedi columnæ adnata. Huc pertinent icones *Lindl. Sert. Orch. t.* 12. *Andr. Bot. Rep. t.* 651 (*Cymbidium*). *Bot. Mag. t.* 1800, 3507. *Bot. Reg.* 1841, *t.* 8. *Lodd. Bot. Cab. t.* 121. *Kn. et Westc. Fl. Cab. t.* 4. *Reichb. Iconogr. Exot. t.* 214.

Genus *Cyrtopera* (*Eulophiæ*, sect. Blume, Orch. Archip. Ind. 181, t. 62, 63, 66) propositum fuit ad species Asiaticas et Africanas racemo simplici et sepalis lateralibus plus minus, interdum fere ad apicem

columnæ adnatis. *Wight, Ic. t.* 1690, 1754. *Royle, Ill. Bot. Himal. t.* 88. *Hook. Ic. Pl. t.* 1 (*Cymbidium*). *Bot. Mag. t.* 6161. *Thou. Orch. Iles Afr. t.* 41, 42 (*Limodorum*). *C. Woodfordii* tamen, ex America tropica (Bot. Mag. t. 1814, Bot. Reg. t. 1508), characteres ostendit *Cyrtoperæ* et in *C. flava*, Lindl., ex India orientali, et in *C. plantaginea*, Lindl., e Madagascaria, sepala lateralia a pede columnæ fere omnino libera nec basi dilatata. In his omnibus speciebus racemus simplex, sed distinctio inter genera cæterum evanescit.

C. foliosa, Lindl. in Comp. Bot. Mag. ii. 203, ex Africa australi habitu a *Cyrtoperis* distinctissima, ex icone in herb. Lindl. videtur potius *Eulophiæ* species *E. cochleari*, Lindl., subaffinis.

105. **Govenia**, *Lindl. in Lodd. Bot. Cab. t.* 1709; *Gen. et Sp. Orch.* 153. (Eucnemis, *Lindl. Gen. et Sp. Orch.* 161, *ex adnot. in Herb. Lindl.*)—Sepala subæqualia, conniventia, posticum incurvo-erectum, lateralia falcata v. decurva, basi cum columnæ pede mentum breve formantia. Petala sepalo postico similia. Labellum pedi columnæ affixum, articulatum, basi incumbens, concavum, apice patens, indivisum. Columna incurva, late semiteres, superne v. undique alata, basi in pedem brevem producta; clinandrium truncatum. Anthera terminalis, opercularis, incumbens, valde convexa, dorso interdum cristata, 1-locularis; pollinia 4, cerea, late ovata, compressa, per paria sibimet applicita, paribus in anthera a latere appositis, inappendiculata, anthera dehiscente stipiti oblongo v. lato affixa, glandula parva v. dilatata. Capsula oblonga, erostris.—Herbæ terrestres, rhizomate interdum in pseudobulbos tuberiformes incrassato, caulibus erectis paucifoliatis basi vaginis nonnullis stipatis, quarum una sæpe inflato-utriculiformis. Folia ampla, plicato-venosa, basi contracta. Racemus in caule foliato terminalis, simplex, pedunculo prope basin paucivaginato. Flores mediocres, conferti v. demum dissiti, brevissime pedicellati. Bracteæ parvæ ovatæ, v. angustæ ovario paullo breviores.

Species ad 10, Americæ tropicæ a Brasilia usque ad Indiam occidentalem et Mexicum incolæ. *Reichb. f. in Walp. Ann.* vi. 556; *Orch. Centr. Amer.* 75. *Bot. Mag. t.* 3660, 4151. *Bot. Reg. t.* 1795, 1838, *t.* 13.

Govenia limbata, Griseb. Fl. Brit. W. Ind. 628 (*Cymbidium limbatum*, Lindl.), delenda est. Descripta fuit ad specimen in herb. Hook. evidenter ex horto Liverpool, constans e folio *Oncidii* cum inflorescentia *Cymbidii*, ut bene notavit Reichb. f.

106. **Pteroglossaspis**, *Reichb. f.*, *Otia Bot. Hamb.* 67.—Sepala subæqualia, libera, patentia, lateralia basi mentum parum prominulum formantia. Petala sepalis similia. Labellum ad basin columnæ affixum, sessile, patens, ecalcaratum; lobi laterales ovato-rotundati, patentes, medius major, obtusissimus, integer; discus ∞-seriatim tuberculosus. Columna brevissima, lata, basi vix in pedem brevissimum producta, lobis 2 calliformibus instructa, ad angulos subalata; clinandrium rotundatum, parum prominens. Anthera terminalis, opercularis, incumbens, 1-locularis; pollinia 2, subglobosa, basi extrorsum perforata, inappendiculata, anthera dehiscente stipiti brevi affixa; glandula squamiformis. Capsula . . .—Herba (epiphytica?) pseudobulbis demum ovoideo-globosis; caulibus foliatis brevissimis. Folia 1–2, longa, angusta, plicato-venosa. Scapi e rhizomate elati, aphylli, plurivaginati. Flores mediocres, in racemum simplicem densum conferti, pedicellis brevissimis. Bracteæ membranaceæ, flores æquantes v. paullo breviores.

Species 1, Abyssinica.

107. **Zygopetalum**, *Hook. Bot. Mag. t.* 2748.—Sepala subæqualia, patentia, libera v. vix brevissime basi connexa, lateralia pedi brevi columnæ affixa. Petala sepalis similia. Labellum pedi columnæ affixa, cui breviter incumbens mentum breve format; lobi laterales nunc parum prominentes patentes, nunc paullo majores erecti, columnam amplectentes, medius explanatus, patens, sæpius latum interdum ovatum; discus crista transversa sæpius valde prominente carnosa integra v. lobata instructus. Columna incurva, semiteres, exalata v. apice breviter 2-alata, basi in pedem brevem producta; clinandrium obliquum, integrum, v. membranaceum cucullatumque margine fimbriatum. Anthera terminalis v. intra marginem clinandrii affixa, opercularis,

incumbens, dorso convexa ovoideo-conica v. acuminata, 2-locularis; pollinia 4, obovoidea, per paria in loculis segregata, inappendiculata, anthera dehiscente in glandula rostelli sessilia v. stipiti latiusculo affixa. Capsula ovoidea v. oblonga, erostris.—Herbæ epiphyticæ, caulibus foliatis brevibus demum in pseudobulbos incrassatis. Folia disticha, membranacea v. rigidula, elevato-venosa v. subplicata. Scapi floriferi aphylli, ∞-vaginati, 1-flori v. racemo laxo terminati. Flores speciosi. Bracteæ parvæ v. latiusculæ.

Species ad 40, Americæ calidioris a Brasilia usque ad Americam centralem et Indiam occidentalem incolæ. *Lindl. Gen. et Sp. Orch.* 187. *Bot. Reg.* 1844, *Misc.* 9. *Reichb. f. in Walp. Ann.* vi. 650; *Otia Hamb.* 8; *Orch. Centr. Amer.* 74; *in Bot. Zeit.* 1865, 99; *et in Linnæa* xli. 5, 107. Genus *Cyrtopodio* affine, a Blumeo *Eulophiæ* adjunctum, nobis tamen bene distinctum videtur, in sectiones sequentes naturales, apud plures auctores pro generibus habendas, sed a Reichenbachio l. c. iterum conjunctas dividitur:—

1. *Euzygopetalum.* Scapi elati, floribus pluribus speciosis. Labellum latum (excepto *Z. stenochilo, Lodd. Bot. Cab. t.* 1923), crista crassa varie appressa v. elevata integra v. lobata. Clinandrium obliquum, integrum. Anthera obtusa v. obtuse acuminata; pollinarii stipes brevis.—*Bot. Mag. t.* 2748, 3402, 3674, 3686. *Bot. Reg. t.* 1433 (*Eulophia*). *Lodd. Bot. Cab. t.* 1664, 1687, 1776. *Maund, Botanist, t.* 111.

2. *Zygosepalum.* Scapi 1–3-flori, floribus speciosis. Sepala et petala anguste acuminata. Clinandrium magnum, membranaceum, subcucullatum, fimbriato-lacerum, lobis lateralibus seu alis columnæ rotundatis integris. Anthera dorso longe rostrata. Cætera *Euzygopetali.* Species v. varietates 2, Guianenses. *Bot. Mag. t.* 2819. ZYGOSEPALUM, *Reichb. f. in Bot. Zeit.* 1852, 668; *in Walp. Ann.* vi. 665; *et in Saund. Ref. Bot. t.* 106.

3. *Huntleya.* Scapi 1-flori. Labellum unguiculatum, crista longe fimbriata, lamina ovata acuta. Columna latissima, clinandrio amplo subcrenulato fere *Zygosepali.* Anthera erostris. Species 1, Brasiliensis et Guianensis, HUNTLEYA, *Batem. ex Lindl. in Bot. Reg. sub n.* 1991 *et* 1839, *t.* 14; cum 2 e Mexico et America centrali, GALEOTTIA, *A. Rich. in Ann. Sc. Nat.* ser. 3, iii. 25; species omnes a *Reichb. f. in Walp. Ann.* vi. 555, *Xen. Orch. t.* 66, *f.* 1, 2, *et in Bot. Mag. t.* 5567 *et* 6003, ad *Batemanniam* relatæ.

4. *Bollea.* Scapi 1-flori. Sepala et petala lata. Labellum late rotundatum, ungue brevi, crista crassa elevata. Columna brevis, latissima, crassa, clinandrio subcucullato integerrimo. Species 1, Guianensis; *Lindl. Sert. Orch. t.* 26 (*Huntleya*). BOLLEA, *Reichb. f. Bot. Zeit.* 1852, 667; *Xen. Orch.* i. 187, *t.* 66, *f.* 3. *Bot. Mag. t.* 6331, 6458.

5. *Warszewiczella.* Scapi 1-flori. Sepala et petala *Euzygopetali* v. latiora et minus explanata, interdum undulata. Labellum sæpius latissimum. Columna *Euzygopetali.* Pollinarii stipes magis evoluta, apice utrinque sæpius angustata. Species ad 6. *Bot. Mag. t.* 3585, 4766, 4830 (*Warrea*), 5598 (*Huntleya*). *Bot. Reg. t.* 1857. *Reichb. f. Xen. Orch. t.* 73. WARSZEWICZELLA, *Reichb. f. in Bot. Zeit.* 1852, 635; *Xen. Orch. t.* 23, 93. *Bot. Mag. t.* 5582. PESCATOREA, *Reichb. f. in Bot. Zeit.* 1852, 667; *Xen. Orch. t.* 11, 65. *Bot. Mag. t.* 6214, 6240.

6. *Promenæa.* Scapi ut in *Warszewiczella* 1-flori, a qua differt statura humiliore et columna antice sub stigmate sæpius nec semper linea longitudinali elevata seu carina instructa. Species ad 8, pleræque Brasilianæ. *Link et Otto Ic. Pl. Sel. t.* 52 (*Cymbidium*). *Bot. Mag. t.* 3877 (*Maxillaria*). PROMENÆA, *Lindl. Bot. Reg.* 1843, *Misc.* 13 (*pro maxima parte*). KEFERSTEINIA, *Reichb. f. in Bot. Zeit.* 1852, 633; *Xen. Orch. t.* 25. *Bot. Mag. t.* 5046. Nec distinguere possumus (ex char. et analysi in herb. Lindl.) CHAUBARDIAM, *Reichb. f. in Bot. Zeit.* 1852, 671, *et in Walp. Ann.* vi. 543.

108. **Grobya**, *Lindl. Bot. Reg. t.* 1740.—Sepalum posticum liberum, erectum, lateralia patentissima v. deflexa, ad medium connata, apice flexuosa. Petala erecto-patentia, sepalo postico multo latiora. Labellum in pede columnæ articulatum, ungue brevissimo incumbente, erectum, latum; lobi laterales erecti, medius patens; discus varie callosus v. cristatus. Columna erecta, semiteres, apice utrinque lobo brevi v. dente aucta et interdum prope basin 2-auriculata, basi in pedem brevem crassiusculum producta; clinandrium oblique truncatum. Anthera terminalis, opercularis, incumbens, (2-locularis?); pollinia 2, cerea, profunde sulcata v. 2-partibilia, inappendiculata, anthera dehiscente stipiti plano longiusculo affixa, glandula ovata. Capsula . . .—Herbæ epiphyticæ, caulibus plurifoliatis brevibus, basi demum in pseudobulbos carnosos incrassatis. Folia

longa, angusta, plicato-venosa. Scapi ad basin pseudobulborum simplices, basi plurivaginati, recurvi v. a basi deflexi. Racemus densus, floribus mediocribus v. majusculis breviter pedicellatis. Bracteæ angustæ, breves.

Species 2, Brasilienses. *Reichb. f. in Walp. Ann.* vi. 627.

109. **Cheiradenia,** *Lindl. Fol. Orch.* 1853.—Sepala subæquilonga, inter se libera, patentia, lateralia latiora pedi columnæ adnata. Petala sepalo postico similia. Labellum ad apicem pedis columnæ articulatum, latum, indivisum, planum ; discus crista transversa digitata instructus. Columna brevis, semiteres, crassiuscula, subclavata, basi in pedem producta ; clinandrium truncatum. Anthera terminalis, opercularis, incumbens (1-locularis ?) ; pollinia 2, cerea, ovoidea, sulcata, inappendiculata, anthera dehiscente stipiti plano lato affixa. Capsula . . .—Herba epiphytica, parvula, caule brevissimo 1-foliato mox in pseudobulbum parvum incrassato. Folium membranaceo-coriaceum, nervosum. Scapi laterales, tenues fere filiformes, aphylli, simplices. Flores parvuli, pauci, in racemo distantes, breviter pedicellati. Bracteæ angustæ, acuminatæ.

Species 1, Guianensis. *Walp. Ann.* vi. 543.
Genus nobis non satis notum. Flores in speciminibus nostris paucos examinare nequimus et characteres supra dati ex analysi Lindleyana. *Zygopetalis* minoribus affine videtur sed partes omnes multo minores tenuioresque. Habitus fere *Leiochili* v. *Cryptarrhenæ Regelii*, Reichb., sed columna certe in pedem producta.

110. **Aganisia,** *Lindl. Bot. Reg.* 1839, *Misc.* 45 ; 1840, *t.* 32. (Kœllensteinia, *Reichb. f. in Bonplandia*, 1854, 17 ; *in Walp. Ann.* vi. 551 ; *et Xen. Orch. t.* 24.)—Sepala æqualia, libera, patentia. Petala sepalis subsimilia. Labellum ungue brevissimo columnæ basi affixum, quacum articulatum ; lobi laterales breves v. obsoleti, medius patens, latus, rotundatus v. subquadratus, integer v. late 2–3-lobus ; discus ad basin laminæ late cristatus. Columna erecta, semiteres, basi non producta, apice utrinque lobo brevi obtuso v. longiore acutiusculo cum clinandrio cæterum integerrimo continuo aucta. Anthera terminalis, opercularis, incumbens, dorso convexa v. breviter appendiculata, 1-locularis ; pollinia 4, cerea, oboveidea v. oblonga, acutiuscula, per paria connata, inappendiculata ; anthera dehiscente stipiti plano oblongo v. lineari affixa ; glandula parva. Capsula . . .—Herbæ terrestres v. epiphyticæ, caulibus foliatis brevibus demum (an semper ?) in pseudobulbos incrassatis. Folia pauca, sæpe solitaria, plicato-venosa, linearia v. latiuscula, in petiolum contracta. Scapi ad basin pseudobulborum v. e rhizomate erecti, aphylli, paucivaginati, sæpe tenues. Racemus simplex, laxus, floribus mediocribus breviter pedicellatis. Bracteæ parvæ.

Species ad 6, Americæ tropicæ incolæ. Huc includimus, præter speciem typicam Lindleyi, *A. lepidam*, Reichb. f. Beitr. Orchidk. 15, t. 5 ; *Warream cineream*, Lindl. Bot. Reg. 1845, t. 28 (*Zygopetalum tricolor*, Lindl. Bot. Reg. 1846, sub t. 64) ; et *Promenæam gramineam*, Lindl. Bot. Reg. 1843, Misc. 13, *Bot. Mag. t.* 6338 (*Koellensteinia*). Genus a *Zygopetalo* affinibusque facile distinctum floribus (sæpius minoribus) explanatis, mento nullo prominente. Hic tamen multo melius quam inter *Oncidieas* collocatur.

111. **Acacallis,** *Lindl. Fol. Orch.* 1853.—Sepala inter se libera, subæqualia, patentia, lateralia basi pedi columnæ adnata, mentum breve formantia. Petala sepalo postico similia. Labellum pedi columnæ affixum eique brevissime in mentum connatum, dein erecto-patens, ungue longiusculo superne introrsum in saccum reversum seu cucullum latum cristatum margine dentatum dilatato ; lamina lata, sub-2-loba, undulato-denticulata ; discus basi late cristatus. Columna erecta, semiteres, basi in pedem brevem producta, ad latera stigmatis alis latis membranaceis appendiculata ; clinandrium breve, dente postico parum prominente. Anthera terminalis, opercularis, incumbens, convexa, 1-locularis ; pollinia 4, cerea, late obovoidea, per paria connexa (v. 2, 2-loba), inappendiculata, anthera dehiscente stipiti plano oblongo affixa ; glandula parva. Capsula . . .—Herba epiphytica, caulibus foliatis brevibus, demum in pseudobulbum incrassatis. Folium

unicum (v. 2?) amplum, plicato-venosum, in petiolum contractum. Scapus florifer e rhizomate v. in pseudobulbo lateralis, elongatus, aphyllus, paucivaginatus. Racemus simplex, floribus paucis speciosis (cyaneis) breviter pedicellatis.

Species 1, Brasiliæ borealis incola, a Reichb. f. Beitr. Orchidk. 13, t. 4, ad *Aganisiam* relata; nobis tamen *Zygopetalo* multo affinior videtur, a quo differt imprimis labelli appendice singulari et auriculis columnæ amplis.

112. **Eriopsis,** *Lindl. Bot. Reg.* 1847, *sub t.* 9 *et t.* 18.—Sepala æqualia, patentia, libera v. lateralia cum pede columnæ in mentum brevissimum connata. Petala sepalis subsimilia. Labellum pedi columnæ affixum, breviter incumbens, dein erectum; lobi laterales lati, erecti, columnam laxe amplectentes, medius parvus, patens, integer v. 2-lobus; discus varie lamellatus. Columna longiuscula, semiteres, incurva, apice subclavata, exalata, basi in pedem brevem producta; clinandrium valde obliquum, integrum v. antice obtuse 2-angulatum v. breviter 2-dentatum. Anthera intra marginem clinandrii opercularis, incumbens, valde convexa, 1-locularis; pollinia 2, late semiglobosa 2-partibilia, v. 4 per paria sibimet applicita altero minore, paribus in anthera a latere appositis, inappendiculata, anthera dehiscente glandulæ carnosulæ mox squamiformi subquadratæ affixa, stipite 0. Capsula . . .—Herbæ epiphyticæ, caulibus foliatis brevibus demum in pseudobulbos incrassatis. Folia sæpius 2, longa, ampla, plicato-venosa. Scapi e rhizomate longi, erecti, aphylli, paucivaginati. Racemus longus, simplex, laxe floribundus, floribus speciosis pedicellatis. Bracteæ minutæ.

Species 3 v. 4, Brasiliæ borealis, Guianæ et Colombiæ incolæ. *Reichb. f. in Walp. Ann.* vi. 662. *Bot. Mag. t.* 4437.

Pseuderiopsis, *Reichb. f. in Linnæa* xxii. 852, species Guianensis a nobis non visa, ex charactere dato ab *Eriopsibus* typicis paullulum differt, angulis columnæ basi alatis et dentibus anticis clinandrii in brachia productis.

113. **Warrea,** *Lindl. Bot. Reg.* 1843, *Misc.* 14.—Sepala subæqualia, lata, concava, subpatentia, lateralia basi obliqua, columnæ pedi adnata. Petala sepalis subsimilia. Labellum pedi brevi columnæ affixum, sessile, ima basi brevissime contractum incumbensque, dein erectum, latum, concavum; lobi laterales parum prominentes, medius expansus, rotundatus, integer v. 2-fidus; discus medio lineis elevatis carnosis instructus. Columna longiuscula, semiteres, crassa, apice clavata, exalata, basi in pedem brevem producta; clinandrium valde obliquum, concavum, fere cucullatum. Anthera terminalis, opercularis, incumbens, convexa, 2-locularis; pollinia 4, cerea, ovoidea, compressiuscula, per paria in loculis segregata, inappendiculata, anthera dehiscente stipiti brevi lineari affixa. Capsula . . .—Herbæ terrestres, caulibus foliatis brevibus demum in pseudobulbos ovoideos v. elongatos incrassatis. Folia pauca, disticha, elongata, sæpius angusta, plicato-venosa. Scapi aphylli, plurivaginati, elati, simplices. Racemus elongatus, laxus, floribus breviter pedicellatis speciosis. Bracteæ breves.

Species 2?, Peruviæ et Colombiæ incolæ. *Reichb. f. Xen. Orch. t.* 24, *f.* 1 *ad* 9. *Bot. Mag. t.* 4235 (*Maxillaria*). *Lodd. Bot. Cab. t.* 1884 (*Maxillaria*).
W. cyanea, Lindl., ad *Aganisiam* referenda est.

114. **Lycomormium,** *Reichb. f. in Bot. Zeit.* 1852, 833, *et in Walp. Ann.* vi. 611.—Sepala æquilonga, carnosa, posticum liberum v. basi cum cæteris brevissime connatum, lateralia latissima, basi cum pede columnæ in mentum latum connata. Petala sepalo postico minora et angustiora. Labellum ab apice pedis columnæ incumbens, sepalis inclusum, late cucullatum, lobis lateralibus erectis, medio brevissimo patente. Columna brevis, crassa, apice 2-auriculata, basi in pedem longum producta; clinandrium maximum, dilatatum, undulatum, cum auriculis columnæ continuum. Anthera intra marginem clinandrii affixa, opercularis, incumbens, crassa, subsuberosa, 2-locularis; pollinia 2, cerea,

anguste oblonga, sulcata, inappendiculata, anthera dehiscente glandulæ latiusculæ absque stipite affixa. Capsulæ . . .—Herbæ epiphyticæ, caulibus brevibus paucifoliatis mox in pseudobulbos carnosos incrassatis. Folia magna *Peristeriæ*. Scapi ad latera pseudobulborum recurvi v. penduli, plurivaginati, simplices. Flores majusculi, dense racemosi, breviter pedicellati.

Species 3?, Colombiæ et Americæ centralis incolæ. *Pœpp. et Endl. Nov. Gen. et Sp. t.* 74 (*Anguloa*). *Reichb. f. Xen. Orch. t.* 64. Hæc species typica, eique associandæ videntur *Peristeria cerina*, Lindl. Bot. Reg. t. 1953, et forte *P. guttata*, Knowles et Westc. Fl. Cab. t. 70, ex descriptione potius quam ex analysi in icone.

Genus habitu *Peristeriæ* accedit sed columna et perianthium omnino *Cyrtopodiearum*.

115. **Batemannia,** *Lindl. Bot. Reg. t.* 1714.—Sepala æquilonga, posticum liberum, erectum, concavum, lateralia pedi longo columnæ adnata, ad apicem pedis patentia, postico angustiora. Petala sepalo postico subsimilia at plana, basi pedi columnæ latiuscule adnata. Labellum ad apicem pedis columnæ articulatum, basi incumbens, concavum; lobi laterales erecti, columnam amplectentes, medius patens, brevis, indivisus; crista ad basin lobi parva. Columna longiuscula, crassa, antice concava, exalata, basi in pedem producta; clinandrium obliquum, margine elevato membranaceo denticulato. Anthera intra marginem clinandrii affixa, opercularis, incumbens, convexa, 2-locularis, membrana lata appendiculata; pollinia 2, cerea, anguste oblonga, sulcata v. 2-loba, inappendiculata, anthera dehiscente glandulæ (v. stipiti) obovatæ v. cuneiformi planæ affixa. Capsula . . . —Herba epiphytica, caulibus abbreviatis 1–3-foliatis, mox in pseudobulbum carnosum incrassatis. Folia ampla, membranaceo-coriacea, plicató-venosa, basi breviter contracta. Scapi ad basin pseudobulborum recurvi v. penduli, basi vaginis subfoliaceis stipati, simplices. Flores majusculi, laxe racemosi, pedicellati. Bracteæ ovatæ, pedicello breviores.

Species 1, Guianensis. *Bot. Mag. t.* 3818 (petala imperfecte delineata).

Huntleya Meleagris, Lindl., speciesque affines a Reichb. f. in Walp. Ann. vi. 555, et in Linnæa xli. 108, ad *Batemanniam* relatæ, nobis et habitu et characteribus longe differre videntur et ad *Zygopetalum* referendæ.

116. **Bifrenaria,** *Lindl. Gen. et Sp. Orch.* 152.—Sepala subæquilonga, erecto-patentia, lateralia basi lata pedi columnæ adnata, mentum sæpius longum calcariforme formantia. Petala sepalo postico similia v. minora latioraque. Labellum ad apicem pedis columnæ sæpius articulatum, ungue incumbente brevi v. elongato; lobi laterales ad apicem unguis latiusculi, erecti, medius patens, integer v. 2-fidus. Columna erecta, crassiuscula, semiteres, exalata, basi in pedem longum producta; clinandrium truncatum. Anthera terminalis, opercularis, incumbens, valde convexa, interdum dorso cristata, 1-locularis v. imperfecte 2-locularis; pollinia 4, ovoidea v. latiuscula, cerea, per paria sibimet arcte applicita v. in 2 2-fida connata, inappendiculata, anthera dehiscente stipitibus 2 brevissimis elongatisve basi in glandulam transversam sæpius connatis affixa. Capsula . . . —Herbæ epiphyticæ, caulibus brevissimis paucivaginatis mox in pseudobulbos carnosos apice 1–2-foliatos incrassatis. Folia oblonga, interdum ampla, plicatovenosa. Scapi inter pseudobulbos simplices, erecti, nunc breves floribus paucis rarius ad unum reductis magnisque, nunc tenuiores floribus minoribus in racemo pluribus breviter pedicellatis. Bracteæ parvæ v. in grandifloris spathaceæ.

Species ad 10, Brasiliæ, Guianæ et forte Colombiæ incolæ. *Reichb. f. in Walp. Ann.* vi. 546 (*excl. B. Hadwenii*); *Xen. Orch. t.* 94. *Hook. Exot. Fl. t.* 120 (*Dendrobium*), 217. *Bot. Mag. t.* 2789, 2927, 3597, 3629. *Bot. Reg. t.* 897, 1566, 1875; 1839, *t.* 12. *Lodd. Bot. Cab. t.* 1318, 1877. *Knowl. et Westc. Fl. Cab. t.* 83. *Reg. Gartenfl. t.* 52 (*ic. nonnullæ sub Maxillaria*).

Stenocoryne, *Lindl. Bot. Reg.* 1843, *Misc.* 53, est *B. longicornis*, Lindl., species e Guiana et Brasilia boreali, mento longo tenuiter calcariformi insignis, et ab auctore generice distincta 'caudiculis 2 glandulisque totidem ovalibus.' Flores typicos Guianenses examinare nequimus, sed in planta Spruceana e Panuré Brasiliæ borealis n. 2935, Guianensi cæterum simillima et a

Lindleyo pro eadem determinata, pollinarii stipites 2 vidimus basi certe connatos, nec a basi distinctos ut in herb. Lindl. delineati.

117. **Xylobium,** *Lindl. Bot. Reg. sub t.* 897.—Sepala subæquilonga, erecta, demum subpatentia, lateralia postico latiora basi pedi columnæ adnata, mentum formantia. Petala sepalo postico similia nisi minora. Labellum cum pede columnæ subarticulatum, sessile v. basi contractum incumbensque, dein erectum; lobi laterales erecti, columnam amplectentes, medius brevis, latus, patens, facie lævis lamellatus v. basi callosus. Columna erecta, semiteres, antice concava v. anguste 2-alata, basi in pedem producta; clinandrium oblique truncatum. Anthera terminalis, opercularis, incumbens, valde convexa, 1-locularis; pollinia 4, ovoidea, per paria sibimet arcte applicita v. plus minus connata altero minore, inappendiculata, anthera dehiscente stipiti interdum longiusculo affixa, glandula squamiformi transversa. Capsula oblonga, erecta.—Herbæ epiphyticæ, caulibus brevibus plurivaginatis mox in pseudobulbos carnosos 1–2-foliatos incrassatis. Folia ampla v. elongata, plicato-venosa, in petiolum contracta. Scapi ad basin pseudobulborum erecti, simplices. Flores racemosi, mediocres v. majusculi, brevissime pedicellati. Bracteæ lineares, sæpius longiusculæ.

Species enumeratæ 16, Americæ tropicæ incolæ. *Lindl. in Paxt. Fl. Gard.* iii. 69, *t.* 264. *Reichb. f. in Walp. Ann.* vi. 507 (ab utroque ad sectionem *Maxillariæ* reductæ). *Presl Symb. t.* 24 (*Dendrobium*). *Pœpp. et Endl. Nov. Gen. et Sp. t.* 67 (*Maxillaria*). *Bot. Reg. t.* 732 (*Dendrobium*), 1549 (*Maxillaria*). *Bot. Mag. t.* 2806, 2955, 3981 (*Maxillaria*).

Genus quoad florum characteres *Maxillariæ* affine, sed habitu et inflorescentia (*Bifrenariæ*) et pollinarii stipite longiore satis distinctum videtur.

118. **Lacæna,** *Lindl. Bot. Reg.* 1843, *Misc.* 68; 1844, *t.* 50. (Navenia, *Klotzsch in Allgem. Gartenz.* 1853, 193.)—Sepala subæquilonga, patentia, posticum liberum, lateralia paullo latiora, basi cum pede columnæ mentum brevissimum formantia. Petala sepalo postico similia nisi minora. Labellum cum pede columnæ continuum (v. articulatum?), inflexum, apice patens; lobi laterales ad latera unguis lati brevesque, v. longi et angusti, erecti, medius patens, stipitatus, latus, indivisus. Columna incurvo-erecta, longiuscula, semiteres, apice subclavata breviterque 2-alata, basi in pedem brevem producta; clinandrium concavum, oblique membranaceo-marginatum. Anthera subterminalis, opercularis, incumbens, imperfecte 2-locularis; pollinia 2, cerea, anguste v. latiuscule oblonga, sulcata, apice attenuata, inappendiculata, anthera dehiscente stipiti lineari affixa; glandula parva. Capsula . . .—Herbæ epiphyticæ, caulibus brevibus 2-3-foliatis mox in pseudobulbum carnosum incrassatis. Folia ampla, plicato-venosa, in petiolum contracta. Scapi infra pseudobulbos longi, recurvi, plurivaginati, simplices. Flores majusculi, laxe racemosi, breviter pedicellati. Bracteæ subscariosæ, pedicellos subæquantes v. paullo longiores.

Species 2, Americæ centralis incolæ. *Reichb. f. in Walp. Ann.* vi. 612. *Bot. Mag. t.* 6516. *Lemaire, Illustr. Hortic.* i. *t.* 33.

119. **Lycaste,** *Lindl. Bot. Reg.* 1843, *Misc.* 14; *et in Paxt. Fl. Gard.* ii. 37, *f.* 151, 152. —Sepala subæqualia, erecto-patentia, lateralia paullo latiora, basi cum pede columnæ mentum sæpius breve interdum fere saccatum formantia. Petala nunc sepalis similia nisi minora, nunc sæpius distincte breviora latioraque. Labellum columnæ pedi affixum, sessile v. unguiculatum, sepalis brevius; lobi laterales ad basin v. ad apicem unguis erecti, lati v. anguste falcati, medius parvus latus v. elongatus angustusque, patens, integer v. varie ciliatus v. fimbriatus; discus medio appendice transversa v. callo polymorpho instructus. Columna longiuscula, arcuata, semiteres, exalata v. apice angustissime 2-alata, basi in pedem brevem producta; clinandrium breve v. rarius membranaceo-dilatatum. Anthera terminalis, opercularis, incumbens, valde convexa, 1-locularis; pollinia 4, oblonga v. ovoidea, per paria sibimet arcte applicita, inappendiculata, anthera dehiscente stipiti

longo lineari affixa, glandula parvula. Capsula oblonga v. fusiformis, erecta.—Herbæ epiphyticæ (v. terrestres?) caulibus brevibus paucifoliatis basi vaginatis mox in pseudobulbos carnosos incrassatis. Folia ampla, plicato-venosa. Scapi ad latera pseudobulborum erecti, 1-flori v. rarius laxe 2–3-flori. Flores magni, sæpius nutantes.

Species ad 25, Americæ tropicæ a Peruvia usque ad Mexicum et Indiam occidentalem incolæ. *Reichb. f. in Walp. Ann.* vi. 600; *Otia Hamb.* 7. *Pœpp. et Endl. Nov. Gen. et Sp. t.* 64. *Batem. Orch. Mex. et Guat. t.* 35. *Exot. Fl. t.* 219. *Bot. Mag. t.* 3146, 3395, 4081, 4193, 4445, 5616, 5706, 6251, 6303. *Bot. Reg. t.* 1206, 1428, 1871, 1845, *t.* 34. *Saund. Ref. Bot. t.* 102. *Lodd. Bot. Cab. t.* 1824 (ic. nonnullæ sub *Maxillaria*).

Genus bene a *Maxillaria* separatum, *Anguloæ* tamen valde affine, paullulum differt perianthio plus minus patente, cæterum pluribus notis variat. In *L. cristata*, *L. fulvescente*, affinibusque, labellum basi angustatum, lobo medio insigniter ciliato, in speciebus pluribus labellum basi concavum intus fere saccatum, lobo medio integro. *L. tetragona*, Lindl. (a nobis non visa), ab omnibus differt scapo brevissimo, labello crasse carnoso fere saccato intus lamina carnosa aucto.

PAPHINIA, *Lindl. Bot. Reg.* 1843, *Misc.* 14 (*Maxillaria, Bot. Reg. t.* 1811), *Bot. Mag. t.* 4836, ad *Lycastem* referenda videtur; a speciebus typicis paullulum differt scapo sæpe 2-floro. Appendicula in medio labello in utraque specie adest. *P. rugosa*, Reichb. f. in Linnæa xli. 110, nobis ignota est.

COLAX, *Lindl. Bot. Reg.* 1843, *Misc.* 50, species 2 Brasilienses includit, ab auctore distinctas floribus subglobosis vix ringentibus, quod in sola icone Bot. Reg. t. 1510 (*Maxillaria viridi*) apparet, et pollinarii stipite superne plus minus membranaceo-dilatata. In iconibus tamen *M. placantheræ*, Bot. Mag. t. 3173, a Reichenbachio ad *M. viridem* reducta, et præsertim *C. jugosi*, Lindl., Reichb. f. Xen. Orch. t. 41; Bot. Mag. t. 5661; Illustr. Hortic. t. 96, sepala et petala plane patentia delineantur. Pollinarii stipes in utraque specie quam in *Lycastis* plerisque latior videtur, sed in genere variat. Scapi in *C. rugoso* ut in *Paphinia* 2–3-flori, in *C. viridi* ut in *Lycastis* typicis 1-flori.

120. **Anguloa,** *Ruiz et Pav. Prod. Fl. Per.* 118, *t.* 26; *Syst. Veg.* 228.—Sepala subæqualia, lata, crassiuscula, fere in globum conniventia, lateralia basi rotundata, sub pede columnæ connata. Petala sepalo postico subsimilia v. minora. Labellum in pede columnæ plus minus stipitatum, carnosulum; lobi laterales ad apicem unguis erecti, paralleli, medius patens, parvus v. latior ciliatusque; discus medio lamella auctus. Columna erecta, semiteres, exalata, basi in pedem brevem producta; clinandrium truncatum v. antice 2-appendiculatum. Anthera terminalis, opercularis, incumbens, galeata, 1-locularis; pollinia 4, cerea, ovata v. oblonga, per paria sibimet arcte applicita postico minore, inappendiculata, anthera dehiscente stipiti longo plano affixa, glandula ovata. Capsula . . .—Herbæ epiphyticæ v. terrestres, caulibus brevibus paucifoliatis basi vaginatis mox in pseudobulbos carnosos incrassatis. Folia ampla, plicato-venosa. Scapi ad latera pseudobulborum erecti, 1-flori, vaginis pluribus laxis, superioribus interdum in laminam foliaceam brevem productis. Flos magnus, sæpius nutans.

Species 3, Andium Colombiæ et Peruviæ incolæ. *Lindl. in Bot. Reg.* 1846, *sub t.* 41. *Reichb. f. in Walp. Ann.* vi. 599; *Otia Hamb.* 6. *Bot. Mag. t.* 4313, 4807, 5384. *Bot. Reg.* 1844, *t.* 60, 63; 1846, *t.* 41.

121. **Chondrorhyncha,** *Lindl. Orch. Linden.* 12.—Sepala subæquilonga, anguste oblonga, posticum basi columnæ adnatum, concavo-carinatum, lateralia basi obliqua, pedi brevissimo columnæ adnata. Petala sepalis multo latiora, obovato-oblonga. Labellum cum pede columnæ articulatum, sessile, latum, erectum, concavum, indivisum, basi intus callo 3-dentato instructum. Columna semiteres, superne utrinque dilatata, basi in pedem brevissimum producta; clinandrium valde obliquum, integrum. Anthera terminalis, opercularis, incumbens, 1-locularis; pollinia 4, cerea, angusta, acuminata, per paria sibimet incumbentia, postico minore, inappendiculata, anthera dehiscente stipiti crasso affixa, glandula molli. Capsula . . .—Herbæ epiphyticæ, caulibus brevissimis plurifoliatis non pseudobulbosis. Folia oblonga, plicato-venosa, in petiolum contracta. Scapus e rhizomate simplex, paucivaginatus, flore unico majusculo.

Species 1 v. 2, Colombianæ. *Reichb. f. in Walp. Ann.* vi. 663, *et in Saund. Ref. Bot. t.* 107. Genus ex herbario et notis Lindleyanis potius *Zygopetalo* quam *Steniæ* affine videtur; flores nos ipsi examinare nequimus.

122. **Gongora,** *Ruiz et Pav. Fl. Per. et Chil. Prod.* 117, *t.* 25; *Syst. Veg.* 227.—Sepalum posticum erecto-patens, basi columnæ plus minus adnatum, lateralia latiora, basi pedi columnæ adnata, patentia v. reflexa. Petala cum sepalo postico, quo sæpius breviora, basi columnæ adnata erecta v. patentia. Labellum cum pede columnæ continuum, patens v, ascendens, angustum, carnosum; lobi laterales crassi, erecti, varie cornigeri v. aristuliferi, medius varie saccatus complicatus v. a latere compressus. Columna erecta v. ascendens, basi in pedem producta, superne semiteres, exalata, apice sæpius clavata, antice 2-cornuta v. nuda; clinandrium breve, truncatum. Anthera terminalis, opercularis, incumbens, convexa, antice interdum acuminata, 1-locularis v. imperfecte 2-locularis; pollinia 2, ovoidea v. anguste oblonga, acutiuscula, inappendiculata, anthera dehiscente stipiti lineari-cuneato affixa, glandula sæpius parvula. Capsula oblonga v. fusiformis, nunc elongata, erostris v. apice brevissime contracta.—Herbæ epiphyticæ, caulibus brevissimis basi vaginatis, mox in pseudobulbum carnosum sæpius 2-foliatum incrassatis. Folia ampla, plicato-venosa, basi contracta. Scapi ad basin pseudobulborum sæpius reflexi, simplices, racemo longo laxo flexuoso. Flores majusculi, longiuscule pedicellati. Bracteæ breves, angustæ.

Species enumeratæ ad 20, Americæ tropicæ a Brasilia usque ad Mexicum incolæ. *Reichb. f. in Walp. Ann.* vi. 590; *Xen. Orch.* i. 51, *t.* 20, 170; *in Bot. Zeit.* 1857, 157; 1864, 298; 1866, 385; *et in Linnæa* xli. 110. *Hook. Exot. Fl. t.* 178. *Bot. Mag. t.* 3220, 3687, 6284. *Bot. Reg. t.* 1616; 1839, *t.* 51; 1841, *t.* 2; 1845, *t.* 56; 1847, *t.* 17, 69. *Maund, Botanist, t.* 109.

Acropera, *Lindl. Gen. et Sp. Orch.* 172; *Lodd. Bot. Cab. t.* 1645 (*Maxillaria*); *Bot. Mag. t.* 3563, 5501; *DC. Not.* ix. *Pl. Rar. Hort. Gen. t.* 2, a Reichenbachio rite ad *Gongoram* reducitur. Species typica a cæteris *Gongoris* non differt nisi sepalis latioribus et petalis apice sæpius divaricato-2-aristatis. In speciminibus hortensibus stigma ex Darwinio semper imperfectum; in sylvestribus a Bourgeau in Mexico lectis perfectum est, capsulis bene maturescentibus.

123. **Coryanthes,** *Hook. Bot. Mag. t.* 3102.—Sepala libera, patentissima, magna, irregulariter undulato-flexuosa, posticum lateralibus brevius latiusque. Petala sepalis multo minora, erecta, torta. Labellum carnosum, ungue longo patente cum basi columnæ continuo; lobi laterales in medio ungue in appendicem poculiformem connati, medius magnus, galeatus. Columna longiuscula, teres, apice inflexo-clavata v. breviter 2-alata, apoda, basi 2-auriculata v. 2-cornuta; clinandrium parum prominens. Anthera terminalis, opercularis, incumbens, convexa, carnosa, 2-locularis; pollinia 2, cerea, anguste oblonga, sulcata, inappendiculata, anthera dehiscente stipiti lineari affixa, glandula parva. Capsula . . .—Herbæ epiphyticæ, caulibus abbreviatis mox in pseudobulbos carnosos apice 2-foliatos incrassatis. Folia ampla, nervosa, subplicata. Scapi ad latera pseudobulborum reflexi, simplices. Racemi laxe pauciflori, floribus maximis breviter pedicellatis.

Species ad 4, Americæ australis tropicæ incolæ. *Lindl. Fol. Orch.* 1852. *Reichb. f. in Walp. Ann.* vi. 596; *in Bot. Zeit.* 1864, 332; *et in Linnæa* xli. 74. *Karst. Ausw. Gew. Venez. t.* 1. *Batem. Orch. Mex. et Guat. t.* 36. *Hook. Bot. Misc.* ii. *t.* 80 (*Gongora*). *Bot. Mag. t.* 2755 (*Gongora*), 3747. *Bot. Reg. t.* 1793, 1841.

124. **Stanhopea,** *Frost ex Hook. Bot. Mag. t.* 2948–9. (Ceratochilus, *Lindl. in Lodd. Bot. Cab. t.* 1414, 1764, *non Blume.*)—Sepala libera, patentia, lata v. oblonga, carnosa, subæqualia v. lateralia latiora. Petala sepalis similia v. angustiora, interdum undulata. Labellum basi columnæ affixum, continuum v. vix brevissime ei connatum, patens, crasse carnosum, sæpe undulatum v. subtortum; lobi laterales unguem marginantes v. erecti, sæpe in massam solidam incrassati, *hypochilium* formantes globosum oblongum v. calceiforme, basi interdum 2-cornutum; lobus medius nunc brevissimus integer ab hypochilio vix distinctus, nunc evolutus continuus v. articulatus *epichilium* integrum v. 3-lobum formans, v. basi lobis v. cornubus 2 distinctis *metachilium* formantibus instructus. Columna erecta v. incurva, sæpius longiuscula, apoda, superne v. apice membranaceo-

marginata v. 2-alata; clinandrium breve, antice sæpius prominule 2-dentatum v. 2-cornutum. Anthera terminalis, opercularis, incumbens, convexa v. subglobosa, 1-locularis; pollinia 2, cerea, anguste oblonga, apice attenuata, inappendiculata, anthera dehiscente stipiti plano sæpius oblongo affixa, glandula squamiformi. Capsula ubi nota longe fusiformis.—Herbæ epiphyticæ, caulibus brevissimis ∞-vaginatis 1-foliatis mox in pseudobulbum carnosum incrassatis. Folium amplum, plicato-venosum, in petiolum contractum. Scapi inter pseudobulbos deflexi v. penduli, vaginis spathaceis stipati, simplices. Flores magni, in racemo laxo pauci, pedicellati. Bracteæ membranaceæ, spathaceæ, nunc pedicellum nunc ovarium ipsum involventes.

Species ad 20, Americæ tropicæ a Brasilia usque ad Mexicum incolæ. *Lindl. Fol. Orch.* 1852; *Sert. Orch. t.* 1, 20; *et in Paxt. Fl. Gard.* i. 31, *f.* 19 *ad* 21. *Reichb. f. Xen. Orch.* i. 111, *t.* 72, 82, 124, 125, 164, 165, 205; *in Walp. Ann.* vi. 582; *in Saund. Ref. Bot. t.* 108; *Otia Hamb.* 9; *et in Linnæa* xli. 109. *Humb. et Bonpl. Pl. Æquin. t.* 27 (*Epidendrum*). *Batem. Orch. Mex. et Guatem. t.* 7, 15, 27. *Bot. Mag. l. c. et t.* 3359, 4197, 4885, 5278, 5289, 5300. *Bot. Reg. t.* 1529, 1800, 1837; 1838, *t.* 5, 1839, *t.* 1, 1843, *t.* 44, 1845, *t.* 24, 65. *Lem. Fl. des Serres* ii. *t.* 181, 713, 974. *Lodd. Bot. Cab. t.* 1985.

Genus naturalissimum quoad labellum polymorphum, in sectiones difficillime dividitur. Lindley series 4 proposuit ad bractearum evolutionem, labellum cornutum v. ecornutum, lobo medio indiviso v. 3-partito. Reichenbach series 3 distinxit, ad labellum integrum (STANHOPEASTRUM, *Reichb. f. in Bot. Zeit.* 1852, 927; *Xen. Orch. t.* 43), v. in membra 2 v. 3 separabile. Limites tamen inter series utriusque auctoris sæpe obscuri sunt; labelli forma de specie in speciem et interdum in varietatibus ejusdem speciei variat.

Pollinarii stipes in speciebus perpaucis adhuc descriptus est. Capsulam in uno solo specimine vidimus immaturam, nec in ulla icone delineatur. Antheram unilocularem vidimus qualem a Hookero aliisque delineatur; Lindley 2-locularem dixit, verisimiliter a verbis Bonplandii seductus, qui in Pl. Æquin. l. c. pollinia pro loculis descripsit.

125. **Houlletia,** *A. Brongn. in Ann. Sc. Nat. ser.* 2, xv. 37.—Sepala subæqualia, libera, patentia. Petala sepalis similia v. basi angustiora. Labellum cum basi columnæ continuum, patens, angustum, carnosum, lobi laterales unguem crassum seu hypochilium marginantes, postice in processus corniformes retrorsum arcuatos producti, medius articulatus, indivisus, latiusculus, basi sæpe truncatus v. 2-auriculatus. Columna incurvo-erecta, crassiuscula, semiteres, exalata, apoda (v. basi in pedem brevissimum producta ?); clinandrium truncatum. Anthera terminalis, opercularis, incumbens, valde convexa, 1-locularis; pollinia 2, cerea, anguste oblonga, inappendiculata, anthera dehiscente stipiti angusto v. lineari affixa, glandula indistincta. Capsula . . .—Herbæ epiphyticæ, caulibus brevissimis vaginatis 1-foliatis mox in pseudobulbum carnosum incrassatis. Folium amplum, plicato-venosum, in petiolum longiusculum contractum. Scapi inter pseudobulbos erecti v. recurvi, simplices, paucivaginati. Flores majusculi, laxe racemosi, longiuscule pedicellati. Bracteæ pedicello multo breviores.

Species 5, Brasiliæ et Colombiæ incolæ. *Reichb. f. in Walp. Ann.* vi. 615, *et in Linnæa* xli. 111. *Lindl. Sert. Orch. t.* 43. *Bot. Mag. t.* 4072, 6305.

126. **Peristeria,** *Hook. Bot. Mag. t.* 3116, 3479. (Eckardia, *Reichb. ex Endl. Gen. Pl. Suppl.* ii. 17.)—Sepala subæquilonga, lata, crassiuscula, in globum conniventia, lateralia postico latiora et basi breviter connata. Petala sepalis minora, cæterum subsimilia. Labellum carnosum, cum basi columnæ continuum, basi patens; lobi laterales lati, erecti, medius continuus (v. articulatus ?), inflexus v. incumbens, concavus, indivisus v. 3-partitus; discus sæpe callosus. Columna erecta, subincurva, brevis, crassa, apoda, exalata, antice 2-auriculata v. nuda; clinandrium obliquum, postice elevatum. Anthera terminalis, opercularis, incumbens, imperfecte 2-locularis; pollinia 2, cerea, anguste oblonga, sæpius sulcata v. subdivisa, inappendiculata, anthera dehiscente stipiti (v. glandulæ ?) oblongo cuneato v. lato affixa. Capsula . . .—Herbæ epiphyticæ, validæ, caulibus brevissimis vaginatis mox in pseudobulbum carnosum apice 1- v. pauci-foliatum

incrassatis. Folia ampla nunc longissima, plicato-venosa, in petiolum contracta. Scapi ad latera pseudobulborum erecti nutantes v. a basi deflexi, simplices. Flores speciosi, in racemo brevi v. elongato breviter pedicellati. Bracteæ parvæ v. membranaceæ at ovario breviores.

Species 2 v. 3, Andium Colombiæ incolæ. *Reichb. f. in Walp. Ann.* vi. 607.

127. **Acineta,** *Lindl. Bot. Reg* 1843, *Misc.* 67. (Neippergia, *Morren in Ann. Soc. Agr. Gand.* v. 375, *t.* 282, *ex Lindl.*)—Sepala subæquilonga, lata, crassiuscula, demum subpatentia, lateralia postico latiora et basi breviter connata. Petala sepalis subsimilia nisi minora. Labellum carnosum, cum basi columnæ continuum, ungue angusto marginato, lobus medius continuus v. articulatus, inflexus, concavus, indivisus v. alte 3-lobus; discus sæpius calloso-appendiculatus. Columna erecta, curvula, interdum longiuscula, apoda, exalata v. superne crassior et anguste 2-alata; clinandrium obliquum, postice sæpe elevatum. Anthera terminalis, opercularis, incumbens, valde convexa, antice sæpe producta et 2-dentata, 1-locularis v. imperfecte 2-locularis; pollinia 2, cerea, anguste oblonga, inappendiculata, anthera dehiscente stipiti oblongo basi sæpe in glandulam dilatato affixa. Capsula . . .—Herbæ epiphyticæ, habitu *Peristeriæ*, caulibus mox in pseudobulbum carnosum apice 1- v. pauci-foliatum incrassatis. Folia ampla, plicato-venosa, in petiolum contracta. Scapi ad latera pseudobulborum erecti v. penduli, validi, simplices. Flores speciosi, in racemo breviter pedicellati. Bracteæ parvæ.

Species ad 8, Americæ tropicæ a Colombia usque ad Mexicum incolæ. *Reichb. f. in Walp. Ann.* vi. 608; *Xen. Orch. t.* 70. *H. B. et K. Nov. Gen. et Sp. t.* 93 (*Angola*). *Batem. Orch. Mex. et Guatem. t.* 8. *Bot. Mag. t.* 4156, 4203, *et Bot. Reg.* 1843, *t.* 18 (*omnes sub Peristeria*).

Genus olim *Peristeria* inclusum, paullulum differt perianthio demum aperto, columna, anthera et pollinario.

128. **Catasetum,** *L. C. Rich. in Kunth, Syn. Pl. Æquin.* i. 330. (Catachætum, *Hoffm. ex Linnæa* xvi., *Littbl.* 231.)—Sepala et petala libera, subæqualia, nunc omnia lata, crassa, in globum conniventia, nunc angustiora omnia v. sepalum posticum cum petalis conniventia, v. sepala lateralia v. interdum omnia patula v. deflexa. Labellum carnosum ad basin columnæ sessile. Flores cæterum polygamo-3-morphi. Fl. ♂ (*Cataseta typica*): Labellum crasse carnosum, latum, valde concavum v. galeatum, margine v. ore sæpe crenulatum dentatum v. fimbriatum. Columna erecta, longiuscula, crassa, margine utrinque infra stigma siccum seta v. cirro reflexo instructa, apoda; clinandrium postice in acumen longum productum. Anthera terminalis, opercularis, incumbens, convexa, dorso longe acuminata, 1-locularis v. imperfecte 2-locularis; pollinia 4, per paria sibimet incumbentia v. 2-sulcata v. 2-loba, cerea, oblonga, inappendiculata, anthera dehiscente stipiti longo loriformi affixa, glandula magna crassa. Fl. ♀ (MONACHANTHUS, *Lindl. Bot. Reg. sub t.* 1538): Labellum fere ut in mare. Columna multo brevior nunc brevissima, absque cirris, stigmate perfecto. Anthera quam in mare minor, polliniis (ex Darw.) imperfectis. Capsula oblonga, maxima, erostris. Fl. ☿ (MYANTHUS, *Lindl. Bot. Reg. sub t.* 1538): Labellum angustum oblongum v. ovatum, planum v. basi valde concavum, lobo medio interdum elongato, supra undique v. partim v. ad margines solos longe fimbriatum et supra basin interdum cornigerum. Columna fere maris, sed stigma ut videtur perfectum.—Herbæ terrestres v. epiphyticæ, caulibus brevibus basi vaginatis plurifoliatis mox in pseudobulbum ovoideum v. fusiformem incrassatis. Folia ampla, plicato-venosa, in vaginas contracta. Scapi ad basin pseudobulborum simplices, erecti v. penduli. Flores speciosi, in racemo numerosi v. pauci, ♂ et ♀ sæpius erecti labello supero, ☿ sæpius reversi.

Species fere 40, Americæ tropicæ a Brasilia usque ad Mexicum incolæ. *Reichb. f. in Walp. Ann.* vi. 564; *Otia Hamb.* 9; *Orch. Centr. Amer.* 73.

Formæ sexuales sæpissime separatim delineatæ scil.: CATASETUM (♂), *H. B. et K. Nov. Gen. et Sp.*

t. 630 *et* 631 (quoad scapum florentem, scapo fructifero ad formam ♀ pertinente). *Lindl. Collect. Bot. t.* 40. *Hook. Exot. Fl. t.* 90, 91, 151, 213. *Nees, Pl. Hort. Bonn. t.* 1. *Link, Kl. et Otto, Ic. Pl. Rar. t.* 42. *Bateman, Orch. Mex. et Guatem. t.* 2. *Bot. Mag. t.* 2559, 3329, 3590, 3823, 3929, 3937, 3942, 4017. *Bot. Reg. t.* 840, 1667, 1708; 1838, *t.* 63; 1840, *t.* 62. *Lodd. Bot. Cab. t.* 1344. MONACHANTHUS (♀), *Lindl. Sert. Orch. t.* 31. *Bot. Mag. t.* 3601, 3708, 3777, 3796, 3819, 3832. *Bot. Reg. t.* 1752. *Saund. Ref. Bot. t.* 82, 83. *Link, Kl. et Otto, Ic. Pl. Rar. t.* 42 (*Catachætum*). Huc etiam pertinere videtur *Mormodes luxatum*, Lindl. Bot. Reg. 1843, t. 33. MYANTHUS (☿), *Lindl. Sert. Orch. t.* 38. *Hook. Ic. Pl. t.* 177. *Bot. Mag. t.* 3262, 3514, 3802, 3923, 4792, 5202, 5399. *Bot. Reg. t.* 966, 1721, 1778, 1896; 1841, *t.* 5 *et* 34.

Formas tres in eadem planta quarum una sola fertilis primum detexit Schomburgk et descripsit in Trans. Linn. Soc. xvii. 551, t. 29; de quibus confer Darwin in Journ. Linn. Soc. vi. 151, et Fertil. Orch. 211.

129. **Mormodes,** *Lindl. Introd. Nat. Syst. ed.* 2, 446. (Cyclosia, *Klotzsch in Allgem. Gartenzeit.* 1838, 305.)—Sepala libera, subæqualia, patentia v. reflexa, rarius conniventia, sæpius angusta. Petala sepalis similia v. paullo latiora. Labellum ad basin columnæ subarticulatum, a basi patente incurvo-ascendens, plus minus in unguem sæpissime convexum contractum, superne latius, reduplicatum v. rarius concavum; lobi laterales sæpissime reflexi, rarius plano-patentes, medius sæpius acutus, integer v. raro ciliato-denticulatus. Columna crassiuscula, erecta, sæpe obliqua, antice concava, ecirrosa, exalata, apoda; clinandrium postice longe acuminatum. Anthera terminalis, opercularis, incumbens, convexa, dorso acuminata, 1-locularis v. imperfecte 2-locularis; pollinia 4, per paria sibimet incumbentia, v. 2, sulcata, cerea, oblonga, inappendiculata, anthera dehiscente stipiti loriformi affixa, glandula magna. Capsula . . .—Herbæ epiphyticæ, caulibus brevibus plurifoliatis mox in pseudobulbos oblongos v. fusiformes carnosos plurivaginatos incrassatis. Folia elongata, plicato-venosa. Scapi ad basin pseudobulborum simplices, racemis sæpius pendulis floribundis. Flores speciosi.

Species ad 14, Colombiæ et Americæ centralis usque ad Mexicum incolæ. *Reichb. f. in Walp. Ann.* vi. 577; *Otia Hamb.* 90; *Orch. Centr. Amer.* 74, *t.* 7; *et Xen. Orch. t.* 170. *Batem. Orch. Mex. et Guatem. t.* 14. *Lindl. in Paxt. Fl. Gard.* iii. *t.* 93. *Bot. Mag. t.* 3879, 3900, 4214, 4455, 4577, 5802, 5840, 6496. *Bot. Reg. t.* 1868; 1842, *t.* 43.

M. Greenii, Hook. f. Bot. Mag. t. 5802, ab omnibus differt sepalis petalisque late ovatis et labelli lateribus superne conduplicatis, lobis patentibus brevibus ciliato-denticulatis. Reichb. f. in Gard. Chron. 1869, 1205, hanc speciem ad *M. unciam* suam reducit sed character in Gard. Chron. 1869, 892, quoad perianthii formam et colorem minime convenit. *M. luxata*, Lindl., nostro sensu ad *Catasetum* (*Monacanthum*) transferenda est.

130. **Cycnoches,** *Lindl. Gen. et Sp. Orch.* 154.—Sepala subæqualia, libera, patentia. Petala sepalis similia v. paullo latiora, basi contracta v. latiuscula. Labellum carnosum, cum basi columnæ continuum, patens, basi in unguem contractum, superne lanceolatum v. orbiculatum, integrum v. varie lobatum cristatum v. fimbriatum. Columna elongata, tenuis, valde arcuata, exalata, apoda, apice incurvo-clavata; clinandrium postice elevatum, acuminatum v. bifidum (rarius oblique truncatum?). Anthera terminalis, opercularis, incumbens, 1-locularis v. imperfecte 2-locularis; pollinia 2, cerea, ovoidea, sulcata, inappendiculata, anthera dehiscente stipiti lineari rigidulo affixa, glandula magna crassa. Capsula . . .—Herbæ epiphyticæ, caulibus plurifoliatis mox longe carnoso-incrassatis v. pseudobulbos oblongos plurivaginatos formantibus. Folia ampla, plicato-venosa. Scapi ad basin pseudobulborum erecti v. nutantes, simplices. Flores speciosi, in racemo plures v. numerosi. Bracteæ parvæ.

Species ad 8, Americæ tropicæ a Guiana usque ad Mexicum incolæ. *Reichb. f. in Walp. Ann.* vi. 559; *Otia Hamb.* 10. *Lindl. Sert. Orch. t.* 16, 33, *et in Paxt. Fl. Gard. t.* 75. *Bot. Mag. t.* 3855, 4054, 4215. *Bot. Reg. t.* 1742; 1843, *t.* 22; 1846, *t.* 46. *Maund, Botanist, t.* 54, 156. *Lodd. Bot. Cab. t.* 2000.

LUEDEMANNIA, *Reichb. f. in Bonplandia* 1854, 281, *et in Walp. Ann.* vi. 563, est *Cycnoches Pescatorei*,

Lindl., in omnibus cum genere conveniens, exceptis polliniis ex Reichb. f. 'sessilibus in caudicula minuta.' Flores 3 tantum vidimus in herb. Lindl. pollinariis jam delapsis. *L. Wallisii*, Reichb. f. in Linnæa xli. 109, nobis ignota est.

131. **Chrysocycnis**, *Reichb. f. in Bonpl.*, 1854, 280; *Xen. Orch.* i. 162, *t.* 55; *et Otia Hamb.* 8.—Sepala subæqualia, libera, patentia. Petala sepalis similia, basi lata. Labellum breve, carnosum, cum basi columnæ continuum, patens, ungue brevissimo, lamina crassa, ovato-triangulari, basi angulis recurvis instructa. Columna elongata, tenuis, valde incurva, exalata, apoda; clinandrium breve, obliquum. Anthera terminalis, opercularis, incumbens, 1-locularis v. imperfecte 2-locularis; pollinia (a nobis non visa) 2, cerea, sulcata, inappendiculata, anthera dehiscente stipiti breve affixa, glandula hippocrepica. Capsula . . .—Herba epiphytica, rhizomate v. caudice elongato, vaginis inferioribus cujusve innovationis dissitis, superioribus arcte imbricatis pseudobulbos 1-foliatos foventibus. Folium ovatum v. oblongum, breviter petiolatum, venis majoribus acute elevatis. Scapi v. pedunculi ad axillas vaginarum infra pseudobulbos foliis multo breviores, plurivaginati, 1-flori. Flos majusculus.

Species 1, Novo-Granatensis. Genus ab auctore cum *Trigonidio* comparatur, nobis *Cycnochi* affinius videtur.

132. **Polycycnis**, *Reichb. f. in Bonplandia*, 1855, 218.—Sepala subæqualia, libera, patentia, angusta. Petala sepalis similia v. basi angustiora substipitata. Labellum basi columnæ affixum, patens, interdum basi 2-auriculatum; lobi laterales unguem anguste marginantes, apice varie arcuato-patentes, medius ovato-lanceolatus acuminatus, integer, basi dilatatus v. fere 3-lobus. Columna elongata, tenuis, curva, apice clavata, exalata, apoda; clinandrium truncatum. Anthera terminalis, opercularis, incumbens, valde convexa, 1-locularis; pollinia 2, cerea, anguste oblonga, apice acutiuscula, inappendiculata, anthera dehiscente stipiti lineari affixa, glandula vix distincta. Capsula . . .—Herbæ epiphyticæ, caulibus brevissimis vaginatis 1-foliatis, mox in pseudobulbum carnosum incrassatis. Folium amplum, plicato-venosum, in petiolum contractum. Scapi e rhizomate erecti, paucivaginati, simplices. Racemus laxe floribundus, sæpius nutans. Flores majusculi, pedicellati. Bracteæ parvæ.

Species 3, Americæ tropicæ a Guiana usque ad Americam centralem incolæ. *Reichb. f. in Walp. Ann.* vi. 618. *Bot. Mag. t.* 4479 (*Cycnoches*). *Bot. Reg.* 1841, *t.* 69 (*Houlletia*). *Illustr. Hortic.* xvii. *t.* 19.

133. **Stenia**, *Lindl. Bot. Reg. sub t.* 1991, *et* 1838, *t.* 20.—Sepala subæquilonga, inter se libera, patentia, lateralia parum latiora, basi pedi columnæ adnata. Petala sepalo postico similia. Labellum cum pede columnæ continuum, incumbens, carnosum, latum, concavum fere saccatum; lobi laterales minimi, medius indivisus v. omnes latiores fimbriati; discus transverse cristatus. Columna crassiuscula, erecta, semiteres, basi in pedem brevem producta; clinandrium valde obliquum, integerrimum. Anthera terminalis, opercularis, incumbens (semiglobosa ?), 2-locularis (demum 1-locularis ?); pollinia 4, oblongo-linearia, per paria sibimet incumbentia, postico minore, inappendiculata, anthera dehiscente stipiti lato ciliato-pubescenti affixa. Capsula . . .—Herbæ epiphyticæ, caulibus abbreviatis, pseudobulbis confertis 1–2-foliatis. Folia oblonga v. angusta, coriacea, costa prominula. Scapi ad axillas vaginarum infra folia v. pseudobulbos breves, recurvi, flore unico majusculo. (*Char. ex ic. et descr.*)

Species 2, a nobis non visæ, altera Guianensis, altera Colombiana. *Reichb. f. in Walp. Ann.* vi. 542; *in Illustr. Hortic.* xviii. 194, *t.* 80; *in Saund. Ref. Bot. t.* 107 (*Chondrorhyncha*).

Genus nobis non satis notum, species typica ex analysi Lindleyana tam labello quam polliniis ad *Stanhopieas* accedere videtur, sed columnæ pes, habitus et folia potius *Maxillariearum*.

134. **Schlimmia**, *Planch. in Lind. Catal.* 1852, *ex Lindl. in Paxt. Fl. Gard.* iii. 115, *f.* 287.—Sepalum posticum liberum, angustum, concavo-carinatum, lateralia latissima,

cum pede columnæ in mentum ample saccatum connata. Petala sepalo postico angustiora, apice patentia. Labellum ab apice pedis columnæ incumbens, sepalis inclusum, angustum, varie lobatum. Columna erecta, ad latera stigmatis alis v. auriculis longiusculis instructa, basi in pedem longum producta; clinandrium truncatum. Anthera terminalis, opercularis, incumbens, galeata, 2-locularis; pollinia 2, cerea, oblonga, inappendiculata, anthera dehiscente stipiti elongato apice cuneato affixa, glandula parva lunata. Capsula . . .—Herbæ epiphyticæ, pseudobulbis oblongis subfusiformibus 1-foliatis. Folium coriaceum, in petiolum contractum. Scapi inter pseudobulbos erecti v. recurvi, simplices, pauci-vaginati. Flores majusculi, carnosi, eburnei, in racemo laxo pauci, breviter pedicellati. Bracteæ oblongæ.

Species descriptæ 3, inter se evidenter valde affines, Andium Colombiæ incolæ. *Reichb. f. in Gard. Chron. ser.* 2, vi. 708, *ic. l. c.* vii. 141.

Genus hinc *Lycomormio* hinc *Maxillariæ* affine, perianthii forma distinctum.

135. ? **Clowesia**, *Lindl. Bot. Reg.* 1843, *t.* 39.—Sepala subæqualia, inter se libera, cum petalis in globum conniventia, mox patentia, lateralia basi pedi columnæ adnata, mentum breve formantia. Petala sepalo postico similia nisi latiora, ciliolata. Labellum cum pede columnæ continuum, sessile, carnosum, concavum, suberectum; lobi laterales erecti, medius recurvus, omnes dense fimbriati. Columna erecta, antice concava, superne latior, exalata, basi in pedem brevem producta; clinandrium valde elevatum, carnosum, fimbriato-lacerum. Anthera in fundo clinandrii opercularis, incumbens; pollinia 2, oblonga, sulcata, inappendiculata, anthera dehiscente stipiti brevi apice valde dilatato affixa, glandula crassa.—Herba epiphytica, pseudobulbis oblongis carnosis plurivaginatis. Habitus fide horticoli fere *Cataseti*, foliis lanceolato-ovatis acuminatis. Scapus ad basin pseudobulborum brevis, erectus, laxe pluriflorus, floribus breviter pedicellatis mediocribus albidis roseo-marginatis. Bracteæ parvæ.

Species unica, Brasiliensis. *Reichb. in Walp. Ann.* vi. 686. Genus videtur *Eriopsidi* affine, sed adhuc dubium nonnisi ex icone et descriptione Lindleyi notum. Scapus solus adest in herb. Lindl. cum flore unico. Folia non vidit Lindley. Dubium remanet an genus *Stanhopieis* an *Maxillarieis* referendum.

136. **Mormolyce**, *Fenzl, Nov. Gen. et Sp.* 1, *t.* 2; *in Denkschr. Akad. Wiss. Wien.* i. 253, *t.* 29.—Sepala subæqualia, libera, a basi patentia. Petala sepalis paullo minora. Labellum a basi columnæ ascendens, suberectum, sepalis multo brevius; lobi laterales erecti, columnæ paralleli, medius brevis, patens v. recurvus; discus subcallosus. Columna incurvo-erecta, semiteres, exalata, apoda v. vix basi protrusa; clinandrium oblique truncatum. Anthera terminalis, opercularis, incumbens, valde convexa; pollinia 4, cerea, ovoidea, per paria sibimet incumbentia v. connata, postico minore, inappendiculata, anthera dehiscente glandulæ squamiformi hippocrepicæ absque stipite affixa. Capsula . . .—Herba epiphytica, rhizomate repente, caulibus brevissimis paucivaginatis mox in pseudobulbum globosum carnosum 1-foliatum incrassatis. Folium longiusculum, coriaceum, basi breviter contractum. Scapi e rhizomate tenues, plurivaginati, aphylli, simplices, 1-flori. Flos mediocris, longiuscule pedicellatus. Bractea ad basin pedicelli brevis.

Species 1, Mexicana. Habitus fere *Trigonidii* cui adjunxit Lindley sub nomine *T. ringentis*, sed perianthii forma valde diversa fere *Maxillariæ*, a qua vix generice separanda. *Reichb. f. in Walp. Ann.* iii. 541, vi. 504.

137. **Scuticaria**, *Lindl. Bot. Reg.* 1843, *Misc.* 14.—Sepala subæquilonga, erecto-patentia, lateralia basi lata pedi columnæ adnata, mentum prominens formantia. Petala sepalo postico similia nisi minora. Labellum ad apicem pedis columnæ sessile, articulatum, latum, concavum; lobi laterales maximi, erecti, medius minor, patens. Columna erecta, crassiuscula, semiteres, exalata, basi in pedem producta; clinandrium truncatum. Anthera terminalis, opercularis, incumbens, valde convexa, 1-locularis v. imperfecte

2-locularis; pollinia 4, cerea, ovata, per paria sibimet arcte applicita, inappendiculata, anthera dehiscente stipitibus brevissimis v. fere obsoletis glandulæ transversæ squamiformi affixa. Capsula . . .—Herbæ epiphyticæ, caulibus e rhizomate brevissimo ramoso squamato brevissimis 1-foliatis basi paucivaginatis, demum vix carnoso-incrassatis. Folium longissimum, carnosum, subteres, hinc sulcatum, cum caule continuum. Scapi ad latera caulium breves, 1-flori.

Species 2, altera Brasiliensis, *Bot. Mag. t.* 4629 (*Bifrenaria*), altera Guianensis, *Bot. Mag. t.* 3573, *Bot. Reg. t.* 1986 (*Maxillaria*).

Species Brasiliensis, *S. Hadweni* (*Bifrenaria Hadweni*, Lindl.), pollinarii stipitibus distinctis etsi brevibus, nequaquam a Guianensi typica generice separanda. Pollinia in hac specie in glandula sessilia a Lindleyo dicuntur, ex icone *Bot. Reg. t.* 1986, stipites adsunt brevissimi annuliformes, in icone Bot. Mag. t. 3573, æque longi ac lati delineantur. Habitus in utraque specie eadem, ab illa *Bifrenariæ* longe differt.

138. **Maxillaria,** *Ruiz et Pav. Prod. Fl. Chil. et Per.* 116, *t.* 25; *Syst. Veg.* 219.—Sepala subæqualia, inter se libera, lateralia basi pedi columnæ adnata mentum sæpius parum prominens formantia, patentia v. rarius suberecta. Petala sepalis similia v. interdum minora. Labellum ad apicem pedis columnæ ungue brevissimo inflexo erectum, concavum; lobi laterales erecti, medius ovato-oblongus patens, sepalis paullo v. multo brevior; discus subnudus v. tuberculo instructus. Columna erecta, sæpe leviter incurva, crassa, semiteres, exalata, antice concava; clinandrium crassiusculum, concavum, integrum. Anthera terminalis, opercularis, incumbens, conica v. semiglobosa, 1-locularis v. imperfecte 2-locularis, sæpe pubescens; pollinia 4, ovata, compressa, per paria faciebus planis sibimet incumbentia, inappendiculata, anthera dehiscente stipiti plano brevi nunc brevissimo affixa, glandula squamiformi. Capsula ubi nota ovoideo- v. obovoideo-oblonga, erecta, erostris.—Herbæ epiphyticæ, caulibus nunc in rhizomate brevissimis mox in pseudobulbum carnosum 1–2-foliatum incrassatis, nunc ad apicem rhizomatis elongatis dense distichophyllis. Folia coriacea, tenuia v. subcarnosa, præter costam tenuiter venosa. Scapi v. pedunculi ad basin pseudobulborum v. in axillis foliorum solitarii, 2–∞-vaginati, semper 1-flori. Flores magni v. mediocres.

Species enumeratæ ultra 100, Americæ tropicæ a Brasilia usque ad Indiam occidentalem et Mexicum incolæ, nonnullæ tamen verisimiliter ad varietates hortenses reducendæ. *Lindl. Gen. et Sp. Orch.* 142, *pro parte. Reichb. f. in Walp. Ann.* vi. 512 (*sect. Colacastrum*); *Xen. Orch.* iii. 22; *Otia Hamb.* 7, 88; *Orch. Centr. Amer.* 31, 76, 104; *et in Linnæa* xli. 6, 28, 34, 73, 127.

Genus sat naturale, sed characteribus vix certis a pluribus affinibus separatum. Species in series 2 sequentes distribuuntur:—

1. *Acaules.* Rhizoma breve, vaginis aphyllis. Folia ad apices pseudobulborum sola evoluta. Scapi sæpius longiusculi. Series a *Lycaste* et *Xylobio* imprimis foliorum indole ab hoc etiam scapis 1-floris distinguenda. Pœpp. et Endl. Nov. Gen. et Sp. t. 62, 63, 65, 66. *Hook. Exot. Fl. t.* 119 (*Dendrobium*); *Ic. Pl. t.* 384; *Bot. Mag. t.* 2729, 3154, 3613, 3945, 3966, 4374, 4434, 6477. *Bot. Reg. t.* 1530 (*Cymbidium*), 1799, 1802, 1848. *Lodd. Bot. Cab. t.* 1612. *Maund, Botanist, t.* 140. *Saund. Ref. Bot. t.* 78, 79, 103, 104. *Reichb. f. Xen. Orch. t.* 10, *f.* 2, 3, *t.* 67.

Psittacoglossum, *Llav. et Lex. Nov. Veg. Descr.* ii., *Orch. Opusc.* 29, ex charactere dato omnino *Maxillariis Acaulibus* convenit, *Maxillaria* eorundem auct. evidenter ad *Xylobium* referenda. Dicrypta, *Lindl. Gen. et Sp. Orch.* 44 *et* 152 (Heterotaxis, *Lindl. Bot. Reg. t.* 1028, *Lodd. Bot. Cab. t.* 1657) est pariter species *Maxillariæ* e serie *Acaulium*. Icones supra citatæ species illustrant columnæ pede brevi mento parum prominente; in *M. grandifloro*, Lindl.; *Illustr. Hort.* xvii. *t.* 14 (*Dendrobio*, H. B. et K. Nov. Gen. et Sp. t. 88), *M. eburnea*, Lindl. Sert. Orch. t. 40, *M. venusta*, Lindl.; Bot. Mag. t. 5296, affinibusque paucis, sepala lateralia latissima, columnæ pedi longo adnata, mentum valde prominens formantia.

2. *Caulescentes.* Rhizoma ultra pseudobulbos in caulem vaginis laxis obtectum apice 1–2-foliatum productum, pedunculis seu scapis ad axillas vaginarum brevibus. Species nonnullæ *Camaridio* quodammodo accedentes. *Hook. Exot. Fl. t.* 142 (*Dendrobium*); *Ic. Pl. t.* 315, 348. *Bot. Mag. t.* 3614. *Bot. Reg.* 1839, *t.* 8. *Reichb. f. Xen. Orch. t.* 10, *f.* 1. *Nothium*, Lindl. Gen. et Sp.

Orch. 151, pro sectione propositum, delendum, est enim compositum e *Cattleya* quadam cum floribus *Bifrenariæ Harrisoniæ*.

139. **Camaridium,** *Lindl. in Bot. Reg. sub t.* 844.—Sepala subæqualia, inter se libera, patentia, lateralia basi pedi columnæ adnata, mentum breve formantia. Petala sepalis similia v. paullo minora. Labellum ad apicem pedis columnæ erectum, concavum, basi breviter contractum; lobi laterales columnam laxe amplectentes, medius patens; discus callosus v. barbatus. Columna erecta, curvula, semiteres, exalata, basi in pedem brevem producta; clinandrium parum prominens, truncatum. Anthera terminalis, opercularis, incumbens, valde convexa v. obtuse conica, imperfecte 2-locularis; pollinia 4, cerea, ovata, compressa, per paria sibimet incumbentia, postico sæpius minore, inappendiculata, anthera dehiscente stipiti plano latiusculo affixa, glandula parva. Capsula . . .—Herbæ epiphyticæ, caulibus foliatis sæpe ramosis, haud raro pseudobulbos hinc inde axillares v. ad apices innovationum 1–2-foliatos ferentibus. Folia ramorum florentium sæpe numerosa, regulariter disticha, coriacea, oblonga v. angusta, vaginis imbricatis distiche compressis, ad apices pseudobulborum majora. Flores ad axillas foliorum distichorum solitarii, mediocres; pedunculi bracteis paleaceis stipati.

Species ad 12, Americæ tropicæ incolæ, quarum typica Guianensis, cæteræ Colombianæ v. Peruvianæ. *Reichb. in Walp. Ann.* vi. 538 (*Maxillaria*) et 541. *Bot. Mag. t.* 3306 (*Ornithidium*) et 4141 (*Cymbidium*). *Pœpp. et Endl. Nov. Gen. et Sp. t.* 68 (*Dicrypta*). *H. B. et K. Nov. Gen. et Sp. t.* 78 (*Isochilus*).

Genus hinc *Dichææ* v. *Ornithidio* hinc *Maxillariæ* valde affine, cum priore mediante *D. glauca* arcte connexa, sed pseudobulbi sæpe adsunt etsi in nonnullis speciebus omnino deesse videntur. *Ornithidia* differunt sepalis minus patentibus et pedunculis fasciculatis sæpiusque columna apoda. Characteres e pollinario sumpti ulterius scrutandi. In specie typica ut in *C. alato*, Lindl., et *C. inflexo*, Lindl., sepala et petala quam in cæteris multo obtusiora.

140. **Dichæa,** *Lindl. Gen. et Sp. Orch.* 208. (Fernandezia, *Ruiz et Pav. Prod. Fl. Per. et Chil.* 123, *pro parte.*)—Sepala subæqualia, libera, patentia, lateralia basi cum pede columnæ mentum sæpius parum prominens formantia. Petala sepalis similia v. paullo minora. Labellum pedi columnæ affixum, basi brevissime v. longiuscule unguiculatum, lamina nunc late triangulari angulis interdum in dentem productis, nunc late ovata, concava, indivisa. Columna erecta, semiteres, exalata, basi in pedem brevem v. brevissimum producta: clinandrium obliquum breve integrumque, v. latius et denticulatum. Anthera terminalis, opercularis, incumbens, valde convexa, imperfecte 2-locularis; pollinia 4, cerea, ovoidea, per paria sibimet arcte incumbentia, inappendiculata, anthera dehiscente stipiti plano affixa, glandula parva. Capsula ovoidea v. oblonga, hirsuta muricata v. lævis, costis parum prominulis.—Herbæ epiphyticæ non pseudobulbosæ, caulibus foliosis elongatis sæpe pendulis vaginis foliorum obtectis. Folia disticha, patentia v. squarrosa, sæpius brevia. Pedunculi axillares, solitarii, floribus parvis sæpius minimis rarius mediocribus.

Species ad 12, Americæ tropicæ imprimis Mexici, Americæ centralis et Indiæ occidentalis incolæ. *Reichb. f. in Walp. Ann.* vi. 823; *Otia Hamb.* 90; *Orch. Centr. Amer.* 78, 104; *in Flora*, 1865, 279; *et in Linnæa* xli. 75, 112, 129. *Pœpp. et Endl. Nov. Gen. et Sp. t.* 105, 106. *Hook. Exot. Fl. t.* 196 (*Isochilus*). *Saund. Ref. Bot. t.* 84.

In speciebus typicis folia brevia, labellum sæpius nec semper in ungue longo triangulare, et capsula insigniter hispida v. muricata. *D. glauca*, Lindl., affinesque paucæ, capsula glabra et foliis paullo longioribus, *Camaridio* quodammodo accedunt.

141. **Ornithidium,** *Salisb. in Trans. Hort. Soc.* i. 293 (*absque char.*).—Sepala subæqualia, libera, erecta v. patentia, acuta, lateralia basi vix mentum brevissimum formantia. Petala sepalis similia nisi minora. Labellum nunc a basi columnæ erectum quacum continuum v. brevissime connatum, nunc ad apicem pedis brevissimi affixum, ex

ungue brevissime horizontali erectum; lobi laterales erecti, paralleli, columnam sæpe amplectentes, medius patens indivisus. Columna brevis v. parum elongata, crassiuscula, apoda v. in pedem brevissimum producta, exalata; clinandrium oblique truncatum. Anthera terminalis, opercularis, incumbens, galeata, imperfecte 2-locularis; pollinia 4, cerea, ovoidea, per paria sibimet incumbentia, nunc libera videntur, nunc anthera dehiscente stipiti lineari affixa glandula parva. Capsula . . .—Herbæ epiphyticæ, caulibus foliatis vaginis distiche imbricatis obtectis, et hinc inde pseudobulbos 1-foliatos laterales v. subterminales emittentibus. Folia oblonga v. elongata, tenuiter coriacea, sæpe in eodem specimine dimorpha, alia præcipue pseudobulborum longa basi in petiolum contracta, alia disticha abbreviata cum vagina articulata, sæpe tamen irregulariter mixta. Pedunculi 1-flori, ad axillas fasciculati. Flores mediocres v. parvuli.

Species ad 20, Americæ tropicæ a Brasilia usque ad Indiam occidentalem et Mexicum incolæ. *Reichb. f. in Walp. Ann.* vi. 486; *Xen. Orch. t.* 84, 207; *Orch. Centr. Amer.* 75; *et in Linnæa* xli. 34.

Genus quoad locum systematicum subdubium, *Dichææ* et *Camaridio* evidenter affine, sed mentum perianthii parum prominens v. obsoletum et pollinarium (in pluribus speciebus imperfecte observatum) minus distincte characteres *Vandearum* præbet. Facile ab affinibus dignoscitur pedunculis fasciculatis sæpissimeque perianthii forma, sed limites et diagnoses in speciminibus perfectis ulterius scrutandæ. Interea series 4 sequentes distinguendæ:—

1. In specie typica *O. coccineo*, labellum basi cum columna breviter connatum, erectum, lobis lateralibus columnam amplectentibus. *Hook. Exot. Fl. t.* 38. *Griff. Ic. Pl. As. t.* 317 (*ad specimen hortense*). *Jacq. Stirp. Amer. t.* 135 (*Epidendrum*). *Bot. Mag. t.* 1437 (*Cymbidium*).

2. In *O. giganteo*, Lindl., affinibusque, columna basi antice incrassata, labello a basi erecto columnæ applicito sed minime adnato. Huc pertinere videtur *O. aureum*, Pœpp. et Endl. Nov. Gen. et Sp. t. 96.

3. In pluribus speciebus (*O. suavi*, Lindl., affinibusque) labellum basi in unguem brevem horizontalem cum columnæ basi continuum contractum, dein erectum, subincumbens at non articulatum videtur. Huc etiam verisimiliter pertinent *Scaphyglottis parviflora* et *S. pendula, Pœpp. et Endl. Nov. Gen. et Sp. t.* 97, 98, et, columna quam in cæteris speciebus paullo longiore, SIAGONANTHUS, *Pœpp. et Endl. l. c.* i. 40, *t.* 69.

4. In *O. denso*, Reichb. f. in Saund. Ref. Bot. t. 105 (*Maxillaria densa*, Lindl. Bot. Reg. t. 1804), labelli unguis medio in callum transversum incrassatur ibidemque subarticulatus.

142. ? **Cryptocentrum,** *Benth. in Journ. Linn. Soc.* xviii. 325.—Sepala tenuia, erecta, basi in tubum connata, posticum paullo brevius, lateralia basi in calcar longum tenue ovario appressum connata. Petala sepalo postico similia nisi breviora. Labellum cum basi columnæ continuum, erectum, basi intra calcar sepalorum in calcar longissimum ei subadnatum productum, lamina obovata, concava. Columna brevis, erecta, subteres, exalata, apoda; clinandrium parum prominens. Anthera terminalis, opercularis, incumbens, semiglobosa, 1-locularis; pollinia 2, cerea, subglobosa (sulcata?), inappendiculata (anthera dehiscente stipiti affixa?). Capsula . . .—Herba epiphytica, caulibus foliatis brevibus demum basi incrassatis et vaginis vetustis fibrosis obtectis vix tamen pseudobulbosis. Folia plura, linearia, vaginis distiche imbricatis. Scapi ad basin caulis numerosi, tenues, simplices, uniflori, foliis multo breviores, vaginas 1–2 angustas infra bracteam ferentes. Flos tenuis, cum calcare fere pollicaris. Bractea membranaceo-paleacea, angusta, elongata, ovarium et calcar arcte involvens, laminis parvis perianthii solis exsertis.

Species 1, Ecuadorensis, *Jameson* (*C. Jamesoni*, Benth.). Specimina plurima sed vix perfecta; genus distinctissimum apparet sed in speciminibus melioribus ulterius probandum.

143. **Diadenium,** *Pœpp. et Endl. Nov. Gen. et Sp.* i. 41, *t.* 71. (Chænanthe, *Lindl. Bot. Reg.* 1838, *Misc.* 38.)—Sepala subæquilonga, conniventia, angusta, lateralia alte connata basi in calcar longum producta. Petala sepalo postico latiora, libera. Labellum cum basi columnæ continuum, longe unguiculatum, erectum, basi in calcar longum duplex intra

sepalorum calcar productum; lobi laterales ad apicem unguis auriculiformes, medius brevis, patens v. recurvus. Columna erecta, semiteres, exalata, apoda; clinandrium parum prominulum, truncatum. Anthera terminalis, opercularis, incumbens, valde convexa, sub-1-locularis; pollinia 2, oblonga, acutiuscula, inappendiculata, anthera dehiscente stipiti lineari affixa, glandula parva. Capsula . . .—Herbæ epiphyticæ caulibus brevissimis 1-foliatis demum in pseudobulbum parvum incrassatis. Folium coriaceum. Scapi ad basin pseudobulbi erecti, tenues, apice laxe paniculato-ramosissimi. Flores parvi, secus ramulos dissiti, breviter pedicellati. Bracteæ parvæ.

Species 2, inter se evidenter valde affines, etsi diverse descriptæ, altera Peruviana, altera Paraensis, utraque adhuc accuratius investiganda. *Reichb. f. in Walp. Ann.* vi. 687; *Xen. Orch.* i. 13, *t.* 6.

Character supra datus partim ex descr. citatis sumptus, partim e flore unico examinato *Chænanthis Barkeri*, Lindl., in quo calcaria labelli a columna et a calcare sepalorum libera vidimus. Lindley identitatem generis sui cum Pœppigiano jam in herb. suo agnovit.

144. **Comparettia,** *Pœpp. et Endl. Nov. Gen. et Sp.* i. 42, *t.* 73 (*excl. C. saccata*).—Sepala æquilonga, erecto-patentia, posticum liberum, lateralia connata, basi in calcar longum tenue a petalis liberum producta. Petala sepalo postico æquilonga at latiora. Labellum cum basi columnæ continuum, basi in calcaria 2 longa linearia intra calcar sepalorum inclusa producta; lobi laterales latiuscule auriculiformes erecti, medius patens, sepalis multo longior, latissimus, emarginatus. Columna erecta, crassiuscula, semiteres, antice sulcata, exalata, apoda; clinandrium breve, obliquum, postice acutiusculum. Anthera terminalis, opercularis, incumbens, valde convexa, 1-locularis; pollinia 2, cerea, late ovoidea, sulcata, inappendiculata, anthera dehiscente stipiti lineari-cuneato affixa, glandula ovata. Capsula ovoidea v. oblonga, acutangula, rostrata.—Herbæ epiphyticæ, caulibus brevissimis 2-3-vaginatis mox in pseudobulbum parvum carnosum 1-foliatum incrassatis. Folium coriaceum. Scapi ad basin pseudobulbi erecti, elongati, simplices. Flores speciosi, laxe racemosi, distincte pedicellati. Bracteæ parvæ.

Species 2, Andium Americæ australis a Peruvia usque ad Americam centralem incolæ. *Reichb. f. in Walp. Ann.* vi. 687. *Bot. Mag. t.* 4980. *Bot. Reg.* 1838, *t.* 68.

PLECTROPHORA, *Focke in Tijdschr. Wiss. en Natuurk. Wetensk. Amsterdam*, i. 212, a Lindleyo et a Reichenbachio ad *Trichocentrum* relata, differt habitu, perianthio, et præsertim calcare sepalino nec e labello sole producto et melius cum *Comparettia* convenit.

145. **Scelochilus,** *Klotzsch in Allgem. Gartenz.* 1841, 261.—Sepala subæquilonga, erecta, conniventia, posticum concavum, lateralia alte connata, basi in saccum v. calcar breve sub labello producta. Petala sepalo postico sublatiora. Labellum cum basi columnæ continuum, longe unguiculatum, erectum, basi in calcar breve duplex v. didymum intra calcar calycis productum, lobi laterales in medio ungue intramarginales, v. ad apicem unguis auriculiformes v. falcati, medius brevis, latus, patens; discus ad basin lobi sæpe callosus. Columna erecta, semiteres, exalata, apoda, ad latera stigmatis parum dilatata; clinandrium vix prominulum, truncatum. Anthera terminalis, opercularis, incumbens, convexa, imperfecte 2-locularis; pollinia 2, cerea, subglobosa, sulcata, inappendiculata, anthera dehiscente stipiti lineari brevi affixa, glandula oblonga. Capsula . . .—Herbæ epiphyticæ, humiles, caulibus brevissimis vaginatis 1-foliatis demum in pseudobulbum angustum plus minus incrassatis. Folium coriaceum, non plicatum. Scapi ad basin pseudobulborum erecti, tenues, simplices v. subramosi. Flores mediocres, in racemo pauci, pedicellati. Bracteæ angustæ.

Species 3 v. 4, Andium Americæ australis incolæ. *Link, Kl. et Otto, Ic. Pl. Rar.* i. 77, *t.* 31. *Lindl. in Paxt. Fl. Gard.* iii. 87, *f.* 274. *Reichb. f. in Walp. Ann.* vi. 688, *et in Linnæa*, xli. 105. *Pœpp. et Endl. Nov. Gen. et Sp. t.* 72 (*Comparettia saccata*). Hæc species bene a Reichb. f. ad *Scelochilum* refertur, atque forte eadem ac *S Jamesoni*, Lindl. Genus totum cæterum *Comparettiæ* nimis affine est.

146. **Trichocentrum**, *Pœpp. et Endl. Nov. Gen. et Sp.* ii. 11, *t.* 115.—Sepala subæqualia, libera, patentia. Petala sepalis similia. Labellum basi cum columna in urceolum connatum, basi in calcar descendens productum, supra urceolum erectum, 2-auriculatum v. nudum ; lobi laterales parum dilatati, erectiusculi, medius explanatus, late 2-lobus, sepalis multo longior. Columna brevis, crassa, fere ad apicem labello adnata, apoda ; clinandrium antice latiuscule 2-lobum, dorso breve. Anthera terminalis, opercularis, incumbens, semiglobosa, imperfecte 2-locularis ; pollinia 2, cerea, ovoidea, compressiuscula, inappendiculata, anthera dehiscente stipiti plano cuneato affixa, glandula ovata. Capsula . . .—Herbæ epiphyticæ, caulibus brevissimis 1-foliatis demum in pseudobulbum parvum carnosum incrassatis. Folium coriaceum. Scapi inter pseudobulbos breves, plurivaginati, 1-flori v. rarius 2-flori. Flores mediocres v. majusculi.

Species ad 8, Americæ tropicæ a Brasilia usque ad Americam centralem incolæ. *Reichb. f. in Walp. Ann.* vi. 544 (*excl. sp. n.* 1 *et* 2). *Bot. Mag. t.* 3969, 5688. *Bot. Reg. t.* 1951. *Illustr. Hortic.* xxiv. *t.* 282. *Reichb. f. in Saund. Ref. Bot. t.* 77 ; *Xen. Orch. t.* 177.

147. **Rodriguezia**, *Ruiz et Pav. Prod. Fl. Per. et Chil.* 115, *t.* 25 ; *Syst. Veg.* 218. (Burlingtonia, *Lindl. Bot. Reg. t.* 1927 ; 1839, *t.* 44 ; *Sert. Orch. t.* 2, 36.)—Sepala subæquilonga, posticum liberum petaloideum, lateralia angusta alte connata, omnia erecta, conniventia v. lateralia sub labello patentia v. reflexa, rarius incurvo-ascendentia mentum sub labello formantia. Petala sepalo postico similia. Labellum basi columnæ continuum v. brevissime connatum, erectum, basi in calcar breve v. gibbum sæpius solidum productum, ungue columnæ parallelo, lamina patente obovato v. obcordato sepala sæpe excedente, disco sæpius cristato. Columna erecta, tenuis, apoda, apice clavata v. in brachia v. auriculas 2 varie producta ; clinandrii lobi laterales nunc longe producti nunc abbreviati. Anthera terminalis, opercularis, incumbens, valde convexa v. galeata, 1-locularis ; pollinia 2, cerea, ovoidea v. subglobosa, sulcata, inappendiculata, anthera dehiscente stipiti lineari v. basi dilatato affixa, glandula oblonga. Capsula . . .—Herbæ epiphyticæ, caulibus secus rhizoma interdum elongatum brevibus pseudobulbo 1–2-foliato terminatis. Folia oblonga v. elongata, coriacea. Scapi sub pseudobulbo axillares, erecti. Racemi simplices, floribundi, floribus sæpius speciosis.

Species ad 20, Americæ tropicæ a Brasilia usque ad Americam centralem incolæ. *Reichb. f. in Walp. Ann.* vi. 690 ; *Otia Hamb.* 87. *H. B. et K. Nov. Gen. et Sp. t.* 92. *Pœpp. et Endl. Nov. Gen. et Sp. t.* 70. *Hook. Exot. Fl. t.* 129 (*Pleurothallis*). *Bot. Mag. t.* 3524, *et sub Burlingtonia, t.* 4834, 5419. *Bot. Reg. t.* 930. *Lodd. Bot. Cab. t.* 676. *Fl. des Serres, t.* 716 (*Burlingtonia*).

Genus cum *Gomeza* arcte connectitur, mediante *Burlingtonia maculata*, Lindl., cui labellum basi gibbum tantum nec distincte calcaratum. Calcar brevissimum etiam in *R. secunda*, H. B. et K.

148. **Trichopilia**, *Lindl. Introd. Nat. Syst. ed.* 2, 446, *et Bot. Reg. t.* 1863. (Pilumna, *Lindl. Bot. Reg.* 1844, *Misc.* 74 ; 1846, *t.* 57. Leucohyle, *Klotzsch in App. Sem. Hort. Berol.* 1854, *ex Reichb. f.*)—Sepala subæqualia, libera, angusta, erecto-patentia. Petala sepalis subsimilia. Labelli unguis columnæ adnatus, v. in parte superiore eum arcte involvens, lamina patens, lobis lateralibus parum dilatatis conniventibus v. cum medio undulato continuis ; discus nudus v. lamellatus. Columna cum labelli ungue teres, apice ad latera stigmatis 2-auriculata v. 2-dentata ; clinandrium ample membranaceum, integrum v. 3-lobum, sæpius varie fimbriatum v. ciliato-dentatum. Anthera intra clinandrium opercularis, incumbens, convexa, obtusa v. acuminata, 1-locularis ; pollinia 2, obovoideo-oblonga, exappendiculata, anthera dehiscente stipiti loriformi affixa, glandula parva v. cuneata. Capsula ovoidea v. oblonga, erostris v. brevissime rostrata.—Herbæ epiphyticæ, pseudobulbis 1-foliatis. Folium carnosum, erectum, basi complicatum, angustum v. latiusculum. Scapi e rhizomate breves, aphylli, paucivaginati, 1–2- v. rarius 3–5-flori. Flores speciosi, pedicellati, sepalis sæpe tortilibus. Bracteæ parvæ.

Species ad 16, Americæ calidioris incolæ, imprimis in Colombia, America centrali et Mexico vigentes. *Reichb. f. in Walp. Ann.* vi. 678 ; *Xen. Orch.* ii. 98, *t.* 7, 131 ; *in Saund. Ref. Bot. t.* 100, *et in Linnæa* xli. 104. *Lindl. in Paxt. Fl. Gard. t.* 11, 54. *Bot. Mag. t.* 3739, 4654, 4857, 5035 (*Pilumna*), 5550, 5949. *Reg. Gartenfl. t.* 78.

Helcia, *Lindl. Bot. Reg.* 1845, *Misc.* 17, *et in Paxt. Fl. Gard.* ii. 97, *fig.* 182, ab auctore a *Trichopilia* separata fuit imprimis ob labellum a columna liberum basi 2-auriculatum, cui tamen ex Reichb. f. Xen. Orch. ii. 106 revera basi adnatum est, et genus ad *Trichopiliam* restitutum. Flos unicus in herb. Lindl. adest quem examinare nequimus.

Oliveriana, *Reichb. f. in Linnæa* xli. 111, e Medellin, *Wallis*, a nobis non visa, ex charactere dato in omnibus cum *Trichopilia* convenire videtur, excepto racemo 6-floro et labello 3-fido lobo medio dentiformi. De foliis et pseudobulbo silet auctor.

149. **Aspasia,** *Lindl. Gen. et Sp. Orch.* 139. (Trophianthus, *Scheidw. in Allgem. Gartenz.* 1844, 218.)—Sepala æquilonga, patentia, posticum cum petalis subsimilibus supra basin columnæ adnatum, lateralia libera. Labellum ungue columnæ adnato, cæterum patens; lobi laterales latiusculi, subdistincti, v. cum medio majore lato confluentes. Columna infra medium cum labello connata, dein erecta, semiteres, antice sulcata v. marginibus fovei stigmatici elevatis obtusis concava, cæterum exalata, apoda; clinandrium parum elevatum, truncatum, dente postico antherifero sæpe prominente. Anthera terminalis, opercularis, incumbens, valde convexa, dorso sæpe cristata, 2-locularis; pollinia 2, ovoidea v. pyriformia, inappendiculata, anthera dehiscente stipiti plano angusto v. cuneato affixa, glandula parva. Capsula . . .—Herbæ epiphyticæ, caulibus foliatis brevibus pseudobulbo 1-foliato sæpius terminatis. Folia infra pseudobulbum pauca, coriacea, vaginis disticha imbricatis. Pedunculi infra pseudobulbum axillares, breves, simplices. Flores speciosi, breviter racemosi.

Species ad 6, per Americam tropicam a Brasilia usque ad Americam centralem dispersæ. *Reichb. f. Xen. Orch.* i. 82, *t.* 34, *et in Walp. Ann.* vi. 849 (*Odontoglossi sect.*). *Bot. Mag. t.* 3679, 3962. *Bot. Reg. t.* 1907.

150. **Cochlioda,** *Lindl. Fol. Orch.* 1853.—Sepala æqualia, patentia, libera v. lateralia basi v. ad medium connata, mentum breve nunc obscurum formantia. Petala sepalis subsimilia. Labelli unguis erectus, columnam arcte amplectens eique plus minus adnatus; lamina patens, lobis lateralibus rotundatis sæpe reflexis, medio angusto integro v. emarginato sepala non excedente; discus basi sæpe membrana v. callo appendiculatus. Columna erecta, sæpe leviter incurva, tenuis v. crassa, semiteres, cum labello plus minus connata, exalata, basi in pedem brevissimum producta v. fere apoda; clinandrium truncatum v. obliquum v. sæpe membranaceo-3-lobum, interdum denticulatum. Anthera terminalis, opercularis, incumbens, imperfecte 2-locularis; pollinia 2, cerea, ovoidea v. subglobosa, sulcata, inappendiculata, anthera dehiscente stipiti plano brevi latoque v. oblongo affixa, glandula majuscula. Capsula . . .—Herbæ epiphyticæ, caulibus brevissimis pseudobulbo 1–2-foliato terminatis. Folia oblonga v. angusta, coriacea, in petiolum contracta. Scapi sub pseudobulbo 1–2, basi folio v. vaginis foliaceis stipati, simplices v. parce ramosi. Flores sæpius eleganter rubri, laxiuscule racemosi, pedicellati.

Species ad 6, Andium Americæ australis incolæ. Genus naturale, floribus fere *Epidendri* cum pollinario *Vandearum*; præter speciem typicam Lindleyi, includit *Odontoglossum roseum*, Lindl.; Batem. Monogr. Odontogl. t. 22, Bot. Mag. t. 6084, cum aliis a Reichb. f. in Gard. Chron. 1872, 393, ad *Mesospinidium* relatis et sub hoc nomine in Bot. Mag. t. 5627 et 6001 depictis, nostro sensu tamen minime congeneres *Mesospinidii* typici auctoris, quæ *Odontoglossi* species. *C. sanguinea* (*Mesospinidium sanguineum*, Reichb. f. in herb. Lindl.) a Warczewiczio et a Spruceo n. 6004 collecta, a *C. rosea* differt imprimis columna brevi crassa.

151. **Dignathe,** *Lindl. in Journ. Hort. Soc.* iv. 268.—Sepala subæqualia, libera, patentia. Petala sepalis similia v. paullo minora. Labellum basi subsaccatum et per lamellas 2 carnosas columnæ adnatum, lamina patente lata indivisa sepalis æquilonga. Columna brevissima, crassa, apoda; clinandrium truncatum. Anthera . . . ; pollinia 2, cerea, ovoidea, inappendiculata, anthera dehiscente stipiti lineari brevi affixa, glandula parva. Capsula . . .—Herba humilis, caulibus brevissimis vaginis latis obtectis et pseudobulbo 1-foliato terminatis. Folium parvulum, petiolatum, ovatum, coriaceum,

costa prominula. Scapus infra pseudobulbum petiolo vix longior, flore unico parvulo. Bractea scariosa.

Species 1, Mexicana. *Reichb. f. in Walp. Ann.* vi. 682. Genus nobis imperfecte notum ex specimine unico in herb. Lindl.; character noster quoad flores ex analysi et descriptione Lindleyi.

152. **Saundersia,** *Reichb. f. Beitr. Orch.* 17, *t.* 6, *in Nov. Act. Nat. Cur.* xxxv.—Perianthium supra ovarium productum in cavum oblique ovoideum sub sepalis clausum. Sepala supra cavum libera, subæqualia, patentia, ovata. Petala sepalis similia. Labellum ima basi cum columna breviter connatum, ungue longo latiusculo sepala superante, lamina 2-loba. Columna brevis, crassa, 2-auriculata, basi cum labello connata, apoda; clinandrium truncatum. Anthera terminalis, opercularis, incumbens, 1-locularis; pollinia 2, cerea, ovoideo-oblonga, sulcata, inappendiculata, anthera dehiscente stipiti angusto affixa, glandula parva. Capsula . . . —Herba epiphytica, caulibus brevissimis 1-foliatis paucivaginatis, non v. vix in pseudobulbum incrassatis. Folium oblongum, coriaceo-carnosum. Scapus brevis, recurvus, subfasciculato-pluriflorus, bracteis ovatis obtectus. Flores mediocres. (*Char. ex ic. et descr. Reichb. et ex ic. Descourtils in herb. Lindl.*)

Species 1, Brasiliensis, a nobis non visa. *Reichb. f. Xen. Orch. t.* 177.

153. **Brachtia,** *Reichb. f. in Linnæa,* xxii. 853. (Oncodia, *Lindl. Fol. Orch.* 1853.)—Perianthium supra ovarium productum in cavum oblique subglobosum, infra sepala clausum. Sepala supra cavum libera, subæqualia, suberecta. Petala sepalis similia nisi latiora. Labellum cum basi columnæ continuum, breve, erectum, indivisum, basi 2-lamellatum. Columna brevissima, crassa, marginibus basi cum labello continuis; clinandrium oblique truncatum, antice 2-dentatum. Anthera terminalis, opercularis, incumbens, dorso carinata, imperfecte 2-locularis; pollinia 2, cerea, subglobosa, sulcata, inappendiculata, anthera dehiscente stipiti lato lineari affixa, glandula oblonga. Capsula . . .—Herbæ epiphyticæ, caulibus brevibus paucifoliatis pseudobulbo 1-foliato terminatis. Folia coriacea. Pedunculi sub pseudobulbo axillares v. laterales, simplices. Racemus ad apicem pedunculi brevis, densus, secundus, bracteis membranaceis imbricatis flores subæquantibus. Flores mediocres v. parvuli, breviter pedicellati.

Species 3, Colombianæ. *Reichb. f. in Walp. Ann.* vi. 854; *Xen. Orch.* i. 74, *t.* 29.

154. **Odontoglossum,** *H. B. et K. Nov. Gen. et Sp.* i. 350, *t.* 85.—Sepala subæqualia, patentia, libera v. lateralia rarius basi brevissime connata, lanceolata v. oblonga, rarius ovalia. Petala sepalis similia v. rarius latiora. Labellum ad basin columnæ ei continuum sæpeque brevissime adnatum, basi erectum v. columnæ parallelum; lobi laterales breves erecti, medius patens v. deflexus, integer v. emarginatus, angustus v. latissimus; discus basi varie cristatus bicallosus v. rarius nudus. Columna quam in *Oncidio* sæpius (nec semper) longior, medium versus angustior, basi interdum in membranam expansa, apice præter dentes v. lobos clinandrii exalata, rarissime more *Oncidii* ad latera stigmatis 2-auriculata; clinandrium nunc truncatum vix prominens, nunc dentibus v. lobis 2 lateralibus angustis v. varie laceris dilatatisque instructum, nunc ample membranaceum lobatum denticulatumque. Anthera intra clinandrium terminalis, opercularis, incumbens, semiglobosa v. fere cucullata, 1-locularis v. imperfecte 2-locularis; pollinia 2, ovoidea, integra v. a latere sulcata, inappendiculata, anthera dehiscente stipiti lineari v. rarius latiori affixa, glandula ovali v. angusta. Capsula ovoidea v. oblonga, apice sæpius breviter rostrata.—Herbæ epiphyticæ, caulibus abbreviatis pseudobulbo 1–2-foliato terminatis. Folia sub pseudobulbo pauca, disticha, coriacea v. carnosula. Scapi sub pseudobulbo axillares, quam in *Oncidio* sæpius validiores, nunc breves 1-flori v. laxe pauciflori, nunc elati ample paniculato-ramosi floribundi. Flores speciosi v. in *Myanthiis* nonnullis parvuli, pedicellati. Bracteæ ovatæ v. lanceolatæ, pedicellis breviores nunc minimæ.

Species editæ ultra 80, nonnullæ tamen potius varietates incertæ, Andium Americæ tropicæ a Bolivia usque ad Mexicum incolæ. *Lindl. Fol. Orch.* 1852. *Reichb. f. in Walp. Ann.* vi. 824 (*excl. sp. paucis*); *Xen. Orch. t.* 22, 63, 68, 71, 81, 143, 158 *ad* 160, 174, 183, 184, 191, 192; *in Saund. Ref. Bot. t.* 99; *Otia Hamb.* 4; *Orch. Centr. Amer.* 70; *in Bot. Zeit.* 1864, 297, 415; 1875, 843; *et in Linnæa* xli. 2, 25, 68, 102. *Bateman, Monogr. Odontogl. Londini,* 1874, *cum tabb.* 30 (*excl. t.* 22, *quæ Cochlioda, et t.* 29 *ad Miltoniam referenda*); *Orch. Mex. et Guatem. t.* 24. *Bot. Mag. t.* 3812 (*Zygopetalum*), 3955, 4272, 4878, 4919, 4923, 5691, 5697, 5736, 5778, 5993, 6029, 6144, 6229, 6237, 6265, 6317, 6455, 6502. *Bot. Reg.* 1839, *t.* 48, 62 (*Cyrtochilus*); 1840, *t.* 30, 66; 1844, *t.* 39; 1845, *t.* 36; 1846, *t.* 34. *Lindl. et Paxt. Fl. Gard. t.* 15, 18, 90. *Link, Kl. et Otto, Ic. Pl. Rar. t.* 16.

Genus a Lindleyo in sectiones 6 dividitur, characteres tamen e clinandrii forma sumpti variant sæpe de specie in speciem, alii ex labelli colore valde incerti sunt et sectiones nullæ naturales evadunt, nisi forte *Myanthium*, species continens paniculatas parvifloras, quarum nullæ adhuc delineatæ sunt. *Trymenium* species plures continet inter se sat dissimiles, a normalibus subdistinctas, columna abbreviata fere *Oncidii*, clinandrii lobis membranaceis interdum fimbriato-dentatis. Ab *Oncidio* distinguuntur labio ima basi columnæ parallelo nec a basi distincto. Huc pertinent icones *Batem. Monogr. Odontogl. t.* 6 *et* 27. *Bot. Mag. t.* 4104. *Bot. Reg.* 1841, *t.* 48 *et* 1843, *t.* 3.

Mesospinidium, *Reichb. in Bot. Zeit.* 1852, 929; *Xen. Orch.* i. 36, *t.* 16, quoad speciem typicam, *M. Warczewiczii*, ex icone et descr. et, ex flore in herb. Lindl. servato, videtur *Odontoglossi* species e sectione *Myanthio*, *O. ramuloso*, Lindl., valde affinis. Species ab auctore serius *Mesospinidio* additæ nobis minime congeneres sunt, et sub *Cochlioda*, *Ada*, et *Abola* quærendæ.

155. **Oncidium,** *Swartz in K. Vetensk. Akad. Nya Handl. Stockh.* xxi. 239.—Sepala sæpius subæqualia, patentia v. reflexa, libera v. lateralia basi breviter connata, posticum rarius lateralibus multo angustius longiusque. Petala sepalo postico similia v. rarius majora. Labellum basi columnæ affixum, continuum, ungue brevi a columna divergente v. patente; lobi laterales ungui adnati, sæpius breves patentes v. reflexi, nunc obsoleti, medius patens, interdum latissimus, emarginatus v. 2-fidus, nunc (in *Microchilis*) angustus v. parvus integerrimusque; discus ad apicem unguis sæpissime insigniter cristatus v. tuberculatus. Columna brevis, crassa, superne ad latera stigmatis utrinque ala petaloidea auriculiformi extra marginem fovei instructa, apoda sed basi haud raro antice breviter gibba v. 2-auriculata; clinandrium nunc brevissimum truncatum nunc ovatum oblique erectum, integrum v. antice breviter 2-dentatum. Anthera terminalis, opercularis, incumbens, valde convexa, semiglobosa v. cucullata, 1-locularis v. imperfecte rarius perfecte 2-locularis; pollinia 2, cerea, obovoidea, inappendiculata, anthera dehiscente stipiti plano angusto elongatoque v. lato brevissimoque affixa, glandula varia. Capsula sæpissime ovoidea oblonga v. fusiformis, plus minus rostrata.—Herbæ epiphyticæ, caulibus foliatis sæpius brevibus v. brevissimis pseudobulbo 1–2-foliato terminatis, rarius ∞-foliatis ebulbosis. Folia sub pseudobulbo pauca v. interdum 0, plana, coriacea v. rarius papyracea, v. in speciebus ebulbosis basi a latere compressa distiche equitantia, vaginis caulem brevem obtegentibus. Pedunculi laterales v. ad basin pseudobulborum sæpius elongati ramosique, interdum flexuosi, rarius abbreviati uni- v. pauci-flori. Racemi laxi, floribus sæpe speciosis sæpissime plus minus flavis. Bracteæ parvæ.

Species editæ ultra 250, plures tamen inter se parum distinctæ, Americæ tropicæ incolæ, a Brasilia et Bolivia usque ad Indiam occidentalem et Mexicum extensæ. *Lindl. Fol. Orch.* 1855. *Reichb. f. in Walp. Ann.* vi. 699; *Otia Hamb.* 5, 86, 95; *Orch. Centr. Amer.* 72; *in Flora*, 1865, 278; *in Bot. Zeit.* 1856, 513; 1857, 158; 1862, 215; *et in Linnæa* xli. 20, 32, 67, 102.

Genus naturale, cum affinibus rarius confusum, a Lindleyo l.c. in series 14 divisum, quarum pleræque characteribus artificialibus distinctæ, sequentes tamen insigniores sunt.

1. *Microchila.* Caules pseudobulbosi, foliis planis. Flores sæpius speciosi, ample paniculati. Labelli lamina seu lobus medius parvus v. angustus, integerrimus. Species omnes Colombianæ v. Peruvianæ. *Bot. Mag. t.* 5632. *Bot. Reg.* 1843, *t.* 23. *Paxt. Fl. Gard.* ii. *t.* 63. Cyrtochilum, *H. B. et K. Nov. Gen. et Sp.* i. 349, *t.* 84 (*ic. quoad pollinarium erronea*). *Pæpp. et Endl. Nov. Gen. et Sp. t.* 61.

2. *Equitantia.* Caules sæpius humiles, non pseudobulbosi, foliis distichis basi complicatis equitantibus. Inflorescentia sæpius simplex v. parum ramosa. Labelli lamina lata sepalis longior. Capsula interdum erostris. Huc pertinent *O. iridifolium*, Lindl., cum speciebus 2 v. 3 ei valde

affinibus ex America australi v. centrali et ad 10 ex India occidentali. *A. Rich. Fl. Cub. t.* 84. *Bot. Mag. t.* 2773, 3393, 4130. *Bot. Reg. t.* 1787, 1789, 1842, *t.* 54. *Paxt. Fl. Gard. t.* 33.

O. onustum, Lindl., e Panama, species pseudobulbosa, in Fol. Orch. 12 errore inter *Equitantia* collocatur. *O. crista-galli*, Reichb. f. (*O. decipiens*, Lindl.), primo aspectu *O. iridifolio* subsimile, sub hoc nomine in Bot. Reg. t. 1911 delineatum fuit, sed rite in Fol. Orch. ad species planifolias pseudobulbosas transfertur.

3. *Teretifolia.* Folia in pseudobulbo parvo solitaria (v. gemina ?), longa, carnosa, teretia v. parum compressa. Inflorescentia et flores *Planifoliorum.* Species paucæ per aream totam generis late dispersæ. *Bot. Mag. t.* 3568. *Bot. Reg. t.* 1994, 1842, *t.* 4, 1846, *t.* 27.

4. *Planifolia.* Caules pseudobulbosi, foliis sub pseudobulbo paucis planis v. basi breviter concavis nec equitantibus. Inflorescentia sæpius paniculata, rarius ad racemum pauciflorum v. in una specie ad florem unicum reducta. Labelli lamina lata, sepalis longior. Species numerosæ, habitu vario, a Lindleyo in series 11 distributæ, imprimis ad sepala lateralia libera v. basi plus minus connata, v. ad formam labelli ejusque dentes v. cristas distinctas, characteres artificiales ad usum practicum sufficientes, etsi parum naturales. *H. B. et K. Nov. Gen. et Sp. t.* 81. *Pœpp. et Endl. Nov. Gen. et Sp. t.* 60. *Batem. Orch. Mex. et Guatem. t.* 3, 4, *et t.* 20 (*Odontoglossum*). *Lindl. Collect. t.* 27; *Sert. Orch. t.* 25 (*Cyrtochilus*), 27, 39, 48; *in Paxt. Fl. Gard. t.* 6, 21, 87. *Reichb. f. Xen. Orch. t.* 18, 33, 36, 63, 69, 98, 99; *et in Saund. Ref. Bot. t.* 74, 75. *Link, Kl. et Otto, Ic. Pl. Rar. t.* 6. *Bot. Mag. t.* 777, 1491, 2203, 2990, 3109, 3486, 3499, 3581, 3705, 3712, 3752, 3806, 3807, 3836, 3854, 3880, 3912, 3926, 4148, 4454, 4824, 5193, 5214, 5293, 5708, 5725, 5743, 5756, 5858, 5878, 5980, 6138, 6254, 6278, 6322, 6494 (*paucæ sub Cyrtochilo*). *Bot. Reg. t.* 727, 920, 1007, 1050, 1542, 1569, 1651, 1660, 1699, 1758, 1851, 1887, 1911, 1920, 1929, 2006; 1838, *t.* 44, 48; 1839, *t.* 42, 57; 1840, *t.* 10; 1841, *t.* 59; 1842, *t.* 30; 1843, *t.* 12, 43; 1845, *t.* 40, 64; 1847, *t.* 20 (*Odontoglossum*), 66, 68, 70.

Cuitlauzina, *Llav. et Lex. Nov. Gen. et Sp.* ii. *Orchid. Opusc.* 32. *Lindl. Gen. et Sp. Orch.* 196, planta Mexicana nobis ignota, ex charactere dato ab *Oncidio* non separanda videtur.

Palumbina, *Reichb. f. in Walp. Ann.* vi. 699; *Bot. Mag. t.* 5546, est *Oncidium candidum*, species Guatemalensis v. Mexicana a Lindleyo, Fol. Orch. Oncid. 18, dubie *Oncidio* adscripta ob 'pollinia caudiculis 2 cuneatis glandulæ circulari adnata;' ex Reichb. f. l.c. 'pollinia postice fissa, caudicula secundaria utrinque in fissuram ingrediente caudiculæ lineari accreta;' analysis in tabula Bot. Mag. cum neutra descriptione convenit et specimina nobis desunt. Sepala lateralia altius connata quam in ulla specie *Oncidii* a nobis examinata, sed characteres generici adhuc valde dubii remanent. Perianthium candidum immaculatum insigne est, sed etiam in *O. concolore* et *O. citrino* sæpius immaculatum est et pallidum, etsi citrinum.

O. Papilio, Lindl. Bot. Reg. t. 910; Bot. Mag. t. 2795; et *O. Kramerianum*, Reichb. f. Xen. Orch. t. 33, insignes sunt sepalo postico petalisque erectis longe linearibus.

156. **Miltonia,** *Lindl. Bot. Reg. sub t.* 1976, *et t.* 1992; *Fol. Orch.* 1853. (Macrochilus, *Knowles et Westc. Fl. Cab. t.* 45.)—Sepala subæqualia, patentia, libera v. lateralia basi brevissime connata. Petala sepalis similia v. paullo latiora. Labellum ad basin columnæ affixum, arcte sessile v. ungue brevissimo latoque instructum, a basi patens, amplum, indivisum, disco basi leviter lamellato. Columna brevis, apoda, apice v. antice varie 2-auriculata v. 2-alata; clinandrium breve, truncatum v. antice 2-lobum, v. membranaceo-dilatatum 2–3-lobum. Anthera terminalis, opercularis, incumbens, convexa, 1-locularis v. imperfecte 2-locularis; pollinia 2, cerea, ovoidea, integra v. sulcata, inappendiculata, anthera dehiscente stipiti obovato v. oblongo affixa, glandula squamiformi. Capsula (immatura) erostris.—Herbæ epiphyticæ, caulibus brevissimis pseudobulbo 1–2-foliato terminatis. Folia coriacea, oblonga v. elongata, basi parum contracta. Scapi sub pseudobulbis axillares, simplices, validi, 1–2-flori v. laxe pluriflori. Flores speciosi, longiuscule pedicellati. Bracteæ nunc longæ spathaceæ, nunc abbreviatæ v. minimæ.

Species admissæ ad 10, quarum una Peruviana, cæteræ omnes Brasilienses, *Reichb. f. Xen. Orch.* i. 128, *t.* 21, 47, 54; *et in Walp. Ann.* vi. 757. *Lindl. Sert. Orch. t.* 7 (*Cyrtochilus*), 21, 34. *Bot. Reg. t.* 1627 (*Cyrtochilus*), *t.* 1830 (*Oncidium*), *et* 1845, *t.* 8. *Bot. Mag. t.* 3793, 4109, 4204, 4425, 5436, 5572, 5843. Illis etiam forte addendæ *Odontoglossum vexillare*, Reichb. f., Batem. Odontogl. Monogr. t. 29, Bot. Mag. t. 6037, affinesque paucæ labello a basi sessili patente nequaquam columnæ parallelo, etsi, fide hortulanorum, facile cum *Odontoglossis* variis nec cum *Miltoniis* genuinis proles hybridas gignunt. Genus cæterum *Oncidio* et *Odontoglosso* nimis affine, cum priore

mediante *M. flavescente*, Lindl., arcte connectitur, et mediante *M. cuneata*, Lindl., cum *Odontoglosso*. A Lindleyo in series dividitur ad clinandrii margines seu columnæ alas, a Reichenbachio ad bracteas spathaceas v. breves, sectiones tamen bene limitatas haud præbet.

157. **Brassia**, *R. Br. in Ait. Hort. Kew. ed.* 2, v. 215.—Sepala libera, patentia, angusta, acuminata v. caudata, æqualia v. lateralia longiora. Petala sepalo postico similia v. minora. Labellum ad basin columnæ sessile, patens, planum, indivisum, sepalis brevius, basi 2-lamellatum. Columna brevis, erecta, aptera, apoda; clinandrium parum prominens, truncatum. Anthera terminalis, opercularis, incumbens, valde convexa v. semiglobosa, 1-locularis; pollinia 2, cerea, obovoidea, inappendiculata, anthera dehiscente stipiti plano oblongo v. lineari affixa, glandula varia. Capsula . . .—Herbæ epiphyticæ, caulibus abbreviatis pseudobulbo 1–2-foliato terminatis. Folia sub pseudobulbo pauca v. ad vaginas reducta, coriacea. Pedunculi sub pseudobulbo laterales v. axillares, simplices. Racemi laxi, sæpius pauciflori. Flores mediocres v. majusculi, sepalis interdum longissimis. Bracteæ breves v. spathaceæ.

Species ad 20, Americæ tropicæ a Brasilia usque ad Indiam occidentalem et Mexicum incolæ. *Lindl. Fol. Orch.* 1853; *Sert. Orch. t.* 6. *Reichb. in Walp. Ann.* vi. 764 (*Oncidium*); *Xen. Orch. t.* 32, 45. *Hook. Exot. Fl. t.* 179. *A. DC. Not. X. Pl. Rar. Hort. Gen. t.* 1. *Pœpp. et Endl. Nov. Gen. et Sp. t.* 117. *Batem. Orch. Mex. et Guatem. t.* 22. *Bot. Mag. t.* 1691, 3451, 3577, 3794, 4003, 5748. *Bot. Reg. t.* 832, 1754, 1841, *t.* 18, 1847, *t.* 29. *Knowles et Westc. Fl. Cab. t.* 53.

158. **Solenidium**, *Lindl. Orch. Linden.* 15, *et in Paxt. Fl. Gard.* iii. *t.* 102.—Sepala subæqualia, libera, patentia. Petala sepalis similia. Labellum ad basin columnæ patens, in unguem longum contractum, apice dilatatum, indivisum; discus lamellis villosis instructus. Columna erecta, apoda, late 2-alata, alis superne in auriculas dilatatis et cum clinandrio membranaceo varie dentato v. lobato continuis. Anthera in fundo clinandrii opercularis, incumbens, galeata, 1-locularis; pollinia 2, cerea, ovoidea, inappendiculata, anthera dehiscente stipiti loriformi affixa, glandula ovata. Capsula . . .—Herba epiphytica, caulibus abbreviatis pseudobulbo 1–2-foliato terminatis. Folia longiuscula, tenuiter coriacea. Scapi sub pseudobulbo axillares, simplices. Racemus laxus, floribus mediocribus longe pedicellatis. Bracteæ parvæ.

Species 1, Andium Colombiæ incolæ.

Genus *Oncidio*, quocum junxit Reichb. f. in Walp. Ann. vi. 771, valde affine, satis tamen distinctum videtur columna a basi late alata et inflorescentia.

159. **Leiochilus**, *Knowles et Westc. Fl. Cab.* ii. 143 (*errore* Leochilus). (Cryptosaccus, *err. typ.* Cryptosanus, *Scheidw. in Allgem. Gart. Zeit.* 1843, 101.)—Sepala subæqualia, patentia, libera v. lateralia basi breviter connata. Petala sepalis similia v. paullo latiora. Labellum ad basin columnæ affixum, continuum, patens; lobi laterales rotundati, erecti v. patentes, nunc obsoleti, medius oblongus v. obovatus, patens, indivisus, sepalis interdum longior, discus inter lobos laterales varie carnosus v. callosus. Columna brevis, erecta, apoda, exalata sed infra stigma sæpe 2-auriculata; clinandrium truncatum v. postice breviter productum; rostellum elongatum. Anthera terminalis, opercularis, incumbens, 1-locularis, antice ultra loculum in appendicem membranaceam loculo longiorem producta; pollinia 2, cerea, obovoidea v. globosa, inappendiculata, anthera dehiscente stipiti angusto elongato affixa, glandula ovata. Capsula ovali-oblonga, rostrata.—Herbæ epiphyticæ, humiles, caulibus brevissimis pseudobulbo 1-foliato terminatis, vaginis membranaceo-scariosis v. foliis paucis sub pseudobulbo obtectis. Folia oblonga v. angusta, plana, in petiolum contracta. Scapi sub pseudobulbo tenues, simplices v. rarius subramosi. Racemi laxi, floribus parvis teneris distincte pedicellatis. Bracteæ pedicellos subæquantes v. breviores, angustæ, acutæ.

Species 4 v. 5, Indiæ Occidentalis, Mexici et Americæ centralis incolæ. *Lindl. Bot. Reg.* 1842, *Misc.* 22. *Reichb. f. Xen. Orch.* i. 15, *t.* 6. *Bot. Mag. t.* 3845 (*Oncidium*).

Genus a Reichb. f. in Walp. Ann. vi. 740 et 772 iterum ad *Oncidium* revocatur, bene tamen distinctum videtur habitu columna et anthera, eoque includimus RHYNCHOSTELEM, *Reichb. f. in Bot. Zeit.* 1852, 770 (*Odontoglossum pygmæum*, Lindl.), speciem in omnibus cum cæteris *Leiochilis* convenientem, exceptis columnæ auriculis vix prominulis.

160. **Sigmatostalix,** *Reichb. f. in Bot. Zeit.* 1852, 769.—Sepala libera, subæqualia, patentia, acuta v. acuminata. Petala sepalis similia nisi angustiora. Labellum ungue longo 2-carinato, lamina transversa basi truncata, angulis acutis v. recurvo-apiculatis. Columna elongata, angustissima, ad latera stigmatis parum dilatata; clinandrium parum prominens, integrum, postice breviter productum. Anthera terminalis, opercularis, incumbens, 1-locularis, breviter appendiculata; pollinia 2, cerea, ovoidea, inappendiculata, anthera dehiscente stipiti lineari apice dilatato affixa, glandula parva. Capsula ovoidea, triquetra, erostris.—Herbæ humiles, caulibus brevissimis paucifoliatis vaginis distichis obtectis, pseudobulbo 1-foliato terminatis. Pedunculi sub pseudobulbo axillares, simplices, folio multo longiores. Flores in racemo dissiti, breviter pedicellati, penduli, mediocres v. parvuli. Bracteæ ocreiformes.

Species 7, Americæ tropicæ incolæ. *Reichb. f. in Walp. Ann.* vi. 858; *Xen. Orch. t.* 8. Characterem ad *S. pictum* et *S. radicantem* instruximus. His addidit Reichenbach *Speckliniam gramineam*, Pœpp. et Endl. Nov. Gen. et Sp. i. 51, t. 89 B, cujus tamen icon et descriptio vix cum charactere Reichenbachiano conveniunt, et species 4 Andinas in Linnæa xli. 16, 68, 103 descriptas, a nobis non visas.

161. **Erycina,** *Lindl. Fol. Orch.* 1853.—Sepala subæqualia, acuta, patentia, lateralia basi connata. Petala sepalis similia. Labellum circa basin columnæ adnatum, patens, sepalis multo longius, 3-partitum, lobis omnibus latis petaloideis basi contractis; discus ad basin lobi medii callis 2 linguiformibus appendiculatus, et lobi 2 angusti erecti ad basin columnæ. Columna brevissima, latiuscula, exalata, apoda, rostello longo horizontali apice recurvo; clinandrium parum prominens. Anthera terminalis, opercularis, incumbens, 1-locularis, in appendicem membranaceam producta; pollinia 4 (v. 2?), cerea, ovoidea, inappendiculata, anthera dehiscente apici parum dilatato stipitis longe linearis affixa, glandula ovata. Capsula oblonga, echinata, erostris.—Herba epiphytica, caulibus foliatis brevissimis pseudobulbo 1-foliato terminatis (*H. B. et K.*). Folia pauca, coriacea, vaginis distiche imbricatis demum incrassatis. Pedunculus axillaris, erectus, tenuis at rigidus, divaricato-ramosus. Flores mediocres v. parvuli, secus ramos parum dissiti, breviter pedicellati. Bracteæ divaricatæ, rigidæ, fere aculeiformes.

Species 1, Mexicana. *H. B. et K. Nov. Gen. et Sp. t.* 79 (*Oncidium*).
Genus habitu *Ionopsidi*, labelli appendicibus et rostello *Zygostati* affine videtur. Folii terminalis vagina in speciminibus nostris parum tantum incrassatur, sed ex H. B. et K. pseudobulbi formantur.

162. **Gomeza,** *R. Br. in Bot. Mag. t.* 1748.—Sepala subæquilonga, omnia libera et patentia v. lateralia sub labello patentissima, approximata v. alte connata. Petala sepalo postico similia v. latiora. Labellum basi columnæ affixum, continuum, incurvo-erectum v. a basi erectum, dein reflexum, ecalcaratum; lobi laterales erecti, nunc obsoleti v. parum prominuli, columnam sæpe amplectentes, medius patens v. reflexus, indivisus, sepala non excedens; discus basi callis 2 longitudinalibus columnam amplectentibus instructus. Columna erecta, apoda, semiteres, recta, angusta v. superne clavata v. 2-alata, v. ad latera stigmatis 2-auriculata; clinandrium parum prominulum. Anthera terminalis, opercularis, incumbens, valde convexa v. galeata, 1-locularis; pollinia 2, cerea, ovoidea v. subglobosa, sulcata, inappendiculata, anthera dehiscente stipiti angusto v. basi dilatato affixa, glandula ovata (v. 2-aurita?). Capsula . . .—Herbæ epiphyticæ, caulibus brevibus pseudobulbo 1–2-foliato terminatis. Folia oblonga v. elongata, in petiolum latiusculum contracta. Scapi sub pseudobulbo axillares, simplices. Racemus sæpius floribundus, floribus mediocribus. Bracteæ angustæ, pedicellum sæpe superantes.

Species ad 6 Brasilienses, a *Reichb. f. in Walp. Ann.* vi. 853 ad *Odontoglossum* relatæ, sed habitu sepalis lateralibus aliisque notis satis distinctæ videntur, a *Rodriguezia* labello ecalcarato facile differunt. *Bot. Mag. t.* 2746 (*Pleurothallis*), *t.* 3497 et 3504 (*Rodriguezia*). Bot. Reg. 1840, t. 54 (*Rodriguezia*). *Lodd. Bot. Cab. t.* 660.

163. **Abola,** *Lindl. Fol. Orch.* 1853.—Sepala subæquilonga, posticum erectum, lateralia alte connata in unum sub labello patentissimum. Petala sepalo postico similia nisi latiora. Labellum ad basin columnæ sessile, patens, basi lata columnam fere amplectens; lobi laterales rotundati, cum medio oblongo continui; discus basi callosus. Columna brevis, apoda, 2-alata, alis basi latis labello impositis; clinandrium obliquum, postice elevatum. Anthera terminalis, opercularis, incumbens, semiglobosa, 1-locularis; pollinia 2, cerea, ovoidea, inappendiculata, anthera dehiscente stipiti tenui brevi affixa. Capsula oblonga, erostris.—Herba epiphytica, humilis, caulibus abbreviatis pseudobulbo 1-2-foliato terminatis. Folia angusta, coriacea, in petiolum contracta, sub pseudobulbo pauca v. ad vaginas distiche imbricatas reducta. Scapi sub pseudobulbo axillares, tenues. Racemus simplex, rhachi flexuosa. Flores parvi, bracteis pedicello brevioribus.

Species 1, Andium Colombiæ incola.

Genus *Gomezæ* valde affine, differt imprimis columna brevi late alata, a Reichenbachio nescimus quo jure *Mesospinidio* refertur. Lindley e specimine manco caulem ebulbosum descripsit.

164. **Neodryas,** *Reichb. f. in Bot. Zeit.* 1852, 834; *Xen. Orch.* i. 38, *t.* 16, iii. 21.—Sepala æquilonga, erecto-patentia, posticum concavum, lateralia (in *N. Mandoni*) alte connata. Petala sepalis æquilonga, multo latiora. Labellum cum basi columnæ continuum, ungue incurvo, erectum, sepalis æquilongum; lobi laterales in ungue auriculiformes (v. obsoleti?), medius latus, patens; discus ad basin laminæ late cristato-callosus. Columna erecta, crassiuscula, ad latera stigmatis incrassata et utrinque ala brevi appendiculata, apoda; clinandrium parum prominens, truncatum v. antice 2-dentatum. Anthera terminalis, opercularis, incumbens, valde convexa, imperfecte 2-locularis, antice breviter producta; pollinia 2, cerea, ovoidea, demum 2-partibilia, lobo postico minore, inappendiculata, anthera dehiscente stipiti plano ligulato affixa, glandula ovata. Capsula . . .—Herbæ epiphyticæ, caulibus foliatis brevibus pseudobulbo 1-foliato terminatis. Folia sub pseudobulbo pauca, membranaceo-coriacea, basi longe contracta, exteriora ad vaginam reducta. Pedunculus sub pseudobulbo axillaris, foliis longior, apice paniculatus. Flores parvi, in ramulis brevibus paniculæ racemosi. Bracteæ parvæ. (Char. imprimis ex *N. Mandoni*, Reichb. f.)

Species ad 3, Bolivianæ v. Peruvianæ. Genus *Oncidio* valde affine, vix differt perianthio minore minus explanato et forte cum *O. Brunleesiano*, Reichb. f., ad sectionem *Oncidii* reducendum.

165. **Trizeuxis,** *Lindl. Collect. Bot. t.* 2; *Gen. et Sp. Orch.* 140.—Sepalum posticum erectum, fornicatum, lateralia vix breviora, alte coalita. Petala sepalis subæquilonga iis latiora. Labellum a basi columnæ erectum; lobi laterales erecti, unguem anguste marginantes, medius parvus, indivisus. Columna brevis, erecta, crassa, exalata, apoda; clinandrium truncatum. Anthera terminalis, opercularis, incumbens, 1-locularis, in appendicem brevem productus; pollinia 2, oblonga, inappendiculata, anthera dehiscente stipiti lineari longiusculo apice parum dilatato affixa, glandula oblonga. Capsula brevis, late triquetra, distincte rostrata.—Herba humilis, caulibus foliatis brevibus pseudobulbo 1-foliato terminatis. Folia coriacea, non plicata, sæpe falcata, vaginis sub pseudobulbo distiche imbricatis. Pedunculi sub pseudobulbo axillares, tenues, superne paniculato-ramosi. Flores minimi, in ramulis ultimis racemosi, pedicellis filiformibus. Bracteæ parvæ, secus rhachin arcte approximatæ, quaquaversæ, fere imbricatæ.

Species 1, Andium Colombiæ incola, prius ex insula Trinidad accepta, sed forte ibidem in horto botanico culta. *Hook. Fl. Exot. t.* 126.

166. **Ada,** *Lindl. Fol. Orch.* 1853.—Sepala parum inæqualia, libera, erecta v. superne patentia. Petala sepalis similia nisi minora. Labellum ad basin columnæ continuum,

sessile, patens, angustum, indivisum, sepalis brevius. Columna brevis, crassa, apoda, basi dilatata in alas rotundatas labelli basin amplectentes; clinandrium oblique prominens, integrum. Anthera terminalis, opercularis, incumbens, convexa, fere galeata, 1-locularis; pollinia 2, cerea, ovoidea, inappendiculata, anthera dehiscente stipiti plano cuneato affixa, glandula ovata. Capsula . . .—Herba epiphytica, caulibus abbreviatis pseudobulbo 1–2-foliato terminatis. Folia oblonga v. elongata, coriacea. Scapi sub pseudobulbo axillares, simplices, paucivaginati. Flores in racemo subsecundi, nutantes, speciosi, cinnabarini, breviter pedicellati. Bracteæ membranaceo-scariosæ.

Species 1, Andium Colombiæ incola. *Bot. Mag. t.* 5435; *Illustr. Hortic.* xix. *t.* 107.

Brassia cinnabarina, Lindl. Fol. Orch., nobis omnino eadem videtur ac *Ada aurantiaca*, Lindl., floribus utriusque sedulo comparatis; a Reichenbachio tamen in Walp. Ann. vi. 858 pro speciebus distinctis sub *Mesospinidio* enumerantur, charactere diagnostico haud dato. Genus nobis tam a *Mesospinidio* typico (*Odontoglosso*), quam a *Cochliodio* bene distinctum videtur perianthii forma, columnæ basi labellum amplectente aliisque notis. Labellum basi columnæ adnatum a Lindleyo dicitur, quod tamen vix apparet.

167. **Sutrina**, *Lindl. in Ann. Nat. Hist. ser.* 1, x. 184.—Sepala subæqualia, erecta, conniventia, lateralia basi cohærentia mentum brevissimum simulantia. Petala sepalis similia nisi paullo latiora. Labellum cum basi columnæ continuum, erectum, ungue longo concavo marginato, lamina dilatata crenulata. Columna erecta, apoda, superne late 2-alata alis longe falcato-acuminatis; rostellum basi in appendicem longam linearem erectam striatam productum; clinandrium breve, antice 2-auriculatum. Anthera terminalis, opercularis, incumbens, subglobosa, imperfecte 2-locularis, dorso et antice crista lata membranacea appendiculata; pollinia 2, cerea, late ovata, sulcata (v. 2-partibilia?), inappendiculata, anthera dehiscente stipiti anguste lineari affixa, glandula parva. Capsula . . .—Herba epiphytica, humilis, caulibus brevissimis 1–2-vaginatis mox in pseudobulbum carnosum 1–2-foliatum incrassatis. Folia coriacea. Scapus ad basin pseudobulbi erectus, simplex. Flores haud numerosi, dissite racemosi, mediocres, brevissime pedicellati. Bracteæ parvæ.

Species 1, Peruviana. *Reichb. f. in Walp. Ann.* vi. 686.

Genus bene distinctum, sed adhuc ex specimine unico tantum in Herb. Hook. servato notum, et quoad pollinarii structuram ulterius investigandum. Appendix rostelli longe linearis fere aristiformis a Lindleyo pro glandula describitur, sed post pollinarium delapsum in rostello persistit quocum continuum est. Glandulam veram in flore examinato parvam oblongam vidimus.

168. **Trigonidium**, *Lindl. Bot. Reg. t.* 1923.—Sepala subæqualia, basi in tubum triquetrum turbinatum conniventia v. cohærentia, superne libera, patentia. Petala sepalis multo minora. Labellum a basi columnæ erectum, sepalis multo brevius; lobi laterales erecti columnam amplectentes, medius patens, basi carnosulus v. callosus. Columna brevis, crassiuscula, semiteres, exalata, apoda; clinandrium breve, oblique truncatum. Anthera terminalis, opercularis, incumbens, valde convexa, 1-locularis; pollinia 4, cerea, per paria cohærentia postico minore, inappendiculata, anthera dehiscente glandulæ (v. stipiti) latæ squamiformi affixa. Capsula . . .—Herbæ epiphyticæ, caulibus brevissimis mox in pseudobulbum carnosum 1–2-foliatum incrassatis. Folia coriacea, non plicata, linearia v. oblonga. Scapi infra pseudobulbum v. e rhizomate simplices, plurivaginati, 1-flori. Flos majusculus, intra bracteam spathaceam breviter pedicellatus.

Species editæ 7 v. 8, Americæ tropicæ a Brasilia usque ad Americam centralem incolæ, nonnullæ tamen *T. obtusi*, Lindl., formæ. *Reichb. in Walp. Ann.* vi. 502 (excl. *T. ringente* quæ *Mormolyce*, Fenzl).

T. insigne, Reichb. f. in Herb. Hook., e N. Grenada, *Purdie*, habitu et floribus maximis a cæteris speciebus valde diversa at verisimiliter generis alieni, sed e flore unico imperfecto haud tute definiendi. *T. monophyllum*, Griseb., ad *Octadesmium* referrimus.

169. **Ionopsis**, *H. B. et K. Nov. Gen. et Sp.* i. 348, *t.* 83. (Iantha, *Hook. Exot. Fl. t.* 113. Cybelion, *Spreng. Syst.* iii. 679.)—Sepala subæquilonga, erecta v. apice patentia,

posticum liberum, lateralia ima basi sub labello in saccum brevem connata. Petala sepalo postico similia nisi latiora. Labellum basi columnæ affixum, ungue sepalis parum breviore, lobi laterales intra marginem unguis angusti, medius maximus expansus, sepalis 2–3-plo longior, late 2-lobus, discus basi 2-callosus. Columna brevis, erecta, crassa, antice concava, exalata, apoda; clinandrium breve, truncatum. Anthera terminalis, opercularis, incumbens, semiglobosa, 1-locularis v. imperfecte 2-locularis, antice breviter productus; pollinia 2, cerea, oboveideo-subglobosa, inappendiculata, anthera dehiscente stipiti loriformi affixa, glandula squamiformi. Capsula oblonga v. ovoidea, erostris v. in rostrum breve producta.—Herbæ epiphyticæ, caulibus foliatis brevissimis non pseudobulbosis. Folia pauca, angusta, coriacea, vaginis persistentibus distiche imbricatis. Pedunculi 1–3, laterales v. subterminales, elongati, tenues, rigidi, paucivaginati. Racemi graciles, laxi, simplices v. paniculato-ramosi. Flores mediocres v. elegantes, longiuscule pedicellati. Bracteæ minimæ.

Species enumeratæ ad 10, nonnullæ tamen ad varietates *I. pulchellæ* reducendæ, Americæ tropicæ a Brasilia usque ad Indiam occidentalem et Mexicum incolæ. *Lindl. Gen. et Sp. Orch.* 193; *Fol. Orch.* 1852; *Collect. Bot. t.* 39 A. *Reichb. f. in Walp. Ann.* vi. 683, *et in Linnæa* xli. 68. *Bot. Mag. t.* 5541. *Bot. Reg. t.* 1904.

170. **Cryptarrhena,** *R. Br. in Bot. Reg. t.* 153. (Orchidofunckia, *A. Rich. in Ann. Sc. Nat. ser.* 3, iii. 24, *et eo teste* Clynhymenia, *A. Rich. in Compt. Rend. Acad. Sc. Par.* 1844.)—Sepala subæqualia, libera, patentia, acuta. Petala sepalis subæqualia at latiora. Labellum cum basi columnæ continuum, patens, ungue longo supra carinato-cristato; lobi laterales ad apicem unguis angusti, patentes v. recurvi; medius brevior, latior, 2–4-fidus. Columna brevis, superne incrassata, exalata, apoda; clinandrium valde elevatum, obliquum v. fere cucullatum, margine denticulatum. Anthera intra clinandrium opercularis, incumbens, convexa, breviter acuminata, 1- (v. 2- ?) locularis; pollinia (*ex ic. Rich.*) 4, cerea, per paria facie plana sibimet incumbentia, inappendiculata; anthera dehiscente apici parum dilatato stipitis linearis affixa, glandula parva. Capsula ovoidea v. oblonga, erostris.—Herbæ epiphyticæ, humiles, caulibus foliatis brevissimis non pseudobulbosis. Folia plura, conferta, membranaceo-coriacea, vaginis coriaceis distiche imbricatis. Pedunculi axillares, erecti, foliis longiores, simplices. Flores parvuli, laxe racemosi. Bracteæ angustæ, pedicellos subæquantes.

Species 2, altera per Indiam occidentalem et Americam centralem et occidentalem usque ad Guayaquil extensa, altera Surinamensis. *Reichb. f. in Walp. Ann.* vi. 697.

C. pallidiflora, Reichb. f., omnino eadem videtur ac species typica, *C. lunata*, Br.; pollinarii appendices a Reichb. f. descriptæ verisimiliter monstruosæ erant, in icone Richardiana in herb. Lindl. servata non apparent. Pollinaria a speciminibus a nobis examinatis omnia jam delapsa fuerunt.

171. **Ornithocephalus,** *Hook. Exot. Fl. t.* 127.—Sepala subæqualia, libera, patentia, posticum concavum. Petala sepalis subsimilia. Labellum cum basi columnæ continuum, subsessile; lobi laterales crassi, latiusculi, medius parvus v. elongatus, sæpe inflexus, marginibus interdum in dorso lateralium decurrentibus. Columna brevis, crassiuscula, antice concava, exalata, apoda, rostello horizontali longissimo; clinandrium parum prominens. Anthera terminalis, opercularis, incumbens, imperfecte 2-locularis, ultra loculos in appendicem brevem producta; pollinia 4, cerea, inappendiculata, anthera dehiscente per paria apici parum dilatato stipitis longe linearis affixa, glandula ovoidea v. parva. Capsula ovoidea v. subglobosa, erostris.—Herbæ humiles, epiphyticæ. Folia carnosa v. coriacea, oblonga v. linearia, vaginis distiche imbricatis carnosis margine interiore sæpe scariosis, post laminam delapsam sæpe incrassatis vix tamen pseudobulbosis. Pedunculi axillares, simplices. Flores sæpius parvi, in racemo dissiti. Bracteæ distichæ, in rhachi sæpe flexuosa rigidulæ, persistentes, patentes, fere dentiformes.

Species ad 20, Americæ tropicæ a Brasilia usque ad Mexicum incolæ. *Reichb. f. in Walp. Ann.* vi. 492; *Otia Hamb.* 88; *et in Linnæa* xli. 33, 106.

172. **Quekettia,** *Lindl. Bot. Reg.* 1839, *Misc.* 3; *Fol. Orch.* 1852.—Sepala subæqualia, libera, erecta, linearia, petaloidea. Petala sepalis similia. Labellum a basi columnæ erectum, sepalis æquilongum iisque paullo latius, indivisum, basi excavatum, 2-callosum. Columna erecta, angusta, semiteres, apice auriculis 2 recurvis appendiculata; clinandrium truncatum. Anthera terminalis, opercularis, incumbens, 1-locularis; pollinia 2, cerea, ovoidea, sulcata, inappendiculata, anthera dehiscente stipiti lineari affixa, glandula parva. Capsula . . .—Herba (epiphytica?) pusilla, caule indescripto. Folia linearia, teretia, carnosula. Scapus filiformis, ramosus. Flores parvi, secus ramos dissiti, ad axillam bracteæ parvæ scariosæ sessiles.

Species 1, Brasiliensis. *Reichb. f. in Walp. Ann.* vi. 689. Flores in specimine unico imperfecto in Herb. Lindl. servato examinare nequimus. Characterem nostrum e descriptione Lindleyana sumpsimus.

173. **Zygostates,** *Lindl. Bot. Reg. sub t.* 1927; *Fol. Orch.* 1852. (Dactylostyles, *Scheidw. in Allgem. Gartenz.* 1839, 405.)—Sepala subæqualia, libera, patentia v. reflexa. Petala sepalis similia v. latiora. Labellum cum basi columnæ continuum, patens, concavum, indivisum; discus basi callo v. lamina carnosa longiuscula instructus, et ad utrumque latus ad basin columnæ adest auricula patens v. lobus longe linearis carnosus apice dilatatus. Columna arcuata, semiteres, superne antice concava, exalata, apoda, rostello longissimo primum horizontali dein recurvo-ascendente; clinandrium postice ad basin rostelli parvum. Anthera opercularis, incumbens, imperfecte 2-locularis, breviter appendiculata; pollinia 4 (v. ex Lindl. 2) cerea, ovoidea, inappendiculata, anthera dehiscente apici dilatato stipitis longe linearis affixa, glandula parva. Capsula . . .—Herbæ humiles, epiphyticæ, habitu *Ornithocephali.* Folia carnosa v. coriacea, vaginis vix in pseudobulbum incrassatis. Pedunculi axillares, simplices. Flores parvi, in racemo dissiti.

Species 3 v. 4, Brasilienses. *Reichb. f. in Walp. Ann.* vi. 563 *et* 928.

Genus ab *Ornithocephalo* parum differt rostello incurvo, et labello ad junctionem cum columna biauriculato. Labelli tamen appendices variabiles videntur, et adhuc in floribus perpaucis rite observatæ.

174. **Phymatidium,** *Lindl. Gen. et Sp. Orch.* 209.—Sepala subæqualia, tenuissima, libera, patentia. Petala sepalis similia. Labellum cum basi columnæ continuum, patens v. ascendens, indivisus; discus medio callo v. lamina carnosa et ad junctionem cum columna callis 3 v. 1 instructus. Columna tenuis, incurvo-erecta, semiteres, apice breviter v. late 2-auriculata, cæterum exalata, apoda, rostello brevi; clinandrium plus minus dilatatum, membranaceum, cum auriculis columnæ continuum. Anthera terminalis, opercularis, incumbens, imperfecte 2-locularis, in appendicem membranaceam producta; pollinia 4, cerea, distincta, oblonga, acuminata v. acutiuscula, inappendiculata, anthera dehiscente apici dilatato stipitis longiusculi membranacei affixa. Capsula parva, globosa, erostris.—Herbæ pusillæ, epiphyticæ, dense cæspitosæ, multicaules, non pseudobulbosæ. Folia breviter angusteque linearia, graminea, basi vagina stipata. Scapi inter folia numerosi, tenues, simplices, foliis longiores (2–3-pollicares), fere a basi floridi. Flores parvi, laxe racemosi, rhachi flexuosa. Bracteæ rigidæ, patentes, nunc minimæ, nunc subulatæ pedicello longiores.

Species 2, Brasilienses.

Genus ab *Ornithocephalo* imprimis rostello brevi distinguitur.

175. **Chytroglossa,** *Reichb. f. in Hamb. Gartenz.* 1863, 545, *in Journ. Hort. Soc. ser.* 2, i. 97, *t.* 3, 4; *Xen. Orch. t.* 148.—Sepala æquilonga, libera, patentia, lateralia postico sublatioria. Petala sepalis subsimilia. Labellum cum basi columnæ continuum, patens, late v. obscure 3-lobum, prope basin 1–2-callosum. Columna brevis, supra stigma a latere valde compressa, apice truncata et antice dente minuto erecto aucta, alis 2 lateralibus

latis apice productis; clinandrium membranaceum, concavum, denticulatum, alas columna terminans; stigma ad basin columnæ magnum, concavum. Anthera (a nobis non visa) oblongo-spathulata (*Reichb. f.*), 1-locularis (*M. L. Pinel*); pollinia 2, sulcata (*M. L. Pinel*), v. 4 per paria incumbentia (*Reichb. f.*), cerea, inappendiculata, anthera dehiscente stipiti longo lineari apice latiori affixa, glandula parva. Capsula . . ?—Herbæ nanæ, epiphyticæ, caule brevissimo non pseudobulboso. Folia subdistiche fasciculata, oblongo-elliptica v. linearia, plana. Racemi ad basin foliorum brevissime pedunculati, recurvi v. penduli, laxe pluriflori, rhachi in una specie insigniter flexuosa. Flores mediocres, breviter pedicellati. Bracteæ minimæ.

Species 2, Brasilienses. Genus *Phymatidio* affine, columnæ structura facile distinctum.

176. **Hofmeisterella,** *Reichb. f. in Walp. Ann.* iii. 563; *Xen. Orch.* i. 41, *t.* 18.—Sepala subæqualia, libera, linearia, cum petalis similibus reflexo-patentia. Labellum ad basin columnæ subsessile, erecto-patens, lanceolatum, indivisum, sepalis sublongius. Columna erecta, basi late 2-alata, apoda, rostello longiusculo reflexo rigido; clinandrium valde obliquum, postice in dentem longum antheriferum productum. Anthera terminalis, opercularis, incumbens, 1-locularis, in appendicem membranaceam brevem producta; pollinia 4 (ex Reichb. 2), ovoideo-oblonga, inappendiculata, anthera dehiscente apici dilatato stipitis longi tenuis per paria affixa, glandula oblonga. Capsula . . .—Herba epiphytica, radicans, caulibus foliatis brevissimis non pseudobulbosis. Folia disticha, linearia (in specimine pollicaria). Scapi e rhizomate erecti, ancipites, rhachi subflexuosa, bracteis dissitis incurvo-erectis. Flores majusculi, ad axillas bractearum longe tenuiterque pedicellati.

Species 1, Andium Ecuadorensium incola. In floribus 2 examinatis pollinia 4 invenimus.

177. **Lockhartia,** *Hook. Bot. Mag. t.* 2715. (Fernandezia, *Lindl. Gen. et Sp. Orch.* 207, *non Ruiz et Pav.*)—Sepala subæqualia, libera, patentia v. lateralia reflexa. Petala sepalis similia. Labellum a basi columnæ patens, sepalis longius, lobi laterales ad basin divaricati v. incurvo-erecti, longiusculi, medius obvatus v. oblongus, varie 3-4-lobus; discus valde callosus. Columna brevissima, lata, ad latera stigmatis late 2-alata v. 2-auriculata; clinandrium obliquum, breve. Anthera terminalis, opercularis, incumbens, convexa, late et obtuse acuminata, imperfecte 2-locularis; pollinia 2, ovata, apice longiuscule acuminata subcaudata, inappendiculata, anthera dehiscente visco parco glandulæ parvæ affixa v. libera. Capsula brevis, ovoidea v. subglobosa, angulata, erostris.—Herbæ epiphyticæ non pseudobulbosæ, caulibus foliatis fasciculatis erectis simplicibus. Folia brevia, erecta v. subpatentia, distiche imbricata, equitantia, caulem obtegentia. Pedunculi in axillis superioribus nunc 1-2-flori, nunc laxe at tenuiter paniculato-ramosi. Flores longiuscule pedicellati, parvi v. mediocres. Bracteæ membranaceæ, amplexicaules.

Species ad 10, Americæ tropicæ a Brasilia usque ad Indiam occidentalem et Mexicum incolæ. *Reichb. f. Xen. Orch.* i. 99, *t.* 39, 40; *in Walp. Ann.* vi. 818; *Otia Hamb.* 6; *in Bot. Zeit.* 1857, 159; *in Linnæa* xli. 106; *et in Saund. Ref. Bot. t.* 76. *Bot. Reg. t.* 1806 (*Fernandezia*). *Bot. Mag. t.* 5592 (*Fernandezia*).

Pollinia delapsa semper libera vidimus v. (glandula?) parva connexa, nec unquam pollinarium in ic. Ref. Bot. l. c. depictum deteximus. An hic latet error pictoris, v. pollinarium revera variabile, incertum est.

178. **Centropetalum,** *Lindl. Sert. Orch. sub t.* 21.—Sepala subæqualia, patentia, libera v. lateralia plus minus connata. Petala sepalis similia v. latiora. Labellum ima basi cum columna connatum, dein erectum, ungue columnæ parallelo, lobi laterales parum prominuli v. latiores columnam amplectentes, lamina patens, ovata v. late rotundata, indivisa, medio sæpe clinandrii alis agglutinata. Columna sub clinandrio brevis, apoda, basi alata cum labello in cupulam brevissimam connata; clinandrium amplum, late et oblique membranaceo-dilatatum, petaloideum, obscure 3-lobum. Anthera intra marginem

clinandrii opercularis, incumbens v. deflexa, valde convexa, 1-locularis, apice quasi valvatim dehiscens, valva membranacea aperta appendicem antheræ simulans; pollinia 2, cerea, ovoideo-oblonga v. subglobosa, integra v. fere 2-partibilia, inappendiculata, anthera dehiscente stipitibus 2 distinctis v. plus minus in unum coalitis affixa, glandula ovata v. oblonga. Capsula parva, subgloboso-3-quetra, v. anguste oblonga, erostris, costis acutis angulata.—Herbæ humiles, repentes, non pseudobulbosæ, caulibus foliatis ascendentibus. Folia disticha, brevia, carnosa, patentia v. recurva, vaginis persistentibus caulem obtegentibus. Flores mediocres, in axillis superioribus solitarii, pedicello sæpe folia superante, basi bracteis 1–2 spathaceis stipato.

Species adsunt 5 v. 6, Andium Colombiæ incolæ. *Reichb. f. Xen. Orch.* i. 96, 97, *t.* 38; *et in Walp. Ann.* vi. 924, 925 (*Centropetalum et Nasonia*).

Genus naturale, clinandrio magno petaloideo insigne, in sectiones 2 facile dividitur:—

1. *Nasonia.* Sepala lateralia alte connata. Pollinarii stipes simplex, linearis, hyalinus. Species 1 (v. 2?). NASONIA, *Lindl. in Benth. Pl. Hartw.* 150. *Bot. Mag. t.* 5718. *Reichb. f. ll. cc.* (*quoad species disepalas*).

2. *Eucentropetalum.* Sepala lateralia libera. Pollinarii stipites 2, filiformes, a basi distincti v. fere ad medium coaliti. Huc *Centropetalum*, Lindl., et Reichb. f. cum *Nasoniis* nonnullis Lindleyi seu *Nasoniæ trisepalæ*, Reichb. f. Auctores *Centropetalum* a *Nasonia* distinguunt polliniis in quoque stipite 2 distinctis, quod tamen in speciminibus Warczewiczianis a Lindleyo communicatis non invenimus; pollinia tamen in aliis speciebus interdum profunde sulcata vidimus ut in icone Xen. Orch. t. 38 depicta.

Nasonia sanguinea, Lindl., vix congener viditur, sed flores examinare nequimus. FERNANDEZIA, *Ruiz et Pav. Prod. Fl. Per. et Chil.* 123, *t.* 27; *Syst. Veg.* 239, genus est, teste Reichenbachii in Walp. Ann. vi. 818, e speciebus variis *Centropetali* et *Dichææ* compositum.

179. **Pachyphyllum,** *H. B. et K. Nov. Gen. et Sp.* i. 338, *t.* 77.—Sepala libera v. vix basi connata, erecta, æqualia v. lateralia paullo longiora basique cum labello mentum breve formantia. Petala sepalo postico similia nisi latiora. Labellum ad basin columnæ affixum, erectum, basi angustum concavum; lamina apice subpatens, indivisa, sepala non superans; discus medio 2-lamellatus v. 2-callosus. Columna brevis, apoda, 2-alata; clinandrium amplum, membranaceo-petaloideum, obscure 3-lobum, cum alis columnæ continuum. Anthera intra clinandrium opercularis, incumbens, subglobosa, 1-locularis, quasi valvatim aperiens; pollinia 2, cerea, oboveideo-oblonga, parva, apice attenuata, inappendiculata, anthera dehiscente visco parco glandulæ parvæ (v. stipiti brevi?) affixa v. libera. Capsula subgloboso-triquetra, erostris.—Herbæ epiphyticæ, caulibus e rhizomate brevibus ascendentibus dense foliatis simplicibus v. parce ramosis. Folia disticha, brevia, patentia v. recurva, carnosa, vaginis imbricatis persistentibus caulem obtegentibus. Racemi axillares, breves, pauciflori v. ad florem unicum reducti. Flores parvi, breviter pedicellati. Bracteæ parvæ, distichæ.

Species 6 v. 7, Andium Americæ australis incolæ. *Reichb. f. Xen. Orch.* i. 165, *t.* 58, iii. 22; *in Walp. Ann.* vi. 822; *et in Linnæa* xli. 31. *Hook. Ic. Pl. t.* 117.

Genus *Lockhartiæ* valde affine, habitu et clinandrio etiam *Centropetalo* prope accedit.

180. **Luisia,** *Gaudich. in Freyc. Voy. Bot.* 426, *t.* 37. (Mesoclastes, *Lindl. Gen. et Sp. Orch.* 44. Birchea, *A. Rich. in Ann. Sc. Nat. ser.* 2, xv. 66, *t.* 10.)—Sepala libera, conniventia v. subpatentia, æqualia v. posticum paullo minus. Petala sepalis similia v. longiora angustioraque. Labellum ad basin columnæ sessile, continuum, sepalis sæpe longius, basi concavum callosum v. lobis lateralibus parvis 2-auriculatum nec saccatum; lamina patens, sæpe crassa, convexa v. concava, integra v. apice 2-loba. Columna brevissima, crassa, subincurva; clinandrium truncatum, integerrimum, parum obliquum. Anthera terminalis, opercularis, incumbens, 2-locularis; pollinia 2, cerea, ovoideo-globosa, integra v. sulco exarata, inappendiculata, anthera dehiscente stipiti plano ovato in glandulam replicato affixa. Capsula longiuscule oblonga, erostris, erecta, costis acute prominulis.—Herbæ epiphyticæ, caulibus foliatis simplicibus v. ramosis foliorum vaginis arcte tubulosis obtectis nec pseudobulbosis. Folia alterna, teretia, elongata,

carnosa. Spicæ laterales, sæpius brevissimæ, floribus subsessilibus parvulis v. mediocribus. Bracteæ breves, crassæ, subimbricatæ.

Species ad 10, Indiæ orientalis et Asiæ orientalis, ab Archipelago Malayano usque ad Japoniam incolæ. *Lindl. Fol. Orch.* 1853. *Blume, Rumphia*, iv. 50, *t.* 194 *et* 197 D. *Reichb. f. in Walp. Ann.* vi. 619; *Xen. Orch. t.* 78; *et in Trans. Linn. Soc.* xxx. 144, *t.* 30. *Thunb. Ic. Pl. Jap. t.* 7 (*Epidendrum*). *Hook. Exot. Fl. t.* 72 (*Vanda*). *Wight, Ic. t.* 911 *et* 1689 (*Cymbidium*). *Bot. Mag. t.* 3648 (*Cymbidium*) *et t.* 5558.

181. **Cottonia,** *Wight, Ic.* v. 21, *t.* 1755.—Sepala subæqualia, libera, patentissima. Petala sepalis conspicue angustiora. Labellum ad basin columnæ sessile, patens, ecalcaratum, sepalis sæpe longius, planum v. concavum; lobi laterales oblongi, obtusi, medius obovatus v. angustus, integer emarginatus v. breviter 2-fidus v. 2-setifer. Columna brevis, lata, apoda, exalata; clinandrium breve, obliquum, dentibus obtusis parum prominentibus. Anthera terminalis, opercularis, incumbens, parum convexa, lata, loculis ad basin connectivi 2 distinctis; pollinia 2, ovoideo-globosa, cerea, fere 2-partita, inappendiculata, anthera dehiscente stipiti longiusculo tenui affixa, glandula parva. Capsula anguste oblonga v. elongata, erostris, patens v. demum pendula, costis parum prominulis. —Herbæ epiphyticæ, caulibus foliatis brevibus non pseudobulbosis. Folia disticha, in una specie longiuscula rigide coriacea, in altera oblonga subfalcata tenuiter coriacea, vaginis persistentibus caulem brevem obtegentibus. Pedunculi laterales, in una specie longissimi ramosique, in altera simplices folia vix superantes. Flores mediocres, laxe racemosi, breviter pedicellati. Bracteæ parvæ.

Species 2 v. 3, Indiæ orientalis incolæ, inter se habitu sat dissimiles, altera typica, *C. peduncularis*, Lindl., quam e Zeylania et vicinibus Bombay accepimus, altera pluribus notis bene distincta, *C. Championi*, Lindl., a provinciis orientalibus usque ad Chinam australem extenditur, et ab hac vix distinguere possumus *Luisiam bicaudatam*, Thw. Enum. Pl. Zeyl. 302, e Zeylania.

182. **Stauropsis,** *Reichb. f. in Hamb. Gartenzeit.* 1860, 117; *Xen. Orch.* ii. 7 (*errore* Stauritis, *Reichb. f. in Hamb. Gartenzeit.* 1862, 34. Fieldia, *Gaudich. in Freyc. Voy. Bot.* 424, *t.* 36, *non Cunn.*).—Sepala subæqualia, libera, patentissima. Petala sepalis similia. Labellum basi columnæ affixum, continuum, patens, concavum, ecalcaratum, angustum; lobi laterales breves, medius longiusculus concavus, apice inflexus. Columna brevis, crassa, exalata, apoda; clinandrium truncatum, parum prominens. Anthera terminalis, opercularis, incumbens, semiglobosa, imperfecte 2-locularis; pollinia 2, cerea, ovoideo-globosa, sulcata v. 2-partibilia, inappendiculata, anthera dehiscente stipiti plano affixa, glandula squamiformi. Capsula oblongo-clavata, erostris, crassiuscula, costis prominulis.—Herbæ epiphyticæ, caulibus foliatis non pseudobulbosis. Folia disticha, patentia, coriacea, plana. Pedunculi laterales, racemo nunc brevi simplici floribus paucis majusculis, nunc longo laxe ramoso floribus sat numerosis minoribus.

Species ad 8, Archipelagi Malayani (et Indiæ Orientalis?) incolæ. *Blume, Rumphia*, iv. 49, *t.* 194. *Lindl. Bot. Reg.* 1846, *t.* 59. *Bot. Mag. t.* 5189, apud quos auctores sectionem formant *Vandæ*. Ab hoc genere tamen differunt sepalis petalisque basi minus angustatis, labello nec saccato nec calcarato, et *Fieldia* pro genere bene restituitur a Reichb. f. in Walp. Ann. vi. 870. Nomen tamen mutandum fuerit ob genus prius homonymum Cunninghamianum inter *Gesneriaceas*, supra, ii. 1012, si revera a *Stauropside*, Reichb. f., distinguitur. Nos characterem nullum invenimus, et speciebus a Reichenbachio ad *Stauropsidem* relatis addenda videtur *Trichoglottis fasciata*, Reichb. f. Genus cæterum *Cottoniæ* valde affine, nuperrime a Reichenbachio in Gard. Chron. iterum in *Phalænopside* inclusum.

183. **Arachnanthe,** *Blume, Rumphia*, iv. 55, *t.* 196 *et* 199 D. (Arachnis, *Blume, Bijdr.* 365.)—Sepala libera, patentia, subæqualia, crassiuscula, angusta sæpeque undulata v. curvula, v. latiora subplana. Petala sepalis similia. Labellum ad basin columnæ articulatum, breve, erectum v. patens, basi nec saccatum nec calcaratum; lobi laterales erecti v. rarius obsoleti, medius carnosus, polymorphus, dorso sæpe gibbo v. calcare brevissimo incurvo v. recurvo instructus. Columna brevis, crassa, antice concava, basi

non v. vix producta; clinandrium parum prominens, truncatum. Anthera terminalis, opercularis, incumbens, convexa, antice interdum breviter producta, 2-locularis; pollinia 2, cerea, extrorsum sulcata v. 2-partita, inappendiculata, anthera dehiscente stipiti plano triangulari v. e basi latiore angustato affixa, glandula ovata v. transversa. Capsula angulata, erostris.—Herbæ epiphyticæ, caulibus foliatis non pseudobulbosis. Folia disticha, coriaceo-carnosa, nunc longissima, nunc breviora v. falcata, apice sæpe oblique 2-loba. Pedunculi laterales, elongati, simplices v. ramosi; flores speciosi, secus ramos dissite pedicellati. Bracteæ parvæ.

Species nobis notæ 6, quarum 5 Archipelagi Malayani una Himalayæ incolæ.

Genus hinc *Renantheræ*, cujus sectio a Lindleyo et Reichenbachio habitur, hinc *Vandæ* valde affine, a priore perianthio crassiore, labello basi non saccato et quodammodo habitu differt, a *Vanda* imprimis labello cum columna articulato. In speciebus typicis racemus ramosus, labelli lobi laterales lati; his jam a Reichenbachio f. additur *Vanda Lowei*, Lindl.; Bot. Mag. t. 5475 (*A. Lowei* nobis), racemo longissimo laxo simplici, labelli lobis lateralibus obsoletis, medio lato introrsum appendicula inflexa instructo, species cæterum insignis floribus in eadem planta dimorphis plerisque sepalis petalisque angustis undulatis maculatis, in uno tamen racemo sepala petalaque latiora sunt planiora et flava.

Arrhynchium, *Lindl. in Paxt. Fl. Gard.* i. 142, est *Renanthera bilinguis*, Reichb. f. Xen. Orch. t. 4, species *Arachnanthis* labelli gibbo dorsali ut in *A. moschifera* recurvo, lobis lateralibus tamen parvis auriculiformibus nec latis erectis.

Armodorum, *Breda, Orch. Kuhl et Hass. cum t.* 1, est *A. Sulingi* (*Aerides Sulingi*, Bl.), a Lindleyo ad *Renantheram* relata et tardius (Fol. Orch.) uti a Blumeo ipso (Mus. Bot. Lugd. Bat. i. 62) ad *Vandam* translata, demum a Reichb. f. in Walp. Ann. vi. 875 ad *Renantheram* revocata. Floris analysis in icone citata valde obscura est, nec verbis bene explanata, sed, ex icone cum racemi parte in herb. Lindl., quoad formam perianthii et pollinarium *Arachnanthi* convenit, labelli tamen gibbo dorsali sursum recurvo nec deorsum incurvo.

Esmeralda, *Reichb. f. Xen. Orch.* ii. 38, et *in Walp. Ann.* vi. 871, est *A. Cathcartii* (*Vanda Cathcartii*, Lindl.; Hook. f. Ill. Him. Pl. t. 23; Bot. Mag. t. 5845), racemo ut in *A. Lowei* et *A. Sulingi* simplici, sepalis petalisque latis subplanis insigniter transverse lineatis, labelli lobis lateralibus ut in *A. moschifera* latis erectis, species a *Vanda* bene separata ob labellum articulatum aliasque notas, sed mediantibus floribus latisepalis *A. Lowei* arcte cum cæteris *Arachnanthibus* connexa.

184. **Phalænopsis**, *Blume, Bijdr.* 294; *Rumphia*, iv. 52, *t.* 194 *et* 199 A.—Sepala subæqualia, libera, patentissima. Petala sepalis similia v. multo latiora basique contracta, v. rarius angustiora. Labellum ad apicem pedis columnæ continuum, a basi patens v. ima basi brevissime erectum angulum parvum formans, ecalcaratum; lobi laterales patentes v. incumbenti-erecti, integri v. angulato-lobati, medius patens, oblongus v. latus, planus v. rarius concavus, apice integer v. anguste 2-lobus; discus ad basin laminæ varie appendiculatus. Columna semiteres, crassiuscula v. medio angustior, erecta v. leviter incurva, basi in pedem brevem producta, interdumque 2-auriculata, angulis exalatis; clinandrium postice ovatum, erectum, concavum. Anthera subterminalis, opercularis, incumbens, parum convexa, antice in acumen obtusum producta, 2-locularis; pollinia 2, subglobosa (v. oblonga?), cerea, sulcata, inappendiculata, anthera dehiscente stipiti lineari v. spathulato affixa, glandula squamiformi. Capsula cylindracea v. clavata, sæpius longiuscula, erostris.—Herbæ epiphyticæ, caulibus foliatis brevibus non pseudobulbosis. Folia disticha, coriacea v. carnosa, oblonga, vaginis persistentibus caulem obtegentibus. Pedunculi laterales, simplices v. ramosi. Flores speciosi, laxe racemosi, breviter pedicellati. Bracteæ parvæ.

Species ad 15, Archipelagi Malayani et Indiæ provinciarum orientalium incolæ. *Reichb. f. Xen. Orch.* ii. 4; *in Flora* 1872, 273; *et in Bot. Zeit.* 1862, 214; 1863, 128; 1864, 298; 1865, 146.

Genus in sectiones 2 sequentes commode dividitur:—

1. *Euphalænopsis.* Petala sepalis multo latiora, basi contracta, labelli lobus medius apice 2-cirrhifer v. divaricato-2-lobus, v. obscure emarginatus. Species omnes Archipelagi incolæ. *Blume, ll. cc. Benn. Pl. Jav. Rar. t.* 8. *Reichb. f. Xen. Orch. t.* 101, 151. *Bot. Reg.* 1838, *t.* 34. *Bot. Mag. t.* 4297, 5184, 5351, 5630, 6622. *Maund, Botanist, t.* 133.

2. *Stauroglottis.* Petala sepalis similia v. interdum paullo minora; labelli lobus medius apice semper integer. Species Malayanæ et Indicæ. *Reichb. f. Xen. Orch. t.* 156, *et in Saund. Ref. Bot. t.* 85. *Bot. Mag. t.* 5212, 5523, 5527, 5815. STAUROGLOTTIS, *Schau. in Pl. Meyen.* 432.

POLYCHILOS, *Breda, Orch. Kuhl et Hass. cum t.* 1, *Lindl. Fol. Orch.* 1853, *Bot. Mag. t.* 5570, a sectione *Stauroglotti* parum differt racemi rhachi carnosa ancipiti, bracteis basi adnatis distichis.

P. Wightii, Reichb. in Bot. Zeit. 1862, 214, e Peninsula Indica, est nobis *Doritis* species, ut videtur eadem ac *Aerides latifolia*, Thw., e Zeylania. Planta Parishiana a Reichb. f. in Trans. Linn. Soc. xxx. 135, ad *P. Wightii* relata vix eadem videtur, rhachi leviter incrassata dum in *P. Wightii* tenuis est. Flores tamen examinare nequivimus et folia in specimine nostro desunt.

185. **Doritis,** *Lindl. Gen. et Sp. Orch.* 178.—Sepala inter se libera, patentia, subæquilonga, lateralia obliqua basi latissima pedi columnæ adnata, posticum oblongum. Petala sepalo postico subsimilia. Labellum ad apicem pedis columnæ affixum, ungue longo basi incumbente mentumque formante mox ascendente auriculis seu lobulis 2 angustis instructo, lamina patente late 3-loba v. fere 3-partita; discus lamellatus. Columna brevis, lata, alato-marginata; clinandrium breve, integrum. Anthera terminalis, opercularis, incumbens, antice acuminata; pollinia 2, cerea, subglobosa, postice 2-loba, v. 4 a basi distincta per paria sibimet applicita, inappendiculata, anthera dehiscente stipiti longo affixa, glandula parva ovata. Capsula ubi nota longe oblonga v. elongata, erostris, patens, costis acute prominulis.—Herbæ epiphyticæ, caulibus brevissimis ramosis vaginis foliorum obtectis non pseudobulbosis. Folia pauca, disticha, oblonga, nunc crassa rigida v. carnosa, nunc tenuiora mox evanida. Scapi aphylli, sæpe longissimi, vaginis paucis parvis remotis. Racemus simplex v. paniculato-ramosus, floribus parvulis.

Species nobis notæ 5, Indiæ Orientalis et Archipelagi Malayani incolæ, in sectiones 2 sequentes distribuendæ:—

1. *Eudoritis.* Folia rigidula. Scapus longus, simplex. Huc species typica Cochinchinensis, cui addidit Reichb. f. Xen. Orch. ii. 7, *Dendrobium bifalce*, Lindl. in Benth. Bot. Sulph. 181, t. 58, e Nova Guinea, quod ex icone Lindleyana quoad perianthii formam bene convenit, sed acumen longum rostelli, in *D. pulcherrima* insigne, omnino deesse videtur. Specimina utriusque speciei in Herb. Kew. servata valde manca sunt.

2. *Carteretia.* Folia tenuiora, in caule inter radices aerias numerosas vix evoluto pauca v. per anthesin omnino deficientia. Scapus laxe paniculato-ramosus v. (interdum in eadem specie) abbreviatus simplexque. Huc pertinent CARTERETIA *paniculata, A. Rich. Sert. Astrol.* 10, *t.* 4, e Nova Guinea; *Aerides latifolia*, Thw. Enum. Pl. Zeyl. 429, e Zeylania; *Phalænopsis Wightii*, Reichb. f., e Peninsula Indica, vix ab *Aeride latifolia* distincta; et *Aerides tæniale*, Lindl., Griff. Ic. Pl. As. t. 338 A, e Napalia et Khasya.

186. **Rhynchostylis,** *Blume, Bijdr.* 285, *t.* 49.—Sepala subæquilonga, inter se libera, patentia, lateralia postico latiora, pedi columnæ affixa. Labellum ad apicem pedis columnæ affixum, basi profunde saccatum; lobi laterales obsoleti, medius supra saccum longe angustatum, apice inflexum, linguiforme v. obovatum. Columna brevis, crassa, semiteres, exalata, basi in pedem producta; clinandrium brevissimum, integrum; rostellum crassiusculum, antice supra stigma prominens. Anthera terminalis, opercularis, incumbens, semiglobosa, imperfecte 2-locularis; pollinia 2, cerea, subglobosa, sulcata v. fere 2-partita, inappendiculata, anthera dehiscente stipiti longo filiformi affixa, glandula parva submembranacea. Capsula oblonga v. subclavata, erostris, erecta v. patens, costis acute prominulis, interdum subalatis.—Herbæ epiphyticæ, caulibus foliatis non pseudobulbosis. Folia disticha, coriacea v. carnosa, plana, vaginis persistentibus caulem obtegentibus. Racemi laterales, longi, densiflori, floribus majusculis v. mediocribus breviter pedicellatis. Bracteæ parvæ.

Species 2 v. 3, Indiæ orientalis et Archipelagi Malayani incolæ. *Reichb. f. in Walp. Ann.* vi. 887. *Lindl. Sert. Orch. t.* 47 (*Saccolabium*). *Bot. Reg. t.* 1443 (*Sarcanthus*). *Wight, Ic. t.* 1745–6 (*Saccolabium*). *Bot. Mag. t.* 4108 (*Saccolabium*).

Vanda violacea, Lindl. Bot. Reg. 1847, t. 30, a Reichb. f. ad *Rhynchostylem* relata, differt labelli sacco columnæ apodæ contiguo et lobis lateralibus breviter prominulis et nobis *Saccolabio* referenda videtur.

187. **Sarcochilus,** *R. Br. Prod.* 332. (Dendrocolla, *Bl. Bijdr.* 286, *t.* 67. Thrixspermum, *Reich. f. Xen. Orch.* ii. 120, *t.* 140.)—Sepala patentia, libera, subæqualia v. lateralia postico latiora, pedi columnæ plus minus adnata. Petala sepalo postico subsimilia. Labellum pedi columnæ affixum, basi incumbens v. breviter adnatum, mentum sæpius parvum formans, dein recurvo-patens; lobi laterales erecti petaloidei v. parvi dentiformes, medius varie carnosus, dorso sæpius in gibbum parvum v. conicum interdum calcariforme carnosum v. spongiosum rarius intus cavum productus, ad basin laminæ sæpius breviter calloso-appendiculatus. Columna erecta, semiteres, exalata, basi in pedem producta; clinandrium obliquum, integrum v. antice 2-dentatum; rostellum breve v. elongatum. Anthera terminalis, opercularis, incumbens, convexa, antice obtusa v. acuminata, 2-locularis; pollinia 2, globosa, v. 4 plus minus per paria connata, cerea, inappendiculata, anthera dehiscente stipiti lineari v. oblongo affixa, glandula squamiformi. Capsula oblonga v. elongata, erostris v. brevissime rostrata, erecta v. subpatens, costis prominulis interdum alatis.—Herbæ epiphyticæ, caulibus foliatis abbreviatis v. rarius elongatis non-pseudobulbosis. Folia coriacea v. carnosa, oblonga v. linearia, disticha v. interdum perpauca v. sub anthesi deficientia. Pedunculi laterales, simplices v. rarius ramosi. Flores mediocres v. parvi, rarius (in *S. Calceolo*) speciosi.

Species ad 30, Indiæ orientalis, Archipelagi Malayani, insularum maris Pacifici et Australiæ incolæ. *Reichb. f. in Walp. Ann.* i. 781, vi. 497; *Xen. Orch. t.* 86 (*Dendrocolla*); *Otia Hamb.* 35; *et in Trans. Linn. Soc.* xxx. 145. *F. Muell. Fragm. Phytogr. Austral.* viii. 248. *Fitzger. Orch. Austral. tabb.* 5.

Genus quoad formam labelli ejusque menti v. gibbi dorsalis fere de specie in speciem variat, in sectiones satis naturales quoad inflorescentiam a Blumeo dividitur:—

1. *Cuculla.* Racemi rhachis carnosula, anceps, bracteis regulariter distichis carinato-adnatis. In specibus typicis sepalum posticum et petala anguste linearia fere setaceo-acuminata et caules foliati sæpius breves vaginis subimbricatis. ORSIDICE, *Reichb. f. in Bonplandia*, 1854, 93, est *S. amplexicaulis*, caule foliato elongato, foliis subdissitis, et sepalis omnibus ovatis lateralibus latis. In THRIXSPERMO, *Lour. Fl. Coch.* 519, caulis ut in *Orsidice* elongatus dicitur, sed folia lanceolato-linearia et sepala omnia uti petala subulato-linearia; speciem non vidimus.

2. *Fornicaria.* Racemi rhachis teres, brevis, bracteis angustis confertis; caules foliati breves, foliis paucis. Hujus species typica est *S. Hystrix*, Reichb. f. (*Dendrocolla Hystrix*, Bl.), quam Reichb. f. in Xenia ii. 123 includit in GROSOURDYA, ejusd. in Bot. Zeit. 1864, 297, et vix specifice differt CYLINDROCHILUS, *Thw. Enum. Pl. Zeyl.* 307, quam auctor ipse in Appendice 430 ad *Dendrocollam* reducit. Species cæteræ *Grosourdyæ*, Reichb., nobis desunt, et characterem differentialem non bene intelligimus, nisi e mento v. gibbo labelli elongato calcariformi sumitur.

3. *Tubera.* Racemi rhachis teres, floribus alternis sparsisve dissitis. ORNITHARIUM, *Lindl. in Paxt. Fl. Gard.* i. 188, *f.* 117. GUNNIA, *Lindl. Bot. Reg. sub n.* 1699; *Hook. f. Fl. Tasm.* ii. 32, *t.* 128. Huc pertinent species Asiaticæ a Reichb. f. Xen. Orch. ii. 121 sub litt. B enumeratæ, Australianæ in Benth. Fl. Austral. vi. 292 enumeratæ vel a Fitzgeraldo, Austral. Orch. in tabb. 4 depictæ, cum una Novo-Zelandica, Hook. f. Handb. N. Zeal. Fl. 263, et una Vitiensi, Reichb. f. in Seem. Fl. Vit. 297, t. 90 (THRIXSPERMUM). Inter Asiaticas, *S Calceolus*, Lindl. Bot. Reg. 1846, t. 19, insignis est floribus magnis. *Cleisostoma ionosmum*, Lindl. Bot. Reg. 1847, t. 41, floribus mediocribus, nobis ad *Sarcochilum* pertinere videtur etsi a cæteris speciebus differt racemo longe ramoso. Huic affinis videtur racemo tamen simplici *Aerides Teysmanni*, Miq. Choix Pl. Jard. Buitenz. t. 18, a Reichenbachio ad *Sarcochilum* relata.

Nomen genericum Loureirianum inepte Browniano substitueretur, nam vitiosissimum est, et a Botanicis fere omnibus neglectum, nec hodie corrigendum, ob *Trichospermum* jam a Blumeo generi *Tiliacearum* tributum.

CHILOSCHISTA, *Lindl. Bot. Reg. sub t.* 1522, *Wight, Ic. t.* 1741, est *Sarcochilus usneoides*, Reichb. f., quæ saltem sub anthesi omnino aphylla videtur.

PTEROCERAS, *Hassk. in Flora* 1842, ii. *Beibl.* 6, a Reichb. f. ad *Sarcochilum teretem* refertur, sed descriptiones Hasskarlli ibid. et in Pl. Jav. Rar. 128 vix conveniunt.

MICROPERA, *Dalz. in Hook. Kew Journ.* iii. 282, quoad *M. maculatum* a Lindleyo in Journ. Linn. Soc. iii. 38 pro genere proprio servata, nobis ad *Sarcochilum* reducenda videtur. Labellum carnosum in hoc genere valde polymorphum.

CAMAROTIS, *Lindl. Gen. et Sp. Orch.* 219; *Sert. Orch. t.* 19; et MICROPERA, *Lindl. in Bot. Reg. sub t.* 1522, jam ab auctore ipso in Journ. Linn. Soc. iii. 37 ad *Camarotem* reducta, nobis videntur *Sarcochili* species, rostello valde elongato, labelli gibbo conico cavo interdum calceiformi. Rostelli apex uti labelli forma variat de specie in speciem.

In *Camarote philippinensi*, Lindl. ut in STEREOCHILO, *Lindl. in Journ. Linn. Soc.* iii. 38, rostellum elongatur ut in *Camarotibus* typicis, sed pes columnæ brevior est; labelli gibbum in priore cavum, in illa solidum. *C. apiculata*, Reichb. f. in Bonpl. 1857, 39, nobis ignota est.

ADENONCOS, *Blume, Bijdr.* 381, *Lindl. Gen. et Sp. Orch.* 235, species Javensis, nobis ignota, ex charactere dato a *Sarcochilo* parum differt polliniis 4 distinctis. Reichenbach specimen Blumeanum plantæ minimæ in Bonplandia 1857, 40 descripit et cum *Oberonia Lindleyana*, Brongn., comparat, quæ *Phreatiæ* species, inter *Epidendreas* (*Ericas*), at Blume in *Adenonco* pollinarium *Vandearum* descripsit. Genus valde dubium remanet, an *Microsacco* affine?

188. **Trichoglottis,** *Blume, Bijdr.* 359, *pro parte.*—Sepala patentia, inter se libera, lateralia basi latissima pedi columnæ adnata, posticum oblongum. Petala sepalo postico similia. Labellum basi columnæ pedi adnatum, cum quo mentum longum horizontale calcariforme format, superne patens; lobi laterales breves, erecti, medius latiusculus, patens; discus appendicula lanceolata instructus. Columna brevis, exalata, basi in pedem longum producta; clinandrium parum prominens, truncatum, obscure dentatum. Anthera terminalis, opercularis, incumbens, subglobosa fere cucullata, imperfecte 2-locularis; pollinia 2, globosa, cerea, inappendiculata, anthera dehiscente stipiti angusto affixa, glandula parva. Capsula . . .—Herba epiphytica, caulibus foliatis elongatis non pseudobulbosis. Folia disticha, secus caulem dissita, angusta. Pedunculi laterales, brevissimi, 1- v. pauci-flori. Flores parvi v. mediocres.

Species 4 v. 5, quarum nobis adsunt 3, Archipelagi Malayani incolæ, *T. lanceolaria* et *T. rigida*, Bl., cum tertia adhuc indeterminata. *Reichb. f. Xen. Orch. t.* 117, *et in Linnæa* xli. 30.

Genus habitu sat naturale, *Sarcochilo* valde affine, labello tamen non carnoso. Inter species huc relatas, *T. retusa*, Bl., nobis omnino ignota est, *T. pusilla*, Reichb. f., ex ic. in herb. Lindl. in Reichb. f. Xen. Orch. t. 116, repetita, videtur *Saccolabii* species, *T. pallens*, Lindl., et *T. philippinensis*, Lindl., ad *Stauropsin* referendæ. *T. quadricornutum*, Kurz in Journ. Asiat. Soc. Beng. xlv. 156, t. 13, est, ex specimine manco, verisimiliter *Cleisostomatis* species.

189. **Aeranthus,** *Lindl. Bot. Reg. t.* 817.—Sepala subæquilonga, erecto-patentia, libera, basi dilatata, lateralibus latioribus obliquis pedi columnæ adnatis. Petala sepalo postico similia nisi minora. Labellum pedi columnæ affixum basique adnatum, in mentum breviter calcariforme horizontale obtusum v. didymum productum, dein dilatatum, incumbens, concavum v. complicatum, integrum, apice erecto-patens. Columna brevissima, basi in pedem longum membranaceum cum labello continuum producta, apice 2-alata; clinandrium brevissimum, truncatum. Anthera terminalis, opercularis, incumbens, 2-locularis; pollinia 2, globosa, sulcata v. bipartibilia, inappendiculata, anthera dehiscente in glandulis rostelli 2 sessilia. Capsula . . .—Herbæ epiphyticæ, caulibus foliatis abbreviatis non pseudobulbosis. Folia disticha, elongata, coriacea, basi complicata, vaginis persistentibus in caule imbricatis. Pedunculi ad basin caulis laterales, longiusculi, ∞-bracteati. Flos sæpius unicus, majusculus, pedicellatus, plures tamen in speciminibus nonnullis adsunt imperfecti, et verisimiliter interdum 2–3 perfecti in racemo laxo.

Species 2, insularum Mascarensium incolæ. *Thou. Orch. Iles Afr. t.* 88 (*Dendrobium*). *Bot. Mag. t.* 6034 (lapsu *Acranthus*).

Genus ad species typicas limitatum *Aeridi* potius quam *Angræco* affine. *A. sesquipedalis*, Lindl., ad *Angræcum* restituenda est. *Mystacidium* et *Œonia*, Lindl., a Reichenbachio *Aerantho* adjuncta, nobis longe distare videntur.

190. **Aerides,** *Lour. Fl. Coch.* 525.—Sepala subæquilonga, patentia, posticum ovatum v. oblongum, lateralia latiora, basi pedi columnæ adnata. Petala sepalo postico subsi-

milia. Labellum pedi columnæ affixum (articulatum?), erectum v. incumbens, basi calcaratum, calcare sursum recurvo v. sub lamina ascendente intus vacuo; lobi laterales ad latera calcaris erecti, latiusculi, sæpius parvi; medius patens, ovatum v. amplum. Columna brevis, crassiuscula, basi in pedem producta, exalata; clinandrium truncatum, parum prominens. Anthera terminalis, opercularis, incumbens, convexa, 2-locularis; pollinia 2, compresso-globosa, extus sulcata, inappendiculata, anthera dehiscente stipiti angusto v. complanato affixa; glandula squamiformis. Capsula oblonga v. clavata, erostris, patens v. reflexa, sæpius crassiuscula, rarius longior et angustior, costis prominentibus v. anguste alatis.—Herbæ epiphyticæ, caulibus foliatis non pseudobulbosis. Folia disticha, coriacea v. subcarnosa, vaginis persistentibus caulem obtegentibus. Racemi laterales, nunc simplices dense floribundi, nunc ramosi laxiores. Flores mediocres v. majusculi, racemis sæpius speciosis. Bracteæ parvæ.

Species ad 10, Indiæ orientalis, Archipelagi Malayani et Asiæ orientalis usque ad Japoniam incolæ. *Lindl. Gen. et Sp. Orch.* 238 (*excl. spp. plur.*). *Reichb. f. in Walp. Ann.* vi. 896; *in Bot. Zeit.* 1864, 415, *et in Trans. Linn. Soc.* xxx. 145.

Genus cum *Saccolabio* sæpe confusum, differt imprimis columna in pedem plus minus producta, in series v. sectiones sat distinctas dividitur:—

1. *Planifoliæ.* Folia plana coriacea v. rigida. Columnæ pes valde elongatus. Huc pertinent: species typica *A. odoratum*, Lour.; Bot. Reg. t. 1485, Bot. Mag. t. 4139; *A. crispum*, Wall.; Bot. Mag. t. 4427; Wight, Ic. t. 1674 (*Saccolabium*, et *A. Lindleyanum*, t. 1677); *A. virens*, Lindl. Bot. Reg. 1844, t. 41; *A. maculosum* var., Henfr. Gard. Mag. ii. 121, cum ic. non Lindl.; *A. quinquevulnerum*, Lindl. Sert. Orch. t. 30, aliæque plures *A. odorato* affines, Blume, Rumphia, iv. 192, f. 3, 193, f. 1. Reichb. f. Xen. Orch. t. 92, 104, 204. Huc etiam referenda species Japonica, *A. japonicum*, Linden et Reichb. f.; Bot. Mag. t. 5798.

2. *Teretifoliæ.* Folia teretia, carnosa. Columnæ pes brevis. Harum specierum nobis notæ sunt: *A. cylindricum*, Lindl.; Wight, Ic. t. 1744, *A. vandarum*, Reichb. f. (*A. cylindricum*, Bot. Mag. t. 4982, non Lindl.), et *A. mitratum*, Reichb. f., Bot. Mag. t. 5728.

A. appendiculatum, Wall., foliis teretibus, ex icone in herb. Lindl. ad *Cleisostoma* referendum videtur. *A. Hystrix* et *A. difforme*, Lindl., sectionem nunc genus *Ornithochilus*, Wall., formant; *A. tæniale*, Lindl., ad *Doritidem* referrimus. *A. Wightianum*, Lindl., est *Vanda parviflora*, Lindl. *A. multiflorum*, Roxb. (*A. affine*, Lindl. Sert. Orch. t. 15, Bot. Mag. t. 4049, Paxt. Mag. ii. t. 60), species in India orientali late dispersa, habitu *Aeridibus* et *Saccolabiis* dense racemosis subsimilis, ab utroque genere distinguitur labello ut in *Arachnanthe* basi nec saccato nec calcarato, sed sub lobo medio gibbo v. calcare brevi recurvo instructo. Columna quam in utroque genere longior. Species vix sub *Aeride* retinenda, an tamen rite ad *Arachnanthem* (*Armodorum*) referenda, dubium remanet.

191. **Renanthera,** *Lour. Fl. Cochinch.* 521. (Nephranthera, *Hassk. Cat. Hort. Bog.* 44.) —Sepala patentissima, libera, petaloidea, lateralia postico paullo latiora sæpeque longiora, diu parallele contigua v. medio subcohærentia. Petala sepalo postico similia. Labellum breve, ad basin columnæ sessile, articulatum, infra juxta basin in saccum v. calcar conicum productum; lobi laterales ad latera calcaris lati erecti, medius parvus, patens, planus v. varie carnoso-incrassatus. Columna brevis, crassa, semiteres, exalata, basi non producta; clinandrium parum prominens, vix obliquum, integrum. Anthera terminalis, opercularis, incumbens, convexa, antice interdum producta, 2-locularis; pollinia 2, cerea, ovoidea v. oblonga, extrorsum sulcata v. 2-partita, inappendiculata; anthera dehiscente stipiti plano angusto v. apice parum latiori affixa, glandula rotundata v. transversa. Capsula angulata, erostris.—Herbæ epiphyticæ, caulibus foliatis ramosis non pseudobulbosis. Folia disticha, patentia, carnosa v. rigida, apice sæpe oblique 2-loba. Pedunculi laterales, elongati, ramosi, racemis laxis ample paniculatis. Flores speciosi v. parvuli.

Species ad 5, Asiæ tropicæ et Archipelagi Malayani incolæ. *Lindl. Gen. et Sp. Orch.* 217. *Reichb. in Walp. Ann.* vi. 874 (*excl. sect. Arrhynchio et Arachnanthe*); *Xen. Orch. t.* 35, 113. *Blume, Rumphia* iv. *t.* 193, 197. *Bot. Mag. t.* 2997, 2998. *Bot. Reg. t.* 1131, 1843, *t.* 41.

In specie typica, *R. coccinea*, Lour., et præsertim in *R. matutina*, Bl., sepala lateralia sæpe diu lateraliter cohærunt, sed in omnibus speciminibus a nobis visis demum solvuntur. In *R. micrantha*,

Bl. (*R. elongata*, Lindl., ex Reichb., *R. matutina*, Lindl. in Bot. Reg., *Saccolabium reflexum*, Lindl.) speciebusque 1 v. 2 ei valde affinibus, sepala magis æqualia sed lateralia subparallela apparent.

192. **Vanda,** *R. Br. in Bot. Reg. t.* 506.—Sepala subæqualia, libera, patentissima, basi sæpe angustata v. fere unguiculata. Petala sepalis similia. Labellum basi columnæ affixum, continuum, patens, basi saccatum v. obtuse calcaratum ; lobi laterales ad latera sacci erecti, rotundati v. ad auriculas reducti, medius patens, latus v. oblongus ; discus lævis v. varie callosus v. lamellatus. Columna brevis, crassa, exalata, apoda ; clinandrium truncatum, parum prominens. Anthera terminalis, opercularis, incumbens, convexa v. semiglobosa, 2-locularis ; pollinia 4, cerea, late ovata, per paria in loculis contigua v. concreta, inappendiculata, anthera dehiscente stipiti plano latiusculo affixa, glandula crassiuscula v. plana. Capsula oblonga v. longiuscula, erecta v. patens, crassiuscula, erostris, costis prominentibus.—Herbæ epiphyticæ, caulibus foliatis non pseudobulbosis. Folia disticha, patentia, coriacea v. subcarnosa, apice sæpe emarginata v. breviter 2-loba, plana v. in *V. tereti* teretia. Pedunculi laterales, racemo simplici laxo. Flores speciosi v. rarius mediocres, breviter pedicellati. Bracteæ breves. Capsulæ sæpe longiuscule pedicellatæ.

Species ad 20, Indiæ orientalis et Archipelagi Malayani incolæ, quarum una etiam in Australia tropica invenitur. *Lindl. Fol. Orch.* 1853. *Blume, Rumphia*, iv. 48, *t.* 192, 197 C, quoad sect. 1. *Griff. Ic. Pl. As. t.* 330, 331. *Reichb. f. Xen. Orch. t.* 5, 12, 102, 150 ; *in Flora*, 1872, 277 ; *in Bot. Zeit.* 1858, 351 ; *et in Linnæa* xli. 30. *Wight, Ic. t.* 916. *Bot. Mag. t.* 2245, 3416, 4114, 4432, 5174, 5611, 5759, 5811, 5834, 6173, 6328. *Bot. Reg. t.* 506, 1809. *Paxt. Fl. Gard. t.* 36, 42.

Vanda parviflora, Wight, Ic. t. 1669 (*Aerides Wightianum*, Lindl. Gen. et Sp. Orch. 238, Bot. Mag. t. 5138) species floribus solito minoribus insignis, cæterum *V. cærulescenti* affinis, nobis characteres omnino *Vandæ* nec *Aeridis* præbere videtur, sepalis omnibus liberis, columna apoda, labello calcarato. *Aerides testaceum*, a Reichb. f. cum *A. Wightiano* junctum, nobis ignotum est.

Sectio *Lamellaria*, Lindl., imprimis ad *V. spathulatam*, Lindl. ; Wight, Ic. t. 915, stabilita, vix ab *Euvanda* separatur labelli disco distincte lamellato. Sectio *Cristaria*, Lindl., ad *V. cristatam*, Lindl., Bot. Reg. 1842, t. 48, Bot. Mag. t. 4304, definita, est *Euvandæ* species labelli lobo medio apice truncato 3-dentato v. 3-cornuto. *V. alpina*, Lindl. (a qua *V. Griffithii* vix distincta) a Lindleyo *V. cristariæ* associata, characteres præbet potius *Stauropsidis*.

Sectio *Anota*, Lindl. (*V. densiflora* olim *Saccolabium giganteum*, Lindl.), tam habitu quam characteribus, ad *Saccolabium* restituenda videtur.

193. **Saccolabium,** *Blume, Bijdr.* 292. (Saccochilus, *Blume, Fl. Jav. Præf.* 8. Robiquetia, *Gaud. in Freyc. Voy. Bot.* 426, *t.* 34.)—Sepala subæqualia, libera, patentia v. erecto-patentia, plana v. concava, lateralia interdum basi parum latiora, posticum interdum fere cucullatum. Petala sepalis subsimilia, interdum latiora, rarius angustiora. Labellum ad basin columnæ sessile, basi calcaratum v. saccatum, calcare descendente recto v. rarius recurvo intus nudo ; lobi laterales ad latera calcaris erecti, sæpius parvi, interdum latiusculi v. vix prominentes, medius patens v. erectus, polymorphus, nunc parvus dentiformis, nunc oblongus linguiformis v. transverse dilatatus, rarius calcare longior ; discus ad os calcaris interdum lamina parva appendiculatus. Columna brevis, lata, nunc brevissima, apoda, exalata v. angulis parum prominulis ; clinandrium parum prominens, truncatum. Anthera terminalis, opercularis, incumbens, convexa, antice sæpius obtuse acuminata, 1-locularis v. imperfecte 2-locularis ; pollinia 2, subglobosa, integra sulcata v. 2-partita, inappendiculata, anthera dehiscente stipiti lineari v. tenui (rarius loriformi ?) affixa, glandula sæpius parva. Capsula sæpius oblonga, rarius elongata, interdum globosa v. ovoidea, erostris, costis tenuibus v. prominulis.—Herbæ epiphyticæ, caulibus foliatis non pseudobulbosis. Folia disticha, patentia, coriacea carnosa v. rarius tenuia, plana v. rarius teretia, vaginis persistentibus caulem obtegentibus. Pedunculi laterales, simplices v. ramosi. Flores nunc majusculi, minores tamen quam in *Vanda*, racemum densum speciosum recurvum formantes, nunc dissiti v. parvi, v. in racemo tenui simplici v. paniculato-ramoso minimi, breviter pedicellati. Bracteæ parvæ.

Species ad 20, Indiæ orientalis et Archipelagi Malayani incolæ. *Lindl. Gen. et Sp. Orch.* 220. *Reichb. f. in Walp. Ann.* vi. 883 ; *Otia Hamb.* 41, 52 ; *et in Trans. Linn. Soc.* xxx. 145.

Genus sat polymorphum, sed haud male definitum si *Rhynchostylem* et *Ornithochilum* excludimus, quibus columnæ pes evolutus mentum perianthii format. In series sequentes dividitur:—

1. *Speciosæ.* Flores speciosi, dense racemosi v. paniculati, calcare longiusculo incurvo, *Aeridem* referentes, sed columna apoda. Huc pertinent inter alia *S. rubrum*, Wight, Ic. t. 1673; *S. speciosum*, Wight, Ic. t. 1674–5 (*Aerides maculosa*, Lindl. Bot. Reg. 1845, t. 58); *S. paniculatum*, Wight, Ic. t. 1676; *S. Wightianum*, Lindl.; Wight, Ic. t. 917.

2. *Genuinæ.* Flores sæpius mediocres, racemosi, calcare longiusculo recto; labelli lobi omnes dentiformes v. ovati, v. medius angustus calcare tamen semper brevior. *Lindl. Sert. Orch. t.* 17, 32. *Wight, Ic. t.* 1686 (*Sarcanthus*), *ex ic. et descr. Bot. Reg.* 1847. *t.* 58. *Bot. Mag. t.* 5326, 5595, 5681, 6222. *Reichb. f. Xen. Orch. t.* 139.

3. *Longilabellatæ.* Inflorescentia *Genuinarum* v. *Speciosarum*. Labelli saccus conicus v. ovatus rarius calcar longiusculum, lobi laterales brevissimi v. obsoleti, medius multo longior, obovatus v. latus, basi parum contractus. *Bot. Mag. t.* 5433, 5635. *Bot. Reg. t.* 1352; 1847, *t.* 30 (*Vanda*).

4. *Latilabellatæ.* Inflorescentia *Genuinarum*. Labelli saccus latus, lobi laterales breves, medius transverse dilatatus, margine ciliolato-fimbriatus. *Griff. Ic. Pl. Asiat. t.* 333, 334. *Wight, Ic. t.* 1671 (*Vanda*). *Bot. Mag. t.* 4772, 5767. GASTROCHILUS, *Don, Prod. Fl. Nep.* 32.

5. *Micranthæ.* Flores minimi, racemis sæpius paniculato-ramosis. Capsulæ parvæ globosæ v. breviter ovoideæ. Huc pertinent *S. gemmatum*, Lindl., *S. gracile*, Lindl., *S. micranthum*, Lindl.; Reichb. f. in Saund. Ref. Bot. t. 110, *S. Jerdonianum*, Reichb. f.; Wight, Ic. t. 1756 (*Tæniophyllum*), aliæque paucæ.

6. *Microphyllæ.* Caules tenues, foliis numerosis parvis. Flores laterales sæpius solitarii. *S. distichum*, Lindl., et ex ic. et descr. CERATOCHILUS, *Blume, Bijdr.* 358, *t.* 25; *Reichb. f. Xen. Orch.* i. 203, *t.* 77.

OMŒA, *Blume, Bijdr.* 359, a nobis non visa, ex charactere dato verisimiliter ad *Saccolabium* juxta *Ceratochilum* referenda erit. Specimina Beccariana e Sumatra n. 567, cum charactere Blumeano satis convenientia, a *Saccolabiis Micranthis* paullulum differunt racemo longo flexuoso, floris calcare longiusculo clavato, labelli lobo medio ovato crassiusculo subcarnoso.

ŒCEOCLADES, *Lindl. Gen. et Sp. Orch.* 235, quoad species plerasque rite a Reichb. f. ad *Saccolabium* reducitur. *Œ. tenera*, Wight, Ic. t. 1683, est ipsum *S. brevifolium*, Lindl., species caule elongato foliis brevibus dissitis late oblongis insignis; *Œ. maculata*, Lindl., est *Eulophia maculata*, Reichb. f.; *Œ. falcata*, Lindl., characteres exhibet omnino *Angræci*, etsi patria longe distet.

Saccolabium filiforme, Lindl., et *S. roseum*, Lindl. (*Sarcanthi* sp., Wight, Ic. t. 1684, 1685), habitu *Schœnorchidis juncifoliæ*, Bl., et ei errore a Thw. Enum. Pl. Zeyl. 304 relata, characteres tamen *Saccolabii* exhibent; insignes sunt petalis quam sepala subduplo latioribus dum in *Schœnorchide* multo angustiora sunt.

Saccolabium acuminatum, Thw. l. c., est *Sarcanthus peninsularis*, Lindl. *S. Hillii*, F. Muell., ex Australia, ad *Ornithochilum* referendum videtur.

194. **Uncifera,** *Lindl. in Journ. Linn. Soc.* iii. 39.—Sepala subæqualia, libera, erecta v. erecto-patentia. Petala sepalis similia v. paullo minora. Labellum basi columnæ affixum, basi in calcar longiusculum curvum productum; lobi laterales parvi, medius subpatens, integer v. leviter 3-lobus. Columna brevissima, lata, exalata, apoda, rostello longo apice dilatato v. 2-lobo; clinandrium vix prominulum truncatum cum dente postico longiusculo. Anthera denti postico affixa, opercularis, incumbens, cucullata, antice longe rostrata, 2-locularis; pollinia 2 globosa, cerea, inappendiculata, anthera dehiscente stipiti longo superne dilatato sub-2-lobo et inter lobos appendiculato affixa, glandula squamiformi longiuscula sagittata. Capsula oblonga, erostris, patens v. reflexa, costis parum prominulis.—Herbæ epiphyticæ, caulibus foliatis non pseudobulbosis. Folia disticha, tenuiter coriacea v. crassiora subcarnosa, vaginis persistentibus caulem obtegentibus. Racemi laterales, densi, spiciformes, breviter pedunculati. Flores parvuli v. mediocres, brevissime pedicellati, secus rhachin conferti. Bracteæ parvæ.

Species 2, Khasyæ incolæ. Genus *Saccolabio* affine, differt imprimis pollinarii stipito, et calcare curvo.

195. **Acampe,** *Lindl. Fol. Orch.* 1853.—Sepala libera, subpatentia, subæqualia, carnosula. Petala sepalis similia v. paullo angustiora. Labellum ad basin columnæ sessile,

continuum, patens, basi saccatum v. conico-calcaratum, calcare intus vacuo; lobi laterales auriculiformes ad latera calcaris erecti, medius patens, integer; discus sæpius basi lamellatus v. pilosus. Columna brevissima, crassa, apoda, exalata; clinandrium truncatum, antice breviter 2-lobum v. 2-mucronatum. Anthera terminalis, opercularis, incumbens, imperfecte 2-locularis; pollinia 2, subglobosa, cerea, inappendiculata, anthera dehiscente stipiti tenui affixa, glandula parva. Capsula oblonga v. fere linearis, crassiuscula, erostris.—Herbæ epiphyticæ, caulibus foliatis non pseudobulbosis. Folia disticha, coriacea, vaginis persistentibus caulem obtegentibus. Pedunculi laterales, rigidi, nunc breves simplices, nunc elongati, paniculati, ramis brevibus. Flores quam in *Vanda* multo minores, secus rhachin conferti, breviter pedicellati. Bracteæ parvæ.

Species ad 9, quarum 8 (ex Lindleyo) Indiæ Orientalis et Chinæ australis incolæ. *Roxb. Corom. Pl. t.* 43 (*Epidendrum*). *Lindl. Collect. Bot. t.* 38 (*Vanda*). *Bot. Reg. t.* 1552 (*Saccolabium*). *Wight, Ic. t.* 1670 (*Vanda*) *et t.* 1672 (*Saccolabium*). *Reichb. f. in Flora*, 1872, 277; *Otia Hamb.* 76. His addenda videtur species in Africa austro-orientali a Mellero lecta, *A. papillosæ* et *A. excavatæ* evidenter valde affinis.

Genus naturale etsi characteribus floralibus parum distinctum. Racemi in plerisque speciebus in pedunculo brevi simplices, in *A. multiflora* tamen sæpius paniculati. *A. dentata*, Lindl., e Sikkim, floribus parvis paniculatis primo aspectu *Sarcantho paniculato* accedit, sed labelli calcar intus nudum indivisum.

196. **Sarcanthus,** *Lindl. Collect. Bot. t.* 39 B; *Gen. et Sp. Orch.* 233.—Sepala libera, subæqualia, patentia, carnosula. Petala sepalis subsimilia. Labellum basi columnæ affixum, continuum (v. ex Lindl. articulatum), patens, basi calcaratum, calcare cylindraceo v. obtuse conico intus antice lamina longitudinali semidiviso, postice ad os sæpius calloso-appendiculato; lobi laterales ad latera calcaris breves auriculiformes v. obliqui, medius ovatus oblongus v. lanceolatus, patens v. inflexus. Columna oblonga, subteres, antice concava, exalata, apoda; clinandrium truncatum, antice 2-angulatum 2-dentatum v. 2-cornutum. Anthera terminalis, opercularis, incumbens, convexa, breviter acuminata, 2-locularis; pollinia 4, ovoidea, cerea, per paria subconnata, inappendiculata, anthera dehiscente stipiti angusto sæpe filiformi affixa, glandula parva. Capsula erostris, ovoidea v. oblonga, patens v. reflexa, rarius longior et erectiuscula.—Herbæ epiphyticæ, caulibus foliatis non pseudobulbosis. Folia disticha, coriacea v. carnosa, plana v. teretia, vaginis persistentibus caulem obtegentibus. Pedunculi laterales, sæpe tenues, simplices v. paniculato-ramosi. Flores parvi, breviter pedicellati, sæpe flavo-virescentes intus purpurascentes. Bracteæ parvæ.

Species ad 15, Indiæ orientalis, Chinæ australis et Archipelagi Malayani incolæ. *Bauer, Ill. Orch. Gen. t.* 9. *Reichb. in Walp. Ann.* vi. 891; *in Saund. Ref. Bot. t.* 109; *in Bonpl.* 1857, 40; *in Bot. Zeit.* 1857, 159; 1864, 298. *Lindl. Collect. Bot. t.* 6 (*Vanda*). *Hook. Exot. Fl. t.* 187 (*Vanda*). *Wight, Ic. t.* 1747. *Bot. Mag. t.* 3571, 4639, 5217, 5630. *Bot. Reg. t.* 220 (*Aerides*), 676 (*Vanda*), 1014.

Saccolabium densiflorum, Lindl., a Reichb. f. in Trans. Linn. Soc. xxx. 136, ad *Sarcanthum* relatum, lamina longitudinali intra calcar carente, ad *Cleisostoma* transferendum est.

197. **Cleisostoma,** *Blume, Bijdr.* 362. (Pomatocalpa, *Breda, Orch. Kuhl et Hass. ex Reichb. f.; ic. in exempl. nostro deest.*)—Sepala subpatentia, subæqualia, libera v. lateralia basi columnæ pedi brevi affixa. Petala sepalis similia. Labellum basi columnæ v. pedi affixa, basi in calcar v. saccum intus longitudinaliter indivisum sed ore squama v. appendicula postica integra v. bifida subclausum productum; lobi laterales ad latera calcaris falcati v. angusti, medius brevis sæpius latus. Columna brevis, semiteres, exalata, basi interdum in pedem brevem producta; clinandrium breve, truncatum, antice 2-dentatum v. 2-lobum. Anthera terminalis, opercularis, incumbens, 2-locularis; pollinia 4, per paria conferta v. concreta, cerea, inappendiculata, anthera dehiscente stipiti angusto v. spathulato interdum filiformi affixa; glandula squamiformis. Capsula angusta, longiuscula v. rarius breviter oblonga, erostris, erecta v. patens, costis prominulis.—Herbæ epiphyticæ, caulibus foliatis non pseudobulbosis. Folia disticha, patentia,

carnosa v. coriacea, plana v. rarius teretia, vaginis persistentibus caulem obtegentibus. Pedunculi laterales, simplices v. ramosi. Flores parvi, sæpius numerosi, secus rhachin sessiles v. breviter pedicellati. Bracteæ parvæ.

Species ad 15, Indiæ orientalis, Archipelagi Malayani et Australiæ tropicæ incolæ. *Lindl. Gen. et Sp. Orch.* 226. *Reichb. in Walp. Ann.* vi. 888; *Xen. Orch. t.* 142; *Otia Hamb.* 52; *in Flora*, 1872, 273; *et in Linnæa* xli. 76. *Benth. Fl. Austral.* vi. 296. *Lindl. in Paxt. Mag.* iii. *t.* 99. *Fitzger. Austral. Orch. cum tabb.* 2.

Saccolabium lineolatum, Thw. Enum. Pl. Zeyl. 304 (C. P. n. 2741), est *Cleisostoma maculosum*, Lindl. *C. maculosum*, Thw. l. c. non Lindl., cujus specimina nobis desunt, videtur ex icone Thwaitesii species nova *C. Wendlandorum*, Reichb. f., valde affinis. *Saccolabium densiflorum*, Lindl., a Reichb. f. in Trans. Linn. Soc. xxx. 136 ad *Sarcanthum* relatum, nobis videtur tam habitu quam characteribus *Cleisostomatis* species; labelli calcar intus lamina longitudinali caret sed ore subclausum est callo postico bifido.

C. ionosmum, Lindl., supra ad *Sarcochilum* transtulimus, et *C. tridentatum*, Lindl., ex Australia, jam a Reichenbachio recte ad *Sarcochilum* relatum est.

Echioglossum, *Blume, Bijdr.* 364, *t.* 28, a nobis non visum, ab auctore distinguitur a *Cleisostomate* imprimis labello apice ligula lineari 2-fida appendiculato. *Echioglossa* herbarii Lindleyani, incluso *E. mutico*, Reichb. f., hujus appendicis carent et nobis omnino ad *Cleisostoma* referenda videntur. Inflorescentia generis sæpius paniculata sed interdum racemi simplices et in speciebus nonnullis, quibus habitus *Trichoglottidis*, racemi brevissimi fere ad fasciculos sessiles reducti. Huc includimus *Trichoglottidem quadricornutam*, Kurz. *E. minax*, Reichb. f., e Java, nobis ignota est.

Synptera, *Llanos, Fragm. Pl. Filip.* 98, species Philippinensis a nobis non visa, ex auctoris descriptione omnino ad *Cleisostoma* referenda videtur.

198. **Schoenorchis,** *Blume, Bijdr.* 361, *quoad sect.* i.; *Rumphia*, iv. 51, *t.* 193, 198 B. —Sepala subæqualia, libera, erecto-patentia, posticum concavum. Petala sepalis multo angustiora. Labellum ad basin columnæ sessile, basi calcaratum, calcare longo valde curvato intus nudo; lobi laterales ad margines calcaris longiusculi, patentes, medius brevis, patens. Columna brevis, lata, apoda, antice fere a basi lobis 2 linearibus erectis instructa, cæterum exalata; clinandrium breve, truncatum. Anthera terminalis, opercularis, incumbens, convexa, semi-2-locularis; pollinia 2, cerea, subglobosa, sulcata (v. 2-partibilia?), inappendiculata, anthera dehiscente stipiti longo angusto affixa, glandula lineari. Capsula oblonga, basi attenuata, costis valde prominentibus.—Herbæ epiphyticæ, caule foliato elongato non pseudobulboso. Folia lineari-teretia, subdisticha, carnosa, vaginis persistentibus in caule subdissitis adnatis. Racemi axillares, simplices, floribundi at foliis breviores. Flores parvuli, breviter pedicellati. Bracteæ minimæ.

Species 1, Javanica.

Genus valde affine *Saccolabio*, cui sect. 2 Blumei (in Bijdr.) a Lindleyo rite refertur. *Schœnorchis juncifolia*, Thw. Enum. Pl. Zeyl. 304, non Bl., est *Saccolabium filiforme*, Lindl., species primo aspectu *Schœnorchidi* typicæ simillima, statim vero dignoscenda, petalis quam sepala latioribus et appendicum columnæ absentia.

199. **Ornithochilus,** *Wall.*; *Lindl. Gen. et Sp. Orch.* 242 (*Aeridis sect.*).—Sepala subæquilonga, patentia, lateralia paullo latiora, basi cum ungue labelli in mentum breve a columna liberum connata. Petala sepalo postico paullo angustiora. Labellum a basi columnæ patens, ima basi mentum parvum formans, ungue lato concavo margine interdum fimbriato, subtus in calcar v. saccum rectum v. incurvum intus vacuum producto; lamina lata, patens v. inflexa, 2-3-loba, margine sæpe ciliato-fimbriata. Columna basi latiuscula, exalata, apoda, rostello longo; clinandrium postice ovatum, erectum. Anthera terminalis, opercularis, incumbens, 2-locularis; pollinia 2, subglobosa, sulcata, inappendiculata, anthera dehiscente stipiti plano longiuscule loriformi affixa. Capsula anguste oblonga v. elongata, erostris, patens, costis parum prominulis.—Herbæ epiphyticæ, caulibus foliatis brevibus non pseudobulbosis. Folia pauca, disticha, plana, latiuscula, tenuiter coriacea, vaginis persistentibus caulem obtegentibus. Racemi laterales, tenues, simplices v. paniculato-ramosi. Flores parvi, pedicellati. Bracteæ parvæ.

Species typicæ 2, Himalayæ et Burmæ incolæ, *Aerides difforme*, Lindl. l.c.; et *A. hystrix*, Lindl., in Journ. Linn. Soc. iii. 42. His forte addendum *Saccolabium Hillii*, F. Muell.; Benth. Fl. Austral. vi. 298, Fitzger. Austral. Orch. cum tab. 1, quæ species *Ornithochilo* habitu et plerisque characteribus accedit, nec differt nisi labelli lobo medio dentiformi v. obsoleto.

200. **Tæniophyllum,** *Blume, Bijdr.* 355, *t.* 70.—Sepala conniventia v. subpatentia, subæqualia, basi sæpius breviter connata. Petala similia v. paullo minora, libera. Labellum ad basin columnæ sessile, continuum, basi in saccum v. calcar descendens intus nudum productum; lobi laterales ad margines calcaris breves v. obsoleti, medius parvus, patens, carnosulus, integer (v. 2-fidus ?). Columna brevissima, lata; clinandrium parum prominens, truncatum, antice 2-angulatum v. 2-dentatum. Anthera terminalis, opercularis, incumbens, parum convexa, 2-locularis; pollinia 4, cerea (ovoidea ?), inappendiculata, per paria sibimet incumbentia, anthera dehiscente stipiti brevi lineari affixa, glandula parva. Capsula oblongo-linearis, costis 3 prominulis angulata.—Herbæ nanæ, epiphyticæ, radicibus aëreis longis fasciculatis carnosis, caule brevissimo paucifoliato v. aphyllo, non pseudobulboso. Folia dum adsint linearia. Pedunculi laterales, brevissimi, tenues, simplices. Flores minuti, brevissime pedicellati, rhachi racemi sæpius flexuosa. Bracteæ minutæ, sparsæ.

Species ad 6, Indiæ orientalis, Archipelagi Malayani, insularum maris Pacifici et Australiæ incolæ. *Lindl. Gen. et Sp. Orch.* 225. *Reichb. f. Xen. Orch.* i. 202, ii. 67, *t.* 77, 116; *Otia Hamb.* 53. *Benth. Fl. Austral.* vi. 291.

Genus ob flores minutos in herbariis raros quoad characteres staminales quodammodo incertum. *T. Jerdonianum*, Wight, a Reichenbachio bene ad *Saccolabium* refertur.

201. **Microsaccus,** *Blume, Bijdr.* 367.—Sepala subæqualia, libera, patentia. Petala sepalis similia v. angustiora. Labellum basi columnæ affixum, continuum, basi in saccum latum depressum productum; lobi laterales parvi v. obsoleti, medius erectus, concavus, sepalis vix brevior, sæpius latus, indivisus. Columna brevissima, exalata, apoda (v. in pedem brevissimum producta ?); clinandrium parum prominens, truncatum. Anthera terminalis, opercularis, incumbens, valde convexa v. fere cucullata, sub-2-locularis; pollinia 4, distincta, globosa, cerea, inappendiculata, anthera dehiscente stipiti anguste lineari affixa, glandula parva. Capsula ovoidea v. breviter oblonga, erostris.—Herbæ epiphyticæ, parvæ, caulibus foliatis cum vaginis distichis ancipitibus non pseudobulbosis. Folia numerosa, parva, disticha, scalpelliformia v. fere linearia, rigida v. carnosula. Pedunculi laterales, brevissimi, 1–2-flori. Flores minimi, bracteis sæpe stipati.

Species nobis adsunt 3 v. 4 Archipelagi Malayani et Malaccæ incolæ. *Lindl. Gen. et Sp. Orch.* 218.

Genus quoad characteres florales *Saccolabio* accedit, sed pollinia globosa 4 bene distincta et habitus refert potius species minores *Dendrobii* sectionis *Apori* v. *Appendiculam*, quarum tamen pollinarium longe differt.

202. **Diplocentrum,** *Lindl. Bot. Reg. sub t.* 1522; *Gen. et Sp. Orch.* 218.—Sepala libera, subpatentia, subæqualia v. lateralia paullo majora. Petala sepalo postico subsimilia. Labellum ad basin columnæ sessile, articulatum, patens, oblongum v. ovatum, integrum, medio carnosum, dorso juxta basin breviter 2-calcaratum. Columna brevissima, lata, ad latera stigmatis leviter 2-auriculata; clinandrium vix prominens, truncatum. Anthera terminalis, opercularis, incumbens, convexa, obtuse acuminata, basi 2-locularis; pollinia 2, ovoidea, cerea, sulcata v. 2-partibilia, inappendiculata, anthera dehiscente stipiti lineari v. basi dilatato affixa, glandula latiuscula. Capsula breviter oblonga v. clavata, erostris, patens v. reflexa, costis parum prominulis.—Herbæ epiphyticæ, caulibus foliatis non pseudobulbosis. Folia disticha, carnosa, angusta, subteretia v. complicata, sæpissime recurva. Pedunculi laterales, sæpe ramosi, racemis longiusculis recurvis. Flores parvi, brevissime pedicellati. Bracteæ minutæ. Capsulæ fere sessiles.

Species 2 v. 3, peninsulæ Indiæ orientalis incolæ. *Wight, Ic. t.* 1680 *ad* 1682.

203. **Angræcum,** *Thou. Orch. Iles Afr. tab. syst.* 2, *pro parte.* (Aerobion, *Spr. Syst.* iii. 679.)—Sepala subæqualia, libera, patentia. Petala sepalis subsimilia. Labellum basi columnæ affixum, continuum, ima basi in calcar longum nunc longissimum productum; lobi laterales ad latera calcaris parvi v. obsoleti, lamina patens v. erecto-patens, integra v. 3-loba. Columna brevissima, lata, facie concava, exalata, apoda; clinandrium vix prominulum, truncatum, integrum. Anthera terminalis, opercularis, incumbens, convexa, antice sæpe producta, vix perfecte 2-locularis; pollinia 2, cerea, globosa, sulcata, stipiti plano v. stipitibus 2 distinctis planis affixa, glandula squamiformi simplici v. duplici. Capsula oblonga v. fusiformis, erostris, erecta v. patens.—Herbæ epiphyticæ, caulibus foliatis elongatis v. brevibus non pseudobulbosis. Folia disticha, coriacea v. carnosa, vaginis persistentibus caulem obtegentibus. Pedunculi laterales, simplices. Flores sæpius speciosi nunc maximi, racemosi v. rarius subsolitarii.

Species ad 25, pro maxima parte Africæ tropicæ v. australis et insularum Mascarensium incolæ, una tamen characteribus nullis essentialibus separanda in China et Japonia invenitur. *Lindl. Gen. et Sp. Orch.* 245. *Reichb. f. in Walp. Ann.* vi. 904; *Otia Hamb.* 68, 77, 177; *in Flora*, 1865, 189; 1872, 278 (*excl. sp. paucis*). *Bolus in Journ. Linn. Soc.* xix.

Genus a variis auctoribus varie extensum v. reductum, haud facile characteribus certis a *Vanda* et *Saccolabio* separatur, sæpissime tamen cognoscendum calcare longo tenui. Pollinarium in diversis speciebus diversum, in aliis adhuc non bene observatum et affinitates incertæ remanent. Interea tamen sectiones sequentes distinctæ videntur et duæ priores forte generice separandæ:—

1. *Macroura.* Labelli lamina patens, sæpius dilatata; calcar longum, tenue. Pollinia in stipitibus 2 distinctis planis faciei affixa, glandulis squamiformibus distinctis. Huc pertinent *A. sesquipedale*, Thou. Orch. Iles Afr. t. 66, 67; Bot. Mag. t. 5113; *A. gladiifolium*, Thou. l.c. t. 53; Bot. Reg. 1840, t. 68; *A. funale*, Bot. Mag. t. 4295.

2. *Listrostachys.* Labelli lamina cum calcare continua, basi sæpius concava in acumen integerrimum desinens. Pollinia in stipitibus 2 distinctis planis apice affixa, glandulis squamiformibus distinctis v. in unam connatis. Racemi floribundi, bracteis sæpe latis interdum fere foliaceis. Huc pertinent: *A. arcuatum*, Lindl.; Harv. Thes. Cap. t. 107; *A. Chailluanum*, Bot. Mag. t. 5589; *A. pertusum*, Paxt.; Bot. Mag. t. 4782, et genus Listrostachys, *Reichb. f. in Bot. Zeit.* 1852, 930; *in Walp. Ann.* vi. 907; *in Flora*, 1865, 189; *et in Linnæa* xli. 75.

3. *Euangræcum.* Labelli lamina patens, sæpius dilatata. Pollinia ad apicem stipitis plani sæpe angusti indivisi v. facile partibilis affixa, glandula unica. Species numerosæ, plures tamen quoad pollinarium adhuc imperfecte observatæ. *Thou. Orch. Iles Afr. t.* 61 *ad* 65. *Bot. Mag. t.* 4159, 4761, 5170, 5624. *Bot. Reg. t.* 1522, 1841, *t.* 35. *Harv. Thes. Cap. t.* 108.

Inter *Euangræca*, *A. infundibulare*, Lindl., insigne est calcare longo ad os late infundibulari; *A. caudatum*, Lindl. Bot. Reg. t. 1844; Bot. Mag. t. 4370, calcare longissimo undique tenui et columna quam in cæteris speciebus multo longiore. *A. armeniacum*, Lindl., floribus parvis. *A. falcatum* (*Limodorum*, Thunb. Ic. Fl. Jap. t. 6; Bot. Reg. t. 283; Bot. Mag. t. 2097; *Aerides*, Miq. Ann. Mus. Lugd. Bat. ii. 205) patria (China et Japonia) a cæteris longe distat, nulla specie adhuc in Asia tropica reperta; characteres omnino specierum typicarum ostendit, calcare longo tenui et floribus non minoribus quam in nonnullis Africanis. Hæc species a Franch. et Savat. Enum. Pl. Jap. ii. 29, incaute confusa est cum *Aeride japonica*, Linden, quæ vera *Aeridis* species.

Species plures, a Thouarsio delineatæ v. in herbariis servatæ, adhuc minus cognitæ, dubiæ remanent.

Aerangis, *Reichb. f. in Flora*, 1865, 190, species includit 2 Angolenses ab *Euangræco* separatas ob pollinarii stipitem semi-2-fidum.

204. **Cryptopus,** *Lindl. Bot. Reg. sub t.* 817. (Beclardia, *A. Rich. Orch. Iles Fr. et Bourb.* 78, *t.* 11, *f.* 3.)—Sepala subæqualia, libera, patentia, integerrima. Petala sepalis æquilonga sed apice valde dilatata, divaricato-2-4-loba. Labellum ad basin columnæ sessile, patens, basi in calcar longum tenue productum; lobi laterales ad latera calcaris patentes, falcati, medius unguiculatus, patens, apice 3-lobus, lobis lateralibus divaricatis medio minimo. Columna brevissima, antice sub-2-alata, apoda; clinandrium breve, truncatum. Anthera terminalis, opercularis, incumbens, diu persistens, valde convexa, breviter acuminata, 2-locularis; pollinia 2, globosa, sulcata v. 2-loba, inappendiculata, anthera dehiscente stipitibus 2 distinctis brevibus cupulatis affixa, glandulis 2 squami-

formibus postice integris antice ciliato-fimbriatis. Capsula . . .—Herba epiphytica, caulibus foliatis elongatis non pseudobulbosis. Folia disticha, patentia, oblonga, rigide coriacea, vaginis persistentibus caulem fere obtegentibus. Pedunculi laterales, longiusculi, simplices. Flores speciosi, laxe racemosi, pedicellis brevibus. Bracteæ parvæ.

Species 1, insularum Mascarensium incola. *Thou. Orch. Iles Afr. t.* 79, 80 (*Angræcum*). *Hook. Journ. Bot.* i. 45, *t.* 115.

Genus *Angræco* affine quocum mediante *A. bicaudato*, Lindl., connectitur.

205. **Œonia,** *Lindl. Bot. Reg. sub t.* 817.—Sepala subæqualia, libera, erecto-patentia. Petala sepalis subsimilia. Labellum ad basin columnæ sessile, basi in calcar conicum v. obtusum productum, erectum ; lobi laterales dilatati, circa columnam convoluti, medius erecto-patens, integer v. divaricato-2-lobus, cum mucrone v. lobo lineari intermedio. Columna brevissima, lata, exalata, apoda ; clinandrium parum prominens, obliquum v. truncatum, antice 2-angulatum v. 2-cuspidatum. Anthera terminalis, opercularis, incumbens, convexa, antice breviter acuminata v. 2-dentata, 2-locularis ; pollinia 2, ovoidea v. globosa, integra v. sulcato-2-loba, inappendiculata, anthera dehiscente stipitibus filiformibus distinctis v. basi breviter connatis affixa, glandula unica. Capsula oblonga, erostris, costis parum prominulis.—Herbæ epiphyticæ, caulibus foliatis brevibus v. elongatis non pseudobulbosis. Folia disticha, coriacea, vaginis persistentibus caulem obtegentibus. Pedunculi laterales, simplices. Flores racemosi, breviter pedicellati, mediocres v. majusculi. Bracteæ ovatæ, persistentes.

Species descriptæ 4 v. 5, insularum Mascarensium incolæ. *Thou. Orch. Iles Afr. t.* 81 *ad* 84 (*Epidendrum*). *A. Rich. Orch. Iles Fr. et Bourb. t.* 10, *f.* 2 (*Angræcum*), *et t.* 11, *f.* 2 (*Beclardia*). *Balf. et S. Moore in Bak. Fl. Maurit.* 354, *et Balf. Bot. Rodrig. t.* 36 (*Listrostachys*).

Genus ab *Angræco* affinibusque facile distinguitur perianthii forma, quare a Thouarsio ad *Epidendrum* relatum fuit. Pollinarii stipites in omnibus speciebus a Thouarsio filiformes delineati, quales in *Œ. polystachyæ* var. *longifoliæ*, Reichb. f., invenimus. A. Rich. in *Œ. polystachia* pollinaria iis *Angræci sesquipedalis* similia delineavit, in specimine nostro formæ typicæ jam delapsa sunt, sed labellum prorsus *Œoniæ* lobis lateralibus columnam omnino involventibus.

206. **Mystacidium,** *Lindl. in Comp. Bot. Mag.* ii. 205. (Aeranthus, *Reichb. f. in Walp. Ann.* vi. 899, *excl. sp. Americanis, et in Flora* 1865, 190, *non Lindl.*)—Sepala subæqualia, libera, patentia. Petala sepalis subsimilia. Labellum basi columnæ affixum, ima basi in calcar longum tenue productum ; lobi laterales nunc ovati erecti, nunc sæpius parum prominuli v. obsoleti ; medius erectus v. patens, sæpius ovatus, indivisus. Columna brevissima, late semiteres, exalata, apoda ; clinandrium brevissimum, truncatum, antice interdum minute 2-dentatum. Anthera terminalis, opercularis, incumbens, convexa, antice plus minus acuminata, basi 2-locularis ; pollinia 2, globosa, interdum sulcata, cerea, inappendiculata, anthera dehiscente stipitibus 2 distinctis filiformibus nunc apice clavatis v. brevissimis affixa ; glandula unica. Capsula . . .—Herbæ epiphyticæ, non pseudobulbosæ, caulibus foliatis nunc brevibus nunc longiusculis rigidis. Folia disticha, sæpius pauca, coriacea, patentia, interdum parva lateraliter compressa subequitantia, rarius sub anthesi deficientia. Racemi axillares, sæpius breves, interdum in pedunculo elongato simplices floribundi v. ad florem unicum subsessilem reducti. Flores sæpius parvi, in racemo secundi v. quaquaversi, calcare sæpissime ascendente. Bracteæ parvæ.

Species ad 20, Africæ tropicæ et australis incolæ.

In speciebus typicis caulis brevis paucifoliatus, racemi breviter pedunculati floribundi, flores in *M. filicorni*, Lindl., affinibusque Harv. Thes. Cap. t. 173 ad 175 secundi, in *M. fragrantissimo* (*Listrostachyde*, Reichb. f.) affinibusque quaquaversi, calcare in omnibus undique tenui.

Gussonia, *A. Rich. Orch. Iles Fr. et Bourb.* 76, *t.* 11, *f.* 1, et Microcœlia, *Lindl. Gen. et Sp. Orch.* 60, sunt evidenter *Mystacidii* species, *Angræco aphyllo*, Thou. Orch. Iles Afr. t. 73, valde affines, nisi conspecificæ, a *Mystacidiis* typicis vix differunt nisi caule sub anthesi aphyllo.

Gomphocentrum, bene sectionem format caule rigido crasso, foliis longis rigidioribus, racemis

elongatis floribundis, labelli calcare extremitate clavato v. late saccato. Pollinarii stipites basi filiformes apice tamen haud raro clavati v. fere cupulati. Huc pertinent *Angræcum caulescens*, Thou. Orch. Iles Afr. t. 75, Hook. Journ. Bot. i. t. 117, speciesque ad 6 imprimis tropicæ.

Angræcum pellucidum, Lindl. Bot. Reg. 1844, t. 2, his habitu et pollinarii stipitibus affine, differt calcare acuto.

Pectinaria sectio facile pro genere distincto habenda, species 2 continet parvas, caule tenero, foliis numerosis insigniter distichis parvulis, floribus lateralibus sæpius solitariis subsessilibus, labelli calcare longo tenui, lobis lateralibus quam in speciebus typicis magis evolutis, pollinarii stipitibus brevissimis v. ad filum elastice extensivum reductis, polliniis specie in glandula squamiformi subsessilibus. Huc pertinent *Angræcum distichum*, Lindl. Bot. Reg. t. 1781, Bot. Mag. t. 4145, e Sierra Leone, et *A. pectinatum*, Thou. Orch. Iles Afr. t. 51, A. Rich. Orch. Iles Fr. et Bourb. t. 10, f. 5, Hook. Journ. Bot. i. 47, t. 116, e Madagascaria.

207. **Dendrophylax**, *Reichb. f. in Walp. Ann.* vi. 903.—Sepala subæqualia, libera, patentia. Petala sepalis subsimilia. Labellum ad basin columnæ sessile, basi in calcar longum os versus dilatatum productum, cum columna continuum, erectum, basi concavum; lobi laterales breves, patentes, medius late 2-lobus, lobis divaricatis dente sæpe interjecto. Columna brevissima, lata, sub-2-alata, apoda; clinandrium parum prominulum, truncatum. Anthera terminalis, opercularis, incumbens, convexa, breviter acuminata v. mutica, 2-locularis; pollinia 2, globosa, cerea, sulcata, inappendiculata, anthera dehiscente stipitibus 2 distinctis planis oblongis v. cuneatis affixa, glandula squamiformi unica v. 2-partibili. Capsula oblonga v. elongata, erostris, angulata.—Herbæ epiphyticæ aphyllæ, radicibus dense fasciculatis, pseudobulbo nullo. Scapi tenues, simplices, vaginis parvis dissitis. Flores in scapo solitarii v. pauci racemosi, maximi mediocres v. parvuli. Bracteæ parvæ.

Species 3, Indiæ occidentalis incolæ. *Reichb. f. in Walp. Ann.* vi. l. c. (*Dendrophylax*), *et* 902 (*Aeranthi aphylli grandiflori*), *Bot. Mag. t.* 4295 (*Angræcum*).

208. **Campylocentron**, *Benth. in Journ. Linn. Soc.* xviii. 337. (Todaroa, *A. Rich. in Ann. Sc. Nat. ser.* 3, iii. 28, *non Webb.*)—Sepala libera, subæqualia, angusta, erecta, conniventia v. apice parum patentia. Petala sepalis similia. Labellum ad basin columnæ sessile, basi in calcar sæpius recurvum v. apice vesicatum v. obtusatum productum, lamina ovata v. oblonga, sepalis subæquilonga, lobi laterales parvi v. obsoleti, medius sæpius integer. Columna brevissima, exalata, apoda; clinandrium parum prominens, truncatum. Anthera terminalis, opercularis, incumbens, convexa, erostris v. breviter acuminata, 2-locularis; pollinia 2, globosa, cerea, inappendiculata, anthera dehiscente stipitibus 2 brevibus filiformibus v. ad fila elastice extensiva reductis affixa, glandula squamiformi unica v. 2-partita. Capsula parva, ovoidea v. anguste oblonga, erostris, costis acutis angulata.—Herbæ epiphyticæ, caulibus nunc foliatis nunc rarius aphyllis, non pseudobulbosis, radicibus fasciculatis v. sparsis. Folia disticha, sæpe dissita, oblonga linearia v. teretia. Flores minuti, in spicis lateralibus tenuibus brevibusque dense conferti, rarius in spicis laxioribus longioribusque alterni, sæpe distichi. Bracteæ parvæ, persistentes.

Species ad 15, Americæ tropicæ a Brasilia usque ad Indiam occidentalem et Mexicum incolæ, a Lindleyo sub *Angræco* v. a *Reichb. f.* sub *Aerantho* enumeratæ. *Lindl. Bot. Reg. t.* 1772 (*habitatione falsa*) *et* 1840 *sub t.* 68. *Reichb. f. in Walp. Ann.* vi. 901; *Otia Hamb.* 10, 91; *in Flora* 1865, 279; *et in Linnæa* xli. 31.

209. **Cirrhæa**, *Lindl. in Bot. Reg. sub t.* 930; *Gen. et Sp. Orch.* 141. (Scleropteris, *Scheidw. in Allgem. Gartenz.* 1839, 407.)—Sepala libera, subæqualia, patentissima v. reflexa, angusta. Petala sepalis sæpius minora, magis colorata. Labellum cum basi columnæ continuum, ungue longo patente dein ascendente; lobi laterales ad apicem unguis longi, angusti, reflexi v. recurvi, medius brevior, patens, basi sæpius columnæ contiguus. Columna erecta, semiteres, a basi attenuata, incurvo-incrassata v. clavata,

rostello brevi erecto terminata; clinandrium pone rostellum parvum; stigma anticum horizontale. Anthera oblonga, erecta, rostello applicita, basi breviter 1-locularis, supra loculum in appendicem longam membranaceam rostellum amplectentem producta; pollinia 2, cerea, angusta, inappendiculata, anthera dehiscente apici parum dilatato stipitis linearis affixa, glandula parva. Capsula . . .—Herbæ epiphyticæ, caulibus brevissimis paucivaginatis, mox in pseudobulbum 1-foliatum carnosum incrassatis. Folium amplum, plicato-venosum. Scapus ad basin pseudobulbi simplex, recurvus, laxe floribundus. Flores majusculi, pedicellati, primo aspectu iis *Gongoræ* subsimiles. Bracteæ minimæ.

Species editæ 5, Brasilienses. *Reichb. f. in Walp. Ann.* vi. 495. *Bot. Mag. t.* 2978 (*Gongora*), 3726. *Bot. Reg. t.* 1538, 1889, 2005. *Lodd. Bot. Cab. t.* 936 (*Cymbidium*), 1967, 1999.

210. **Macradenia,** *R. Br. in Bot. Reg. t.* 612. (Rhynchadenia, *A. Rich. Fl. Cub.* iii. 248, *t.* 85.)—Sepala æqualia, libera, patentia. Petala paullo minora. Labellum cum basi columnæ continuum, erectum; lobi laterales latiusculi, erecti, columnam amplectentes, medius brevis, patens. Columna erecta, subteres, exalata, apoda, antice sulcata v. marginibus elevatis concava, rostello erecto v. leviter inclinato tenui terminata; clinandrium pone rostellum membranaceum, late cupulatum, margine erosum v. denticulatum. Anthera in fundo clinandrii erecta, oblonga, rostello arcte applicita, basi breviter et imperfecte 2-locellata, locellis mox in unum confluentibus, in appendicem longam membranaceam rostellum amplectentem producta; pollinia 2, cerea, ovoidea, distincta, inappendiculata, anthera dehiscente apici dilatato stipitis longi angustissimi affixa, glandula parva ovata. Capsula . . .—Herbæ humiles, habitu *Notyliæ*. Folia pauca, plana, carnosa v. coriacea, vaginis distiche imbricatis demum in pseudobulbos carnosos incrassatis. Pedunculi axillares, paucivaginati, simplices. Racemi nutantes v. reflexi, laxi. Flores quam in *Notylia* paullo majores. Bracteæ parvæ.

Species typicæ 1 v. 2 Indiæ occidentalis incolæ. *Lindl. Gen. et Sp. Orch.* 195. *Bot. Reg. t.* 1815; quibus addidit *Reichb. f. in Walp. Ann.* vi. 696, duas e Surinam tertiamque e Guatemala a nobis non visas.

211. **Notylia,** *Lindl. Bot. Reg. sub t.* 930; *Gen. et Sp. Orch.* 192.—Sepala æqualia, angusta, erecta v. demum patentia, libera v. lateralia alte connata. Petala sepalis similia v. minora magisque colorata. Labellum ad basin columnæ continuum, erectum, ungue brevi v. elongato interdum 2-auriculato, lamina triangulari v. hastata acuminata; discus brevis v. 2-callosus. Columna erecta, teres v. antice sulcata, exalata, apoda, apice sæpe leviter recurva, rostello longo erecto acuminata; clinandrium ad basin rostelli dorsale, parvum. Anthera erecta, oblonga, rostello applicita, basi imperfecte 2-locellata, supra loculum longe appendiculata, membranacea, concava, stipitem et sæpe rostellum ipsum amplectens; pollinia 2, cerea, ovoidea, inappendiculata, anthera dehiscente ad apicem dilatatum stipitis longi tenuis affixa, glandula parva. Capsula . . .—Herbæ humiles. Folia plana, carnosa v. coriacea, vaginis distiche imbricatis introrsum scarioso-marginatis, superioribus demum in pseudobulbos carnosos incrassatis, floralia sæpe ad vaginam spathaceam reductis. Pedunculi axillares, paucivaginati, simplices. Flores parvi v. rarius mediocres, dense v. laxiuscule racemosi, pedicellis sæpe gracilibus. Bracteæ tenues, rarius latiores membranaceæ et pedicellos æquantes.

Species descriptæ 18, Americæ tropicæ incolæ, plures tamen verisimiliter *N. punctatæ* v. aliarum varietates. *Reichb. f. Xen. Orch.* i. 46, *t.* 20; *in Walp. Ann.* vi. 670; *Otia Hamb.* 87. *H. B. et K. Nov. Gen. et Sp.* i. *t.* 91 (*Pleurothallis*). *Link, Kl. et Otto, Ic. Pl. Rar. t.* 18. *Hook. Lond. Journ.* iii. *t.* 10. *Bot. Mag. t.* 5609, 6311. *Bot. Reg. t.* 759 (*Pleurothallis*).

In *N. bicolore*, Lindl., folia dicuntur equitantia nec plana quod tamen vix confirmare possumus. Foliorum vaginæ plurimæ vix incrassatæ, nonnullæ tamen superiores pseudobulbos normales etsi parvos formant.

212. **Acriopsis,** *Reinw. in Syll. Pl. Ratisb.* ii. 4, *et eod. anno, Blume, Bijdr.* 376, *t.* 71. —Sepala æquilonga, angusta, patentia, posticum carinato-concavum, lateralia usque ad

apicem in unum postico simile connata. Petala sepalis æquilonga at latiora, plana. Labelli unguis cum columnæ in urceolum latum connatus, lamina patens, concava, angusta, basi lobis lateralibus latiusculis 2-auriculata, apice 3-fida. Columna supra urceolum breviter producta, curvula, subclavata, superne ad latera stigmatis auriculis 2 falcatis instructa, apoda; clinandrium amplum, membranaceum, incurvo-cucullatum, late 2-lobum; rostellum terminale, erectum v. antrorsum inclinatum, acutum, latiusculum, dorso concavo antheram fovens. Anthera in fundo clinandrii erecta, semi-immersa, rostello applicita, acuminata, 2-locularis; pollinia 2 v. 4 per paria sibimet arcte applicita, anguste oblonga, cereo-pulposa, inappendiculata, anthera dehiscente stipiti longo filiformi v. superne dilatato affixa, glandula parva oblonga. Capsula parvula, inflato-globosa, in uno specimine 3-valvata.—Herbæ epiphyticæ, tenues, pseudobulbis carnosis globosis v. ovoideis 1–2-foliatis. Folia angusta, tenuiter coriacea. Scapi ad latera pseudobulborum tenues, simplices v. superne ramosi, nudi v. vaginis paucis parvis instructi. Flores parvi, laxe racemosi. Bracteæ parvæ.

Species 3 v. 4, Burmæ et Archipelagi Malayani incolæ. *Reichb. f. in Walp. Ann.* vi. 492. *Griff. Ic. Pl. As. t.* 318. *Wight, Ic. t.* 1748.

213. **Telipogon,** *H. B. et K. Nov. Gen. et Sp.* i. 335, *t.* 75 (*quoad analysin imperfecta*). (Thelypogon, *Spr. Syst.* iii. 682.)—Sepala subæqualia, libera, patentissima, angusta. Petala pariter patentissima sed multo latiora, venosa. Labellum sessile, patentissimum, indivisum, petalis simillimum v. paullo latius, rarius minus. Columna brevissima, crassa, exalata, apoda, undique v. ad clinandrium longe setosa v. hispida, rostello terminali erecto; stigma anticum, horizontale, late concavum; clinandrium posticum, breve, integrum. Anthera erecta, rostello applicata, subdidyma, distincte 2-locularis; pollinia 4, cerea, in quoque loculo 2, distincta, oblonga, acuta, cujusve paris sæpe inæqualia, inappendiculata, anthera dehiscente apici parum dilatato stipitis linearis tenuis affixa, glandula cum apice rostelli uncinata. Capsula ubi nota ovoidea, 3-alata v. acutissime 3-angulata, breviter rostrata.—Herbæ epiphyticæ, caulibus foliatis secus rhizoma v. caudicem radicantem brevissimis v. ad apicem caudicis longioribus, pseudobulbis nullis (in speciminibus visis). Folia disticha, brevia, coriacea v. carnosa. Pedunculi pseudoterminales, longiusculi, erecti, simplices. Flores ad apicem pedunculi pauci, laxe racemosi, speciosi. Bracteæ pedicellis breviores.

Species descriptæ ultra 40, Andium Colombiæ et Peruviæ incolæ, plures tamen inter se vix distinctæ videntur. *Lindl. Gen. Sp. et Orch.* 214. *Reichb. f. in Walp. Ann.* i. 790, iii. 562, vi. 861; *Xen. Orch.* i. *t.* 97; *Otia Hamb.* 6; *et in Linnæa* xli. 3, 27, 69, 104.

214. **Trichoceros,** *H. B. et K. Nov. Gen. et Sp.* i. 337, *t.* 76.—Sepala subæqualia, libera, patentia. Petala sepalis similia v. latiora. Labellum ad basin columnæ sessile, patens; lobi laterales ad basin patentes v. erecti, oblongi v. lineares, interdum ciliati antenniformesque, medius ovatus, petalis subsimilis v. sæpius angustior crassiorque. Columna brevissima, crassa, exalata, apoda, rostello erecto terminata; stigma anticum, horizontale, late cavum; clinandrium posticum, amplum, 2–3-lobum, longe setosum v. hispidum. Anthera dorso rostelli applicita (prope basin affixa?) subdidyma, distincte 2-locularis; pollinia 4, cerea, in quoque loculo 2, distincta, oblonga, acutiuscula, cujusve paris sæpe inæqualia, inappendiculata, anthera dehiscente apici parum dilatato stipitis linearis affixa, glandula parva recta v. cum rostelli apice recurva. Capsula (in *T. murali*, Lindl.) oblongo-fusiformis, erostris.—Herbæ epiphyticæ, caulibus e rhizomate radicante brevissimis, sæpius pseudobulbo 1-foliato terminatis. Folia pauca, disticha, coriacea v. carnosa. Pedunculus sub pseudobulbo axillaris v. pseudobulbo non evoluto pseudoterminalis, erectus, simplex. Flores ad apicem pedunculi laxe racemosi, mediocres v. parvi, longiuscule pedicellati. Bracteæ pedicello breviores.

Species descriptæ 6 v. 7, Peruviæ et Colombiæ incolæ, forte ad 3 v. 4 reducendæ. *Lindl. Gen. et Sp. Orch.* 174. *Reichb. f. in Walp. Ann.* vi. 630; *Xen. Orch.* i. *t.* 9, 97; *in Bonpl.* 1856, 212; *et in Linnæa* xli. 33. *Humb. et Bonpl. Pl. Æquin. t.* 28 (*Epidendrum*).

Astroglossus, *Reichb. f. in herb. Lindl.*, est *Trichoceros astroglossus*, Lindl. herb., seu *Telipogon astroglossus*, Reichb. f. Xen. Orch. i. 16, t. 7, species floribus minimis perianthium et columnam *Trichocerotis* ostendens, etsi rostelli apex cum glandula recurvum sit. Hic character nobis nihili videtur.

215. **Podochilus**, *Blume, Bijdr.* 295, *t.* 12; *Rumphia*, iv. 43, *t.* 192, 200. (Cryptoglottis, *Blume, Bijdr.* 296, *t.* 42. Platysma, *Blume, Bijdr.* 295, *t.* 43, *nomen in* Plocostigma *mutatum, Fl. Jav. Præf.* 6. Apista, *Blume, Bijdr.* 296. Hexameria, *R. Br. in Benn. Pl. Jav. Rar.* 26, *t.* 7.)—Sepala æquilonga, erecta, conniventia, posticum concavum, liberum v. cum cæteris alte connatum, lateralia latiora, ad medium connata, basi in mentum sacciforme v. calcariforme pedem columnæ includens producta. Petala sepalo postico similia v. angustiora. Labellum ad apicem pedis columnæ articulatum, erectum, sepalis inclusum, integrum v. 3-lobum, basi extrorsum sæpe in appendiculam 2-fidam productum. Columna brevissima, exalata, apice ad latera stigmatis sæpe 2-cuspidata, basi in pedem longum intra perianthii mentum producta; rostellum terminale, erectum, longum, sæpe 2-fidum, postice concavum, antice convexum; clinandrium pone rostellum parvum; stigma anticum, subhorizontale. Anthera in clinandrio sessilis, erecta, longe acuminata, rostello applicita, basi 2-locularis; pollinia 4, rarius per paria concreta, ovoidea, cerea, inappendiculata, anthera dehiscente per paria stipitibus 2 distinctis apicem versus membranaceo-dilatatis affixa, glandula unica squamiformi. Capsula parva, oblonga, erostris.—Herbæ epiphyticæ, caulibus foliatis tenuibus. Folia parva, disticha, nunc linearia, plana, basi breviter complicata angustataque, nunc a latere compressa, scalpelliformia, vaginis equitantibus more *Apori* arcte approximatis. Flores parvi, sæpius minuti, in racemos terminales dispositi. Bracteæ parvæ, dissitæ v. in una specie elegantissime distichæ, rhachi deflorata pinnulata.

Species ad 12, Indiæ orientalis et Archipelagi Malayani incolæ. *Lindl. Gen. et Sp. Orch.* 234. *Wight, Ic. t.* 1748. *Reichb. f. in Bonpl.* 1857, 41.

Genus, ab *Appendicula* polliniis sæpissime 4 nec 8 distinctum, variat de specie in speciem, foliis basi lata equitantibus v. planis basique plus minus contractis, sepalo postico libero v. cum cæteris alte connato, lateralium mento breviter gibbiformi v. longiuscule calcariformi, labelli basi dorso 2-cruri v. inappendiculato, columna ad latera stigmatis 2-cuspidata v. nuda, sed characteres diversi non satis inter se conveniunt ad sectiones distinguendas. In *P. serpyllifolio* quæ *Cryptoglottis*, Bl., seu *Hexameria*, R. Br., adest ex Bennetio in quoque loculo antheræ pollinium tertium minus, non vero ut videtur constanter, nam in floribus 2 a nobis examinatis rudimentum minutum tantum pollinii tertii invenimus v. omnino nullum. *P. Zollingeri*, Miq. Choix, t. 25, f. 2, a *P. Zollingeri*, Reichb. f., et ab omnibus nobis notis speciebus differt, ex icone, foliis ovalibus emarginatis et racemo laxe ramoso. *P. bicolor*, Miq. l. c. t. 22, f. 3, est *Dendrobium subulatum*, Lindl.

216. **Appendicula**, *Blume, Bijdr.* 297, *t.* 40; *Rumphia*, iv. 46, *t.* 195, 200. (Metachilum, *Lindl. Gen. et Sp. Orch.* 74. Conchochilus, *Hassk. in Hæv. et De Vr. Tijdschr.* ix. 146.)—Sepala æquilonga, erecta, conniventia, posticum fere liberum, lateralia latiora, basi in mentum sacciforme v. calcariforme pedem columnæ includens connata. Petala sepalo postico similia v. angustiora. Labellum ad apicem pedis columnæ affixum, ungue incumbente v. breviter adnato, lamina erecta, concava, integra v. 3-loba, facie basi callis 1 v. 2 appendiculata, Columna brevissima, exalata, apice ad latera stigmatis sæpe 2-cuspidata, basi in pedem intra perianthii mentum producta; rostellum terminale, erectum, longum, acuminatum v. sæpius 2-fidum, postice concavum, antice rectum; clinandrium pone rostellum parvum; stigma anticum subhorizontale. Anthera in clinandrio sessilis, erecta, longe acuminata, rostello applicita, basi 2-locularis; pollinia 8, in quoque loculo 4 v. rarius unum cujusve loculi deficit, cerea, oblonga, basi longe attenuata, stipitibus 2 distinctis superne v. fere a basi membranaceo-dilatatis affixa, glandula (an semper?) unica. Capsula parva, ovoidea v. oblonga.—Herbæ epiphyticæ, caulibus foliatis laxis sæpe compressis v. ancipitibus. Folia numerosa, disticha, patentia, membranacea v. subcoriacea, sæpe parva, vaginis arcte adnatis caulem obtegentibus. Racemi nunc brevissimi, pauciflori, plerique v. omnes laterales, nunc longiores,

tenues, multiflori, pseudoterminales v. in parte superiore caulis pauci. Flores parvi, sæpius minuti. Bracteæ breves, patentes v. reflexæ.

Species ad 20, pleræque Malaccæ, Archipelagi Malayani v. insularum maris Pacifici incolæ. *Lindl. Gen. et Sp. Orch.* 227. *Reichb. f. in Walp. Ann.* vi. 893 ; *in Bonpl.* 1857, 41 ; *Xen. Orch. t.* 138 ; *Otia Hamb.* 45 ; *et in Linnæa* xli. 76. *Wight, Ic. t.* 1748. *Griff. in Calc. Journ. Hist. Nat.* iv. *t* 19 ; *Ic. Pl. As. t.* 335, 337. Illis tamen addendæ *A. bifaria,* Lindl., e China australi et e Cachar Indiæ orientalis, cum altera ei simillima e Peninsula Indiæ orientalis jam a Kœnigio in Retz, Obs. vi. 45, edita, sub nomine *Epidendri hexandri* descripta, etsi ab auctoribus recentioribus neglecta. In specimine nostro ex herbario Rottleriano flores haud perfectos examinare nequivimus, sed ex descriptione fusiore Kœnigii omnino *Appendiculæ* convenit, etsi pollinia in quoque loculo ad 3 reducta dicuntur, quod hinc inde in aliis speciebus casu observatur. Hæc species igitur, uti *Hexameria* Brownii, genera *Podochilum* et *Appendiculam* arcte connectit.

217. **Thelasis,** *Blume, Bijdr.* 385, *t.* 75 ; *Orch. Archip. Ind.* 19, *t.* 5, 7. (Oxyanthera, *Brongn. in Duperr. Voy. Bot.* 197, *t.* 37 B. Euproboscis, *Griff. in Calc. Journ. Nat. Hist.* v. 371, *t.* 26.)—Sepala æqualia, erecta, conniventia, basi plus minus connata, lateralia basi in mentum breve producta. Petala sepalo postico similia v. paullo minora. Labellum basi columnæ affixum, erectum, ovatum, sepalis æquilongum, indivisum, concavum, v. complicatum. Columna brevis, exalata, apoda (v. in pedem brevissimum producta ?) ; rostellum terminale, erectum, longum, acuminatum, antice convexum, dorso concavum ; clinandrium pone rostellum parvum ; stigma anticum subhorizontale. Anthera in clinandrio sessilis, erecta, acuminata, rostello applicita et primum fere involuta, basi 2-locularis ; pollinia 8, in quoque loculo 4, ovoidea v. subglobosa, inappendiculata, anthera dehiscente stipiti longe filiformi affixa, glandula parva squamiformi v. oblonga. Capsula parva, oblonga v. oblique obovoidea, erecta, erostris.—Herbæ epiphyticæ, sæpius parvæ. Caules nunc brevissimi, in pseudobulbum carnosum depressum incrassati, folio unico angusto coriaceo basi vagina stipato, nunc breves foliati non pseudobulbosi, vaginis foliorum more *Oberoniæ* distiche subimbricatis. Scapi simplices, aphylli, paucivaginati, in speciebus pseudobulbosis e rhizomate oriundi, basi folio unico v. vagina longa stipati, in foliatis ad axillam foliorum. Racemi v. spicæ tenues, elongati v. juniores fere in capitulum contracti. Flores minimi, brevissime pedicellati. Bracteæ parvæ.

Species v. varietates insignes adsunt 8, Indiæ orientalis, Chinæ australis et Archipelagi Malayani incolæ. *Lindl. Gen. et Sp. Orch.* 253. *Reichb. f. in Walp. Ann.* vi. 922, *et in Bonpl.* 1857, 37. *Wight, Ic. t.* 1732 (*Euproboscis, ad specimen floribus monstruosis 3-andris delineata*).

Tribus III. Neottieæ.

218. **Galeola,** *Lour. Fl. Cochinch.* 520. (Cyrtosia, *Blume, Bijdr.* 396, *t.* 6 ; *Rumphia,* i. 199, *t.* 69. Erythrorchis, *Blume, Rumphia,* i. 200, *t.* 70. Hæmatorchis, *Blume,* l.c. iv. *t.* 200 B. Pogochilus, *Falcon. in Hook. Journ. Bot.* iv. 73. Ledgeria, *F. Muell. Fragm. Phyt. Austral.* i. 238.)—Sepala subæqualia, concava, conniventia v. demum patentia. Petala sepalis æquilonga, nunc latiora nunc angustiora. Labellum ad basin columnæ sessile, latum, concavum, columnam laxe involvens, sepalis vix longius, lobis lateralibus brevibus latis v. obsoletis, medio lato sæpe undulato-crispo, facie villosa v. glabra. Columna longiuscula, exalata v. apice breviter alata, apoda ; stigma sub rostello brevi transversum ; clinandrium plus minus membranaceo-dilatatum, obscure lobatum v. denticulatum, cum alis columnæ dum adsint continuum. Anthera intra marginem clinandrii affixa, incumbens, dorso plana convexa v. crasse conica, loculis distinctis ; pollinia in loculis plus minus distincte 2-lobis pulvereo-granulosa v. interdum subcerea, libera v. demum in rostello sessilia. Capsula magna, oblonga v. sæpius elongata, carnosa v. rarius subsicca, interdum vix tardius dehiscens sæpius tamen demum in valvas inæquales fissa. Semina late v. anguste alata v. aptera.—Herbæ aphyllæ, ramosæ, super arbores interdum altissime scandentes, radices hinc inde emittentes, interdum erectæ,

elatæ. Racemi laxe paniculati sæpius penduli. Flores mediocres v. majusculi. Bracteæ ad basin ramulorum et pedicellorum parvæ v. in una specie foliaceæ.

Species ad 12, Indiæ orientalis, Japoniæ, Archipelagi Malayani, Novæ Caledoniæ et Australiæ incolæ. *Reichb. f. Xen. Orch.* ii. 76, *t.* 119 (*Erythrorchis*), *t.* 120 (*Cyrtosia*), *et t.* 195; *Otia Hamb.* 40. *Benth. Fl. Austral.* vi. 306. *Hook. f. Ill. Himal. Pl. t.* 22 (*Cyrtosia*). *Fitzger. Austral. Orch. cum tab.* 1.

Capsula in *G. javanica* omnino indehiscens dicitur, in *G. Lindleyana* et *G. septentrionali* vix tardius diu siccata dehiscit, in *G. altissima* et *G. cassythoide* longior tenuiorque est et maturitate facile dehiscit.

Eriaxis, *Reichb. f. in Linnæa* xli. 63, est species Novo-Caledonica quam auctor distinguit capsula demum in valvas 6 dehiscente, labello basi columnæ adnato et ramis nonnullis sterilibus foliis bene evolutis instructis. Species tamen nobis invita natura a *Galeola* (*Erythrorchi*) *altissima*, Bl., generice separatur. Capsulæ valvæ in aliis speciebus numero variant 2, 3 v. 4. Sepala extus tomentoso-villosa æstivatione vix non valvata observantur in *G. altissima* ut in *G. rigida*.

219. **Vanilla,** *Sw. in Nov. Act. Soc. Sc. Upsala*, vi. 66, *t.* 5. (Myrobroma, *Salisb. Parad. Lond. t.* 82.)—Sepala subæqualia, libera, patentia. Petala sepalis subsimilia. Labelli unguis columnæ adnatus, limbus latus, concavus, basi columnam involvens. Columna elongata, aptera, apoda; stigma sub rostello brevi transversum; clinandrium breve v. oblique elevatum. Anthera margini clinandrii affixa, incumbens, convexa semi-globosa v. obtuse conica, loculis discretis; pollinia pulvereo-granulosa, libera v. demum in rostello sessilia. Capsula sæpius elongata, carnosa, non v. vix tardius dehiscens.—Herbæ validæ, alte scandentes, ramosæ, foliosæ v. rarius aphyllæ, radices emittentes. Folia coriacea v. carnosa, nervosa, sessilia v. breviter petiolata. Racemi v. spicæ axillares, sæpius breves. Flores magni. Bracteæ ovatæ.

Species ad 20, per regiones tropicas utriusque orbis late dispersæ. *Lindl. Gen. et Sp. Orch.* 434. *Bauer, Ill. Orchid. Gen. t.* 10, 11. *Reichb. f. in Bonplandia*, 1854, 88, 97; *in Flora*, 1865, 273; *Otia Hamb.* 39; *et in Linnæa* xi. 65. *Blume, Rumphia*, i. *t.* 67, 68. *Wight, Ic. t.* 931, 932. *Griff. Ic. Pl. As. t.* 281. *Andr. Bot. Rep. t.* 538. *Lodd. Bot. Cab. t.* 737. *Hayne, Arzneigew.* xiv. *t.* 22. *Fl. des Serres, t.* 1769, 2218.

220. **Sobralia,** *Ruiz et Pav. Prod. Fl. Per. et Chil.* 120, *t.* 26; *Syst. Veg.* 231.—Sepala subæqualia, erecta, basi connata. Petala sepalis subsimilia v. latiora magisque colorata. Labellum a basi columnæ erectum; lobi laterales columnam arcte amplectentes v. involventes, eique interdum basi adnati; lamina e sepalis breviter exserta, patens, concava, undulata v. fimbriata, indivisa v. 2-loba; facie lævis v. 2-lamellata v. lamellato-cristata. Columna elongata, subincurva, semiteres, angulis acutiusculis v. anguste alatis, apoda; stigma sub rostello brevi latum; clinandrium breviter v. longiuscule 3-lobum. Anthera lobo postico affixa, incumbens, discrete 2-locularis; pollinia (in perpaucis floribus observata) sæpius in quoque loculo 4, pulvereo-granulosa, appendicula copiosa laxe granulosa connexa, a rostello libera (v. demum in rostello sessilia?). Capsula oblonga v. elongata, rigida v. carnosa, erostris.—Herbæ terrestres, elatæ, foliosæ, non tuberosæ. Folia dissita, coriacea, plicato-venosa, in vagina sessilia. Flores magni, in racemis terminalibus axillaribusque pauci, interdum ad florem unicum reducti. Bracteæ appressæ, sæpe rigide paleaceæ, interdum plures imbricatæ.

Species ad 30, Andium Americæ tropicæ a Peruvia usque ad Mexicum, necnon Guianæ incolæ. *Lindl. Fol. Orch.* 1854; *Sert. Orchid. t.* 29. *Reichb. f. Orch. Centr. Amer.* 5, 68, *t.* 1; *Xen. Orch.* ii. 175, *t.* 30, 42, 90, 163, 175, 176. *Pœpp. et Endl. Nov. Gen. et Sp. t.* 93. *Batem. Orch. Mex. et Guatem. t.* 26, 37. *Bot. Mag. t.* 4446, 4570, 4682, 4882. *Bot. Reg.* 1841, *t.* 17.

Fregea, *Reichb. f. in Bot. Zeit.* 1852, 712; *Orch. Centr. Amer.* 10, *t.* 2, species unica ex America centrali, e specimine unico sicco a nobis non viso nota, ex charactere dato et icone vix a *Sobralia* generice distinguenda videtur columna abbreviata.

Cyathoglottis, *Pœpp. et Endl. Nov. Gen. et Sp.* i. 55, *t.* 94, species unica Peruviana, a nobis non

visa, ex descr. et icone pariter ad *Sobraliam* referenda videtur. Flores solito minores et bracteæ numerosiores imbricatæ. Bracteæ tamen plures imbricatæ observantur in speciebus pluribus *S. violaceæ*, Lindl., affinibus.

221. **Epistephium**, *Kunth, Syn. Pl. Æquin.* i. 340.—Perianthium ad apicem ovarii urceolo calyciformi dentato cinctum. Sepala libera, subæqualia, erecta. Petala sepalis subsimilia nisi latiora magisque colorata. Labelli unguis columnæ adnatus, lamina subpatens, obovata, indivisa, basi columnam amplectens. Columna semiteres, superne breviter dilatata; stigma sub rostello brevi latum; clinandrium membranaceum, late 3-lobum. Anthera lobo postico clinandrii affixa, incumbens v. subpendula, loculis discretis; pollinia laxe pulvereo-granulosa (in quoque loculo 2 v. 4 ?). Capsula oblonga v. elongata, rigida. —Herbæ terrestres, sæpius elatæ, subramosæ, basi sæpius radicantes, glaberrimæ. Folia rigide coriacea, nervosa, ovata v. lanceolata, sessilia v. cordato-amplexicaulia. Flores magni, in racemo terminali v. rarius axillari plures. Bracteæ breves, latæ.

Species 6, Americæ australis tropicæ incolæ. *Lindl. Gen. et Sp. Orch.* 432. *H. B. et K. Nov. Gen. et Sp.* vii. *t.* 632. *Pœpp. et Endl. Nov. Gen. et Sp. t.* 91, 92. *Reichb. f. Xen. Orch. t.* 1; *in Bonpl.* 1854, 97; *et in Linnæa* xli. 65. *Bot. Mag. t.* 5485.

222. **Sertifera**, *Lindl. Herb.*; *Reichb. f. in Linnæa* xli. 63.—Sepala subæqualia, libera, erecto-patentia. Petala sepalis subsimilia nisi paullo angustiora. Labellum a basi columnæ erectum, latissimum, membranaceum, ventricosum, ecalcaratum, marginibus columnam involvens, medio lamella oblique transversa quasi in saccos 2 superpositos divisum. Columna longiuscula, tenuis, exalata, apoda, rostello lato concavo membranaceo; clinandrium breve. Anthera in margine clinandrii erecta v. incumbens, loculis discretis; pollinia pulvereo-granulosa, in quoque loculo (si rite observata) 4, appendice copiosa laxe granulosa connexa. Capsula . . .—Herba terrestris, rhizomate repente, caule elato foliato. Folia in vagina longa, sessilia, plicato-venosa. Racemi breves, fere in umbellam contracti, ad axillas pedunculati. Flores parvuli, longiuscule pedicellati. Bracteæ parvæ, angustæ.

Species 1, Ecuadorensis, *S. purpurea*, Lindl., cui addidit Reichb. f. alteram Peruvianam, *S. virgatam*, a nobis non visam, quæ racemo terminali dissitifloro, labello oblongo sub-3-lobo forte non vere congener.

223. **Corymbis** (*etiam* Corymborchis), *Thou. Orch. Iles Afr. t.* 37, 38. (Hysteria, *Reinw. in Blume, Cat. Hort. Buitenz.* 99, *nomen tantum; et in Syll. Pl. Soc. Ratisb.* ii. 5. Rhynchanthera, *Blume, Bijdr. tabell.* 78, *ex ejusd. Orch. Archip. Ind.* 125. Macrostylis, *Breda, Orch. Kuhl et Hass. cum tab.* 1. Chloidia, *Lindl. Gen. et Sp. Orch.* 484.)—Sepala et petala linearia, diu in tubum conniventia v. subcohærentia, apice in laminas subpatentes plus minus dilatatum. Labellum a basi columnæ erectum, lineare, canaliculatum, apice in laminam breviter recurvam dilatatum. Columna longa, erecta, teres, apice clavata, lobis v. auriculis 2 erectis terminata; stigma ad basin rostelli erecti acuminati transverse saccatum, margine inferiore sæpius incrassato; clinandrium breve. Anthera erecta, angusta, rostello subæquilonga, acuminata, loculis contiguis; pollinia granulosa, anthera dehiscente stipiti subuliformi a glandula peltata rostelli dependenti affixa; pollinario delapso rostellum 2-fidum remanet. Capsula linearis, subteres, perianthii reliquiis brevibus et columna persistente coronata.—Herbæ elatæ, terrestres, foliatæ, interdum ramosæ, fibris radicalibus in rhizomate fasciculatis. Folia ampla, venis elevatis subplicata, in vaginis appressis sessilia v. breviter petiolata. Flores mediocres v. majusculi, secus ramos paniculæ brevis axillaris v. terminalis subcorymbosæ dissiti, subsessiles. Bracteæ parvæ, ovatæ.

Species 6 v. 7, per regiones tropicas utriusque orbis late dispersæ. *Benth. Fl. Austral.* vi. 311. *Reichb. f. in Flora*, 1865, 183, *et in Bonpl.* 1854, 11, 96 (*Macrostylis*). *Blume, Orch. Archip. Ind.* 125, *t.* 42, 43.

Species Americanæ a Lindleyo sub nomine *Chloidiæ* a gerontogeis distinctæ, nec habitu nec characteribus differunt. Genus in integrum servatum naturalissimum est, nulli nisi *Tropidiæ* affine.

224. **Tropidia,** *Lindl. Bot. Reg. sub t.* 1618; *Gen. et Sp. Orch.* 497. (Decaisnea, *Lindl. in Wall. Cat. Herb. Ind. n.* 7388, *nomen.* Cnemidia, *Lindl. Bot. Reg. sub t.* 1618; *Gen. et Sp. Orch.* 462. Ptychochilus, *Schau. in Pl. Meyen.* 431, t. 12 B. Govindovia, *Wight, Ic.* vi, 34, *t.* 2090.)—Sepala conniventia, posticum angustum, lateralia latiora, basi sub labello in mentum breve connata. Petala sepalo postico subsimilia. Labellum ad basin columnæ sessile, erectum, canaliculatum concavum v. basi in saccum seu calcar breve obtusum productum, sepalis subæquilongum, indivisum, sæpe acuminatum. Columna brevis nunc brevissima, rostello longo erecto utrinque membranaceo-dilatato antheram amplectente, apice in acumen longum subulatum producto; stigma ad basin acuminis crassum, cavum, fere horizontale; clinandrium pone rostellum vix prominens. Anthera erecta, angusta, acuminata, rostello subbrevior, loculis contiguis; pollinia granulosa, anthera dehiscente stipiti subuliformi a glandula peltata rostelli dependenti affixa, pollinario delapso rostellum 2-fidum remanet. Capsula ovoidea v. oblonga, acutangula, erecta v. subpatens.—Herbæ terrestres, elatæ, foliatæ, sæpe ramosæ, fibris radicalibus in rhizomate fasciculatis. Folia ampla v. arundinacea, venis elevatis subplicata. Flores mediocres, spicis brevibus densis ad apices ramorum solitariis v. paucis. Bracteæ herbaceæ, nunc subulatæ erectæ, nunc latiores disticho-patentes.

Species ad 5, Indiæ orientalis, Archipelagi Malayani et insularum maris Pacifici incolæ. *Blume, Orch. Archip. Ind.* 121, *t.* 40, 41. *Reichb. f. in Seem. Fl. Vit.* 295; *in Linnæa* XXV. 230; *Otia Hamb.* 51 (*Cnemidia*).

225. **Altensteinia,** *H. B. et K. Nov. Gen. et Sp.* i. 332, *t.* 72, 73.—Sepala subæqualia, nunc libera patentia v. reflexa, nunc erecto-patentia basi breviter connata. Petala sepalis similia nisi tenuiora v. minora. Labellum superum, sessile, erectum, rotundatum, basi columnam amplectens eique interdum breviter adnatum, demum planum v. late concavum, indivisum, sæpe ciliato-fimbriatum. Columna brevis, exalata, apoda; stigma sub rostello amplo erecto membranaceo-dilatato late concavum v. profunde excavatum fere saccatum; clinandrium postice breve, lateribus membranaceo-dilatatis cum rostello continuis laceris v. integris. Anthera sessilis, erecta, ovata, loculis contiguis; pollinia pulvereo-granulosa, oblonga, anthera dehiscente a glandula terminali rostelli pendula. Capsula erecta, ovoidea v. subglobosa.—Herbæ terrestres, fibris radicalibus in rhizomate brevi fasciculatis, caule ima basi foliato v. aphyllo plurivaginato erecto simplici. Folia ovata v. angusta, nunc ad basin caulis pauca, nunc in gemma distincta subfasciculata. Flores mediocres v. parvi, dense spicati. Bracteæ membranaceo-scariosæ, in spica juniore imbricatæ.

Species ad 12, Americæ tropicæ andinæ incolæ. *Lindl. Gen. et Sp. Orch.* 449; *et in Ann. Nat. Hist. ser.* 1, xv. 385. *Reichb. f. Xen. Orch.* i. 17; iii. 18.

Aa, *Reichb. f. Xen. Orch.* i. 18, genus ad *Altensteiniam paleaceam*, H. B. et K. propositum, species 2 includit, scapo florente aphyllo, vaginis bracteisque scarioso-hyalinis, floribus parvis, sepalis petalisque basi subconnatis, labello etiam in flore aperto valde concavo. Myrosmodes, *Reichb. f. Xen. Orch.* i. 19, *t.* 8, ab *Aa* parum differt columna paullo longiore, et ab ipso auctore, Xen. Orch. iii. 18, ad *Altensteiniam* revocatur.

226. **Pterichis,** *Lindl. Gen. et Sp. Orch.* 444. (Acræa, *Lindl. in Benth. Pl. Hartw.* 155.)—Sepala subæqualia, libera, posticum pendulum, lateralia erecta. Petala sepalo postico angustiora, patentia, libera v. diu sepalo adhærentia. Labellum superum, erectum, ad basin columnæ sessile eique subadnatum, latissimum, concavum, subgaleatum, intus pubescens v. callosum, lobi laterales lati erecti columnam occultantes, medius angustus recurvus. Columna brevissima, lata; stigma concavum sub rostello terminali erecto basi lato postice (antheram versus) concavo medio in acumen angustum producto; clinandrium parum prominens. Anthera erecta, oblonga, loculis contiguis; pollinia pulvereo-granulosa, angusta, anthera dehiscente a glandula terminali rostelli pendula. Capsula erecta, oblonga.—Herbæ terrestres, fibris in rhizomate brevi fasciculatis subcarnosis. Folia ad basin caulis erecti simplicis pauca. Flores mediocres, in scapo vaginato aphyllo laxe spicati, ad axillas bractearum lanceolatarum sessiles.

Species ad 6, Americæ tropicæ australis incolæ. *Lindl. Orch. Linden.* 26, *et in Ann. Nat. Hist. ser.* 1, xv. 386 (*Acræa*). *Reichb. f. in Bonplandia* 1854, 10; *Xen. Orch.* iii. 18, 83 (*Acræa*).
Genus ab *Altensteinia* parum differt, imprimis labelli forma.

227. **Cranichis,** *Sw. in K. Vetensk. Acad. Nya Handl. Stockh.* xxi. 226.—Sepala libera, subæqualia, posticum (inferum) patens, lateralia sæpius latiora, erecta v. patentia. Petala angusta, patentia, a columna libera v. vix ima basi brevissime adnata. Labellum (superum) ad basin columnæ sessile (v. unguiculatum ?), erectum, concavum fornicatum v. postice subsaccatum, columnam amplectens, indivisum. Columna brevis nunc brevissima, rostello amplo erecto v. apice incurvo, columna sæpe longiore, postice (antheram versus) concavo v. 2-alato, antice stigmatoso; clinandrium breve. Anthera in margine clinandrii sessilis v. stipitata, erecta, rostello parallela eoque subbrevior, loculis distinctis; pollinia pulvereo-granulosa, acuminata, anthera dehiscente a glandula rostelli pendula. Capsula erecta, ovoidea v. oblonga.—Herbæ terrestres, fibris radicalibus in rhizomate brevi v. repente subfasciculatis. Folia radicalia v. ima basi caulis conferta, lata, patentia, membranacea, sessilia v. longe petiolata. Scapus sæpius tenuis, interdum elatus, simplex, paucivaginatus. Flores parvi, in spica conferti v. dissiti. Bracteæ breves v. angustæ.

Species fere 20, Americæ tropicæ Andinæ Mexici et Indiæ occidentalis incolæ. *Lindl. Gen. et Sp. Orch.* 450; *Orch. Lind.* 27; *et in Ann. Nat. Hist. ser.* 1, xv. 385. *Reichb. f. in Flora* 1865, 274; *Otia Hamb.* 4, 83; *Orch. Centr. Amer.* 62; *et in Linnæa* xli. 19, 52. *Sw. Fl. Ind. Occid. t.* 29. *H. B. et K. Nov. Gen. et Sp. t.* 74 (*Ophrys*). *Pœpp. et Endl. Nov. Gen. et Sp. t.* 123 (*Ponthieva*).
C. parvilabris, Lindl. Orch. Lind. 27, ex speciminibus nostris est *Ponthievæ* species. Ocampoa, *A. Rich. et Gal. in Ann. Sc. Nat. ser.* 3, iii. 31, in herb. Lindl. ad *Prescottiam* refertur. Specimina nobis desunt, sed analysis in herb. Lindl. characteres omnes *Cranichidis* ostendit, excepto labello unguiculato.

228. **Prescottia** (*errore* Prescotia), *Lindl. in Hook. Exot. Fl. t.* 115. (Decaisnea, *Brongn. in Duperr. Voy. Coq. Bot.* 192, *t.* 39. Galeoglossum, *A. Rich. et Gal. in Ann. Sc. Nat. ser.* 3, iii. 31.)—Sepala membranacea, basi in cyathum brevem v. in tubum longiorem connata, superne patentia v. sæpius revoluta. Petala angusta, tenuia, basi columnæ adnata. Labelli (superi) unguis cyatho sepalino adnatus, lamina erecta, lata, subcarnosa, valde concava fornicata cucullata v. fere clausa, basi 2-auriculata, columnam sæpe includens. Columna brevissima; stigmata 2, subdistincta, ad basin rostelli erecti lati membranacei obtusi v. retusi; clinandrium erectum, acuminatum v. quasi in filamentum productum, marginibus cum rostello connatis. Anthera in margine v. acumine clinandrii erecta, sæpius brevis, loculis divergentibus; pollinia pulvereo-granulosa, anthera dehiscente lobis rostelli sæpius sigillatim affixa. Capsula parva, erecta, ovoidea v. oblonga.—Herbæ terrestres, fibris radicalibus in rhizomate fasciculatis interdum carnosis, caule foliato tenui v. elato simplici, supra folia plurivaginato. Folia ad basin caulis conferta v. radicalia, sessilia v. longe petiolata, parva v. ampla, membranacea. Flores parvi nunc minimi, in spica densa v. tenui numerosi, subsessiles. Bracteæ flore breviores.

Species ad 20, Americæ tropicæ a Brasilia usque ad Indiam occidentalem et Mexicum incolæ. *Lindl. Gen. et Sp. Orch.* 453, *et in Ann. Nat. Hist. ser.* 1, xv. 386. *Blume, Orch. Archip. Ind. t.* 48 B. *Reichb. f. in Walp. Ann.* i. 806, iii. 594; *in Bonplandia* 1855, 66; *in Linnæa* xix. 377; *et in Saund. Ref. Bot. t.* 98. *Bot. Reg. t.* 1915. *Lodd. Bot. Cab. t.* 990.

229. **Ponthieva,** *R. Br. in Ait. Hort. Kew. ed.* 2, v. 199.—Sepala libera, patentia, nunc subæqualia, nunc lateralia postico latiora interdumque inter se connata. Petala alte columnæ adnata, ab apice columnæ patentia, sepalis angustiora. Labelli (superi) unguis basi columnæ adnatus, ab apice columnæ breviter patens, ascendens, lobis lateralibus auriculatis; lamina abrupte dilatata, patens, nunc minima. Columna brevis v. longiuscula, subteres, apice dilatata; stigma sub rostello erecto dilatato postice concavo latum, excavatum; clinandrium breve. Anthera pone rostellum erecta eoque brevior,

oblonga, parum convexa, loculis contiguis ; pollinia in loculis sub-2-partita, pulvereo-granulosa, anthera dehiscente a glandula rostelli pendula. Capsula oblonga, erecta, erostris.—Herbæ terrestres, glabræ v. pilosæ, fibris radicalibus in rhizomate brevi fasciculatis. Scapus elongatus, simplex. Folia subradicalia, ovata v. lanceolata, plus minus petiolata, membranacea. Flores mediocres, in racemo laxo sæpius glanduloso-pubescente breviter pedicellati. Bracteæ angustæ, sæpius parvæ.

Species editæ ad 10, per Americam calidiorem a Bolivia usque ad Mexicum et Americæ borealis civitates australes dispersæ. *Lindl. Gen. et Sp. Orch.* 444, *et in Ann. Nat. Hist. ser.* 1, xv. 385. *Reichb. f. Orch. Centr. Amer.* 63; *in Linnæa* xxviii. 382, xli. 18, 52, 101 ; *Xen. Orch.* iii. 18. *A. Rich. Fl. Cub. t.* 87. *Bot. Mag. t.* 842 (*Neottia*), 6637. *Bot. Reg. t.* 760. *Lodd. Bot. Cab. t.* 1190.

230. **Wullschlægelia,** *Reichb. f. in Griseb. Fl. Brit. W. Ind.* 639, *et in Bot. Zeit.* 1863, 131.—Sepala tenuia, erecta, conniventia, posticum liberum, lateralia paullo latiora, basi in mentum breve v. elongatum calcariforme coalita. Petala sepalo postico similia, nisi minora. Labellum ad basin columnæ sessile, erectum, latum, concavum, intus nudum, basi in saccum seu calcar intra sepalorum mentum productum, indivisum. Columna brevissima ; stigma sub rostello brevi lato erecto integrum ; clinandrium breve. Anthera erecta, sessilis, ovata, vix acuminata, loculis distinctis ; pollinia pulvereo-granulosa, anthera dehiscente glandulæ parvæ rostelli affixa. Capsula parva, ovoidea, erecta.—Herbæ terrestres, aphyllæ, fibris radicalibus in rhizomate brevi fasciculatis leviter incrassatis, caule simplici tenuissimo squamis paucis parvis instructo. Flores minimi, in spica laxa subsessiles. Bracteæ minimæ.

Species 2, altera Indiæ occidentalis incola, perianthii mento brevi gibbiformi, labello basi breviter saccato, *Sw. Fl. Ind. Occid. t.* 29, *f.* 1 (*Cranichis*); altera (*W. calcarata*, Benth.) ad fluvium Uaupés Brasiliæ borealis a Spruceo lecta sub n. 2847, perianthii mento longiuscule et anguste calcariformi calcar labelli includente. Flos in utraque specie minus distincte reversus quam in *Cranichide*, cui cæterum genus valde affine est.

231. **Pseudocentrum,** *Lindl. in Journ. Linn. Soc.* iii. 63.—Sepalum posticum (inferum) liberum, angustum, incurvum, lateralia breviora, latiora, basi connata et in mentum longissime lineare calcariforme ascendens producta. Petala angustata, libera. Labellum (superum) basi columnæ adnatum, ab apice columnæ patens, longissime lineare canaliculatumque intra sepalorum mentum inclusum, juxta columnam lobis 2 erectis auriculatum, apice (in fundo calcaris) breviter clausum, lobo medio parvo lineari inflexo. Columna brevis nunc brevissima ; stigma ad basin rostelli erecti late membranacei medio acuminati profunde excavatum ; clinandrium breve, membranaceo-dilatatum, marginibus cum rostello continuis. Anthera in margine clinandrii erecta, ovata, loculis contiguis. Pollinia oblonga, pulvereo-granulosa, anthera dehiscente a glandula terminali rostelli pendula. Capsula . . .—Herbæ terrestres, elatæ, fibris radicalibus in rhizomate brevi fasciculatis carnosis, caulibus foliatis simplicibus erectis. Folia radicalia plura, longe petiolata, membranacea, caulina pauca, superiora ad vaginas reducta. Flores mediocres v. majusculi, in spica longa numerosi, subsessiles. Bracteæ membranaceæ.

Species 4 v. 5, Andium Americæ australis, Americæ centralis et Jamaicæ incolæ, quarum 3 solæ, altera Jamesoniana, altera Purdieana, cum tertia Jamaicensi, *Benth. in Hook. Ic. Pl. t.* 1382, nobis notæ sunt. *P. Hoffmanni* et *P. bursarium*, Reichb. f. in Linnæa xli. 53, non vidimus.

232. **Gomphichis,** *Lindl. Gen. et Sp. Orch.* 446.—Sepala subæqualia, libera, a basi patentia, subincurva. Petala sepalis similia nisi minora. Labellum (superum) a basi columnæ erectum, in unguem brevem contractum, lamina lata concava subgaleata indivisa v. 3-loba columnam obtegente. Columna subteres, antrorsum incurva, sæpius villosa ; stigma ad basin rostelli ampli erecti supra carinati latum, concavum ; clinandrium membranaceo-dilatatum, marginibus cum rostello continuis. Anthera in margine clinandrii erecta, ovata, loculis contiguis ; pollinia pulvereo-granulosa, anthera dehiscente a glandula terminali rostelli pendula. Capsula ovoidea, erecta.—Herbæ terrestres, fibris

radicalibus in rhizomate brevi fasciculatis carnosis, caule foliato erecto simplici. Folia lanceolata v. elongata, inferiora in petiolum contracta, superiora ad vaginas herbaceas reducta. Flores parvuli, in spica densa v. rarius laxa numerosi, sessiles. Perianthium supra ovarium sæpius inflexum. Bracteæ membranaceæ, floribus breviores.

Species 4 v. 5, Andium Americæ australis incolæ. Genus a Reichb. f. in Bonplandia 1856, 211 ad *Stenopteram* reductum fuit, sed satis distinctum videtur imprimis perianthii forma, et ab auctore eodem iterum admittitur in Xen. Orch. iii. 20.

233. **Stenoptera,** *Presl, Rel. Hænk.* i. 95, *t.* 14. (Porphyrostachys, *Reichb. f. Xen. Orch.* i. 18.)—Sepala subæqualia, basi in tubum tenuem connata, superne libera, incurva, suberecta, æqualia v. posticum (inferum) angustum. Petala sepalis angustiora v. minora. Labellum (superum) a basi columnæ erectum, ovatum, basi in unguem contractum, lamina plana v. concava. Columna subteres, recta v. incurva, exalata; stigma ad basin rostelli erecti ampli supra carinati latum concavum; clinandrium elevatum, lateribus membranaceis nunc a rostello distinctis nunc cum ejus marginibus in cyathum connatis. Anthera in margine clinandrii erecta, ovata v. oblonga, loculis contiguis, valvis latis; pollinia pulvereo-granulosa, anthera dehiscente a glandula terminali rostelli pendula. Capsula oblonga, erecta.—Herbæ terrestres, fibris radicalibus in rhizomate brevi fasciculatis carnosulis, caule foliato elato simplici supra folia plurivaginato. Folia ad basin caulis conferta, subradicalia, basi contracta v. breviter petiolata. Flores in spica densa speciosi v. in spica tenui mediocres. Bracteæ nunc membranaceæ coloratæ, nunc parvulæ.

Species 3, Americæ tropicæ montanæ incolæ, a Brasilia et Bolivia usque ad Indiam occidentalem extensæ. *Lindl. Gen. et Sp. Orch.* 447. *H. B. et K. Nov. Gen. et Sp. t.* 73 (*Altensteinia*); *Reichb. f. in Bot. Zeit.* 1863, 131.

234. **Neottia,** *Linn. Gen. ed.* i. 271. (Neottidium, *Schlecht. ex Link, Handb.* i. 249.)—Sepala subæqualia, libera, concava, demum patentia. Petala sepalis similia nisi angustiora. Labellum a basi columnæ patens, sepalis longius, basi cavum v. subplanum, apice 2-lobum. Columna erecta v. incurva, longiuscula, subteres, exalata, apoda; stigma sub rostello antrorsum inclinato transversum; clinandrium truncatum v. obliquum posticeque brevissime productum. Anthera in margine clinandrii erectum v. antrorsum inclinatum, loculis contiguis; pollen pulvereo-granulosum in massas laxe cohærens, anthera dehiscente a glandula rostelli pendulas v. mox dissolutas. Capsula ovoidea v. breviter oblonga, erecta v. subpatens, erostris.—Herbæ terrestres, aphyllæ, fibris radicalibus brevibus carnosis numerosis dense fasciculatis. Caulis erectus, simplex, vaginis pluribus concoloribus superne laxis sed limbo orbatis. Flores breviter pedicellati, dense v. laxe racemosi. Bracteæ parvæ.

Species nobis notæ 3, Europæ et Asiæ borealis v. montanæ incolæ. *Lindl. Gen. et Sp. Orch.* 457, *et in Journ. Linn. Soc.* i. 176. *Reichb. f. Ic. Fl. Germ. t.* 473, 478, *f.* 1–2. *Nees, Gen. Fl. Germ. Monoc.* iii. *n.* 18 (*Neottidium*). *Barla, Ic. Orch. Alp. Marit. t.* 9. *Dcne. in Jacquem. Voy. Bot. t.* 163 (*N. Lindleyana*, quæ nobis videtur *N. listeroidis*, Lindl., var.).

Labellum in *N. Nidus-avis* basi concavum est, in *N. listeroide*, Lindl., basi angustius planumque v. fere convexum. *N. micrantha*, Lindl., est species valde dubia et verisimiliter non congener, e specimine unico nota, a cl. auctore a Prescottio recepto cum habitatione 'Sibiria,' sed nec a Ledebourio nec ab ullo alio auctore Rossico visa.

235. **Listera,** *R. Br. in Ait. Hort. Kew. ed.* 2, v. 201. (Diphryllum, *Raf. in Desv. Journ. Bot.* i. (1808) 220.)—Sepala subæqualia, libera, patentia v. reflexa. Petala sepalis similia. Labellum a basi columnæ patens, dein sæpius pendulum, sepalis longius, angustum, integrum v. 2-fidum. Columna brevissima, crassa, exalata, apoda; stigma sub rostello terminali v. antrorsum inclinato transversum; clinandrium membranaceum, postice extensum, erectum, antheram sæpe æquans. Anthera a basi clinandrii antrorsum inclinatum loculis contiguis; pollinia in loculis sæpius bipartita, laxe pulvereo-granulosa, anthera dehiscente a glandula rostelli pendula. Capsula obovoidea v. subglobosa, erecta

v. subpatens, erostris, angulis obtusissimis.—Herbæ terrestres, fibris radicalibus in rhizomate brevi fasciculatis. Caules erecti, simplices, paucivaginati, medio foliis 2 latis suboppositis instructi. Flores parvuli, in racemo sæpius elongato breviter pedicellati. Bracteæ parvæ.

Species ad 10, Europæ, Asiæ temperatæ et montanæ et Americæ borealis incolæ. *Lindl. Gen. et Sp. Orch.* 455, *et in Journ. Linn. Soc.* i. 175. *Reichb. Ic. Fl. Germ. t.* 478, *f.* 3 *ad* 5, *t.* 479, 480. *Nees, Gen. Fl. Germ. Monoc.* iii. *n.* 19. *Barla, Ic. Orch. Alp. Marit. t.* 9. *Blume, Orch. Archip. Ind.* 135, *t.* 38 *et* 48 E. *Hook. Fl. Bor. Amer. t.* 205.

236. **Spiranthes,** *L. C. Rich. in Mem. Mus. Par.* iv. 50. (Aristotelea, *Lour. Fl. Cochinch.* 522, *non Lhér.* Ibidium, *Salisb. in Trans. Hort. Soc.* i. 291, *pro parte absque char.* Gyrostachis, *Pers. Syn. Pl.* ii. 511, *sub Neottia indicatá.* Cyclopogon, *Presl, Rel. Hænk.* i. 93, *t.* 13, *f.* 1 *male.*)—Sepala libera, subæqualia, posticum erectum, cum petalis in galeam connivens v. cohærens v. apice patens, lateralia ovarii apici plus minus oblique affixa v. decurrentia, erecta v. patentia. Labellum sessile v. distincte unguiculatum, erectum, sæpe angustum, concavum, columnam amplectens eique sæpe adhærens, apice patens, indivisum v. 3-lobum, intus callis v. lamina duplici plus minus appendiculatum. Columna teres, basi sæpius in apice obliquo ovarii plus minus decurrens nec in pedem liberum producta; stigma sub rostello erecto nunc brevi obtuso nunc elongato membranaceo-dilatato latum; clinandrium postice breve, marginibus interdum elevatis cum rostello continuis. Anthera erecta, ovata v. oblonga, sessilis v. stipitata, rostello brevior v. longior, loculis discretis; pollinia pulvereo-granulosa, interdum in caudiculam brevem producta, anthera dehiscente a glandula rostelli pendula, pollinario delapso rostellum 2-dentatum relinquentia. Capsula ovoidea v. oblonga, erecta.—Herbæ terrestres, fibris radicalibus in rhizomate brevi sæpius carnosis fasciculatis interdum in tubera incrassatis, caulibus foliatis v. florentibus aphyllis. Folia in diversis sectionibus diversa. Flores parvi v. majusculi, in spica unilaterali v. densa sessiles.

Species ad 80, per regiones temperatas tropicasque utriusque orbis late dispersæ.

Sectiones sequentes a variis auctoribus pro generibus propriis accipiuntur sed characteribus diversis limitantur:—

1. *Euspiranthes.* Folia caulina angusta v. rarius lata, sessilia v. in petiolum sæpius brevem contracta. Flores parvuli secus lineam spiralem v. rarius rectam secundi. Sepala lateralia ovario oblique affixa v. breviter decurrentia. Species temperatæ v. tropicæ. *Lindl. Gen. et Sp. Orch.* 463. *Reichb. f. Ic. Fl. Germ. t.* 474 *ad* 477; *Orch. Centr. Amer.* 65; *in Bonpl.* 1854, 11; 1855, 214; 1856, 211; *in Linnæa* xxv. 230; *Xen. Orch.* iii. 20; *Otia Hamb.* 84. *Nees, Gen. Fl. Germ. Monocot.* iii. *n.* 16. *Barla, Orch. Alp. Marit. t.* 10. *Bab. in Trans. Linn. Soc.* xix. *t.* 32. *Lindl. Collect. Bot. t.* 30. *Hook. Journ. Bot.* iii. *t.* 12. *Wight, Ic. t.* 1724. *Blume, Orch. Archip. Ind. t.* 37, 38, 45, 48 (*Gyrostachys*). *Fitzger. Austral. Orch. cum tab.* 1. *Hook. Fl. Bor. Amer. t.* 203. *Torr. Fl. N. York, t.* 128, 129. *Pœpp. et Endl. Nov. Gen. et Sp. t.* 110. *Reichb. f. Xen. Orch. t.* 179, *f.* 1. *Link, Kl. et Otto, Ic. Pl. Rar. t.* 11. *Bot. Mag. t.* 1568, 5277. *Bot. Reg. t.* 602, 794, 823, 1934. *Sweet, Brit. Fl. Gard. t.* 42 (*icones antiquiores pleræque sub Neottia*).

2. *Sauroglossum.* Folia subradicalia longiuscule petiolata, ovata v. ovato-lanceolata. Spica laxa vix secunda. Flores quam in *Euspiranthe* sæpius majores. Sepala lateralia ovario oblique v. fere recte affixa, vix v. non decurrentia. Species tropicæ Americanæ. *Jacq. Ic. Rar. t.* 601. *Red. Lil. t.* 164. *Andr. Bot. Rep. t.* 376. *Bot. Mag. t.* 2026 (*omnes sub Neottia*). SAUROGLOSSUM, *Lindl. Bot. Reg. t.* 1618; *Gen. et Sp. Orch.* 480. SYNASSA, *Lindl. Bot. Reg. sub t.* 1618; *Gen. et Sp. Orch.* 481. *Spiranthem elatam*, A. Rich., ad hanc sectionem referrimus, sed a *Sauroglosso elato*, Lindl., specifice distincta videtur.

3. *Sarcoglottis.* Folia radicalia longiuscule petiolata, ovata v. ovato-lanceolata. Spica laxa v. densa, vix secunda. Flores quam in *Euspiranthe* majores, nunc magni. Sepala lateralia cum columnæ basi in ovario plus minus decurrentia nec mentum distinctum formantia. Species tropicæ Americanæ. *Sm. Exot. Bot. t.* 105. *Bot. Mag. t.* 1562, 2730. *Bot. Reg. t.* 1043 (*omnes sub Neottia*). *Reichb. f. Orch. Centr. Amer.* 66; *in Bonpl.* 1854, 11; 1856, 211; *et in Linnæa* xix. 378, xxviii. 382, *et* xxii. 815 (*Stenorhynchus*). SARCOGLOTTIS, *Presl, Rel. Hænk.* i. 95, *t.* 15. *Lindl. Bot. Reg.* 1843; *Misc.* 60.

4. *Stenorhynchus.* Caules sæpe elati, interdum foliati. Folia radicalia basi breviter v. longe angustata. Spica sæpius densa. Flores sæpius majusculi v. magni. Sepala lateralia cum columnæ basi in ovarium longe decurrentia, basi in mentum distinctum prominentia. Species tropicæ Americanæ. *H. B. et K. Nov. Gen. et Sp. t.* 71. *Jacq. Ic. Rar. t.* 600. *Hook. Exot. Fl. t.* 3, 4. *Bot. Mag. t.* 1036, 1374, 2797 (*omnes sub Neottia*). *Reichb. f. Xen. Orch. t.* 179, *f.* 2, 3. STENORRHYNCHUS, *L. C. Rich. in Mem. Mus. Par.* iv. 59 (*nomen*); *Lindl. Gen. et Sp. Orch.* 476, *et in Ann. Nat. Hist. ser.* 1, xv. 386. *Pœpp. et Endl. Nov. Gen. et Sp.* 109. *Bot. Reg. t.* 701 (*Neottia*); 1847, *t.* 65. *Reichb. f. in Bonpl.* 1855, 177; 1856, 211, *et in Linnæa* xli. 101. Præter species ad *Stenorrhynchum* relatas huc pertinent etiam *Spiranthes hirta*, Lindl., *S. bonariensis*, Lindl., aliæque.

237. **Baskervilla,** *Lindl. Gen. et Sp. Orch.* 505.—Sepala subæquilonga, erecta, posticum liberum, lateralia fere ad apicem connata, basi sub labello mentum latum formantia. Petala angusta, basi contracta et columnæ appressa (v. ex Lindleyo adnata). Labellum basi columnæ affixum, ungue brevi patente, lobis 2 erectis juxta columnam auriculato, lamina erecta basi late saccata. Columna brevissima, teres, clavata, rostello magno erecto bialato acuminato, facie supera (antheram versus) leviter concava, infera (labellum versus) carnoso-incrassata apice 2-dentata; stigma inter dentes et acumen rostelli horizontale, cavatum; clinandrium brevissimum. Anthera breviter stipitata, erecta, acuminata, rostello parum brevior, loculis contiguis; pollinia in quoque loculo 2, fere solida læviaque (demum pulverea?), ovoideo-oblonga, in caudiculas longas connatas producta, anthera dehiscente a glandula rostelli pendula. Capsula . . .—Herba terrestris, fibris radicalibus in rhizomate repente fasciculatis, caule erecto simplici basi paucifoliato. Folia membranacea, oblongo-lanceolata, in petiolum contracta. Flores parvuli, in spica densiuscula sessiles. Bracteæ angustæ, inferiores flores æquantes.

Species 1, Peruviana, e specimine unico adhuc nota. Genus certe inter *Neottieas Spirantheas* collocandum, sed rostelli et polliniorum indole singulare. Analysis in herb. Lindleyano delineata a floribus a nobis examinatis pluribus notis differt.

238. **Pelexia,** *Lindl. Gen. et Sp. Orch.* 482, *quoad species calcaratas.*—Sepalum posticum erectum, cum petalis in galeam angustam setaceo-acuminatam connatum, lateralia linearia, basi in appendicem longe linearem calcariformem acutam latere superiore subapertam connata. Labellum ad basin columnæ peltatim affixa, erecta, linearis, canaliculata, basi in laminam longam carinato-complicatam v. calcariformem intra calcar sepalorum productum, a calcare liberum (v. plus minus adnatum?). Columna brevis, apoda; stigma latum, ad basin rostelli erecti longe subulato-acuminati; clinandrium breve. Anthera pone rostellum erecta, oblongo-linearis, loculis contiguis; pollinia angusta, pulvereo-granulosa, anthera dehiscente ab apice rostelli pendula. Capsula erecta, oblonga.—Herbæ terrestres, fibris in rhizomate sæpius repente fasciculatis. Folia radicalia longe petiolata v. ad basin caulis simplicis plurivaginati pauca, conferta, petiolis brevibus. Flores mediocres, in spica nunc densa nunc elongata laxioreque subsessiles. Bracteæ angustæ v. lanceolatæ.

Species 7 v. 8, Americæ tropicæ a Brasilia usque ad Indiam occidentalem et Americam centralem incolæ. *Reichb. f. Orch. Centr. Amer.* 102; *in Bonplandia* 1854, 11; *Otia Hamb.* 83; *et in Saund. Ref. Bot. t.* 97. *Pœpp. et Endl. Nov. Gen. et Sp. t.* 124. *Bot. Mag. t.* 3403 (*Neottia*).

PELEXIA, *Poit. ex L. C. Rich. Mem. Mus. Par.* iv. 59, *nomen tantum* (COLLEA, *Lindl. Bot. Reg. sub t.* 760, PELEXIA, *Lindl. Bot. Reg. t.* 985) includit *Spiranthem adnatam* et *Pelexiam domingensem*, Lindl. PELEXIA, *Spreng. Syst.* iii. 677, 704, includit *Spiranthem adnatam* cum *Cephalantheræ* speciebus Japonicis calcaratis.

239. **Physurus,** *L. C. Rich. in Mem. Mus. Par.* iv. 55, *nomen.* (Erythrodes, *Blume, Bijdr.* 410, *t.* 72. Microchilus, *Presl, Rel. Hænk.* i. 94; *Symb. Bot. t.* 15, 16.)—Sepala subæqualia, libera, erecta v. subpatentia. Petala cum sepalo postico in galeam conniventia v. cohærentia. Labellum a basi columnæ erectum eique interdum breviter adnatum, subtus in calcar descendens acutum obtusum v. subdidymum productum, superne cavum, abrupte contractum, lamina terminali patente v. recurva integra v. varie 2-fida. Columna

brevis nunc brevissima, exalata; stigma ad basin rostelli erecti longiusculi cavum; clinandrium parum prominens. Anthera erecta, breviter acuminata, loculis contiguis distinctis; pollinia granulosa (sectilia v in speciebus nonnullis Americanis pulverea?), anthera dehiscente a glandula rostelli sæpius majuscula oblonga pendula, pollinario delapso rostellum alte 2-fidum relinquentia. Capsula oblonga v. ovoidea, erecta.—Herbæ terrestres, foliatæ, fibris radicalibus in rhizomate repente sæpius fasciculatis. Caules ascendentes v. erecti, simplices. Folia petiolata, ovata v. lanceolata, membranacea, in speciebus Americanis sæpe picta. Flores parvi v. mediocres, in spica laxa v. densa sæpe elongata subsessiles. Bracteæ parvæ v. angustæ.

Species ad 20, regionum calidiorum Americæ et Asiæ incolæ. *Lindl. Gen. et Sp. Orch.* 501, *et in Journ. Linn. Soc.* i. 180. *Reichb. f. in Bonplandia* 1855, 214; 1856, 211; *in Flora* 1865, 274; *Orch. Centr. Amer.* 63; *Xen. Orch. t.* 178; *Otia Hamb.* 83. *Blume, Orch. Archip. Ind.* 95, *t.* 27, 28. *Griff. Ic. Pl. As. t.* 347 (*Goodyera*). *A. Rich. Fl. Cub. t.* 88. *Hook. Ic. Pl. t.* 449. *Bot. Mag. t.* 5305. *Saund. Ref. Bot. t.* 73.

QUETELETIA, *Blume, Orch. Archip. Ind.* 117, *t.* 37 (ORCHIPEDUM, *Breda, Orch. Kuhl et Hass. cum tab.* 1), ab auctore a *Physuro* distinguitur flore toto imprimis rostello cum anthera antrorsum inclinato et nobis potius pro sectione *Physuri* habenda videtur.

Physurus glandulosus, Lindl. in Journ. Linn. Soc. i. 180, est *Cystorchis* species.

240. **Anœctochilus,** *Blume, Fl. Jav. Præf.* 6. (Anecochilus, *Blume, Bijdr.* 411, *t.* 15. Chrysobaphus, *Wall. Tent. Fl. Nep.* 37, *t.* 27.)—Sepala libera, posticum erectum v. recurvum, cum petalis in galeam agglutinatum, lateralia patentia, obliqua. Labellum pedi columnæ adnatum, patens, subtus in calcar descendens obtusum v. acutiusculum productum, ungue elongato longe fimbriato, lamina 2-loba in alabastro incumbente, demum patente. Columna brevissima, antice sub stigmate interdum nec semper 2-auriculata v. 2-lamellata; stigma sub rostello antrorsum elongato lato bicallosum; clinandrium plus minus dilatatum, cum marginibus rostelli continuum, cyathiforme. Anthera ad marginem clinandrii in rostello inclinata v. suberecta, brevis v. acuminata, loculis discretis; pollinia granulosa (sectilia) in caudiculas breves v. elongatas connatasque producta, anthera dehiscente a glandula rostelli pendula, pollinario delapso rostellum 2-fidum relinquentia. Capsula oblonga, erecta, sæpius acutangula, erostris.—Herbæ terrestres, rhizomate repente non tuberoso, caule foliato ascendente v. erecto. Folia prope basin caulis conferta v. subradicalia, petiolata, ovata, rigidule membranacea, sæpe eleganter picta. Flores mediocres, in spica laxa v. racemo pauci, sessiles v. brevissime pedicellati. Bracteæ flore breviores.

Species ad 8, Indiæ orientalis et Archipelagi Malayani incolæ. *Lindl. Gen. et Sp. Orch.* 498, *et in Journ. Linn. Soc.* i. 178, *pro parte*. *Blume, Orch. Archip. Ind.* 44, *t.* 12, 17. *Wight, Ic. t.* 1731. *Bot. Mag. t.* 4123, 5208. *Bot. Reg. t.* 2010.

A. lanceolatus, Lindl., *A. grandiflorus*, Lindl., *A. flavus*, Lindl., *A. Jauberti*, Gaudich., et *A. longiflorus*, Reichb., labello ecalcarato, ad *Odontochilum* pertinent. *A. albolineatus*, Reichb. f. in Trans. Linn. Soc. xxx. 141, species eadem videtur ac *A. brevilabris*, Lindl.

241. **Vrydagzenia,** *Blume, Orch. Archip. Ind.* 71, *t.* 17, 19, 20.—Sepala subæqualia, libera, posticum erectum cum petalis in galeam cohærens, lateralia patentia. Labellum sessile, basi in calcar obtusum seu saccum inter sepala lateralia protrusum productum, erectum, concavum, lamina minima v. rarius dilatato-2-loba; calcar intus callis 2 longe stipitatis a columnæ basi descendentibus instructum. Columna brevissima, stigmata 2, ad latera rostelli brevis erecti discreta; clinandrium breve. Anthera erecta, ovata, loculis discretis; pollinia sectilia, in caudiculas breves producta; anthera dehiscente glandulæ ovatæ rostelli affixa, pollinario delapso rostellum 2-fidum relinquentia. Capsula . . .—Herbæ terrestres, debiles, ascendentes, foliosæ, habitu fere *Hetæriæ*. Folia ovata v. lanceolata, membranacea, in petiolum brevem contracta. Flores mediocres v. parvuli, in spica sæpius brevi densa supra folia ultima sessili v. rarius elongata longiusque pedunculata sessiles. Bracteæ flore breviores.

Species 8, Archipelagi Malayani et insularum maris Pacifici incolæ. *Reichb. f. Otia Hamb.* 51. Hic includitur præter species Blumeanas *Anœctochilus sandwicensis*, Lindl. Gen. et Sp. Orch. 506.

242. **Cystorchis,** *Blume, Orch. Archip. Ind.* 87, *t.* 24, 36.—Sepala libera, subæqualia, posticum erectum cum petalis in galeam connivens v. cohærens, lateralia subpatentia. Labellum ad basin columnæ sessile v. ei subadnatum, subtus in saccum seu calcar obtusum inter sepala lateralia protrusum productum, intus nudum v. vesiculis 2 intus callosis instructum, superne patens, lanceolatum, indivisum. Columna brevissima; stigma crassum, rostellum magnum erectum latum antice fere omnino obtegens sub acumine longiusculo duplici; clinandrium breve v. elevatum, marginibus cum rostello in cyathum connatis. Anthera ad marginem clinandrii sessilis semi-immersa, v. in clinandrio brevi substipitata, erecta, ovata, loculis distinctis; pollinia sectilia, plus minus in caudiculas producta, anthera dehiscente glandulæ lineari v. oblongæ rostelli affixa, pollinario delapso rostellum profunde 2-fidum relinquentia. Capsula . . .—Herbæ terrestres, caule foliato e rhizomate repente ascendente v. erecto simplici. Folia ad basin caulis conferta, petiolata, ovata, crassiuscule membranacea, discoloria v. picta. Flores parvuli, in spica densa v. laxiuscula sessiles.

Species typicæ 2, Archipelagi Malayani incolæ, labello basi 2-vesiculoso, clinandrio elevato. In *C. obscura*, Blume, l. c. 89, *t.* 37, vesiculæ laterales labelli deesse videntur sed species dubie tantum ab auctore huc refertur. In *Ætheria fusca*, Lindl. in Journ. Linn. Soc. i. 184, e Himalaya, labellum vesiculis intus callosis omnino caret et clinandrium breve anthera substipitata, sed calcar latum subinflatum inter sepala protrusum et characteres cæteri uti habitus omnino *Cystorchidis* nec *Hetæriæ*.

243. **Herpysma,** *Lindl. Bot. Reg. sub t.* 1618.—Sepala subæqualia, libera, tenuia, posticum erectum, fornicatum, lateralia patentia. Petala libera, sepalis lateralibus subsimilia. Labellum erectum, concavum, marginibus columnæ adnatum, subtus in calcar longiusculum descendens productum, intus 2-lamellatum, apice in laminam patentem rotundatam integram v. sub-3-lobam dilatatum. Columna brevis; stigma ad basin rostelli elongati erecti latiusculi 2-fidi prominens; clinandrium membranaceo-dilatatum, alte cupulatum. Anthera ad marginem clinandrii dorsifixa, semi-immersa, erecta, oblonga, loculis discretis; pollinia sectilia, in quoque loculo in caudiculas læves duriusculas quasi 2-valvas producta, anthera dehiscente lobis rostelli applicita. Capsula ovoideo-oblonga, erecta, acutangula.—Herba longe procurrens, foliosa, caulibus ascendentibus. Folia membranacea, ovato-lanceolata, in petiolum contracta, vaginis laxis hyalinis. Flores mediocres, in spica densa intra folia ultima sessili conferti. Bracteæ tenues, lanceolatæ.

Species 1, Himalaica. *Lindl. Gen. et Sp. Orch.* 506. Flores primo aspectu iis *Myrmechi* similes, sed calcare facile distinguendi, et polliniorum caudiculæ (saltem in floribus examinatis) ab omnibus a nobis examinatis differunt.

244. **Zeuxine,** *Lindl. Bot. Reg. sub t.* 1618. (Adenostyles, *Blume, Bijdr.* 414, *non Cass.* Tripleura, *Lindl. Bot. Reg. sub t.* 1618. Psychechilus, *Breda, Orch. Kuhl et Hass. cum tab.* 1.)—Sepala subæqualia, posticum erectum concavum, lateralia patentia, libera. Petala angusta, cum sepalo postico sæpius in galeam cohærentia. Labellum basi columnæ brevissime adnatum, erectum, basi concavum v. subsaccatum, e sepalis lateralibus tamen non protrusum, intus varie 2-callosum v. nudum, supra basin plus minus contractum; lamina nunc parva integra sepalis brevior, nunc elongata apice 2-fida lobis patentibus v. 2-valvatim erectis. Columna brevissima; stigma ad basin rostelli lati membranacei erecti v. antrorsum inclinati depressum, v. in callos 2 viscosos divisum; clinandrium breve, cum marginibus rostelli continuum. Anthera erecta v. antrorsum inclinata, oblonga, breviter apiculata, loculis contiguis valvis exterioribus latis; pollen grosse granulosum (sectile), sæpe vix in massas cohærens, anthera dehiscente stipiti lineari v. cuneato a rostelli glandula descendenti affixum. Capsula parva, erecta, ovoidea v. subglobosa.—Herbæ terrestres, teneræ v. humiles, rhizomate breviter repente (interdum e tubere perenni oriundo?), caule ascendente v. erecto foliato simplici. Folia nunc linearia supra

vaginam subsessilia nunc ovata v. lanceolata, petiolata, membranacea. Flores parvi, in spica densa v. tenuiore sessilia. Bracteæ membranaceæ, flore breviores, rarius scariosæ flores superantes.

Species ad 16, Indiæ orientalis, Archipelagi Malayani et Africæ tropicæ incolæ. *Lindl. Gen. et Sp. Orch.* 485, *et in Journ. Linn. Soc.* i. 186. *Blume, Orch. Archip. Ind.* 65. *Reichb. f. Otia Hamb.* 34.

Lindley *Tripleuram* a *Zeuxine* distinxit labello supero nec infero, charactere tamen ab auctore serius emendato. Blume sectiones 3 indicavit, quibus addimus quartam a Blumeo pro genere proprio receptam:—

1. *Euzeuxine*, caule humili, foliis angustis linearibus gramineis in vagina subsessilibus, labelli parte cava intus nuda v. callis 2 parvis instructa. Flores parvi. *Wight, Ic. t.* 1724 *bis*, 1725, 1726. *Blume, Orch. Archip. Ind.* 67, *t.* 19, 22, 23.

2. *Lathrodus*, Blume, caule tenero ascendente, foliis petiolatis ovatis v. lanceolatis, labelli parte cava intus prope marginem utrinque callo reflexo instructa, lamina minima integra. Flores parvi. *Blume, Orch. Archip. Ind.* 71, *t.* 18, 23.

3. *Psychechilus*, Blume, habitu et foliis *Lathrodi* sed labelli lamina 2-fida. Flores parvi. *Blume, Orch. Archip. Ind.* 69, *t.* 18, 23, 39.

4. *Monochilus*, habitus *Goodyeræ*, foliis petiolatis ovatis, labelli parte cava intus varie 2- v. 4 callosa, lamina sæpius a sepalis exserta, interdum demum elongato-2-fida. Flores quam in præcedentibus paullo majores. MONOCHILUS, *Wall.*; *Lindl. Gen. et Sp. Orch.* 486, *et in Journ. Linn. Soc.* i. 186. *Wight, Ic. t.* 1728. *Reichb. f. Xen. Orch. t.* 87; *Otia Hamb.* 52, 110; *in Bonpl.* 1857, 35, *et in Linnæa* xli. 60. HAPLOCHILUS, *Endl. Gen. Suppl.* ii. 20; *Blume, Orch. Archip. Ind.* 109, *t.* 39, 48.

245. **Cheirostylis**, *Blume, Bijdr.* 413, *t.* 16.—Sepala membranacea, ad medium in tubum coalita, æqualia v. basi breviter in mentum producta. Petala sepalo postico adnata, interdum vix distinguenda. Labellum a basi columnæ erectum, angustum, canaliculatum, intus basi 2-callosum, apice in laminam 2-lobam sæpe fimbriatam dilatatum. Columna brevis, apice processubus seu brachiis 2 erectis angustis rostello æquilongis appendiculata; stigma sub rostello erecto acuminato alte 2-lobo cavum; clinandrium breve, cum brachiis columnæ et marginibus rostelli basi continuum. Anthera erecta, acuminata, loculis ad basin brevibus discretis; pollinia sectilia, anthera dehiscente stipiti plano lineari-cuneato a glandula oblonga rostelli dependenti affixa; pollinario delapso columna apice subæqualiter 4-brachiata apparet (ob rostelli lobos columnæ brachiis subsimiles). Capsula obovoidea v. oblonga, acutangula, erostris.—Herbæ terrestres, debiles, interdum pusillæ, rhizomate repente, caulibus foliatis simplicibus ascendentibus v. erectis. Folia petiolata, ovata v. lanceolata, membranacea. Flores parvuli v. mediocres, in racemo laxiusculo plures, breviter pedicellati.

Species ad 8, Indiæ orientalis, Archipelagi Malayani et Africæ tropicæ incolæ. *Lindl. Gen. et Sp. Orch.* 488, *et in Journ. Linn. Soc.* i. 187. *Blume, Orch. Archip. Ind.* 53, *t.* 13, 17, 39. *A. Rich. in Ann. Sc. Nat. ser.* 2, xv. *t.* 12 (*Goodyera*). *Griff. Ic. Pl. As. t.* 350 (*Zeuxine*). *Wight, Ic. t.* 1727. *Reichb. f. in Trans. Linn. Soc.* xxx. 141; *Otia Hamb.* 110.

246. **Odontochilus**, *Blume, Orch. Archip. Ind.* 79, *t.* 29, 36.—Sepalum posticum erectum, cum petalis in galeam connivens v. cohærens, lateralia latiora, basi obliqua, cum pede columnæ in mentum sub labello connata. Labellum pedi columnæ affixum, ecalcaratum, sed basi in gibbum seu saccum obtusum intus 2-callosum intra sepala lateralia dilatatum et interdum didymum, ungue supra saccum patente margine fimbriato-lacero v. dentato; lamina seu lobus medius emarginatus v. 2-fidus, in alabastro inflexus, demum patens. Columna brevissima, antice sub stigmate 2-auriculata v. nuda; stigma sub rostello antrorsum inclinato sæpius 2-partitum; clinandrium parum elevatum. Anthera ad marginem clinandrii semiglobosa v. inclinata, supra rostellum inclinata, loculis discretis; pollinia sectilia, in caudiculas breves v. longiusculas producta, anthera dehiscente a glandula rostelli pendula, pollinario delapso rostellum 2-fidum relinquentia. Capsula oblonga, erecta.—Herbæ terrestres, rhizomate et interdum caule basi repente

subramoso, caulibus foliatis ascendentibus v. erectis simplicibus. Folia petiolata, ovata v. lanceolata, membranacea. Flores mediocres, in spica laxa sessiles.

Species ad 10, Indiæ orientalis, Archipelagi Malayani et insularum maris Pacifici incolæ. *Gaudich. Voy. Bonite Bot. t.* 100 (*Anecochilus*), quæ planta ad portum Byron ins. Sandwicensium nec Australiæ lecta fuit.

Cystopus, *Blume, Orch. Archip. Ind.* 82, *t.* 21, 23, 30, 31, species paucas continet cæteris *Odontochilis* habitu simillimas nec nostro sensu characteribus florum separandas. Blume genus distinxit imprimis flore in ovario magis obliquo et stigmate minus diviso, characteres interdum parum distincti videntur, flores tamen paucos examinare potuimus. Genus cæterum ab affini *Anæctochilo* differt præcipue labelli calcare nullo inter sepala lateralia protruso.

247. **Myrmechis,** *Blume, Orch. Archip. Ind.* 76, *t.* 21.—Sepala subpetaloidea, basi breviter connata, suberecta, posticum concavum, lateralia latiora, basi cum pede columnæ mentum brevem formantia. Petala a sepalis libera, erecta, lato-lanceolata. Labellum pedi columnæ affixum, incurvum, dein erectum, basi subgloboso-ventricosum, columnæ subadnatum, intus 2-callosum, dein in unguem canaliculatum integrum productum, lamina terminali brevi dilatata 2-loba. Columna brevissima, basi in pedem brevem producta; stigmata 2, ad latera rostelli brevis erecti discreta; clinandrium breve. Anthera erecta, breviter ovata, loculis discretis, pollinia sectilia, in caudiculas brevissimas producta, anthera dehiscente glandulæ crassæ rostelli affixa, pollinario delapso rostellum breviter 2-fidum relinquentia. Capsula . . .—Herbæ terrestres, teneræ, foliosæ, procumbentes v. ascendentes. Folia ovata v. suborbiculata, breviter petiolata, membranacea. Flores mediocres, in racemo terminali breviter pedunculato pauci.

Species 2, Javæ et Japoniæ incolæ. *Blume, l. c. Lindl. in Journ. Linn. Soc.* i. 182 (*Rhamphidia alsinæfolia* et *R. grandiflora*). *Rhamphidia japonica*, Reichb. f. in Bot. Zeit. 1878, 75, est verisimiliter planta a Franch. et Savat. Enum. Pl. Jap. ii. 39, ad *Myrmechin gracilem*, Bl. (*Rhamphidiam alsinæfoliam*, Lindl.) relata. Genus cæterum potius *Odontochilo* quam *Hetæriæ* (*Rhamphidiæ*) affine.

248. **Hæmaria,** *Lindl. Gen. et Sp. Orch.* 489. (Ludisia, *A. Rich. in Dict. Class. Hist. Nat.* vii. 437, genus indicatum nec in ix., sub litt. L. retentum.)—Sepala æquilonga, libera, posticum erectum fornicatum cum petalis in galeam connivens v. cohærens, lateralia patentissima. Labellum basi columnæ affixum eique sæpius breviter adnatum, ungue a basi scrotiformi v. 2-gibba patente concavo ad latera interdum 2-auriculato, lamina divaricato-2-loba. Columna brevis, clavata, antice nuda; stigma ad basin rostelli erecti v. inclinati acuminati indivisum; clinandrium concavum v. fere cucullatum, cum rostelli marginibus in cyathum continuum. Anthera margini clinandrii affixa, semi-immersa, erecta v. inclinata, acuminata, loculis discretis; pollinia sectilia, in caudiculas producta, anthera dehiscente glandulæ oblongæ rostelli affixa, pollinario delapso rostellum 2-fidum relinquentia. Capsula erecta, oblonga.—Herbæ terrestres, caulibus foliatis decumbentibus ascendentibus v. basi cum rhizomate repentibus. Folia breviter v. brevissime petiolata, ovata v. elliptica, crassiuscule membranacea. Flores mediocres, in racemo plures, breviter pedicellati v. subsessiles. Bracteæ membranaceæ, ovario breviores.

Species notæ 4, Chinæ, Cochinchinæ et Archipelagi Malayani incolæ. *Blume, Orch. Archip. Ind.* 113, *t.* 34, 42 (*Ludisia*). *Bot. Mag. t.* 2055. *Bot. Reg. t.* 271; *Lodd. Bot. Cab. t.* 143 (*omnes sub Goodyera*). *Miq. Choix Pl. Jard. Buitenz. t.* 16.

Myoda, *Lindl. Gen. et Sp. Orch.* 489, e Penang, ex specimine unico, a speciebus typicis *Hæmariæ* parum differre videtur columna paullo nec multum longiore, labello paullo altius adnato.

249. **Dossinia,** *Morren in Ann. Soc. Gand.* iv. 171, *cum ic.*—Sepala subæqualia, libera, patentia. Petala angusta, sepalo postico cohærentia. Labellum (inferum) basi columnæ brevissime adnatum, a basi patente ventricoso-scrotiformi intus 2-callosa incurvo-ascendens; lobi laterales latiusculi, erecti, medius unguiculatus, dilatato-2-lobus. Columna brevis, sub stigmate appendice longa intra ventrem labelli intrusa instructa;

stigma ad basin rostelli erecti lati antheram versus concavi integrum ; clinandrium postice breve. Anthera erecta, breviter acuminata, loculis contiguis discretis ; pollinia sectilia, in caudiculas breves producta, anthera dehiscente glandulæ rostelli oblongæ affixa. Capsula . . .—Herba terrestris, habitu *Anœctochili.* Folia ad basin caulis ovata, marmorata, in petiolum brevem latum contracta. Flores in spica laxa pubescente sat numerosi, subsessiles.

Species 1, in hortis e Borneo introducta. *Lindl. in Fl. des Serres, t.* 370 (*Cheirostylis*). *Blume, Orch. Archip. Ind.* 56, *t.* 18, *et in Belg. Hortic.* 1862, *t.* 1.

Planta Khasyana huc a Lindleyo in Journ. Linn. Soc. i. 185 relata, nobis diversa videtur et forte non congener sed exemplar unicum examinare nequimus.

250. **Macodes,** *Blume, Bijdr.* 407, *t.* 2.—Sepala subæqualia, libera, patentia, lateralia obliqua parum latiora. Petala angusta, patentia. Labellum (superum) ad basin columnæ erectum, late ventricosum, intus prope margines 2-callosum, lobi laterales parvi, erecti, medius longior, linearis v. spathulatus. Columna brevis, antice sub stigmate alis 2 latis verticalibus sibimet applicitis appendiculata ; stigma sub rostello elongato acuminato erecto v. inclinato prominens ; clinandrium membranaceum, basi cum rostello in cyathum connatum. Anthera acuminata, erecta v. rostello parallelo antrorsum inclinata, loculis discretis ; pollinia sectilia, in caudiculas longas læves producta, anthera dehiscente glandulæ oblongæ rostelli affixa, pollinario delapso rostellum alte 2-lobum relinquentia. Capsula oblonga, subfusiformis, erecta.—Herba terrestris, habitu *Anœctochili.* Folia ad basin caulis pauca, petiolata, ovata, marmorata. Flores parvuli, in racemo longo breviter pedicellati. Bracteæ breves.

Species 1, Javensis. *Blume, Orch. Archip. Ind.* 119, *t.* 31, 36. *Reichb. f. Xen. Orch. t.* 96, *f.* 1.

251. **Hylophila,** *Lindl. Bot. Reg. sub t.* 1618.—Sepalum posticum cucullatum, acuminatum, incumbens, lateralia lata, valde inæquilatera, acuminata, ovarii apici valde obliquo adnata, in mentum sibimet applicita labellum includentia. Petala linearia. Labellum pedi columnæ oblique adnatum, saccato-cucullatum, intus nudum ; lobus terminalis parvus, linearis, inflexus. Columna brevissima, basi in pedem brevem ovario oblique adnatum producta ; stigma sub rostello elongato 2-fido antrorsum inclinato prominens ; clinandrium breve. Anthera stipitata, longe acuminata, incumbens, loculis ad basin brevibus contiguis ; pollinia sectilia, in acumen seu caudiculam brevem producta, anthera dehiscente a glandula oblonga rostelli pendula ; pollinario delapso rostellum longe 2-brachiatum relinquentia. Capsula oblonga, erecta.—Herba terrestris, foliata, rhizomate repente, caule elato simplici habitu *Goodyeram procerum* referente. Folia prope basin conferta, supra vaginas laxas breviter petiolata, lanceolata v. oblonga. Flores parvi, in spica longa tenui pubescente sessiles. Bracteæ angustæ, flores subsuperantes.

Species 1, Malaccæ et Archipelagi Malayani occidentalis incola. *Lindl. Gen. et Sp. Orch.* 490. *Blume, Orch. Archip. Ind.* 115, *t.* 35, 36.

252. **Goodyera,** *R. Br. in. Ait. Hort. Kew. ed.* 2, v. 197. (Peramium, *Salisb. in Trans. Hort. Soc.* i. 301, *absque char.* Gonogona, *Link, Bot. Handb.* i. 248. Tussaca, *Rafin. in Journ. Phys.* lxxxix. 261.)—Sepala subæqualia, posticum erectum, concavum, cum petalis angustis in galeam conniveus v. cohærens, lateralia libera, erecta v. patentia. Labellum ad basin columnæ sessile, incurvo-ascendens interdumque brevissime adnatum, latum, concavum ventricosum v. subsaccatum, apice interdum recurvo-acuminatum, indivisum, intus sæpe fimbriatum v. villosum nec callosum. Columna subteres, brevis v. brevissima, inappendiculata ; stigma sub rostello erecto concavum, latum v. fere divisum ; clinandrium dilatatum, marginibus cum rostello in cyathum continuis. Anthera erecta v. incumbens, loculis discretis ; pollinia oblonga, tenuiter sectilia, interdum acuminata v. in caudiculam producta, anthera dehiscente a glandula rostelli pendula, pollinario delapso rostellum relinquentia anguste 2-fidum v. in lobos longissime brachiatos divisum.

Capsula erecta, obovoidea v. oblonga, erostris.—Herbæ terrestres, rhizomate repente non tuberoso, fibris radicalibus subfasciculatis, caule foliato simplici ascendente v. erecto. Folia in parte inferiore caulis plus minus petiolata, ovata v. lanceolata. Flores parvuli, in spica laxa secunda v. longa densaque subsessiles. Bracteæ flore breviores.

Species ad 25, Europæ, Maderæ, Asiæ tropicæ et temperatæ et Americæ borealis et (ex Reichb.) Novæ Caledoniæ et ins. Mascarensium incolæ. *Lindl. Gen. et Sp. Orch.* 492, *et in Journ. Linn. Soc.* i. 182. *Reichb. f. Ic. Fl. Germ. t.* 482. *Nees, Gen. Fl. Germ. Monoc.* iii. *n.* 17. *Barla, Orch. Alp. Marit. t.* 10. *Blume, Orch. Archip. Ind.* 31, *t.* 9, *ad* 9 *d.*, 11, 22. *Hook. Fl. Bor. Amer. t.* 204. *Bot. Mag. t.* 2540. *Sweet, Brit. Fl. Gard. ser.* 2, *t.* 47.

G. viscosa, Reichb. f. in Linnæa xli. 61, ex ins. Bourbon, nobis ignota est.

CIONISACCUS, *Breda, Orch. Kuhl et Hass. cum tab.* 1 (CORDYLESTYLIS, *Falcon. in Hook. Journ. Bot.* iv. 74. LEUCOSTACHYS, *Hoffmans. Preisverz. Orch.* 1842, *ex Linnæa* xvi., *Littbl.* 234), est *G. procera*, Hook. Exot. Fl. t. 39; Wight, Ic. t. 1729, species Asiatica, elata, floribus parvis in spica longa densa non secunda numerosis, cui affinis est *G. fumata*, Thwaites, Enum. Pl. Zeyl. 314, floribus tamen majoribus.

G. macrophylla, Lowe, Prim. Fl. Mader. 13, cum ic., est species insignis, elata, habitu fere *G. proceræ*, sed flores multo majores, rostellum elongatum, anthera intra cyathum amplum clinandrii semi-immersa, margini clinandrii medio dorso affixa.

Cœnorchis, Blume (sect.), est *G. pusilla*, Blume, Orch. Archip. Ind. 36, t. 9 b, habitu specierum typicarum, sed pollinia apice in caudiculam longam attenuata.

GEORCHIS, *Lindl. Gen. et Sp. Orch.* 495, *et in Journ. Linn. Soc.* i. 184, *Reichb. f. in Bonpl.* 1857, 35, *et in Linnæa* xli. 61, a Blumeo ad sectionem *Goodyeræ* reducta, species continet 8 Asiaticas; a typicis differunt imprimis anthera longe acuminata, rostello longo post pollinarium delapsum longe 2-brachiato, et polliniis plus minus in caudiculam attenuatis, characteres tamen de specie in speciem variabiles.

G. Wrightii, Reichb. in Flora 1865, 274, e Cuba, est *Spiranthis* (*Sauroglossi*) species, ab affinibus imprimis floribus minimis distincta. *G. guianensis*, Lindl., est *Spiranthes Hostmanni*, Reichb., species tamen nobis adest ex America centrali quæ revera ad *Goodyeram* pertinere videtur.

253. **Lepidogyne,** *Blume, Orch. Archip. Ind.* 93, *t.* 25.—Sepala libera, subæqualia, conniventia. Petala sepalo postico adhærentia eique subsimilia nisi obtusiora. Labellum basi columnæ adnatum, late ventricosum, intus tuberculatum, erectum, lobis lateralibus columnam amplectentibus, cæterum indivisum, in laminam angustam recurvam contractum. Columna brevis; stigma sub rostello elongato acuminato erecto basi dilatato intra laminam brevem erectam absconditum; clinandrium elevatum, cum marginibus rostelli in cyathum connatum. Anthera margini clinandrii dorso affixa, semi-immersa, erecta, longe acuminata, loculis contiguis distinctis; pollinia sectilia, in caudiculas longas attenuata; anthera dehiscente glandulæ angustæ rostelli affixa, pollinario delapso rostellum longe 2-fidum relinquentia. Capsula . . .—Herba terrestris, rhizomate repente, caule elato simplici basi foliato. Folia longa, lineari-lanceolata, basi in vaginam parum contracta. Flores in spica longa densa sessiles. Bracteæ lineares, herbaceæ, flores æquantes. (*Char. ex ic. et descr. Blumei.*)

Species 1, Javanica, a nobis non visa. Habitu *Spiranthis* speciebus elatioribus accedere videtur, sed characteres ut monet Blume iis *Goodyeræ* propinquiores.

254. **Hetæria** (Etæria), *Blume, Bijdr.* 409, *t.* 14. (*Ætheria*, *Endl. Gen. Pl.* 214. Rhamphidia, *Lindl. Gen. et Sp. Orch.* 490, *et in Journ. Linn. Soc.* i. 181, *pro parte.*)—Sepala libera v. basi breviter connata, conniventia v. demum patentia, æqualia v. lateralia paullo latiora. Petala angusta v. basi lata, sepalo postico sæpe adhærentia. Labellum (sæpius an semper? superum), a basi columnæ erectum, basi late ventricosum, marginibus sæpius columnæ plus minus adnatis, intus varie callosum, lamina terminali brevi inflexa integra v. rarius magis evoluta divaricato-2-loba. Columna brevis, antice sæpe sub stigmate appendiculis seu cristulis 2 cum labello connatis instructa; stigma sub rostello erecto transversum, cavum, margine inferiore 2-lobo v. 2-brachiato, lobis brachiisve interdum apice papillosis et forte stigmatosis; clinandrium breve. Anthera pone rostellum

erecta v. leviter antrorsum inclinata, loculis distinctis; pollinia sectilia, in caudiculas interdum longiusculas producta, anthera dehiscente a glandula parva v. oblonga rostelli pendula, pollinario delapso rostellum 2-fidum relinquentia. Capsula erecta, ovoidea v. oblonga.—Herbæ terrestres, rhizomate repente, caule foliato ascendente v. erecto simplici. Folia petiolata, ovata v. lanceolata, membranacea. Flores parvi nunc minimi, in spica sæpius tenui laxiuscula subsessiles. Labellum sæpius superum interdum tamen ex Blumeo in specie affini inferum est.

Species ad 13, Indiæ orientalis, Archipelagi Malayani, insularum maris Pacifici, Australiæ, Novæ Caledoniæ, et Africæ tropicæ incolæ. *Blume, Orch. Archip. Ind.* 101, *t.* 32 *ad* 35 *et* 56. *Reichb. f. in Trans. Linn. Soc.* xxx. 142; *Otia Hamb.* 52, 109; *in Bonpl.* 1855, 214; 1857, 35; *et in Linnæa* xli. 62.

Genus hinc *Goodyeræ* (*Georchi*) hinc *Mœrenhoutiæ* affine, quoad species nonnullas in speciminibus perfectis ulterius scrutandum. Species parvifloræ labello supero brevissime tantum columnæ adhærente ad *Hetærias* genuinas Blumei pertinent, etsi typum formant generis *Rhamphidii*, Lindl. Huc referendæ *R. tenuis*, Lindl., *R. ovalifolia*, Lindl. (*Goodyera ovalifolia*, Wight, Ic. t. 1730), *R. Gardneri*, Thw. Enum. Pl. Zeyl. 313, *R. rubicunda*, Reichb. f. in Seem. Fl. Vit. 294.

Cerochilus, *Lindl. in Gard. Chron.* 1854, 87, est *Rhamphidia rubens*, Lindl., in Journ. Linn. Soc. i. 182, a Khasya, a *Hetæriis* genuinis differt floribus majoribus, sepalis breviter connatis lateralibus mentum breve formantibus, labelli marginibus usque ad apicem columnæ adnatis, clinandrio alte cupulato anthera semi-immersa.

Rhomboda, *Lindl. in Journ. Linn. Soc.* i. 181, species unica e Sikhim, nobis characteres omnino *Cerochili* præbere videtur.

Rhamphidia alsinæfolia, Lindl., est *Myrmechis gracilis*, Bl.; *R. grandiflora*, Lindl., est *Myrmechis glabra*, Bl. Species utraque tam habitu quam characteribus a *Hetæria* facile distinguitur.

Salacistis, *Reichb. f. Xen. Orch.* i. 214, *t.* 87, species Javensis a nobis non visa, ex icone habitum omnino *Hetæriæ* (*Rhamphidiæ*) ostendit, nec ex charactere et analysi imperfectis generice distinguere possumus, nisi columna paullo longiore.

Rhamphidiæ 3 Novo-Caledonicæ, a Reichb. f. in Linnæa xli. 58 editæ, nobis ignotæ sunt.

255. **Mœrenhoutia,** *Blume, Orch. Archip. Ind.* 99, *t.* 28, 42.—Sepala libera, petaloidea, erecta, subæqualia. Petala sepalis similia nisi angustiora. Labellum (inferum) ad basin columnæ sessile, erectum, latum, concavum, indivisum, apice rotundato emarginatum, marginibus basi cum alis columnæ connatis, facie prope basin medio lamellata. Columna erecta, alis 2 latis petaloideis cum labello connatis apice cum rostello continuis et inter rostellum et antheram appendicibus angustis erectis instructis; stigma sub rostello erecto tenui latum, utrinque acuminatum; clinandrium postice parum elevatum, lateribus cum brachiis alisque columnæ breviter continuis. Anthera erecta, majuscula, lanceolata, loculis distinctis rostelli acumen fere amplectentibus; pollinia tenuiter sectilia, apice attenuata. Capsula oblonga, erecta.—Herba terrestris, rhizomate repente, caule foliato ascendente v. erecto simplici. Folia in parte inferiore caulis conferta, ovata v. lanceolata, in petiolum brevem contracta; vaginæ superiores nonnullæ in laminam angustam productæ. Flores mediocres, in spica laxiuscula subsessiles, erecti. Bracteæ lanceolatæ, flore breviores.

Species typica unica insularum Societatis incola, nam *Notiophrys Commelynæ*, Lindl., eadem videtur ac *Mœrenhoutia plantaginea*, Blume. Speciem tamen alteram ei forte congenerem legit Milne in insula Niviti-Levu. Huic flores minores et labelli ventricosi lamina terminalis parva 2-loba, et *Mœrenhoutiam* connectere videtur cum *Hetæriæ* speciebus labello infero præditis. Verisimiliter genus totum melius notum *Hetæriæ* adjungendum erit.

256. **Platylepis,** *A. Rich. Orch. Iles Fr. et Bourb.* 39, *t.* 6. (Notiophrys, *Lindl. in Journ. Linn. Soc.* i. 189, vi. 138. Diplogastra, *Reichb. f. in Flora*, 1865, 183.)—Sepala subæqualia, angusta, libera sed circa columnam ultra medium in tubum arcte conniventia, lateralia ima basi sub labello in mentum brevissimum connata. Petala angusta, cum sepalo postico in galeam angustam subcohærentia. Labellum ad basin columnæ sessile, erectum, canaliculato-concavum, basi latiuscule ventricosum, marginibus columnæ leviter cohærentibus, lamina parum dilatata, sepalis brevior. Columna elongata, subteres, superne

lineis 2 a rostello decurrentibus notata; stigma in nonnullis speciminibus nullum deteximus, in aliis sub lobis longis erectis lanceolatis acuminatis rostelli latum, crasse papillosum; clinandrium pone rostellum oblongum, erectum. Anthera ad apicem clinandrii erecta, acuminata, rostello æquilonga, loculis discretis; pollen sectile v. laxe granulosum, anthera dehiscente lobis rostelli copiose adhærens. Capsula oblonga, apice breviter contracta, subrostrata.—Herbæ terrestres, rhizomate repente, caule ascendente foliato, habitu specierum majorum *Hetæriæ*. Folia ovata v. ovato-lanceolata, membranacea, in petiolum contracta. Flores angusti, in spica densa glanduloso-pubescente sessiles. Bracteæ ovatæ, ante anthesin imbricatæ.

Species 3 (v. 5?), Africæ tropicæ et australis subtropicæ et insularum Mascarensium incolæ. *Thou, Orch. Iles Afr. t.* 28 (*Goodyera*). *Blume, Orch. Archip. Ind.* 98, *t.* 42. *Moore in Baker, Fl. Maurit.* 339.

Specimina Mascarensia variant foliorum venatione, bracteis, etc. et forte species 2 v. 3 includunt. *Diplogastra angolensis*, Welw., nobis omnino eadem videtur ac *Notiophrys glandulosa*, Lindl. *N. Commelynæ*, Lindl., ex ins. Taiti, est *Mœrenhoutia plantaginea*, Blume. *Platylepis heteromorpha*, Reichb. f. Otia Hamb. 52, ex insula Upola, nobis ignota, est forte species altera *Mœrenhoutiæ*.

257. **Manniella**, *Reichb. f. Otia Hamb.* 109.—Sepala et petala quasi unguiculata, unguibus in tubum cylindraceum circa columnam connatis; laminæ tubo breviores, sepali postici galeata, sepalorum lateralium ovatæ patentes, petalorum intra galeam ovato-lanceolatæ erectæ. Labelli unguis infra apicem tubi breviter liber, supra papillosus, lamina lata, concava, sepala non excedens, marginibus basi utrinque in appendicem lineari-clavatam ungui parallelam productis. Columna elongata, tubo perianthii arcte adnata, apice sub galea breviter libera, lobis seu alis 2 terminalibus erectis latis serrulatis (clinandrii lobis?) instructa; rostellum breve, latum, emarginatum. Anthera inter lobos seu alas columnæ subsessilis, lata, concava, erecta, subincumbens, loculis discretis; pollen laxe granulosum, primum in pollinia 2 (v. 4?) cohærens. Capsula oblonga, erecta, perianthio diu persistente coronata.—Herba elatiuscula, terrestris, rhizomate repente?, fibris radicalibus nonnullis crasse carnosis. Caulis simplex, basi vaginis foliorum inclusus, superne vaginis paucis brevibus absque lamina instructus. Folia subradicalia, longe petiolata, ovata, membranacea. Spica longa, tenuis. Flores parvi, demum dissiti. Bracteæ angustæ flore breviores.

Species 1, Africæ tropicæ occidentalis incola. Genus videtur *Platylepidi* affine, perianthii segmentis in tubum connatis insigne.

258. **Eucosia**, *Blume, Bijdr.* 415, *t.* 18.—Sepalum posticum erectum, cum petalis in galeam cohærens, lateralia libera, demum patentia. Labellum ad basin columnæ sessile, erectum, concavum, angustum, indivisum, ecallosum. Columna brevissima, rostello magno crasso erecto vertice stigmatoso ultra stigma vix acuminato; clinandrium non prominens. Anthera pone rostellum longe stipitata, erecta, longe acuminata, loculis contiguis ad basin æqualiter breviterque 2-valvibus; pollinia sectilia, in caudiculas longas setaceas producta, anthera dehiscente libera, glandula rostelli nulla. Capsula . . .—Herba terrestris facie *Goodyeræ* (*Georchis*), fibris radicalibus fasciculatis, caule basi foliato erecto simplici pubescente. Flores mediocres, in spica laxa pauci, sessiles. Bracteæ angustæ. (*Char. ex ic. et descr. Blumei.*)

Species 1, Javensis, a nobis non visa, et semel tantum a Blumeo lecta. *Blume, Orch. Archip. Ind.* 59, *t.* 12 *b*, 42.

259. **Gymnochilus**, *Blume, Orch. Archip. Ind.* 107, *t.* 32.—Sepala subæqualia, angusta, conniventia, libera v. lateralia basi brevissime connata. Petala angusta, sepalo postico subadhærentia. Labellum ad basin columnæ sessile, erectum, anguste oblongum, concaviusculum, indivisum, nudum, glabrum. Columna brevis, teres, subclavata; stigmata ad basin rostelli longiusculi erecti 2, discreta; clinandrium vix prominens. Anthera sessilis, erecta, oblonga, loculis contiguis distinctis; pollinia sectilia, vix acuminata,

anthera dehiscente glandulæ rostelli ovatæ affixa, pollinario delapso rostellum 2-fidum relinquentia. Capsula parva, ovoidea v. subglobosa, erecta v. subpatens.—Herbæ terrestres, teneræ, rhizomate repente, caule foliato ascendente simplici. Folia petiolata, ovata v. ovato-lanceolata, membranacea. Flores minimi, in spica laxiuscula sessiles. Bracteæ parvæ.

Species 2, ins. Mascarensium incolæ. *Thou. Orch. Iles Afr. tab. syn.* 1, *t.* 29. *Moore in Baker, Fl. Maurit.* 340 (*Goodyera nuda*, Thou.).

Genus *Goodyeræ* affine quidem, sed labello sepalis lateralibus subsimili facile distinctum.

260. ? **Argyrorchis,** *Blume, Orch. Archip. Ind.* 120, *t.* 31, 36 E.—Sepala subæqualia, libera, erecta v. lateralia demum patentia. Petala angusta, sepalo postico cohærentia. Labellum a basi columnæ erectum, angustum, indivisum, petalis omnino simile. Columna brevissima, clavata, antice 2-cristata; stigma sub rostello erecto acuminato 2-pulvinatum; clinandrium elevatum, cum rostelli marginibus in cyathum connatum. Anthera margini clinandrii dorso affixa, semi-immersa, erecta, acuminata; pollinia sectilia, anthera dehiscente a glandula rostelli pendula. Capsula . . .—Herba terrestris habitu *Anœctochili*, rhizomate repente, caule basi foliato ascendente simplici. Folia petiolata, late ovata, discoloria, picta. Flores parvuli, in spica laxa sessiles. Bracteæ parvæ. (*Char. ex ic. et descr. Blumei.*)

Species 1, Javanica, a nobis non visa.

261. **Lecanorchis,** *Blume, Mus. Bot. Lugd. Bat.* ii. 188; *Orch. Archip. Ind.* 176, *t.* 62, 63, 66.—Perianthium ad apicem ovarii urceolo calyciformi dentato cinctum. Sepala libera, subæqualia, erecto-patentia, angusta. Petala sepalis subsimilia. Labellum basi columnæ breviter adnatum, erectum, angustum, columnam amplectens, superne latius, concavum, subpatens, facie pubescente. Columna elongata, semiteres, superne clavata; stigma subrotundum, sub rostello brevi prominulum; clinandrium elevatum. Anthera margini clinandrii affixa, semi-immersa, erecta, loculis distinctis; pollen granulosum. Capsula . . .—Herbæ terrestres, aphyllæ; scapi e rhizomate ramoso erecti, simplices, tenues, vaginis parvis remotis v. prope basin majoribus approximatis. Flores mediocres, in racemo laxo breviter pedicellati v. subsessiles. Bracteæ parvæ. (*Char. ex ic. et descr. Blumei.*)

Species 2, altera Japonica, altera Javensis, a nobis non visæ.

Genus evidenter *Stereosandri* et *Aphyllorchidi* affine, urceolo ovarium coronante more *Epistephii* insigne.

262. **Aphyllorchis,** *Blume, Bijdr. t.* 77, *ex ejusd. Orch. Archip. Ind.* 51, *t.* 13, 17.—Sepala subæqualia, libera, erecta v. demum patentia. Petala sepalis similia nisi angustiora. Labellum ad basin columnæ sessile, subpatens, ungue brevi late 2-auriculato, lamina oblonga, indivisa v. 3-loba. Columna longiuscula, subteres (apice 2-auriculata?), exalata, apoda; stigma sub rostello brevi ovatum, concavum; clinandrium elevatum, cyathiforme v. subfornicatum. Anthera in margine clinandrii brevissime stipitata, ovata, loculis contiguis; pollinia pulvereo-granulosa, anthera dehiscente libera v. rostello affixa. Capsula . . .—Herbæ terrestres, aphyllæ (rhizomate tuberoso v. fibris radicalibus fasciculatis?), scapo simplici vaginis parvis dissitis v. superioribus majoribus approximatis. Flores parvuli, in racemo laxo dissiti subsessiles, v. distincti pedicellati. Bracteæ parvæ.

Species 5?, Indiæ orientalis et Archipelagi Malayani incolæ.

Characteres plures ulterius scrutandi. Speciem typicam a Blumeo illustratam non vidimus, floribus subsessilibus sepalis latiusculis. *A. montana*, Reichb f. in Linnæa xli. 57 (*Apaturia montana*, Thw. Enum. Pl. Zeyl. 301, non. Lindl.), differt floribus bene pedicellatis sepalis angustis. In specie inedita, in Sikkim a Hookero lecta, flores subsessiles, sepalis angustis, floris tamen structuram in specimine nimis compresso haud rite observavimus. *A. Hasseltii*, Blume, e Java, et *A. Spiculæa*, Reichb. f., e Borneo, nobis ignotæ.

263. **Stereosandra,** *Blume, Mus. Bot. Lugd. Bat.* ii. 176; *Orch. Archip. Ind.* 30, *t.* 10, 11.—Sepala libera, subæqualia, erecta, angusta. Petala sepalis conformia. Labellum a basi columnæ erectum, sepalis vix latius, canaliculatum, indivisum, basi 2-glandulosum. Columna brevis, apice vix incrassata; stigma parvum, sub rostello vix prominente; clinandrium vix prominens, dente postico parvo. Anthera in dente clinandrii erecta, oblonga, obtusa, carnosa, solida, loculis ima basi breviter apertis; pollinia oblongo-linearia, pulvereo-granulosa, in caudiculam longam producta, a rostello omnino libera. Capsula oblonga (nutans?).—Herba terrestris, aphylla, scapo e tubere oblongo carnoso erecto simplici, vaginis inferioribus approximatis, superioribus parvis dissitis. Flores mediocres, in racemo laxo breviter pedicellati. Bracteæ breves, angustæ. (*Char. ex Blumeo.*)

Species 1, Javensis, a nobis non visa. Genus ex Blumeo *Epipogo* affine.

264. **Thelymitra,** *Forst. Char. Gen.* 97, *t.* 49.—Perianthium subregulare, patens. Sepala subæqualia, libera. Petala sepalis similia v. interdum paullo latiora. Labellum petalis simile, a columna bene distinctum. Columna brevis, late 2-alata, alis superne cum clinandrio membranaceo-dilatato in cyathum fornicatum v. varie lobatum v. 2-appendiculatum continuis, et basi ante columnam connatis; rostellum erectum, dorso antheram versus sæpius convexum, antice late concavum stigmatosum, ultra stigma breviter productum. Anthera erecta, nunc supra basin margini clinandrii affixa, nunc non longe a basi clinandrii, cucullata, connectivo ultra loculos discretos 2-valves sæpius producto; pollinia pulvereo-granulosa v. rarius fere solida, anthera dehiscente glandulæ terminali rostelli affixa. Capsula erecta, obovoidea v. oblonga, erostris.—Herbæ terrestres, tuberibus ovoideis, caule simplici 1-foliato. Folium lineare lanceolatum v. rarius ovatum, interdum crassiusculum, nec teres. Flores in racemo pedicellati, plures v. interdum subsolitarii. Bracteæ flore breviores.

Species ad 20, quarum una ex Australia per Novam Zelandiam, Novam Caledoniam et Archipelagum Malayanum late dispersa, 3 v. 4 Novæ Zelandiæ propriæ, cæteræ omnes Australianæ. *Benth. Fl. Austral.* vi. 316. *Hook. f. Handb. N. Zeal. Fl.* 270. *Fitzger. Orch. Austral. cum tabb.* 3. *Reichb. f. Xen. Orch. t.* 196, 199.

Genus labello petalis conforme (ab andrœcio omnino discreto) insigne, in sectiones 3 dividitur:—

1. *Cucullaria*, Lindl. Clinandrium cum alis columnæ in cucullam latam apice varie lobatam v. fimbriatam antheram obtegentem productum. Huc pertinent species extra-Australianæ cum pluribus Australianis. *Sm. Exot. Fl. t.* 29. *Hook. f. Fl. Tasm. t.* 103. *A. Rich. Fl. Nouv. Zel. t.* 25. *Berggr. Nya, Nyzeel. Fanerog.* 21, *t.* 5. *Blume, Orch. Archip. Ind. t.* 44, 48.

2. *Macdonaldia.* Clinandrium cum alis columnæ cyathiforme pone antheram productum, ea tamen brevius. Caulis tenuis, flexuosus, 1–2-florus. Species 2, Australianæ. *Hook. f. Fl. Tasm. t.* 101 B, 102 B.

3. *Biaurella*, Lindl. Clinandrium postice breve, columnæ lobi laterales erecti, antheræ æquilongi. Habitus nunc *Cucullariæ*, nunc *Macdonaldiæ*. Species 5, Australianæ. *Hook. f. Fl. Tasm. t.* 101 A, 102 A.

Macdonaldia, *Lindl. Swan Riv. App.* 50, t. 9, includit sectiones *Macdonaldiam* et *Biaurellam.*

265. **Epiblema,** *R. Br. Prod.* 315.—Sepala subæqualia, libera, patentia. Petala sepalis similia. Labellum a columna patens, ungue lobis 2 erectis obovatis subcarnosis breviter connatis appendiculato, lamina ovata, concava, indivisa, facie prope basin appendicibus pluribus seu callis longe linearibus instructa. Columna brevissima, apice in alas 2 erectas petaloideas seu lobos laterales clinandrii producta; rostellum breve, erectum, latum, postice (antheram versus) convexum; stigma latum; clinandrium etiam postice productum. Anthera erecta, margini clinandrii inter lobos affixa, breviter acuminata, loculis discretis; pollinia pulvereo-granulosa, anthera dehiscente glandulæ terminali rostelli affixa. Capsula . . .—Herba terrestris habitu *Thelymitræ* (*Cucullariæ*). Folium longe lineare, vaginis 1–2 superioribus interdum subfoliaceis. Flores 2 ad 5, in racemo brevi pedicellati. Bracteæ breves.

Species 1, Australiæ austro-occidentalis incola, nuperrime etiam in Nova Zelandia a W. L. Traversio detecta. Genus excepto labello *Thalymitræ* nimis affine.

266. **Diuris**, *Sm. in Trans. Linn. Soc.* iv. 222.—Sepalum posticum erectum, latiusculum, basi columnam amplectens, superne patens coloratum, lateralia subherbacea, linearia, sub labello patentia v. deflexa, longe parallela v. decussata. Petala sepalum posticum superantia, ungue longo sæpe subherbaceo, lamina dilatata colorata. Labellum a basi columnæ erectum v. patens, 3-fidum v. 3-partitum. Columna brevissima, rostello longo erecto marginibus membranaceo-dilatatis (seu columnæ alis erectis) antheram subamplectentibus, ultra stigma brevissime producto; stigma latum, faciem anticam (inferam) rostelli obtegens; clinandrium pone rostellum vix prominens. Anthera erecta, obtusa v. acuminata, rostello parallela et brevior v. vix longior; pollinia pulverea sed compacta, anthera dehiscente a glandula rostelli pendula, pollinario delapso rostellum 2-fidum relinquentia. Capsula erecta, obovoidea v. oblongo-turbinata, erostris.—Herbæ terrestres, tuberibus integris lobatisve, caule simplici erecto. Folia pauca, angusta, prope basin caulis, vaginis superioribus paucis. Flores in racemo plures, longiuscule pedicellati v. interdum ad 1–2 reducti, sepalis lateralibus elongatis et petalis prominulis conspicui.

Species ad 15, quoad limites sæpe haud facile definiendæ, omnes Australianæ. *Benth. Fl. Austral.* vi. 324. *Fitzger. Austral. Orch. cum tabb.* 2. *Sm. Exot. Bot. t.* 8, 9, 30. *Hook. f. Fl. Tasm. t.* 104, 105. *Bot. Mag. t.* 3156, 6201.

267. **Orthoceras**, *R. Br. Prod.* 316.—Sepalum posticum erectum, incurvum, fornicatum, lateralia lineari-filiformia, incurvo-erecta. Petala brevia, plana, sessilia. Labellum a basi columnæ suberectum, lobis lateralibus latis, medio majore basi contracto calloso. Columna brevissima, lobis v. brachiis 2 erectis subteretibus ad latera antheræ ea vix brevioribus; rostellum erectum, ovatum, non marginatum, supra stigma latum, concavum, vix productum; clinandrium pone rostellum vix prominens. Anthera erecta v. leviter incurva, rostello paullo longior, loculis contiguis subæqualiter 2-valvibus; pollinia pulvereo-granulosa, anthera dehiscente a glandula rostelli pendula. Capsula oblonga, erecta. —Herba terrestris, glabra, tubere ovoideo, caule foliato simplici. Folia pauca, angusta. Flores majusculi, in spica laxa sessiles subdissiti. Bracteæ longe lineari-acuminatæ, inferiores interdum flores excedentes.

Species 1, Australiæ et Novæ Zelandiæ incola. *Benth. Fl. Austral.* vi. 332. *Hook. f. Handb. N. Zeal. Fl.* 273. *Fitzger. Austral. Orch. cum tab.* 1. *A. Rich. Fl. Nov. Zel. t.* 25 (*Diuris*).

268. **Cryptostylis**, *R. Br. Prod.* 317. (Zosterostylis, *Blume, Bijdr.* 418, *t.* 32.)—Sepala subæqualia, angusta, tenuissima, perianthio aperto convoluto-subulata. Petala sepalis similia. Labellum superum, lata basi sessile, erectum, columnam involvens, sepalis longius, supra columnam contractum, dein in laminam angustam v. latam indivisam expansum. Columna brevissima, rostello erecto lato crasso postice (antheram versus) concavo breviter acuminato; stigma sub rostello crassum; clinandrium nunc brevissimum, nunc membranaceo-dilatatum, marginibus denticulatis cum marginibus rostelli subcontinuis. Anthera in margine clinandrii brevis v. intra clinandrium dilatatum erecta v. antrorsum inclinata, dorso sæpius 2-convexa, obtusa v. acuminata; pollinia pulvereo-granulosa, anthera dehiscente libera v. rostello affixa. Capsula oblonga, erecta, erostris. —Herbæ terrestres, glabræ, fibris radicalibus in rhizomate brevi crassis. Folia pauca v. solitaria, a basi scapi v. e rhizomate e gemma distincta rigide petiolata, oblonga v. angusta, membranacea. Scapus aphyllus, simplex, 2–∞-vaginatus. Flores majusculi, in racemo v. spica laxa breviter pedicellati v. subsessiles. Bracteæ membranaceæ, acutæ.

Species 7, quarum 3 Indiæ orientalis v. Archipelagi Malayani incolæ, cæteræ Australianæ. *Lindl. Gen. et Sp. Orch.* 445, 446. *Benth. Fl. Austral.* vi. 332. *Blume, Orch. Archip Ind.* 132, *t.* 45. *Wight, Ic. t.* 1748. *Bauer, Ill. Orch. Gen. t.* 17, 18. *Labill. Pl. Nov. Holl. t.* 212 (*Malaxis*). *Endl. Iconogr. t.* 17. *Hook. f. Fl. Tasm. t.* 108 A. *Fitzger. Austral. Orch. cum tab.* 1.

269. **Prasophyllum**, *R. Br. Prod.* 317.—Sepalum posticum (inferum) lanceolatum v. latum, concavum, sæpius fornicatum et interdum basi columnæ adnatum, lateralia ei æquilonga v. latiora, libera v. plus minus connata, erecta, falcata. Petala sepalis sæpius

breviora, lanceolata v. linearia. Labellum (superum) ad basin columnæ sessile v. breviter unguiculatum v. apici pedis columnæ affixum, sæpius basi erectum et concavum, superne patens v. recurvum, ovatum v. lanceolatum, indivisum, facie lamina adnata instructum v. medio incrassatum. Columna brevissima, exalata, apice lobis v. brachiis 2 erectis sæpius longis planis ad latera rostelli instructa; rostellum sæpius elongatum, erectum, basi latius, subtus (antice) stigmatosus; clinandrium breve, marginibus cum brachiis columnæ continuis. Anthera pone rostellum erecta, rostello sæpius brevior, loculis distinctis; pollinia pulvereo-granulosa, anthera dehiscente stipiti filiformi v. lineari sæpius longo a glandula rostelli pendulo affixa. Capsula erecta v. subpatens, oblonga oboveidea v. rarius subglobosa, interdum obliqua.—Herbæ terrestres, glabræ, tuberibus ovoideis v. globosis, caule 1-foliato simplici. Folium in vagina longa nunc elongatum teres, nunc ad mucronem brevem reductum. Flores parvi, in spica laxa v. densa sessiles, perianthio supra ovarium sæpius abrupte inflexo. Bracteæ breves.

Species ad 26, 2 Novo-Zelandicæ, 1 Novo-Caledonica a nobis non visa, cæteræ Australianæ, quarum tamen una etiam in Nova Zelandia invenitur. *Benth. Fl. Austral.* vi. 335. *Hook. f. Handb. N. Zeal. Fl.* 272. *Reichb. f. Xen. Orch. t.* 190, 198; *et in Linnæa* xli. 57. *Fitzger. Austral. Orch. cum tabb.* 2.

Genus in sectiones sequentes dividitur:—

1. *Euprasophyllum.* Labellum ad basin columnæ apodæ sessile. *Hook. f. Fl. Tasm. t.* 109 *ad* 112.

2. *Podochilus.* Labellum ad basin columnæ apodæ, supra unguem brevem horizontalem basi obtusum, erectum.

3. *Genoplesium.* Labellum in pede columnæ plus minus producto articulatum. Caulis tenuis, folio fere ad bracteam vaginantem reducto, floribus minimis. *Hook. f. Fl. Tasm. t.* 113. GENOPLESIUM, *R. Br. Prod.* 319.

270. **Microtis,** *R. Br. Prod.* 320.—Sepalum posticum erectum, latum, incurvum, concavum, lateralia lanceolata v. oblonga, libera, patentia v. reflexa. Petala sepalis lateralibus similia v. minora. Labellum ad basin columnæ sessile, patens, oblongum, integrum v. 2-lobum, basi sæpius callosum, ecalcaratum. Columna brevissima, subteres, apice 2-auriculata; stigma sub rostello brevi obtusum; clinandrium parum elevatum, antice cum auriculis columnæ continuum. Anthera margini clinandrii affixa, erecta; pollinia granulosa, libera v. demum in rostello sessilia. Capsula erecta, ovoidea v. breviter oblonga, erostris, sæpius parva, interdum minima.—Herbæ terrestres, glabræ, tuberibus parvis, caule 1-foliato. Folium elongatum, teres, basi breviter apertum et cum vagina clausa continuum. Flores parvi, dense spicati, sæpe patentes v. reflexi. Bracteæ parvæ.

Species nobis notæ 6, omnes Australianæ, quarum una etiam in Nova Zelandia obvia. *Benth. Fl. Austral.* vi. 346. *Hook. f. Handb. N. Zeal. Fl.* 266; *Fl. Tasm. t.* 118. *Endl. Iconogr. t.* 15. *Bot. Mag. t.* 3377, 3378. *Reichb. f. in Bonpl.* 1857, 36, speciem Javanicam addidit, a nobis non visam.

271. **Corysanthes,** *R. Br. Prod.* 328, *et App. Flind. Voy. t.* 10. (Corybas, *Salisb. Parad. Lond. t.* 83, *charactere falso.* Calcearia, *Blume, Bijdr.* 417, *t.* 33. Nematoceras, *Hook. f. Fl. N. Zel.* i. 249, *t.* 57.)—Sepalum posticum erectum, valde incurvum, concavum galeatum v. in stipitem contractum, lateralia libera, parva, linearia v. longe filiformia, patentia. Petala sepalis lateralibus similia v. 0. Labellum sub galea erectum, laxe tubulosum, margine obliquo breviter recurvo denticulato, v. in laminam ample concavam denticulatam v. fimbriatam reflexamque productum. Columna brevis, erecta, apice incrassata, 2-alata v. 2-auriculata; stigma sub rostello brevissimo latiusculum; clinandrium breve v. vix prominulum. Anthera in margine clinandrii erecta, loculorum valva exterior lata interior parva; pollinia oblonga, pulverea, libera v. demum in rostello sessilia. Capsula erecta, ovoidea v. oblonga.—Herbæ terrestres, nanæ, tuberibus parvis, 1-foliatæ, 1-floræ. Folium ovato-cordatum orbiculare v. reniforme. Flos pro planta majusculus,

supra folium sæpe subsessile, pedunculo tamen fructifero plus minus elongato. Bractea parva.

Species ad 15, Australiæ, Novæ Zelandiæ et Archipelagi Malayani incolæ. *Benth. Fl. Austral.* vi. 350. *Hook. f. Handb. N. Zeal. Fl.* 265; *Fl. Tasm. t.* 107. *Blume, Orch. Archip. Ind.* 173, *t.* 63, 64, 66 C. *Endl. Iconogr. t.* 18. *Bot. Mag. t.* 5357. *Hook. Ic. Pl. t.* 1120. *Fitzger. Austral. Orch. cum tabb.* 2. *Reichb. f. Xen. Orch. t.* 197 (*Corybas*).

Labellum in speciebus Javanicis basi 2-gibbum v. brevissime 2-calcaratum, quod in typicis Australianis adhuc non observatur, rostellum etiam evidentius, sed characteres cæteri et habitus in toto genere eidem.

272. **Pterostylis**, *R. Br. Prod.* 326. (Diplodium, *Sw. in Gesellsch. Nat. Fr. Berlin. Mag.* iv. 84, *t.* 3.)—Sepalum posticum erectum, incurvum, concavum, cum petalis galeatum, lateralia basi pedi columnæ adnata, plus minus connata in labium inferius erectum v. recurvum 2-lobum, lobis interdum longe acuminatis v. caudatis. Petala lanceolata, falcata, basi contracta, sub galea adnata. Labellum ad apicem pedis columnæ breviter unguiculatum, mobile, lamina lineari v. oblonga, basi supra unguem in appendicem brevem v. elongatam 2-fidam ciliatam v. penicillatam producta. Columna elongata, incurva, basi in pedem brevem producta, semiteres v. anguste 2-alata, ad latera rostelli utrinque ala quadrangulari v. dolabriformi instructa; stigma infra alas longe oblongum; clinandrium breve, antice sæpe in dentes v. lobos 2 erectos productum. Anthera a margine clinandrii erecta v. incumbens, loculis 2-valvibus, connectivo non producto; pollinia granulosa, libera v. demum in rostello sessilia. Capsula oblonga v. rarius obovoidea, erecta, erostris.—Herbæ terrestres, tuberibus parvis, caule v. scapo florente pauci-foliato v. aphyllo vaginato. Folia radicalia ad basin caulis v. e gemma distincta conferta, subrosulata, ovata, caulina dum adsint linearia v. lanceolata. Flores nunc majusculi solitarii, nunc minores v. parvi, in racemo breviter pedicellati. Bracteæ sæpius parvæ.

Species ad 36, quarum 6 Novo-Zelandicæ, cæteræ omnes Australianæ, ex his tamen una etiam in Nova Zelandia obvia, altera in Nova Caledonia.—*Benth. Fl. Austral.* vi. 352. *Hook. f. Handb. N. Zeal. Fl.* 268. *Fitzger. Austral. Orchid. cum tabb.* 12.

Genus naturale et bene limitatum, in sectiones 2 sequentes commode dividitur:—

1. *Antennæa.* Perianthii labium inferius erectum concavum, lobis v. caudis galeam amplectentibus. *Labill. Pl. Nov. Holl. t.* 210 (*Disperis*). *Guillem. Ic. Pl. Austral. t.* 2, 6. *Hook. f. Fl. Tasm. t.* 114 A, B, 115, 116 (*fig. dextr.*). *Hook. Journ. Bot.* i. *t.* 136. *Bot. Mag. t.* 3085, 3086, 3172, 3400, 3401, 6351. *Reichb. f. Xen. Orch. t.* 187.

2. *Catochilus.* Perianthii labium inferius a basi patens, v. reflexum v. a medio recurvum. Labelli appendix basalis obtusa v. fere obsoleta. *Hook. f. Fl. Tasm. t.* 116, *f.* 1, 2, *t.* 117.

273. **Caleana**, *R. Br. Prod.* 329. (Caleya, *Endl. Iconogr. t.* 8.)—Sepala subæqualia, linearia, posticum (ovario recurvo inferum) erectum, lateralia patentia v. reflexa. Petala sepalis lateralibus similia. Labellum ad basin columnæ v. ad apicem pedis articulatum, ungue lineari incurvo; lamina ovata v. oblonga, peltata, convexa, indivisa, infra medium affixa, supra lævis v. tuberculata. Columna elongata, apoda v. basi in pedem producta, late 2-alata; stigma sub rostello brevi latum; clinandrium postice parum elevatum, marginibus dilatatis cum alis columnæ continuis. Anthera in margine clinandrii erecta, mutica, loculis subdiscretis valvis subæqualibus; pollinia (si rite observata) in loculis 2-partita, granulosa, anthera dehiscente libera v. glandulæ rostelli affixa. Capsula erecta, ovoidea v. obovoidea.—Herbæ terrestres, glabræ, tuberibus parvis, caule 1-foliato sæpeque 1-vaginato. Folium prope basin caulis lineare lanceolatum v. oblongum. Flores 1 ad 2 rarius 4, breviter pedicellati. Bracteæ acutæ.

Species 3, Australiæ extratropicæ incolæ. *Benth. Fl. Austral.* vi. 365. *Hook. f. Fl. Tasm. t.* 107 A. *Fitzger. Austral. Orch. cum tab.* 1.

In *C. majore*, Br., columnæ alæ petaloideæ basi brevissime tantum cum ungue labelli connectuntur; in *C. minore*, Br., et in *C. nigrita*, Lindl., columnæ alæ in pede columnæ continuæ, cyathum latum petaloideum formant; sepala lateralia etiam breviter adnata.

274. **Drakæa,** *Lindl. Swan Riv. App.* 55, *cum ic. xyl.* (Arthrochilus, *F. Muell. Fragm.* i. 42.)—Sepala subæqualia, linearia, posticum erectum, lateralia patentia v. reflexa. Petala sepalis lateralibus similia. Labellum ad basin columnæ v. ad apicem pedis articulatum, mobile, ungue lineari incurvo; lamina angusta, peltata, convexa, infra medium affixa. Columna elongata, apoda v. basi in pedem producta, tenuis, apice v. simul basi et apice utrinque auriculis petaloideis appendiculata, cæterum exalata; stigma sub rostello erecto brevissimo v. longiusculo latum; clinandrium parum elevatum. Anthera in margine clinandrii erectum, muticum, loculis subdiscretis valvis subæqualibus; pollinia (se rite observata) in loculis 2-partita, granulosa, anthera dehiscente libera v. a glandula rostelli pendula. Capsula erecta, obovoidea v. oblonga, erostris.—Herbæ terrestres, glabræ, tuberibus parvis, caule simplici 1-foliato v. sub anthesi aphyllo 1–3-vaginato. Folium dum adest latum, prope basin caulis. Flores in racemo plures, breviter pedicellati, v. in una specie solitarii. Bracteæ parvæ, angustæ.

Species 3, Australianæ. *Benth. Fl. Austral.* vi. 367. *Reichb. f. Xen. Orch. t.* 189.

Spiculæa, *Lindl. Swan Riv. App.* 56, est *D. ciliata,* Reichb. f., quæ a cæteris speciebus columna apoda parum differt, uti *Caleana major* a *C. minore* et *C. nigrita.* Genus cæterum *Caleanæ* valde affine.

275. **Acianthus,** *R. Br. Prod.* 321.—Sepala libera, posticum erectum v. incurvum, concavum, acutum v. tenuiter acuminatum, lateralia patentia, filiformia v. in acumen filiforme producta. Petala sepalis breviora, lanceolata, patentia v. reflexa. Labellum petalis æquilongum, ad basin columnæ sessile v. subsessile, indivisum, læve v. 2-callosum. Columna elongata, semiteres v. 2-alata; stigma sub rostello brevi cavum; clinandrium brevissimum. Anthera erecta, ovata v. subglobosa, connectivo loculis breviore v. in acumen breve producto; pollinia in quoque loculo 4, ovoidea v. globosa, pulverea v. fere solida, appendice laxiore connexa v. fere libera, anthera dehiscente in rostello v. in glandula a rostello soluta sessilia. Capsula erecta, ovoidea v. obovoidea.—Herbæ terrestres, tenues, 1-foliatæ, glabræ, tuberibus parvis. Folium ovato-cordatum, in medio caule v. prope basin subsessile, vaginæ supra folium nullæ. Flores solitarii v. in racemo plures, breviter pedicellati. Bracteæ parvæ.

Species 7, quarum 1 Novo-Zelandica, 2 Novo-Caledonicæ, a nobis non visæ, cæteræ omnes Australiæ orientalis incolæ. *Benth. Fl. Austral.* vi. 369. *Hook. f. Handb. N. Zeal. Fl.* 264; *Fl. Tasm. t.* 119. *Endl. Iconogr. t.* 16. *Hook. Journ. Bot.* i. *t.* 134. *Reichb. f. Xen. Orch. t.* 187; *et in Linnæa* xli. 56. *Fitzger. Austral. Orch. cum tab.* 1.

276. **Eriochilus,** *R. Br. Prod.* 323.—Sepala libera, posticum erectum, subincurvum, concavum, lateralia longiora, patentia, oblonga v. elliptica, in stipitem distinctum contracta. Petala sepalo postico parum breviora, angusta, erecta v. patentia. Labellum sepalis multo brevius, ungue erecto, lobis lateralibus parvis erectis, lobus medius recurvo-patens, convexus, indivisus, facie villosus. Columna erecta, longiuscula, sub stigmate nunc utrinque auriculata v. ciliata, nunc nuda; stigma sub rostello parvo latum, prominens; clinandrium parum prominens. Anthera erecta, loculis contiguis, valvis exterioribus latis interiores occultantibus; pollinia in quoque loculo 2 superposita v. 4, ovoidea v. acuminata, pulverea sed ante dehiscentiam lævia subcerea apparent. Capsula erecta, oblonga, erostris.—Herbæ terrestres, sæpius glanduloso-pubescentes v. villosæ, tuberibus parvis, caule simplici 1-foliato. Folium ad basin caulis v. altius affixum, ovatum v. lanceolatum. Flores solitarii v. pauci, sessiles. Bracteæ parvæ, ovatæ.

Species 5, omnes Australianæ. *Benth. Fl. Austral.* vi. 371. *Labill. Pl. Nov. Holl. t.* 211, *f.* 2 (*Epipactis*). *Endl. Iconogr. t.* 6. *Hook. f. Fl. Tasm. t.* 120 A.

277. **Lyperanthus,** *R. Br. Prod.* 325.—Sepala subæquilonga, libera, posticum erectum, incurvum, latum, concavum, lateralia angusta, erecta v. patentia. Petala sepalis lateralibus similia. Labellum sepalis brevius, ungue lato erecto interdum in lobos laterales dilatato, lobus medius ovatus v. lanceolatus, recurvus, indivisus, facie papillosus. Columna erecta

v. incurva, exalata; stigma sub rostello brevi latum, prominens; clinandrium elevatum, obliquum. Anthera erecta, dorso prope basin margini clinandrii affixa, loculis contiguis; pollinia oblonga, subteretia, pulvereo-granulosa. Capsula erecta, oblonga, erostris.—Herbæ terrestres, siccitate sæpe nigricantes, rhizomate breviter v. longe repente fibras fasciculatas emittente rarius tuberoso, caule foliato simplici. Folia in speciebus normalibus plura v. interdum unicum radicale. Flores mediocres v. majusculi, in racemo pauci, bracteis sæpe subfoliaceis.

Species 4 v. 6, quarum una Novo-Caledonica, altera Novo-Zelandica, cæteræ 2 v. 4 Australianæ. *Benth. Fl. Austral.* vi. 373. *Hook. f. Handb. N. Zeal. Fl.* 270; *Fl. Tasm. t.* 100 B. *Endl. Inconogr. t.* 7. *Fitzger. Austral. Orch. cum tabb.* 2.

L. suaveolens, Br., et *L. serratus*, Lindl., a Reichenbachio et in Fl. Austral. ad *Caladeniam* translati fuerunt ob habitum, sepalum posticum angustum et columnam late alatam, nuper tamen a Fitzgeraldo ad *Lyperanthum* restituuntur. Reichenbach totum genus cum *Caladenia* junxit, in Linnæa xli. 56 sub hoc nomine speciem Novo-Caledonicam descripsit, et nuperrime, in Southern Science Record, 1882, speciem alteram novam cum *L. elliptico*, Br., dubie pro genere novo sub nomine FITZGERALDIA, indicat.

278. **Burnettia,** *Lindl. Gen. et Sp. Orch.* 517.—Sepala subæqualia, libera, erecta v. conniventia, posticum incurvum concavum, lateralia falcata. Petala sepalis lateralibus similia. Labellum a basi columnæ erectum, sessile, concavum, indivisum, superne recurvum, facie medio lamellatum. Columna longiuscula, incurva, 3-alata; stigma sub rostello brevi erecto latum, concavum; clinandrium breve. Anthera in margine clinandrii erecta, basi contracta substipitata, loculis contiguis valvis exterioribus majoribus; pollinia pulvereo-granulosa, anthera dehiscente libera v. dorso rostello affixa. Capsula . . . —Herba humilis, sub anthesi aphylla, sed vaginis 1–2 laxis subfoliaceis instructa. Folium serotinum, in rhizomate petiolatum, ovatum. Flores in scapo simplici 2–3, pedicellati, erecti. Bracteæ laxe vaginatæ.

Species 1, Tasmanica. *Benth. Fl. Austral.* vi. 375. *Hook. f. Fl. Tasm. t.* 107.

Genus valde affine *Caladeniæ*, quacum junxit Reichenbach f., differt habitu, sepalis petalisque conniventibus et labelli laminis.

279. **Cyrtostylis,** *R. Br. Prod.* 322.—Sepala subæquilonga, libera, posticum lineare v. lanceolatum, erectum, incurvum, concavum, lateralia anguste linearia, patentia. Petala sepalis lateralibus similia nisi breviora. Labellum a basi columnæ patens, breviter unguiculatum, planum, indivisum, callis 2 prope basin in lineas elevatas secus faciem productis. Columna elongata, incurva, ad latera stigmatis breviter 2-alata, rostello brevi; clinandrium parum prominens. Anthera erecta, subglobosa, loculis contiguis; pollinia in loculis gemina, plus minus convexa, pulvereo-granulosa, anthera dehiscente libera v. dorso rostello affixa. Capsula erecta, oblonga.—Herbæ terrestres, glabræ, 1-foliatæ, caule simplici tenui. Folium ad basin caulis sessile, latum, sæpius cordatum v. reniforme. Racemus pauciflorus, v. ad florem unicum reductus. Bracteæ breves, latæ.

Species 3, quarum una Australiana, cæteræ Novæ Zelandiæ incolæ. *Benth. Fl. Austral.* vi. 376. *Hook. f. Handb. N. Zeal. Fl.* 264; *Fl. Tasm. t.* 119. *Hook. Journ. Bot.* i. *t.* 135. *Fitzger. Austral. Orch. cum tab.* 1.

280. **Caladenia,** *R. Br. Prod.* 323.—Sepala subæquilonga, libera, posticum erectum, angustum, concavum, lateralia plana, patentia, v. rarius omnia similia patentia. Petala angusta, erecta v. patentia. Labellum a basi columnæ erectum, lobis lateralibus erectis v. obsoletis, medio recurvo-patente indiviso, marginibus sæpe fimbriatis v. dentatis, facie varie callosa v. in una specie lævi. Columna longiuscula, erecta v. incurva, superne plus minus 2-alata; stigma sub rostello brevi latum, prominens: clinandrium parum elevatum. Anthera in margine clinandrii erecta, loculis contiguis valvis exterioribus latis interiores occultantibus connectivo sæpius superatis; pollinia in loculis 2-partita, subplana, pulvereo-

granulosa, anthera dehiscente libera v. dorso rostello affixa. Capsula oblonga, erecta.—Herbæ terrestres, sæpe villosulæ, tuberibus parvis, caule simplici 1-foliato v. in una specie aphyllo. Folium ad basin caulis angustum, vagina scariosa stipatum. Flores pauci, laxe racemosi v. solitarii, sæpius erecti, pedicellati. Bracteæ parvæ.

Species ad 32, quarum 2 Novo-Zelandicæ, *Hook. f. Handb. N. Zeal. Fl.* 267; *Fl. N. Zel. t.* 56 B (excl. *C. bifolia*, ad *Chiloglottidem* referenda), cæteræ omnes Australianæ. *Benth. Fl. Austral.* vi. 376. *Fitzger. Austral. Orch. cum tabb.* 5 (qui species nonnullas in Flora Australiana junctas nunc in vivo melius observatas iterum separat). *Reichb. f. Xen. Orch. t.* 188.

Genus quoad limites quodammodo incertum. Reichenbach f. genera plurima a Lindleyo aliisque distincta in *Caladenia* includit, Fitzgerald *C. suaveolentem* et *C. serratam* ad *Lyperanthum* restituit, et, inter sectiones sequentes, nonnullæ facile pro generibus propriis habendæ :—

1. *Leptoceras*, Br. Sepala acuta v. obtusiuscula, posticum erectum v. incurvum, concavum. Petala erecta, lineari-clavata, sepalis longiora (in cæteris sectionibus sepalis breviora). Species 2. *Hook. f. Fl. Tasm. t.* 121 A. Leptoceras, *Lindl. Gen. et Sp. Orch.* 415.

2. *Phlebochilus*, Benth. Sepala obscure v. distincte acuminata, posticum incurvum, concavum, erectum v. cum columna reflexum. Labellum latum, venis coloratis divergentibus, indivisum v. lobo medio minimo terminatum. Species 3, occidentales.

3. *Calonema*, Lindl. Sepala acuminata, posticum erectum incurvum. Labelli venæ inconspicuæ, callis in facie 2-∞-seriatis. *Hook. f. Fl. Tasm. t.* 121 B, 122 A, B, 123 A. *Fielding, Sert. Pl. t.* 73.

4. *Eucaladenia*, Lindl. Sepala acuta v. obscure acuminata, rarius obtusa, posticum sæpius erectum, concavum. Labelli venæ inconspicuæ, callis in facie 2-∞-seriatis, basi interdum in hemicyclium confertis. *Sm. Exot. Bot. t.* 104 (*Arethusa*). *Endl. Iconogr. t.* 51. *Hook. f. Fl. Tasm. t.* 123 B, 124, 125.

5. *Pentisia*, Lindl. Sepala et petala omnia obtusa, subæqualia, patentia. Labellum et columna brevissima, calli in labello parvi, pluriseriati. Species 2, occidentales.

281. **Glossodia**, *R. Br. Prod.* 325.—Sepala subæqualia, libera, patentia. Petala sepalis subsimilia. Labellum ad basin columnæ sessile, indivisum, facie nudum sed basi callis appendicibusve 2 longiusculis in columnam erectis interdum inter se connatis instructum. Columna erecta, longiuscula, sæpe incurva, 2-alata; stigma sub rostello brevi latum; clinandrium membranaceum, cum alis columnæ continuum. Anthera in margine v. intra marginem clinandrii erecta, loculis contiguis, valvis exterioribus latis, connectivo breviter acuminato; pollinia in loculis 2-partita, subplana, pulvereo-granulosa, anthera dehiscente libera v. dorso rostello affixa. Capsula erecta, oblonga, erostris.—Herbæ terrestres, 1-foliatæ, 1-2-floræ, habitu *Caladeniæ*, tuberibus parvis, caule simplici tenui sæpe piloso. Folium ad basin caulis oblongum v. lanceolatum, vagina scariosa stipatum. Flores erecti, breviter pedicellati, bracteis parvis.

Species 4, Australianæ. *Benth. Fl. Austral.* vi. 391.

Genus *Caladeniæ* (sect. *Pentisiæ*) valde affine, quacum junxit Reichenbach, appendicibus ad basin labelli insigne, in sectiones 2 facile pro generibus distinctis habendas dividitur :—

1. *Euglossodia*, Endl. Gen. Pl. 1367. Labellum basi latum, biconvexum, pubescens. Clinandrium postice parum elevatum, anthera marginali. Species 2, orientales. *Endl. Iconogr. t.* 41. *Hook. f. Fl. Tasm. t.* 120. *Fitzger. Austral. Orch. cum tab.* 1.

2. *Eleutheranthera*, Endl. l. c. Labellum angustum, glabrum. Clinandrium postice valde elevatum, supra antheram intramarginalem fere cucullatum. Species 2, occidentales.

282. **Adenochilus**, *Hook. f. Fl. N. Zel.* i. 246, *t.* 56 A.—Sepala libera, posticum erectum v. antrorsum inclinatum, latum, concavum v. subgaleatum, lateralia sublongiora, lanceolata, patentia. Labellum a basi columnæ erectum; lobi laterales lati, suberecti, medius angustus, recurvo-patens, facie varie callosa. Columna longiuscula, utrinque late alata; stigma sub rostello brevi latum, prominens; clinandrium late membranaceum, integrum v. 2-partitum, marginibus cum alis columnæ continuis. Anthera erecta, latiuscula, loculis contiguis subæqualiter 2-valvibus; pollinia in loculis 4, ovoidea, pulvereo-granulosa. Capsula oblonga, erecta, erostris.—Herbæ terrestres, tenues, 1-foliatæ, 1-floræ, habitu *Caladeniæ*. Folium in medio caule ovatum, amplexicaule; squamæ v. bracteæ

supra folium 2, dissitæ, quarum superior ad basin pedicelli appendiculam lineari-subulatam v. apice leviter dilatatam includit, quæ verisimiliter axeos continuatio, floris alterius rudimentum interdum ferens.

Species 2, altera Novo-Zelandica, *Hook. f. Handb. N. Zeal. Fl.* 265, altera nuper in Australia detecta. *Fitzger. Austral. Orch. cum tab.* 1. *F. Muell. Fragm. Phytogr. Austral.* x. 64.

283. **Chiloglottis**, *R. Br. Prod.* 322.—Sepala libera, posticum erectum, incurvum, concavum, basi contractum, lateralia anguste linearia v. teretia, patentia v. reflexa. Petala lanceolata, falcata. Labellum a basi columnæ brevissime unguiculatum, ovatum v. obovatum, indivisum, facie varie callosum. Columna elongata, alis 2 latis ad apicem columnæ in lobos 2 erectos antheram sæpe æquantes productis; stigma sub rostello brevissimo latum; clinandrium postice breve, marginibus cum alis columnæ continuis. Anthera erecta, sessilis, oblonga, loculis contiguis; pollinia pulverea, in loculis vix divisa, anthera dehiscente libera v. rostello affixa. Capsula erecta, ovoidea v. breviter oblonga, erostris.—Herbæ terrestres, tuberibus parvis. Folia 2, subradicalia. Scapus tenuis, 1-florus, præter bracteam florem subtendentem nudus v. prope basin 1-vaginatus. Flos mediocris, breviter pedicellatus.

Species 6, quarum 2 Novo-Zelandicæ, inclusa *Caladenia bifolia*, Hook. f.; 4 Australianæ. *Benth. Fl. Austral.* vi. 390. *Fitzger. Austral. Orch. cum tab.* 1. *Labill. Pl. Nov. Holl. t.* 211, *f.* 1 (*Epipactis*). *Bauer, Ill. Pl. Nov. Holl. t.* 8. *Hook. f. Fl. Tasm. t.* 108; *Handb. N. Zeal. Fl.* 269.

284. **Calochilus**, *R. Br. Prod.* 320.—Sepala subæqualia, libera, posticum erectum, latiusculum, concavum, lateralia patentia. Petala multo minora, late falcata. Labellum sessile, patens v. pendulum, obovatum v. oblongum, indivisum, sepalis sublongius, facie dense ciliato-fimbriatum. Columna brevis, latiuscule 2-alata; stigma sub rostello brevi erecto latum; clinandrium postice breve, marginibus latioribus cum alis columnæ continuis. Anthera in margine v. intra marginem clinandrii sessilis, incumbens, ovata, apice interdum breviter recurva, loculis contiguis; pollinia pulvereo-granulosa, anthera dehiscente ad latera rostelli margini stigmatis imposita. Capsula erecta, obovoidea v. oblonga, erostris.—Herbæ terrestres, glabræ, tuberibus ovoideis, caule simplici 1-foliato. Folium elongatum, angustum, prope basin caulis, et vaginæ 2 v. 3 supra folium sæpe apice in acumen erectum subfoliaceum productæ. Flores in racemo pauci, breviter pedicellati. Bracteæ parvæ.

Species 3, Australiæ orientalis incolæ, a Muellero in unam junctæ. *Benth. Fl. Austral.* vi. 314. *Endl. Iconogr. t.* 14. *Hook. f. Fl. Tasm. t.* 106 A. *Fitzger. Austral. Orch. cum tab.* 1. *Bot. Mag. t.* 3187.

285. **Arethusa**, *Linn. Gen. n.* 1014.—Sepala subæqualia, incurvo-erecta, angusta, basi cohærentia, lateralia in ovario obliqua, basi sub labello in mentum breve connata. Petala sepalis subsimilia v. paullo latiora. Labellum erectum, angustum, basi cum columna connatum et in calcar descendens brevissime productum, lamina indivisa apice patente, facie sæpius villosa. Columna elongata, erecta, anguste alata, alis superne latioribus cum clinandrio membranaceo-dilatato dentato v. subintegro continuis; stigma sub rostello prominulo transversum, angustum. Anthera intra marginem clinandrii breviter stipitata, incumbens v. fere pendula, obtuse conica, loculis septo imperfecto divisis; pollinia in loculis 2 (v. in unum cohærentia?), laxe tenuiterque granulosa, ecaudata, libera v. demum in rostello sessilia. Capsula longiuscula, maturam non vidimus.—Herbæ terrestres, tubere parvo, scapo florente aphyllo v. 1-foliato paucivaginato uni-pauci-floro. Folium angustum v. folia e gemma distincta 2–3, serotina. Flos v. flores majusculi, erecti v. subnutantes. Bracteæ parvæ.

Species 3, quarum una Japonica, scapo 1-phyllo 1-floro; altera boreali-Americana scapo aphyllo v. rarius vagina una in folium breve producta, 1- rarius 2-floro (*Lindl. Gen. et Sp. Orch.* 426. *Bauer, Illustr. Orch. Fructif. t.* 7. *Hook. Exot. Fl. t.* 170. *Bot. Mag. t.* 2204. *Lodd. Bot. Cab. t.* 1170); tertia Guatemalensis, scapo aphyllo 2-4-floro (CRYBE *Lindl. Introd. Nat. Syst. ed.* 2, 446; *Gen. et Sp.*

Orch. 425. *Bot. Reg. t.* 1872.) Folia serotina in hac e gemma distincta evolvuntur, in duabus prioribus deesse videntur. Characteres florales in omnibus iidem.

286. **Calopogon,** *R. Br. in Ait. Hort. Kew. ed.* 2, v. 204. (Cathea, *Salisb. in Trans. Hort. Soc.* i. 300, *absque char.*)—Sepala libera, subæqualia, patentia. Petala sepalis similia. Labellum (superum), a basi columnæ patens, ascendens, ungue angusto v. lato, lamina dilatata ad apicem unguis barbata. Columna elongata, curvula, superne 2-alata; stigma sub rostello brevi transversum; clinandrium elevatum, integrum, marginibus cum alis continuis. Anthera margini v. paullo infra marginem clinandrii affixa, incumbens, convexa; pollinia in loculis solitaria (v. 2 ?) laxe granulosa, libera v. demum in rostello sessilia. Capsula . . .—Herbæ terrestres, tubere parvo, caule 1- rarissime 2-foliato supra folium esquamato. Folium gramineum. Flores majusculi, in racemo laxo plures, vix pedicellati. Bracteæ parvæ.

Species editæ 4, Americæ borealis incolæ, inter se valde affines. *Lindl. Gen. et Sp. Orch.* 424. *Chapm. Fl. S. U. St.* 456. *Bart. Fl. N. Amer. t.* 68. *Bot. Mag. t.* 116. *Sweet, Brit. Fl. Gard. t.* 115. *Fl. des Serres, t.* 1036.

Specimen Cubense, Wright, n. 3317, a forma communi boreali *C. pulchellæ*, Br., vix differt spica longa floribunda.

287. **Pogonia,** *Juss. Gen. Pl.* 65.—Sepala subæqualia, libera, erecta v. rarius patentia. Petala sepalis similia v. sæpe latiora v. breviora, erecta v. cum labello declinata. Labellum a basi columnæ erectum, liberum, ecalcaratum, nunc sessile lobis lateralibus columnam anguste amplectentibus, nunc in unguem contractum, lamina patente 3-loba v. indivisa, facie sæpius lineis 2 v. 4 callosis instructa. Columna elongata, apice leviter clavata, exalata, rostello brevi; stigma sub rostello oblongum v. latum; clinandrium plus minus elevatum, integrum v. denticulatum. Anthera in margine clinandrii substipitatum, plus minus incumbens, obtuse conica v. semiglobosa, loculis sæpe septo imperfecto semi-2-locellatis; pollinia in loculis solitaria v. in 2 divisa, tenuiter granulosa, ecaudata, libera v. demum in rostello sessilia. Capsula oblonga v. ovoidea, erecta v. (in *Triphoris* nonnullis et in *Nervilia*) pendula.—Herbæ terrestres, rhizomate varie tuberoso. Folia nunc in caule florente coætanea solitaria v. pauca, nunc serotina e gemma solitaria, petiolo basi vagina stipato, lamina lata, scapo florente in eodem tubere e gemma distincta aphyllo paucisquamato. Flores mediocres v. majusculi, solitarii v. in racemo secundi, nutantes v. rarius erecti.

Species ultra 30, in utroque orbe late dispersæ. *Lindl. Gen. et Sp. Orch.* 413. *Blume, Orch. Archip. Ind.* 147. *Reichb. f. Xen. Orch.* ii. 88.

Genus melius characteribus vegetationis quam floralibus in sectiones sequentes dividitur, quæ vix non genera naturalia præbent:—

1. *Nervilia.* Scapi floridi 1–3-vaginati, cæterum aphylli. Folia serotina, e gemma distincta solitaria, petiolo basi vagina stipato, lamina lata sæpe orbiculata v. fere reniformi. Flores sæpius in racemo breviter pedicellati, nutantes, secundi, rarius solitarii v. gemini. Stigma quam in *Eupogonia* brevius latiusque. Species ad 15, omnes gerontogeæ tropicæ v. subtropicæ, ab Africa tropica usque ad Chinam, insulas maris Pacifici et Australiam extensæ. *Blume, Orch. Archip. Ind.* 150, *t.* 10, *f.* 4, *t.* 49, *f.* 2, *t.* 54 B, *t.* 56, 57. *Wight, Ic. t.* 1720, 1758. *Reichb. f. in Trans. Linn. Soc.* xxx. 142; *in Flora* 1865, 184, *et* 1872, 276; *Otia Hamb.* 60; *et Xen. Orch. t.* 126, *f.* 3 *ad* 6. *Bot. Mag. t.* 6125. Nervilia, *Gaud. in Freyc. Voy. Bot.* 422, *t.* 35. Cordyla, *Blume, Bijdr.* 416. Rophostemon, *Bl. Fl. Jav. Præf.* 6. Aplostellis, *Thou. Orch. Iles Afr. t.* 24. Haplostellis, *Endl. Gen. Pl.* 219.

2. *Eupogonia.* Caulis 1-foliatus, 1-bracteatus, 1-florus. Folium angustum v. oblongum. Bractea parva. Flos erectus v. inclinatus. Labellum sessile. Clinandrium sæpius denticulatum. Species 2, boreali-Americanæ, quarum una etiam in Japonia obvia. *Hook. Exot. Fl. t.* 70. *Bot. Reg. t.* 148. *Blume, Orch. Archip. Ind. t.* 32, *et t.* 54 A. *Reichb. f. Xen. Orch. t.* 126, *f.* 1. *P. similis*, Bl. (*P. japonica*, Reichb. f.) ab A. Grayio ad *P. ophioglossoidem* reducitur.

3. *Cleistes.* Caulis elatus, 2–3-foliatus, 2–∞-bracteatus, 2–∞-florus. Bracteæ foliaceæ. Flores maximi, subsessiles, suberecti. Labellum sæpius sessile. Clinandrium (an semper ?) dentatum. Species, ex Reichb. f. (Xen. Orch. ii. 89) 11, Americanæ tropicæ, plures tamen inter se male dis-

tinctæ. *Aubl. Pl. Gui. t.* 321 (*Limodorum*). *Reichb. f. Otia Hamb.* 81. CLEISTES, *L. C. Rich. in Mem. Mus. Par.* iv. 31, *nomen. Lindl. Gen. et Sp. Orch.* 409. *Hook. Ic. Pl. t.* 473.

4. *Triphora.* Caulis 2–3-foliatus, 2–∞-bracteatus, 2–∞-florus. Bracteæ foliaceæ uti folia latæ, sessiles. Flores mediocres, pedicellati, sæpe nutantes. Labellum (an semper?) unguiculatum. Clinandrium parum prominens, integrum. Species ad 8, Americæ borealis et tropicæ incolæ. *Blume, Orch. Archip. Ind. t.* 53, *f.* 3. *Reichb. f. in Ned. Kruidk. Arch.* iv. 321. *Bot. Reg. t.* 908. TRIPHORA, *Nutt. Gen. N. Amer. Pl.* ii. 192.

5. *Codonorchis.* Caulis medio v. supra medium verticillo foliorum 3–6 instructus, 1-florus. Folia lata, subsessilia. Sepala æqualia, patentia, petalis longiora. Species 2, Americanæ extratropicæ, altera borealis, sepalis quam petala multo longioribus linearibus, labello sessili, *Bart. Fl. N. Amer. t.* 67, ISOTRIA et ODONECTIS, *Rafin. in Desv. Journ. Bot.* i. (1808), 220, 221; altera australis, sepalis quam petala parum majoribus, labello unguiculato. *Pœpp. et Endl. Nov. Gen. et Sp. t.* 122. *Brongn. in Duperr. Voy. Coq. Bot. t.* 37, *f.* 1 (*Calopogon*). CODONORCHIS, *Lindl. Gen. et Sp. Orch.* 410. *Hook. f. Fl. Antarct. t.* 125.

DIDYMOPLEXIS, *Griff. in Calc. Journ.* iv. 383, *t.* 17, est verisimiliter *Pogoniæ* (*Nerviliæ*) species, sed specimina nulla adsunt vel in herb. Lindl. vel in aliis herbariis Kewensibus.

288. ? **Pogoniopsis,** *Reichb. f. Otia Hamb.* 82.—Sepala lineari-ligulata, curva, cum petalis subæqualibus conniventia. Labellum ima basi saccatum, lineare, antrorsum dilatatum, ambitu triangulum, in lacinias plures lineares bipectinato-solutum, antice rhombeum, callosum. Columna crassiuscula, 3-gona, utrinque juxta foveam porrecta; clinandrium erectum, vertice apice retusum, erosum. Anthera immersa, vertice emarginata; pollinia (ex ic. Warming) 2, inferne longitudinaliter foveata. Capsula . . .—Genus aphyllum, habitu *Monotropæ*. Radix fasciculata. Caulis crassiusculus, superne densius inferne distanter vaginatus. Racemus densiusculus. Bracteæ oblongo-ligulatæ, ciliato-serratæ, basi sagittatæ. (*Char. ex Reichb. f.*)

Species 1, Brasiliensis, a nobis non visa. Genus affine *Pogoniæ* dicitur. Pollinia auctor ipse non vidit.

289. ? **Chlorosa,** *Blume, Bijdr.* 420, *t.* 31.—Sepala subæqualia, libera, erecto-patentia, angusta, acuminata. Petala sepalis similia nisi minora. Labellum sepalis subsimile, sessile, erectum, columnam amplectens. Columna brevissima, crassa; stigma sub rostello brevissimo faciem columnæ obtegens; clinandrium vix prominens. Anthera sessilis, erecta, ovata, obtusa, loculis discretis; pollen pulvereo-granulosum. Capsula . . .—Herba terrestris v. epiphytica, fibris radicalibus in rhizomate brevi crassis fasciculatis, scapis floridis aphyllis paucivaginatis erectis simplicibus. Folia in rhizomate solitaria, longe petiolata, late ovata, crassiuscula. Flores mediocres v. majusculi, in spica laxa sessiles. Bracteæ angustæ. (*Char. ex ic. et descr. Blumei.*)

Species 1, Javanica, a nobis non visa. *Lindl. Gen. et Sp. Orch.* 452. *Blume, Orch. Archip. Ind.* 134, *t.* 44.

Genus ab auctore cum *Cryptostyle*, Br., comparatum, nobis potius *Pogoniæ* approximandum videtur.

290. **Leucorchis,** *Blume, Mus. Bot. Lugd. Bat.* i. 31. (Apetalon, *Wight, Ic.* v. 22, *t.* 1758. Epiphanes, *Reichb. f. in Seem. Fl. Vit.* 295, *non Bl.*)—Sepalum posticum cum petalis æquilongis in labium superius 3-fidum connatum, lateralia in labium semi-2-fidum plus minus connata, basi cum pede columnæ mentum parvum formantia. Labellum pedi columnæ affixum (articulatum?), latissimum, sepalis vix brevius, indivisum, media facie præsertim prope basin papilloso-callosum. Columna longiuscula, basi in pedem brevem producta, superne anguste 2-alata, apice antice 2-denticulata; stigma sub rostello brevi latiusculum; clinandrium parum elevatum, integrum. Anthera in margine clinandrii brevissime stipitata, late ovata, convexa, inclinata v. subincumbens; pollinia (in loculis 2?) laxe tenuiterque granulosa. Capsula . . .—Herbæ tenues, aphyllæ, rhizomate ramoso tuberifero. Scapi simplices, flexuosi, squamis paucis parvis. Flores parvi, in racemo pauci, breviter pedicellati. Bracteæ parvæ.

Species 2 v. 3, in graminosis Indiæ orientalis, Archipelagi Malayani et insulis maris Pacifici late dispersæ. *Blume, Orch. Archip. Ind.* 146, *cum ic. xyl.* Columnæ pes in icone Wightiana neglectus, certe adest in speciminibus suis.

291. **Gastrodia,** *R. Br. Prod.* 330. (Gamoplexis, *Falcon. in Trans. Linn. Soc.* xx. 293, *t.* 13, *analysi erronea.* Epiphanes, *Blume, Bijdr.* 421, *t.* 4.)—Sepala cum petalis in tubum ventricosum, apice 5-lobum antice breviter v. alte fissum connata, lobis brevibus ovatis æqualibus v. 2 interioribus (petalis) minoribus. Labellum pedi columnæ affixum, sepalis brevius, dorso perianthio breviter v. usque ad fissuram adnatum; lamina erecta, indivisa, media facie lineis 1–2-elevatis subcallosis instructa v. nuda. Columna elongata v. (in *G. Cunninghamii*) brevissima, semiteres v. anguste sub-2-alata, basi in pedem brevem nunc brevissimum producta, rostello parvo; stigma ad basin columnæ plus minus elevatum; clinandrium breve, antice sæpe 2-auriculatum. Anthera margini clinandrii affixa, incumbens, valde convexa v. semiglobosa; pollinia grosse granulosa, ecaudata. Capsula erecta, obovoidea turbinata v. ovoidea.—Herbæ terrestres, aphyllæ, rhizomate in tuber incrassato. Caulis simplex, vaginis laxis brevibus ∞-squamatus. Flores in racemo laxiusculo breviter pedicellati, erecti v. nutantes. Bracteæ breves v. angustæ.

Species 7, Indiæ orientalis, Asiæ occidentalis, Archipelagi Malayani, Australiæ et Novæ Zelandiæ incolæ. *Lindl. Gen. et Sp. Orch.* 384. *Blume, Orch. Archip. Ind.* 140, *t.* 52 *ad* 54. *Benth. Fl. Austral.* vi. 308. *Hook. f. Handb. N. Zeal. Fl.* 263; *Fl. Tasm. t.* 126. *Endl. Iconogr. t.* 5.

Perianthium in *G. sesamoide* antice breviter, in specie Falconeriana (quæ vix a *G. elata*, Bl., differt) usque ad medium, in *G. javanica*, fere ad basin fissum. Labelli forma variabilis est, sed nunquam vidimus petalis simile ut in icone Falconeriana delineatur.

292. **Yoania,** *Maxim. in Bull. Acad. Sc. Petersb.* xviii. 68; *Mel. Biol.* viii. 645.—Sepala carnosa, libera, patentia, oblonga, lateralia subinæquilatera. Petala sepalis paullo breviora, ovata, conniventia. Labellum cum petalis campanulato-connivens, iis æquale, liberum, lata basa sessile, suboblongum, concavum, apice contracto subfornicatum, medio in sacculum brevem excavatum, læve. Columna labello brevior, erecta, plana, quadrata; stigma transversum, profunde excavatum, rostello obsoleto; clinandrii lobus medius triangulari-ovatus, laterales semi-ovati in alas columnam marginantes abeuntes. Anthera lobo medio adnata, persistens, longe rostrata, loculorum facies a margine solutæ; pollinia 4, oblonga, pulposa, sectilia, per bina caudiculis (stipitibus rostelli?) arachnoideo-viscidulis glandulæ affixa, quæ quasi semilunaris margini superiori stigmatis inserta. Capsula . . .—Herba aphylla, caulibus e rhizomate ramoso erectis crassis simplicibus, basi crebre sursum remote vaginis tectus. Flores majusculi, in racemo laxo 4–7, longe pedunculati. (*Char. ex descr. Maxim.*)

Species 1, Japonica, a nobis non nisi iconibus a Maximowiczio communicatis nota. *Benth. in Hook. Ic. Pl. t.* 1364. Genus videtur *Epipogo* affine.

293. **Epipogum,** *Gmel. Fl. Sibir.* i. 11, *t.* 2, *f.* 2. (Epipogium, *Lindl. et auct. plur.*)—Sepala subæqualia, libera, angusta, erecta v. demum patentia. Petala sepalis similia. Labellum ad basin columnæ sessile, ovatum, basi late concavum et in saccum seu calcar breve obtusum productum; lobi laterales auriculiformes v. obsoleti, medius patens, facie 2–4-seriatim papillosus. Columna brevis, apice incrassata, rostello brevi lato; stigma a rostello subdistans, latum, prominens; clinandrium breve v. membranaceo-dilatatum. Anthera marginalis v. intra marginem clinandrii substipitata, incumbens v. suberecta, dorso valde incrassata; pollinia in loculis solitaria, granulosa, anthera dehiscente sæpius stipitibus 2 filiformibus e rostelli glandula affixa. Capsula ovoidea, nutans.—Herbæ aphyllæ, rhizomate nodoso interdum in tuber subintegrum incrassato. Scapus simplex, squamis vaginantibus paucis. Flores in racemo laxo pauci, breviter pedicellati, patentes v. nutantes. Bracteæ floribus breviores.

Species 2, altera typica labello 2-auriculato, clinandrio brevi, per Europam et Asiam temperatam parcissime dispersa, *Lindl. Gen. et Sp. Orch.* 383. *Reichb. Ic. Fl. Germ. t.* 468. *Nees, Gen. Pl. Fl.*

Germ. Monocot. iii. *n.* 23. *Jacq. Fl. Austr. t.* 84. *Barla, Ic. Orch. Alp. Marit. t.* 11. *Bot. Mag. t.* 4821; altera ab Africa et Asia tropica usque ad Australiam extensa, labello integro, clinandrio membranaceo-dilatato. *Lindl. in Journ. Linn. Soc.* i. 176. *Benth. Fl. Austral.* vi. 308. *Reichb. f. in Bonpl.* 1857, 36. GALERA, *Blume, Bijdr.* 415, *t.* 3; *Orch. Archip. Ind.* 139, *t.* 52 *et* 54 E. CERATOPSIS, *Lindl. Gen. et Sp. Orch.* 383. PODANTHERA, *Wight, Ic.* v. 22, *t.* 1759.

294. **Limodorum,** *L. C. Rich. in Mem. Mus. Par.* iv. 50, *non Linn.*—Sepala subæqualia, libera, erecta v. demum patentia, posticum incurvum concavum, lateralia subfalcata. Petala sepalis lateralibus similia nisi minora. Labellum basi cum columna in cyathum latum obliquum connatum, in calcar descendens longe productum, lamina ovata v. oblonga, apice patens, indivisa v. obscure sinuato-3-loba. Columna elongata, semiteres, apoda, rostello breviter ovato-triangulari erecto v. antrorsum inclinato; stigma sub rostello latum; clinandrium vix prominens. Anthera erecta v. leviter inclinata, loculis contiguis imperfecte 2-locellatis; pollinia oblonga, pulvereo-granulosa; anthera dehiscente sæpe in rostello erecta. Capsula majuscula, erecta, oblonga, erostris.—Herba terrestris, erecta, aphylla, rhizomate nodoso fibras subcarnosas emittente. Caulis elatus, vaginis longis plus minus obtectus. Flores majusculi, in spica elongata brevissime pedicellati, erecti, dissiti. Bracteæ membranaceæ, flores interdum subæquantes.

Species 1, per regionem Mediterraneam latissime dispersa, usque ad Europam centralem et Caucasum rarius extensa. *Lindl. Gen. et Sp. Orch.* 398. *Nees, Gen. Fl. Germ. Monoc.* iii. *n.* 22. *Reichb. Ic. Fl. Germ. t.* 481. *Barla, Icon. Orch. Alp. Marit. t.* 1 (*analysi plerumque a Reichb. l.c. repetita*).

295. **Chloræa,** *Lindl. in Quart. Journ. R. Instit.* i. 47.—Sepala libera, nunc subæqualia patentia, nunc posticum erectum incurvum v. fornicatum, lateralia patentia a postico varie difformia. Petala sæpius angusta, sub sepalo postico arcuato-conniventia v. patentia. Labelli unguis sæpius brevissimus interdum 2-callosus, a basi columnæ incurvo-ascendens v. ei rarius breviter adnatus; lamina superne patens, angusta v. lata, integra 3-loba v. fimbriata, facie sæpius ∞-lamellata v. calloso-glandulifera. Columna longiuscula v. mediocris, semiteres, antice sæpius concava interdumque apicem versus anguste 2-alata; stigma sub rostello brevi latum, concavum; clinandrium parum elevatum v. plus minus membranaceo-dilatatum. Anthera in margine clinandrii erecta, ovata v. oblonga, loculis contiguis septo longitudinali imperfecte 2-locellatis; pollinia in loculis sæpius 2-partita, pulvereo-granulosa, oblonga, basi sæpius recurva, anthera dehiscente libera v. rostello basi v. dorso affixa. Capsula erecta, ovoidea v. oblonga, erostris.—Herbæ terrestres, rhizomate brevi non tuberoso, fibris carnosis fasciculatis. Caulis simplex, foliatus. Folia membranacea. Flores mediocres v. majusculi, in spica terminali numerosi, sessiles. Bracteæ membranaceo-scariosæ v. coloratæ, floribus sæpius parum breviores.

Species enumeratæ ultra 80, Americæ australis extratropicæ incolæ, pro maxima parte Chilenses. *Lindl. Gen. et Sp. Orch.* 399. *Reichb. f. Otia Hamb.* 51, *et in Linnæa* xxii. 862, *et* (*sub Asarca*) *ibid.* xxii. 861. *C. Gay, Fl. Chil.* v. 437, *t.* 63 *ad* 65, *et* (*sub Asarca*) *ibid.* 463, *t.* 66. *Philippi in Linnæa* xxix. 46, xxxiii. 240, *et* (*sub Asarca*) *ibid.* xxix. 55. *Pœpp et Endl. Nov. Gen. et Sp. t.* 46 *ad* 50, 52 *ad* 55, *et* (*sub Asarca*) *ibid. t.* 118 *ad* 121. *Brongn. in Duperr. Voy. Coq. Bot. t.* 44. *Bot. Reg.* 1845, *t.* 49. *Maund, Botanist, t.* 94.

ASARCA, *Lindl. in Quart. Journ. R. Instit.* i. 52, primum a *Chloræa* distincta fuit sepalis apice non incrassatis, dein ab auctore ipso in Gen. et Sp. Orch. 406, docente Pœppigio, sepalis magis patentibus, columna breviore et labello ima basi columnæ adnato, sed characteres, ut bene monet C. Gay, Fl. Chil. v. 463, valde incerti sunt et de specie in speciem variant. Pœppig ipse in *Asarca* admisit species columna brevi et columna elongata, et labello basi adhærente v. a basi libero.

BIENERIA, *Reichb. f. in Bot. Zeit.* 1853, 3, *t.* 1, est species Boliviana, *Chloræam* cum *Asarca* arcte connectens, nec generice distinguere possumus.

ULANTHA, *Hook. Bot. Mag.* lvii., *in Indice* (*Neottia grandiflora*, Hook. l. c. t. 2956) est, ex Lindleyo, *Chloreæ* species in Horto Botanico S^{tæ} Vincentis culta, nec in India occidentali indigena.

296. **Bipinnula,** *Juss. Gen. Pl.* 65.—Sepala libera, posticum erectum, integrum, concavum, lateralia angusta, elongata, patentia, apice pinnatim fimbriato-multifida v.

pectinata. Petala sepalo postico similia v. latiora, arcuato-conniventia v. patentia. Labellum a basi columnæ incurvo-ascendens, apice patens, indivisum v. margine fimbriatum. Columna longiuscula, semiteres; stigma sub rostello brevi latum, concavum; clinandrium parum elevatum. Anthera in margine clinandrii erecta, loculis contiguis imperfecte 2-locellatis; pollinia in loculis sub-2-partita, pulvereo-granulosa, oblonga, anthera dehiscente libera v. rostello basi v. dorso affixa. Capsula erecta, longe oblonga.—Herbæ terrestres, foliatæ, habitu et fibris radicalibus *Chloræœ*. Spicæ v. racemi nunc longiusculi multiflori nunc ad florem unicum reducti.

Species 3 v. 4, Americæ australis extratropicæ incolæ. *Lindl. Gen. et Sp. Orch.* 405. *Smith, Ic. Ined. t.* 23 (*Arethusa*). *Pœpp. et Endl. Nov. Gen. et Sp. t.* 51 (*Chloræa*). *Reichb. f. in Bot. Zeit.* 1853, *t.* 1, *et in Linnæa* xli. 51.

297. **Cephalanthera**, *L. C. Rich. in Mem. Mus. Par.* iv. 51.—Sepala libera, subæqualia, conniventia. Petala paullo minora. Labellum a basi columnæ erectum, sepalis inclusum, basi cavum gibbum v. breviter saccato-calcaratum; lobi laterales erecti, columnam amplectentes, medius latus concavus, vix patens. Columna longiuscula, semiteres, facie plana, exalata, rostello ultra marginem stigmatis lati non v. vix prominente; clinandrium postice breviter productum, erectum, concavum. Anthera in margine clinandrii erecta, interdum supra basin affixa, ovata v. semiglobosa, loculis contiguis; pollinia in loculis 2-partita, pulvereo-granulosa, inappendiculata, anthera dehiscente libera v. in stigmatis margini (rostello obsoleto) erecta. Capsula erecta, oblonga, erostris.—Herbæ terrestres, nunc foliatæ fibris radicalibus in rhizomate fasciculatis, nunc aphyllæ rhizomate nodoso. Folia dum adsint lanceolata v. oblonga, nervosa. Flores mediocres v. speciosi, in spica laxa sæpe dissiti, sessiles v. brevissime pedicellati, suberecti. Bracteæ inferiores sæpe foliaceæ flores superantes.

Species ad 10, Europæ, Africæ borealis, Asiæ temperatæ et montanæ et Americæ borealis occidentalis incolæ. *Lindl. Gen. et Sp. Orch.* 411. *Reichb. Ic. Fl. Germ. t.* 469 *ad* 472. *Nees, Gen. Fl. Germ. Monocot.* iii. *n.* 21. *Barla, Ic. Orch. Alp. Marit. t.* 2 *ad* 4. *Sibth. Fl. Gr. t.* 933 (*Epipactis*). *Dcne. in Jacquem. Voy. Bot. t.* 164. *Wight, Ic. t.* 1721.

Icones supra citatæ species typicas indicant foliatas labello ecalcarato. *C. cucullata*, Boiss; Reichb. Ic. Fl. Germ. t. 472, f. 2, ex Oriente, et species 3 Japonicæ, Blume, Orch. Archip. Ind. t. 65, 66; Franch. et Savat. Enum. Pl. Jap. 35 (ubi *C. chloidophylla*, Reichb. f. in Linnæa xxv. 228, omissa est) a cæteris differunt labello basi saccato v. in calcar breve producto, et in *C. cucullata* folia sæpe more *Limodori* omnia ad vaginas membranaceas reducta.

C. oregana, Lindl. in Herb. Kew.; Reichb. f. in Linnæa xli. 53 (*Chloræa oregana*, Nutt. MS.), et *Chloræa Austinæ*, A. Gray, ex America boreali occidentali, sunt species subaphyllæ habitu *C. cucullatæ* sed labelli calcar deest.

C. Thomsoni, Reichb. f. in Linnæa xli. 54, e Sikkim, nobis ignota est.

298. **Epipactis**, *R. Br. in Ait. Hort. Kew.* v. 201, *pro parte*.—Sepala libera, patentia, subæqualia. Petala sepalis vix minora. Labellum ad basin columnæ sessile, latum, concavum, lobi laterales erecti, lamina articulata, patens, lata, indivisa, sæpius undulato-crispa. Columna brevis, antice plana v. concava; stigma sub rostello lato prominente transversum; clinandrium breve. Anthera in margine clinandrii erecta, ovata, parum convexa, loculis contiguis; pollinia (in loculis 2-partita) pulvereo-granulosa, anthera dehiscente libera v. glandulæ rostelli globosæ basi v. dorso affixa. Capsula oblonga, patens v. pendula, erostris.—Herbæ terrestres, foliatæ, rhizomate repente, caule simplici. Folia ovata v. lanceolata, plicato-venosa. Flores mediocres, virescentes v. purpurascentes, in racemo secundo breviter pedicellati, nutantes. Bracteæ herbaceæ, angustæ, inferiores sæpe flores superantes.

Species editæ ad 10, nonnullæ tamen potius *E. latifoliæ* varietates, per Europam Asiam temperatam et montanam et Americam borealem late dispersæ. *Lindl. Gen. et Sp. Orch.* 460. *Reichb. Ic. Fl. Germ. t.* 483 *ad* 488. *Nees, Gen. Fl. Germ. Monocot.* iii. *n.* 20. *Waldst. et Kit. Pl. Rar. Hung. t.* 270. *Barla, Ic. Orch. Alp. Marit. t.* 5 *ad* 8. *Wight, Ic. t.* 1722, 1723. *Blume, Orch. Archip. Ind.* 184, *t.* 64, 66. *Hook. Fl. Bor. Amer. t.* 202.

TRIBUS IV. OPHRYDEÆ.

299. **Orchis,** *Linn. Gen. n.* 1009, *pro parte.*—Sepala libera, subæqualia, patentia v. in galeam conniventia. Petala sepalis subsimilia v. sæpissime minora. Labellum cum columna brevissime connatum, a basi patens v. pendulum, basi in calcar productum, lamina convexa v. concava, plus minus 3-loba v. rarius 4–5-loba. Columna brevissima, vix ultra basin labelli producta, facie lata concava stigmatifera, rostello cupulato v. saccifero; clinandrium erectum, non v. brevissime ultra loculos antheræ productum. Antheræ connectivum a clinandrio non distinctum, loculi adnati prominentes, paralleli, apicibus (inferis) convergentibus; pollinia in quoque loculo grosse granulosa in caudiculam lævem producta, caudiculis anthera dehiscente glandulæ unicæ v. glandulis 2 distinctis intra sacculum unicum rostelli affixis. Capsula oblonga, erecta, erostris.—Herbæ terrestres, rhizomate quotannis tuber novum integrum v. palmato-2-3-fidum formante, tubere annotino demum marcescente. Caulis erectus, simplex, foliis paucis longe vaginatis. Flores mediocres rarius parvi, in spica densa v. laxa sessiles v. in racemo brevissime pedicellati. Bracteæ nunc minimæ, nunc foliaceæ flores subsuperantes.

Species fere 80, Europæ, Asiæ temperatæ et Africæ borealis incolæ, cum 2 boreali-Americanis et 2 ex ins. Mascarensium. *Lindl. Gen. et Sp. Orch.* 258. *Nym. Syll. Fl. Eur.* 355. *Walp. Ann.* i. 793; iii. 574.

Genus apud Linnæum *Ophrydeas* omnes labello 1-calcarato includit, huic fere sententiæ reversi sunt Grenier et Godron, Fl. Fr. iii. 284, sed ab auctoribus recentioribus limitatur ad species quarum glandulæ caudiculorum in sacculo unico rostelli nidulant. Plerique etiam pro speciebus veris eas solas admittunt quibus glandulæ 2 in sacculo unico distinctæ sunt etsi sæpissime arcte contiguæ. Hæ sectionem formant *Euorchidem* et a Lindleyo in subsectiones 2 dividitur, *Androrchis* seu *Mascula*, sepalis lateralibus reflexis v. patentibus et *Herorchis* seu *Militaris* (STRATEUMA, *Salisb. in Trans. Hort. Soc.* i. 290 *absque char.*), sepalis conniventibus galeam referentibus. *Reichb. Ic. Fl. Germ. t.* 362 *ad* 378, 380 *ad* 414, 502 *ad* 512. *Nees, Gen. Fl. Germ. Monocot.* iii. *n.* 35. *Barla, Iconogr. Orch. Alp. Marit. t.* 28 *ad* 50. *Moggr. Fl. Ment. t.* 18, 42, 96. *Brot. Phyt. Lusit. t.* 87 *ad* 92 *Sibth. Fl. Gr. t.* 927, 928. *Hook. Exot. Fl. t.* 69.

Genera sequentia, pleraque monotypica, a variis auctoribus proposita, ab aliis ad sectiones *Orchidis* reducuntur, a qua characteribus lævioris momentu separantur.

TRAUNSTEINERA, *Reichb. Fl. Sax.* 87, *ex Parlat. Fl. Ital.* iii. 415, est *O. globosa*, Linn.; Reichb. Ic. Fl. Germ. t. 381, Barla, Ic. Orch. Alp. Marit. t. 16, ab auctoribus a genere distincta ob polliniorum glandulas more *Habenariæ* nudas nec in sacculo rostelli inclusas. Sacculus tamen in speciminibus siccis examinatis obvius fuit etsi tenerrimus, et etiam delineatus videtur in ic. Barlæi, l. c. t. 16, f. 17. Species tamen *Orchidem* cum *Habenaria* (*Gymnadenia*) arcte connectere videtur.

BARLIA, *Parlat. Fl. Ital.* iii. 445, *Barla, Ic. Orch. Alp. Marit. t.* 25, est *O. longibracteata*, Biv.; Reichb. Ic. Fl. Germ. t. 379, Moggr. Fl. Ment. t. 17, species pulcherrima, petalis basi breviter columnæ adnatis et polliniorum caudiculis glandulæ unicæ indivisæ affixis.

LOROGLOSSUM, *L. C. Rich. in Mem. Mus. Par.* iv. 47 (HIMANTOGLOSSUM, *Spreng. Syst.* iii. 675), ab auctoribus recentioribus reducitur ad *O. hircinam*, Linn. speciebusque 2 ei affinibus, *Reichb. Ic. Fl. Germ. t.* 358 *ad* 360, *Nees, Gen. Fl. Germ. Monocot.* iii. *n.* 32, *Barla, Ic. Orch. Alp. Marit. t.* 24, a Lindleyo ad *Aceratem* relatas, labello longissimo loriformi pendulo breviter v. brevissime calcarato, et polliniorum caudiculis glandulæ unicæ indivisæ affixis.

COMPERIA, *C. Koch in Linnæa* xxii. 287, est *O. Comperiana*, Stev. in Mem. Soc. Imp. Nat. Mosc. vii. 259, *t.* 12, Reichb. Ic. Fl. Germ. t. 510, species distinctissima, grandiflora, sepalis in galeam cohærentibus, labelli lobis 4 in caudas longe filiformes productis. Auctores cum *O. hircina* comparant, cui habitu quodammodo accedit, sed ex Reichb. f. ad *Orchides* veras pertinet (glandulis distinctis?). In flore a nobis examinato pollinia jam delapsa fuerunt.

ANACAMPTIS, *L. C. Rich. in Mem. Mus. Par.* iv. 47, est *O. pyramidalis*, Linn.; Jacq. Fl. Austr. t. 266, Reichb. Ic. Fl. Germ. t. 361, Nees, Gen. Fl. Germ. Monocot. iii. n. 34, Barla, Ic. Orch. Alp. Marit. t. 26, habitu et floribus *Habenariæ* (*Gymnadeniæ*) *conopseæ* similis, sed polliniorum caudiculis glandulæ unicæ in sacculo rostelli inclusæ affixis. Hæc species, cum *O. globosa*, *Orchidem* cum *Gymnadeniis* typicis arcte connectit.

300. **Serapias,** *Linn. Gen. n.* 1012. (Helleborine, *Pers. Syn. Pl.* ii. 512.)—Sepala subæqualia, erecta, in galeam conniventia v. cohærentia. Petala nunc minima nunc sepalis

vix breviora at multo angustiora. Labellum a basi columnæ breviter erectum, dein recurvo-patens, ecalcaratum; lobi laterales latiusculi, breves, erecti, medius linguiformis v. latus, acuminatus, pendulus; discus sæpe vestitus, basi lamina glandulosa simplici v. duplici instructus. Columna brevis, lata, supra stigma contracta, rostello sacculifero; clinandrium erectum, ultra loculos antheræ varie productum. Antheræ connectivum a clinandrio non distinctum; loculi adnati, prominentes, subparalleli, apicibus (inferis) brevibus convergentibus; pollinia in quoque loculo grosse granulosa, caudiculis brevibus anthera dehiscente glandulæ unicæ (v. 2 arcte contiguis?) intra sacculum rostelli affixis. Capsula oblonga, erecta, obtuse costata, erostris.—Herbæ terrestres, habitu *Orchidis*, tuberibus indivisis. Folia angusta. Flores sæpius majusculi, in spica pauci.

Species distinguendæ 4 v. 5, sæpe tamen intermediis v. hybridis connexæ, regionis Mediterraneæ incolæ, una usque ad ins. Azoricas extensa. *Lindl. Gen. et Sp. Orch.* 377. *Nees, Gen. Fl. Germ. Monocot.* iii. *n.* 24. *Reichb. Ic. Fl. Germ. t.* 438 *ad* 442. *Barla, Ic. Orch. Alp. Marit. t.* 17 *ad* 22. *Moggr. Fl. Ment. t.* 16, 94, 95. *Ten. Fl. Nap. t.* 98. *Todaro, Hort. Bot. Pan. t.* 7, 10. *Sibth. Fl. Gr. t.* 931, 932. *Hook. Exot. Fl. t.* 11. *Bot. Mag. t.* 5868, 6255. *Bot. Reg. t.* 1189.

Isias, *Notar. in Mem. Acad. Sc. Torin. ser.* 2, vi. 413, *cum ic.*, est *Serapias triloba*, Viv.; Reichb. Ic. Fl. Germ. t. 438, sepalis demum patentibus, labelli lobis lateralibus latis explanatis, stirps rarissima, in variis locis præsertim in Italia hinc inde cum *S. cordigera* v. *S. longipetala* lecta, quæ ex Gren. et Godr. Fl. Fr. iii. 277 aliisque nonnullis auctoribus est hybrida inter *Serapiam* et *Orchidem laxifloram* v. *O. papilionaceam*, quod tamen ulterius probandum. Cfer. Bot. Mag. t. 6255.

301. **Aceras**, *R. Br. in Ait. Hort. Kew. ed.* 2, v. 191.—Sepala subæqualia, libera, in galeam conniventia. Petala sepalis minora. Labellum a basi columnæ patens v. pendulum, angustum, ecalcaratum, 3-fidum, lobo medio 2-fido. Columna brevissima, lata, facie concava late stigmatosa, rostello brevissimo sacculifero; clinandrium erectum, rotundatum. Antheræ connectivum a clinandrio non distinctum; loculi adnati, prominentes, apicibus (inferis) convergentibus; pollinia in quoque loculo grosse granulosa, caudiculis brevibus, anthera dehiscente glandulæ unicæ intra sacculum rostelli affixis. Capsula erecta, breviter oblonga, costis obtuse prominulis.—Herba terrestris, habitu et tuberibus *Orchidis* integris. Flores parvi, in spica densa v. rarius elongata subsessiles. Bracteæ floribus breviores.

Species 1, Europæ imprimis occidentalis et Africæ borealis incola, in regione Mediterranea usque ad Græciam extensa. *Nees, Gen. Fl. Germ. Monocot.* iii. *n.* 26. *Reichb. Ic. Fl. Germ. t.* 357. *Barla, Ic. Orch. Alp. Marit. t.* 23.

Genus ab *Orchidis* sect. *Loroglosso* floribus parvulis et labello omnino ecalcarato parum distinctum. Lindley, Gen. et Sp. Orch. 282, *Loroglossum* et *Neotineam* in *Acerati* inclusit.

302. **Ophrys**, *Linn. Gen. n.* 1011, *pro parte.* (Arachnites, *F. W. Schmidt, Fl. Boëm.* i. 74, *pro parte.*)—Sepala subæqualia, libera, sæpius concava, patentia. Petala sepalis minora, nunc minima. Labellum cum columna brevissime connatum, patens, ecalcaratum v. (in *O. tabanifera*, Willd.) brevissime gibboso-calcaratum; lamina dependens, sæpius lata sepalisque longior, convexa, marginibus recurvis, integra v. breviter 3-loba, supra sæpius vestita, nunc prope basin 2-callosa v. 2-cornuta. Columna brevis, crassa, rostello 2-sacculato; clinandrium erectum, ultra loculos antheræ in acumen obtusum breve v. varie elongatum productum. Antheræ connectivum a clinandrio non distinctum; loculi distincti, adnati, apicibus (inferis) subparallelis; pollinia in quoque loculo singula, grosse granulosa, caudiculis tenuibus, glandulis intra sacculos rostelli distinctos immersis affixis. Capsula oblonga, erecta, erostris, obtuse costata.—Herbæ terrestres, habitu *Orchidis*, tuberibus indivisis. Flores in racemo v. spica interrupta sæpius dissiti v. pauci, brevissime pedicellati v. sessiles. Bracteæ sæpius herbaceæ, flore breviores.

Species enumeratæ ultra 30, Europæ, Asiæ occidentalis et Africæ borealis incolæ, sed distinctio sæpe valde confusa, labelli forma in pluribus speciebus quam maxime variabili. *Lindl. Gen. et Sp. Orch.* 372. *Nym. Syn. Fl. Eur.* 359. *Walp. Ann.* i. 805; iii. 591. *Parlat. Fl. Ital.* iii. 529. *Nees, Gen. Fl. Germ. Monocot.* iii. *n.* 28. *Reichb. Ic. Fl. Germ. t.* 443 *ad* 465. *Barla, Ic. Orch. Alp.*

Marit. t. 51 *ad* 62. *Moggr. Fl. Ment. t.* 19, 43 *ad* 46, 72. *Brot. Phyt. Lusit. t.* 87, 88, 90, 91. *Sibth. Fl. Gr. t.* 929, 930.

MYODIUM, *Salisb. in Trans. Hort. Soc.* i. 289, est *Ophrys aranifera*, Sm.

303. **Herminium**, *Linn. Gen. ed.* i. 271.—Sepala subæqualia, libera, in galeam conniventia v. lateralia patentia. Petala subsimilia v. minora. Labellum a basi columnæ continuum ei brevissime connatum, patens v. pendulum, angustum, 2–3-fidum v. indivisum, ecalcaratum, planum concavum v. brevissime lateque saccatum. Columna brevissima, stigmatibus utrinque in processus breves productis, apice 2-appendiculata v. nuda, rostello brevi v. medio prominente non (v. obscure ?) sacculato; clinandrium erectum, latum, ultra loculos non productum. Antheræ connectivum a clinandrio non distinctum, loculi adnati, prominentes, paralleli v. apicibus (inferis) divergentibus; pollinia grosse glandulosa, caudiculis brevibus nunc brevissimis non conniventibus, glandulis nudis dissitis. Capsula oblonga, erecta, recta v. torta.—Herbæ tenues v. humiles, tuberibus integris, novello sæpe ab annotino fibra longa separato. Folia pauca, sæpius angusta, nunc solitaria v. fere reniformia. Flores parvi, dense subracemosi v. longe tenuiterque spicati.

Species ad 6, Europæ et Asiæ temperatæ et montanæ incolæ. *Lindl. Gen. et Sp. Orch.* 304. *Reichb. f. in Flora* 1872, 276.

Genus a *Habenaria* uti *Aceras* ab *Orchide* separatur labello ecalcarato. In specie typica, *Reichb. Ic. Fl. Germ. t.* 415, *Nees, Gen. Fl. Germ. Monocot.* iii. *n.* 25, *Barla, Ic. Orch. Alp. Marit. t.* 11 (MONORCHIS, *Ehrh. Beitr.* iv. 147, *nomen*) labellum superum basi subsaccatum et rostellum in processum inter pollinarii glandulas productum. In *H. alpino*, Lindl., Reichb. Ic. Fl. Germ. t. 416 (CHAMORCHIS, *L. C. Rich. in Mem. Mus. Par.* iv. 49, *Barla, Ic. Orch. Alp. Marit. t.* 23; CHAMÆREPES, *Spreng. Syst.* iii. 702, *Nees, Gen. Fl. Germ. Monocot.* iii. *n.* 27), labellum inferum planum, rostellum nudum. Ei generice associanda videtur *Aceras angustifolia*, Lindl., Wight, Ic. t. 1691, Royle, Illustr. Bot. Himal. t. 87 (THISBE, *Falcon. in Lindl. Veg. Kingd.* 183 *c*, *nomen*), spica longa tenui laxa, et ab hac vix v. non specifice differt *A. longicruris*, C. Wright in Mem. Acad. Philad. ser. 2, vi. 411, e Japonia. AOPLA, *Lindl. Bot. Reg. sub t.* 1701; *Orch. Gen. et Sp.* 304, est *H. reniforme*, Lindl., foliis 1–2 ovato-cordatis, floribus fere *H. grandiflori*, Lindl., stigmatis v. rostelli processubus 2 longiusculis iis specierum nonnullarum *Habenariæ* similibus.

H. spirale, Reichb. f. in Bonpl. 1855, 213, ex ins. Bourbon, a nobis non visum, verisimiliter ad *Arnottiam* referendum.

304. **Stenoglottis**, *Lindl. in Comp. Bot. Mag.* ii. 209.—Sepala libera, subæqualia, demum patentia. Petala sepalis similia nisi minora. Labellum a columna patens, angustum, sepalis longius, apice 3-fidum, ecalcaratum. Columna brevissima, stigmate cavo, rostello parum prominente. Anthera cum clinandrio erecta, lata, marginibus incrassatis apice utrinque in tuberculum v. lobum brevem terminatis (staminodiis ad latera clinandrii adnatis, *Hook. f.*), loculis discretis latiusculis adnatis, apicibus (inferis) brevibus; pollinia in loculis singula, grosse granulosa, caudiculis brevissimis dissitis, glandulis nudis. Capsula oblonga, erecta, erostris.—Herba terrestris, tuberibus v. fibris carnosis fasciculatis. Folia ad basin caulis conferta, oblonga. Flores parvuli, in spica tenui dissiti, subsecundi.

Species 1, Africæ australis incola. *Harv. Thes. Cap. t.* 56. *Bot. Mag. t.* 5872.

Genus vix ab *Herminio* distinguendum, a Lindleyo ad florem imperfectum definitum. Rostelli labium inferius elongatum linguiforme deflexum in analysi in herb. Lindl. depictum et in charactere suo descriptum in speciminibus nostris deest, nec in analysi Hookeriana in Bot. Mag. l. c. delineatur, et margines elevati clinandrii seu staminodia a Lindleyo non detecta fuerunt.

Stenoglottis calcarata, Reichb. f. in Flora 1865, 180, postea in Linnæa xli. 54, pro genere (*Barlæa*) distincta, a nobis in *Habenaria* includitur.

305. **Arnottia**, *A. Rich. Orch. Iles Fr. et Bourb.* 33, *t.* 7.—Sepala subæqualia, libera, concava, demum patentia. Petala sepalis angustiora nec longiora. Labellum cum columna continuum, patens, oblongum v. lineare, indivisum, ecalcaratum. Columna brevissima, rostello medio haud prominente, lobis lateralibus brevibus v. longiusculis cum

clinandrio continuis; stigmatis lobi v. stigmata 2 crassiuscula divaricata, ad latera columnæ interdum prominula. Anthera cum clinandrio erecta, lata, truncata v. ad angulos in lobos rostelli producta, loculis crassis v. parvis adnatis, apicibus (inferis) brevissimis v. longioribus lobis rostelli adnatis; pollinia in loculis singula, granulosa, caudiculis brevissimis v. longiusculis dissitis, glandulis nudis. Capsula erecta, oblonga v. fere linearis, erostris.—Herbæ terrestres, habitu *Cynorchidis*, fibris carnosis fasciculatis, interdum in tubera incrassatis. Folia subradicalia, 1 v. 2, oblonga, membranacea. Flores parvuli, in spica laxiuscula sat numerosi. Bracteæ flore breviores.

Species 2, Mauritianæ. *S. Moore in Bak. Fl. Maurit.* 338.

Genus primo aspectu *Cynorchidem* refert, sed characteres potius *Herminii* v. *Stenoglottidis*.

306. **Bartholina,** *R. Br. in Ait. Hort. Kew. ed.* 2, v. 194.—Sepala subæqualia, libera, erecta, angusta, subherbacea. Petala sepalis subæqualia, colorata. Labellum ima basi cum columna connatum, in calcar acutum productum, lamina patente lata longe fimbriato-multifida. Columna sub anthera brevis, rostelli lobo medio brevi reflexo, stigmatibus non productis; clinandrium erectum, longissimum, angustum, concavum, basi cum lobis lateralibus rostelli continuum. Antheræ connectivum a clinandrio non distinctum, loculis subparallelis adnatis, apicibus (inferis) longis usque ad apicem rostelli lobis adnatis; pollinia in loculis solitaria, grosse granulosa, caudiculis longissimis apice in glandulam dilatatis, intra valvas loculorum et lobos rostelli canaliculatos inclusis. Capsula . . .—Herba terrestris, 1-flora, basi 1-phylla. Folium orbiculato-reniforme, auriculis late rotundatis caulem amplectentibus. Flos nutans, lobis labelli filiformibus speciosus.

Species 1, Africæ australis incola. *Ker in Journ. Sc. R. Inst. Lond.* iv. *t.* 6. *Bot. Reg. t.* 1653. *Endl. Iconogr. t.* 40. Species duas a Lindl. Comp. Bot. Mag. ii. 210 ad floris magnitudinem distinctas vix pro varietatibus separare possumus.

307. **Huttonæa,** *Harv. Thes. Cap. t.* 101. (Hallackia, *Harv. l. c. t.* 102.)—Sepalum posticum erectum, unguiculatum, lanceolatum v. ovatum, lateralia majora, lata, obliqua, patentia. Petalorum ungues basi cum ungue sepali connati, longiusculi, lamina concava v. cucullata fimbriata. Labellum sessile, patens, latum, margine subglanduloso-fimbriatum, ecalcaratum. Columna infra rostellum brevissima, vix ulla, stigmate parvo depresso; clinandrium latum, erectum, marginibus basi cum lobis lateralibus rostelli latis complicatis continuum. Antheræ connectivum a clinandrio non distinctum, loculis elevatis adnatis divergentibus, apicibus (inferis) brevibus incurvo-ascendentibus intra lobos rostelli complicatos subinclusis; pollinia in loculis solitaria, grosse granulosa, caudiculis parum elongatis, glandulis intra plicas rostelli plus minus inclusis. Capsula . . .—Herbæ terrestres, foliis paucis latis. Spica laxa, interrupta, floribus mediocribus.

Species 2, Africæ australis incolæ.

Genus ab omnibus distinguitur perianthii structura. *Hallackia* a specie typica parum differt antheræ loculis parallelis v. parum divergentibus, dum in *H. pulchra* apices bene distant, minus tamen recurvi sunt quam in icone delineati.

308. **Holothrix,** *L. C. Rich. in Mem. Mus. Par.* iv. 55 (*nomen*).—Sepala subæqualia, conniventia. Petala sepalis longiora, angusta, integra v. apice 2-∞-fida. Labellum basi columnæ adnatum, erectum, concavum v. a latere convolutum, apice anguste 3-∞-fidum, basi in calcar rectum v. recurvum productum. Columna brevissima, ad latera stigmatis parvi sæpius 2-auriculata; clinandrium erectum, latum, concavum v. fere cucullatum. Antheræ connectivum a clinandrio non distinctum, loculis inclusis distinctis ovoideis adnatis apicibus (inferis) vix productis v. brevibus; pollinia in loculis e granulis grossis in caudiculo brevissimo confertis, glandulis nudis parvis. Capsula ovoidea v. oblonga, erecta.—Herbæ terrestres, habitu fere *Herminii*. Folia ad basin caulis 1–2, sessilia, late ovata v. orbiculato-reniformia. Scapus tenuis, pilis reversis basi v. undique hirsutus. Flores parvi, in spica tenui v. densa secundi, sepalis pilosis v. glabratis; petala et labellum semper glabra.

Species ad 18, quarum 2 Abyssinicæ, cæteræ Africæ australis incolæ. *Lindl. Gen. et Sp. Orch.* 283, et in *Comp. Bot. Mag.* ii. 206. *Sond. in Linnæa* xix. 76. *Reichb. f. in Bonpl.* 1855, 213 (*Deræmeria*). *Benth. in Journ. Linn. Soc.* xviii. 353. *Hook. Ic. Pl. t.* 103.

Genus in integrum servatum nobis naturale videtur et bene limitatum. Sequentia Lindleyana includimus, quorum plurima in speciminibus mancis rite examinare nequivit auctor.

SACCIDIUM, *Lindl. Gen. et Sp. Orch.* 301, e specimine unico notum Burchelliano fructifero floribus emarcidis. Auctor a *Holothrice* distinxit sepalis basi saccatis, nobis tamen non magis cava videntur quam in pluribus aliis speciebus.

MONOTRIS, *Lindl. Gen. et Sp. Orch.* 303, pariter e specimine unico Burchelliano nota, cui sepala plus minus connata, quod tamen in nonnullis aliis speciebus observatum, et planta eadem videtur ac *H. parvifolia* a Lindleyo in herb. Benth. determinata.

BUCCULINA, *Lindl. in Comp. Bot. Mag.* ii. 209, ex exemplare unico Dregeano descripta, a cæteris *Holothricibus* paullulum differt perianthio magis aperto et columnæ auriculis paullo magis evolutis. Cæterum *H. parvifoliæ* similis est.

SCOPULARIA, *Lindl. Bot. Reg. sub t.* 1701, *Gen. et Sp. Orch.* 303, *et in Comp. Bot. Mag.* ii. 207; *Sond. in Linnæa* xix. 79, est species austro-Africana, habitu omnino *Holothricis*, sed petala 2–5-fida, et labelli lobi numerosi, in floribus perfectis breves, in superioribus cujusve spicæ ut videtur sterilibus longe filiformes.

TRYPHIA, *Lindl. Bot. Reg. sub t.* 1701, *Gen. et Sp. Orch.* 333, *et in Comp. Bot. Mag.* ii. 208; *Sond. in Linnæa* xix. 82; *Harv. Thes. Cap. t.* 105, species continet 2 austro-Africanas cum tertia Abyssinica, petalis ex Lindleyo labello adnatis, quod tamen nec in icone Harveiana delineatur, nec in floribus examinatis invenimus. Habitus omnino specierum typicarum.

309. **Bicornella,** *Lindl. Bot. Reg. sub t.* 1701; *Gen. et Sp. Orch.* 334.—Sepala subæquilonga, posticum erectum concavum, lateralia angustiora patentia. Labellum a columna patens, basi in calcar infundibulare productum; lobi laterales breves, marginibus calcaris incumbentes, medius elongatus indivisus. Columna brevissima, stigmate sub rostello cavo processubus nullis; rostelli lobi laterales elongati, lobis labelli plus minus adnati; clinandrium breve, latum, concavum, marginibus cum lobis lateralibus rostelli et labelli continuis. Antheræ connectivum a clinandrio non distinctum, loculis latis adnatis, apicibus (inferis) longis lobis rostelli applicitis horizontalibus parallelis; pollinia in loculis solitaria, grosse granulosa, caudiculis elongatis, glandulis nudis. Capsula obovoidea, erostris.—Herbæ terrestres, tenues, elongatæ, habitu *Habenariæ* specierum parviflorarum. Folia pauca, angusta. Spicæ elongatæ, laxæ, floribus parvis. Bracteæ parvæ.

Species 2, Madagascarienses.

Genus *Habenariæ* (*Platantheræ*) valde affine, differt imprimis lobis lateralibus labelli ad os calcaris lobos laterales rostelli ferentibus, et a Lindleyo pro appendicibus linguiformibus antheræ habitis.

310. **Habenaria,** *Willd. Spec. Pl.* iv. 44. (Sieberia, *Spreng. Anleit. Kenntn. Gewächs.* ii. 282.)—Sepala subæqualia, libera v. ima basi cohærentia, erecto-conniventia v. sæpius lateralia v. omnia patentia. Petala sepalis sæpius minora, sed polymorpha, interdum profunde 2-loba. Labellum cum columna continuum sæpeque brevissime connatum, patens v. pendulum, ima basi breviter v. longe calcaratum, lamina patente v. pendula, angusta v. lata, indivisa v. 3–5-fida, lobis lateralibus interdum pectinato-ciliatis v. fimbriatis. Columna brevissima, apoda, rostello inter loculos antheræ sæpius dente v. lobo brevi erecto aucto; stigma 2-lobum v. stigmata sæpius 2 adnata v. in processus breves nunc brevissimos interdum valde elongatos læves v. papillosos producta; clinandrium erectum, antheræ loculos non excedens, interdum iis brevius. Antheræ connectivum a clinandrio non distinctum, loculis elevatis, interdum latis adnatis, parallelis v. divergentibus, apicibus (inferis) nunc brevissimis adnatis nunc elongatis horizontaliter liberis v. porrectis; pollinia in quoque loculo grosse v. tenuiter granulosa, caudiculis brevibus v. valde elongatis, anthera dehiscente glandulis nudis affixis. Capsula ovoidea v. oblonga, erecta v. incurva, erostris v. in rostrum producta.—Herbæ terrestres, habitu *Orchidis*, tuberibus indivisis v. rarius digitatim lobatis, v. fibræ radicales carnosæ parum incrassatæ. Flores parvi v. magni, in spica sessiles v. in racemo breviter pedicellati bracteis variis.

Species notæ fere 400, per regiones temperatas calidioresque utriusque orbis latissime dispersæ. *Lindl. Gen. et Sp. Orch.* 306; in *Comp. Bot. Mag.* ii. 208. *Reichb. f. in Walp. Ann.* i. 797, iii. 583; *in Bonpl.* 1854, 10; 1855, 213; 1856, 210; 1857, 35; *Xen. Orch.* iii. 17; *Otia Hamb.* 33, 50, 78, 96; *in Flora*, 1865, 178; *in Linnæa* xli. 17, 30, 50, 100; *et in Trans. Linn. Soc.* xxx. 139, *t.* 27.

Genus vastum, quoad columnam genitalium polymorphum, ab auctoribus nonnullis in genera plura divisum, quæ si species paucas tantum respicis distinctissima videntur, sed ob formas numerosas intermedias difficillime limitantur. Characteres etiam in speciminibus siccis male observantur et genus monographo perito sedulo commendatur. Interea catervæ sequentes sectiones plus minus distinctas formant.

1. GYMNADENIA, *R. Br. in Ait. Hort. Kew. ed.* 2, v. 191. Species normales, *G. conopsea*, *G. odoratissima* affinesque, Europeæ v. Asiaticæ temperatæ, tuberibus lobatis, floribus parvulis in spica densa v. elongata numerosis sæpissime purpureis *Orchidibus* nonnullis prope accedunt. Sepala patentia; stigmata in processus non v. vix producta; antheræ loculi fere contigui paralleli ultra rostellum non producti, glandulis pollinarii inter se parum distantibus. *Reichb. f. Ic. Fl. Germ. t.* 419 *ad* 424. *Nees, Gen. Fl. Germ. Monocot.* iii. *n.* 33. *Barla, Ic. Orch. Alp. Marit. t.* 12, 13. His adjungenda NIGRITELLA, *L. C. Rich. in Mem. Mus. Par.* iv. 48; *Nees, Gen. Fl. Germ. Monocot.* iii. *n.* 29; *Reichb. f. Ic. Fl. Germ. t.* 467, species alpina, spica brevi densissima atropurpurea insignis, sed characteres omnino *G. conopseæ* et *G. odoratissimæ* cum quibus formas hybridas (*N. fragrans*, Reichb. Ic. Fl. Germ. t. 466, 513) facillime gignit. L. C. Richard *Nigritellam* distinxit ob polliniorum glandulas sacculis distinctis rostelli more *Ophrydis* inclusas, quod tamen ab auctoribus recentioribus non confirmatur, nec in speciminibus siccis nostris apparet.

Reichb. f. in Otia Hamb. 32, 51, in Flora, 1872, 276, et in Linnæa xli. 51, species 4 Asiaticas *Gymnadeniæ* addidit, a nobis non distincte recognitas.

2. TINEA, *Bivon. in Giorn. Sc. Sicil.* 1833, 149, *ex Guss. Syn. Fl. Sic.* ii. 540, *non Zoolog.* (NEOTINEA, *Reichb. f. Poll. Orch. Comm.* 29, *et in Seem. Journ. Bot.* 1865, 1, *t.* 25), est *H. intacta* (*Aceras intacta*, Reichb. f. Ic. Fl. Germ. t. 500; *A. secundiflora*, Lindl. Bot. Reg. t. 1525) ab auctoribus generibus variis imprimis *Acerati* ascripta, a quo differt labello distincte calcarato, rostello non sacculato, pollinarii glandulis nudis dissitis. A *Gymnadeniis* normalibus parum differt tuberibus indivisis, spica plus minus secunda, sepalis in galeam conniventibus. Stigmata in Journ. Bot. l. c. delineantur crassa divergentia fere in processus extensa, quod vix in speciminibus siccis apparet. Huic speciei in eadem sectione associanda videtur *Gymnadenia cucullata*, Rich., Reichb. f. Ic. Fl. Germ. t. 418.

3. LEUCORCHIS, *E. H. F. Mey. Preuss. Pfl. Gatt.* 50, *non Bl.* (BICCHIA, *Parlat. Fl. Ital.* iii. 396; *Barla, Ic. Orch. Alp. Marit. t.* 11) est *H. albida* Br.; Reichb. f. Ic. Fl. Germ. t. 419, ab auctoribus variis *Gymnadeniæ Peristylo* v. aliis generibus ascripta. Fibræ radicales fasciculatæ, carnosæ, non v. vix in tubera incrassatæ. Flores parvi, flavo-virentes v. albidi, in spica longa conferti. Sepala ut in *Tinea* in galeam conniventia. Labelli calcar breve. Antheræ loculi ut in *Gymnadenia* approximati, paralleli, apicibus brevibus. Species in Europa et Asia late dispersa.

Huic radicibus et colore florum conveniunt *Gymnadeniæ* boreali-Americanæ ab A. Grayio Man. Bot. N. U. St. ed. 5, 499, pro sectione *Habenariæ* admissæ (*Hook. Exot. Fl. t.* 81). Inflorescentia, sepalis patentibus et calcare tenui *Gymnadeniis* Europæis accedunt, processus stigmatici tamen magis evoluti in *H. tridentata* erecti, in *H. nivea* labello appliciti; lobus medius rostelli in utraque specie erectus non stigmatosus.

4. PERULARIA, *Lindl. Bot. Reg. sub t.* 1701, *Gen. et Sp. Orch.* 281; *Reichb. f. Ic. Fl. Germ. t.* 426, 519, species 2 continet, alteram boreali-Americanam, alteram boreali-Asiaticam, quas Reichb. f. pro unius varietatibus admittit. Racemi elongati floribus parvis, cæterum cum *Gymnadeniis* Americanis supra citatis conveniunt rhizomate potius fibras carnosas quam tubera emittente et polliniorum caudiculis brevibus inter se parum distantibus, differunt antheræ loculorum valvis juxta extremitatem caudicularum dilatatis, glandulam demum includentibus. In pluribus speciebus *Habenariæ* glandula valvis inclusa v. semi-inclusa evadit.

5. DERŒMERIA, *Reichb. f. Poll. Orch. Comm.* 29, est *H. aphylla*, Br. (*Peristylus squamatus*, Hochst. in A. Rich. Fl. Abyss. ii. 289) ex Abyssinia (et Arabia ?), species humilis, sub anthesi aphylla, caule dense squamato, spica densa, floribus parvulis, antheræ loculorum valvis juxta extremitatem ut in *Perularia* dilatatis glandulam includentibus. *D. unifolia*, Reichb. f. in Bonpl. 1855, 213, est *Holothricis* species.

6. PERISTYLIS, *Blume, Bijdr.* 404, *t.* 30 (GENNARIA, *Parlat. Fl. Ital.* iii. 404. BENTHAMIA, *A. Rich. Orch. Ins. Fr. et Bourb.* 43, *t.* 7; CYBELE, *Falcon. in Lindl. Veg. Kingd.* 183c, *nomen tantum*),

species includit plures, foliatas, Europeas Asiaticas v. Africanas, parvifloras, spica tenui densa v. elongata. Sepala erecto-patentia v. in galeam conniventia; labelli calcar breve, clavatum globosum v. sacciforme, rarissime acutiusculum; antheræ loculi parum divergentes, apicibus brevibus v. longiusculis. *Lindl. Gen. et Sp. Orch.* 297. *Reichb. Ic. Fl. Germ. t.* 436 (*Platanthera*). *Wight, Ic. t.* 921, 1695 *ad* 1699. *A. Rich. Fl. Abyss. t.* 84, 85. *Hook. Bot. Misc.* i. *t.* 55. *Bot. Mag. t.* 3164, 3397. *Bot. Reg. t.* 1499 (*Herminium*). *Reichb. f. Otia Hamb.* 34; *et in Trans. Linn. Soc.* xxx. 139.

7. Cœloglossum, *Hartm. Scand. Fl. ed.* 4, 283, genus prius ad *H. albidam* et *H. viridem*, Br., constitutum, serius in ed. 10, 204, ad *H. viridem* reductum est. Hæc species in Europa et Asia boreali late dispersa cum affini v. varietate *H. bracteata*, Br., ex America boreali, in *Peristylo* a Lindleyo includitur, ab aliis ad *Platantheram* refertur. Habitus, spica tenuis, flores parvi, et calcar breve *Peristyli*, et sepala pariter in galeam conniventia, sed antheræ loculi late divergentes *Platantheræ*. *Salisb. Parad. Lond. t.* 110 (*Orchis*). *Hook. Exot. Fl. t.* 175. *Sw. Brit. Fl. Gard. t.* 62. *Nees, Gen. Fl. Germ. Monocot.* iii. *n.* 31. *Reichb. Ic. Fl. Germ. t.* 434, 435 (*Platanthera*). Huic affinis etiam videtur *Platanthera satyrioides*, Reichb. Ic. Fl. Germ. t. 437, planta Rossica a nobis non visa.

Cœloglossum, *Lindl. Bot. Reg. sub t.* 1701; *Gen. et Sp. Orch.* 302; *Reichb. f. in Bonpl.* 1856, 321, *et in Linnæa* xli. 54 (Lindblomia, *Fries in Lindbl. Bot. Notis.* 1843, 131, *ex Flora*, 1844, 733), species continet 5 asiaticas parvifloras, *Peristylum* cum *Platanthera* arcte connectentes, calcare in una specie brevi scrotiformi in cæteris tenui. Chæradoplectron, *J. C. Schauer in Pl. Meyen.* 436, *t.* 13 C, est evidenter ex icone *Cœloglossum lacertiferum*, Lindl., ad *Habenariam* translatum in Benth. Fl. Hongk. 362.

8. *Phyllostachya*, Benth., species continet plures Asiaticas tropicas, cum una ex Africa tropica, a variis auctoribus sub *Gymnadenia Platanthera* v. *Habenaria* editas, et a Reichenbachio, Otia Hamb. 32, omnes ad *Gymnadeniam* relatas. Species pleræque inter majores, foliis gradatim in bracteas foliaceas abeuntibus, floribus mediocribus v. majusculis inferioribus axillaribus. Sepala et petala in galeam conniventia. Labelli calcar latum, obtuse conicum v. emarginatum, lamina sæpius ampla. Antherarum loculi parum divergentes, iis tamen *Platantheræ* similiores quam *Gymnadeniæ*. *Wight, Ic. t.* 1692, 1693. *Reichb. f. Xen. Orch. t.* 197. *Bot. Mag. t.* 5875 (*Eulophia*).

His habitu affinis est *Habenaria lutea*, Wight, Ic. t. 919, species Indica, sepalis petalisque latis in globum conniventibus labellum includentibus insignis, cæterum *Habenariis* normalibus conveniens.

9. Platanthera. *L. C. Rich. in Mem. Mus. Par.* iv. 48 (Lysias, *Salisb. in Trans. Hort. Soc.* i. 288), genus ab auctore distinctum stigmate fere ut in *Orchide* in facie columnæ lato concavo absque processubus lateralibus. Hi processus certe in *H. chlorantha* desunt, in *H. bifolia* tamen ei quam maxime affini adsunt breves ut bene indicatur in Darw. Fertil. Orch. 90, 91, et gradationes numerosæ inter illos et processus longos specierum plurimarum *Habenariæ* delineantur ab A. Rich. Ann. Sc. Nat. ser. 2, xv. t. 3 ad 5; genera igitur *Platanthera* et *Habenaria*, qualia ab auctoribus recentioribus distinguuntur, quam maxime artificialia sunt. *Habenaria geniculata* ex Himalaya characteribus cæteris multo magis *Platantheræ fimbriatæ* ex America boreali accedit, quam *H. pectinatæ* et *H. intermediæ*: stigmatis processus in *H. pectinata* et *H. intermedia* longissimi sunt teretesque apice stigmatoso dilatato, dum in *Platanthera Susannæ*, Lindl., habitu iis simili, omnino desunt. Cæterum *Platantheræ* pleræque parvifloræ e regionibus temperatis hemisphærii borealis, sepalis sæpius omnibus patentibus, forte pro sectione distinguendæ a *Habenariis* typicis tropicis sepalo postico erecto galeato lateralibus patentissimis, stigmatis processubus in his quam in illis sæpius nec semper minus evolutis. In utraque sectione calcar sæpius longum. Sub *Platanthera* citantur præter *H. Susannæ* (Sm. Exot. Bot. t. 100, *Orchis*, Wight, Ic. t. 920; Bot. Mag. t. 3374), icones sequentes: *Reichb. Ic. Fl. Germ. t.* 427 *ad* 433. *Nees, Gen. Fl. Germ. Monocot.* iii. *n.* 30. *Barla, Ic. Orch. Alp. Marit. t.* 14, 15. *Hook. Fl. Bor. Amer. t.* 199 *ad* 201. *Pœpp. et Endl. Nov. Gen. et Sp. t.* 75 *ad* 77. *Andr. Bot. Rep. t.* 42. *Hook. Exot. Fl. t.* 87, 95, 135, 145, 224. *Bot. Mag. t.* 1668. *Bot. Reg. t.* 405. *Sweet, Brit. Fl. Gard. ser.* 2, *t.* 73. Confer etiam *Reichb. f. in Linnæa* xxv. 226; *in Bot. Zeit.* 1878, 75.

Mecosa, *Blume, Bijdr.* 403, *t.* 1, a Lindleyo Gen. et Sp. Orch. 290, rite ad *Platantheras* auctorum reducitur.

Centrochilus, *J. C. Schau. in Pl. Meyen.* 435, *t.* 13, videtur *H.* (*Platanthera*) *tipuloides*, Lindl., species in Asia orientali late dispersa, ad *Platantheras* parvifloras pertinens.

H. rotundifolia, Richards (*Platanthera*, Lindl.), ex America boreali, ab A. Grayio in Amer. Journ. Sc. cxiv. 72, ad *Orchidem* restituitur (*O. rotundifolia*, Pursh.), ob polliniorum glandulas sacculo inclusis, quod in speciminibus nuper ab A. Grayio acceptis bene confirmare possumus. Habitu tamen potius *Habenariæ obtusatæ* quam *Orchidi orbiculatæ* accedit.

Gymnadenia spathulata et G. Chusua, Lindl., ex India orientali, species evidenter *H. rotundifoliæ* valde affines, pariter a Reichenbachio ad *Orchidem* referuntur, sed in his sacculum distinctum in speciminibus siccis adhuc invenire nequimus. *G. Pinguicula*, Reichb. f., ex India orientali, est species humilis pauciflora, labelli calcare longo infundibulari insignis, cæterum præcedentibus affinis videtur sed columnæ structuram in speciminibus nostris examinare nequimus.

MITOSTIGMA, *Blume, Mus. Bot. Lugd. Bat.* ii. 189, est species Japonica, jam a Miquelio in Ann. Mus. Lugd. Bat. ii. 207, ad *Gymnadeniam* relata, inter *Habenarias* parvifloras recensenda.

PONERORCHIS, *Reichb. f. in Linnæa* xxv. 227, *Xen. Orch. t.* 8, planta japonica a nobis non visa, ex charactere et icone est verisimiliter *Habenariæ* species inter *Platantheras* parvifloras enumeranda, *P. tipuloidi*, Lindl., valde affinis, nisi ejusdem specimen depauperatum.

10. *Habenariæ typicæ* tropicæ, stigmatis processubus bene evolutis et sæpe longissimis, species numerosas includunt aliis characteribus inter se valde diversas, sed ex speciminibus siccis difficile in subsectiones distinctas separandas. Plurimæ inter grandifloras tam Africanæ quam Asiaticæ *Bonateæ* accedunt, sed rostelli lobus medius parvus v. linearis nec galeatus; parvifloræ nonnullæ, fere æquo jure ad sectiones *Platantheram* v. *Gymnadeniam* pertinent. Nonnullæ petalis bifidis facile ab aliis petalis indivisis separantur, etc. Interea icones sequentes ad *Habenarias* veras referrimus, *Sm. Exot. Bot. t.* 99. *Wight, Ic. t.* 922 *ad* 927, 1694, 1701 *ad* 1715. *Harv. Thes. Cap. t.* 147. *A. Rich. Fl. Abyss. t.* 86 *ad* 88. *Hook. Exot. Fl. t.* 136, 169. *Bot. Mag. t.* 2726, 2947, 2957, 5196. *Bot. Reg. t.* 1858.

DISSORHYNCHIUM, *J. C. Schau. in Pl. Meyen.* 434, *t.* 13, est *Habenariæ* species, inter Asiaticas *Bonateæ* affines enumeranda.

BILABRELLA, *Lindl. Bot. Reg. sub t.* 1701, *in Gen. et Sp. Orch.* 328 ad *Bonateam* reducta, ad species Africanas *Bonateæ* affines pertinet et eadem videtur ac *B. tetrapetala*, Lindl. in Comp. Bot. Mag. ii. 208. *Bonateæ* species novæ. Sond. in Linnæa, xix. 80, omnes ad *Habenariam* referendæ sunt.

ATE, *Lindl. Gen. et Sp. Orch.* 326, *Thw. Enum. Pl. Zeyl.* 309, *Wight, Ic. t.* 928 (*et* 1700?) species 2 Peninsulæ Indiæ orientalis et Zeylaniæ incolæ, a *Habenaria Heyneana* affinibusque parum differt, nisi lobo laterali utrinque ad junctionem labelli cum columna breviter evoluto, quod plus minus observatur in nonnullis aliis speciebus.

BARLÆA, *Reichb. f. in Linnæa* xli. 54 (non *Barlia*, Parl.), est species Africana tropica, parviflora, olim ab auctore ad *Stenoglottidem* relata, nobis *H. attenuatæ*, Hook. f., affinis. Habitu *Tineæ* accedit, sed stigmatis processus 2 paralleli ut in *Habenariis* pluribus typicis anthera ipsa parum breviores sunt.

MACROCENTRUM, *Philippi, Sert. Mendoc.* ii. 42, species Chilensis a nobis non visa, ex charactere dato in omnibus cum *Habenariis* typicis convenit.

SYNMERIA, *Grah. Cat. Pl. Bomb. Addend.* est species e peninsula Indiæ orientalis prius (ibid. 252) sub *Habenaria* descripta, dein pro genere proprio distincta ob petala sepalo postico cohærentia.

MONTOLIVÆA, *Reichb. f. Otia Hamb.* 107, species Abyssinica, nobis ab *Habenaria* (*Peristyli*) parum differre videtur labello prope basin supra umbonato, rostello magis evoluto late obovato supra stigma patente; calcar saccatum breve latumque.

ROEPEROCHARIS, *Reichb. f. Otia Hamb.* 104, ad specimina Abyssinica, *Schimper, n.* 1327 descripta, *Habenariæ* affinis dicitur 'stigmatibus cruribus utrinque, deorsum et sursum porrectis, hinc bicruribus.' Specimina nostra sub eodem numero plurimis notis cum descriptione auctoris conveniunt, sed *Disæ* speciem ostendunt, calcare ad sepalum posticum nec ad labellum pertinente et stigmate more hujus generis ad basin columnæ labello adnato.

311. **Diplomeris,** *Don, Prod. Fl. Nep.* 26. (Diplochilus, *Lindl. Bot. Reg. sub t.* 1499. Paragnathis, *Spreng. Syst.* iii. 675.)—Sepala subæqualia, libera, patentia, lanceolata. Petala sepalis majora, latiora. Labellum a columna patens, sessile, obovato-orbiculatum, indivisum, basi in calcar productum. Columna brevissima, rostello inter antheræ loculos amplo membranaceo-dilatato; stigmatis processus sub rostello in laminam oblongam plus minus connati; clinandrium latum, antheræ loculis brevius. Antheræ connectivum a clinandrio non distinctum; loculis parallelis crassis adnatis, apicibus (inferis) longe incurvo-ascendentibus, lobis lateralibus rostelli applicitis; pollinia in loculis solitaria, granulosa, in caudiculas longissimas producta, glandulis nudis. Capsula . . .—Herbæ humiles, caulibus prope basin 1–3-foliatis 1-floris. Flos amplus, calcare longo. Bractea cucullata.

Species 2, Himalaicæ. *Lindl. Gen. et Sp. Orch.* 330.

Genus characteribus *Bonateæ* accedit, habitu et stigmate diversum.

312. **Bonatea,** *Willd. Spec. Pl.* iv. 43.—Sepala subæqualia, libera, diu in globum conniventia, lateralia demum patentia. Petala angustiora, 2-partita v. rarius indivisa. Labellum basi columnæ adnatum, patens, angustum, 3-lobum, basi in calcar longum productum. Columna brevissima, rostello amplo galeato inter antheræ loculos valde clevato; stigmatis processus 2 sub rostello longi erecti; clinandrium erectum, loculos antheræ non excedens. Antheræ connectivum a clinandrio non distinctum; loculis elevatis latis adnatis, apicibus (inferis) in lobos laterales rostelli longissime recurvo-ascendentibus; pollinia in loculis solitaria, grosse granulosa, caudiculis longissimis recurvo-ascendentibus, glandulis nudis. Capsula erecta, oblonga v. fusiformis, erostris.—Herbæ terrestres, erectæ, validæ, foliosæ, *Habenariis* majoribus habitu similes, tuberibus indivisis. Flores majusculi, in racemo sæpe specioso breviter pedicellati. Bracteæ membranaceæ.

Species nobis notæ 3, forte ad 2 reducendæ, Africæ australis incolæ (*B. speciosa*, Willd., *B. foliosa*, Lindl., et *B. Bottoni*, Harv.). *Bauer, Illustr. Orch. Gen. t.* 12, 13. *Trim. in Journ. Linn. Soc.* ix. 156, *t.* 1. *Harv. Thes. Cap. t.* 88. *Bot. Mag. t.* 2926. Cæteræ omnes a Lindl. Gen. et Sp. Orch. 327, aliisque sub *Bonatea* enumeratæ, rostello inter antheræ loculos lobo parvo v. angusto instructo, ad *Habenariam* revocandæ sunt. Lindley nuperius et interdum Reichenbach f. genus totum ad *Habenariam* reduxit.

313. **Cynorchis,** *Thou. Orch. Iles Afr. in tab. synopt. et t.* 13. (Cynosorchis, *Thou. l. c. t.* 14, 15.)—Sepala subæqualia, concava, demum patentia. Petala sepalis similia v. minora. Labellum cum columna continuum, patens, sepalis longius, explanatum, 3–5-fidum, basi in calcar productum. Columna brevissima, rostello amplo erecto, lobo medio complicato lateralibus non v. vix breviore, stigmate in processus 2 crassos interdum oblongos v. clavatos producto; clinandrium erectum v. leviter reclinatum. Antheræ connectivum a clinandrio non distinctum; loculis crassis adnatis, apicibus (inferis) plus minus elongatis ascendentibus v. erectis lobis lateralibus rostelli applicitis v. adnatis; pollinia in loculis solitaria, grosse granulosa, caudiculis elongatis, glandulis nudis distantibus. Capsula erecta, anguste oblonga v. longe fusiformis, erostris v. breviter rostrata.—Herbæ terrestres, habitu *Habenariæ rotundifoliæ* affiniumque, radicibus fibrosis fasciculatis, tubere plus minus incrassato. Folia ad basin caulis pauca v. solitaria, lata v. rarius angusta. Racemi breves v. rarius elongati, laxiusculi, floribus mediocribus v. parvulis breviter pedicellatis. Bracteæ angustæ.

Species ad 12, ins. Mascarensium et Africæ tropicæ incolæ. *Lindl. Gen. et Sp. Orch.* 330. *Reichb. f. in Bonplandia,* 1855, 213. *A. Rich. Orch. ins. Fr. et Bourb. t.* 5, 6 (*Gymnadenia*, quoad analysin erronea). *Bot. Reg. t.* 1998.

Amphorchis, *Thou. Orch. Iles Afr.* (quoad *A. calcaratam*), est *C. squamata*, Lindl., a Blumeo Mus. Bot. Lugd. Bat. ii. 190, iterum a *Cynorchide* separata. A speciebus typicis differt floribus minoribus, rostelli lobis et antheræ loculorum apicibus brevioribus, lobus medius tamen rostelli more generis laterales æquans et late plicatus. Labellum a Blumeo integrum dicitur sed in *A. calcarata*, Thou., lobi laterales certe adsunt etsi parvi. In *A. occidentali*, Lindl. in Journ. Linn. Soc. vi. 139, ex Africa tropica, ovarium hirsutum est, in *A. calcarata*, Thou., sparse hirsutum v. fere glabrum. *A. laxiflora*, Blume, nobis ignota est.

314. **Habenaria,** *Lindl. Gen. et Sp. Orch.* 296.—Sepala subæquilonga, posticum concavum, lateralia patentia, obliqua. Petala sepalis minora, indivisa. Labellum cum columna continuum, patens, latiusculum, basi in calcar productum. Columna brevissima, rostello inter antheræ loculos valde elevato latiusculo complicato; stigma in processus laterales non productum; clinandrium breve, latum, ultra antheræ loculos non productum. Antheræ connectivum a clinandrio non distinctum; loculis elevatis adnatis divergentibus, apicibus (inferis) in lobis lateralibus rostelli canaliculatis breviter productis; pollinia in loculis solitaria, grosse granulosa, caudiculis longiusculis, glandulis inter se distantibus, intra valvas loculorum et lobos rostelli subinclusis. Capsula . . .—Herbæ habitu *Habenariæ rotundifoliæ* affiniumque, caule basi 1-foliato, racemo paucifloro.

Species 2, Indiæ orientalis incolæ. *Reichb. f. in Trim. Journ. Bot.* 1874, 197; *Otia Hamb.* 38.

Genus a *Habenariis* citatis differt imprimis rostello fere *Bonateæ* nisi angustiore et bene complicato, *Cynorchidi* etiam valde affine sed stigmatis processus nulli et patria longe distat.

315. **Glossula,** *Lindl. Bot. Reg. t.* 862. (Glossaspis, *Spreng. Syst. Veg.* iii. 675.)—Sepala subæqualia, libera, conniventia v. demum patentia. Petala sepalis paullo minora. Labellum cum columna continuum, patens, 3-partitum, lobis angustis elongatis lateralibus filiformibus, basi in calcar vesiciforme productum. Columna brevissima, rostello inter antheræ loculos valde elevato concavo; stigmatis processus laterales oblongi, crassiusculi, apice glandulosi, sub rostello in labellum deflexi (v. ex ic. Lindl. suberecti); clinandrium erectum, latum, loculis antheræ subbrevius. Antheræ connectivum a clinandrio non distinctum; loculis elevatis crassis adnatis, apicibus (inferis) lobis lateralibus concavis rostelli applicitis, glandulis inter se distantibus intra lobos rostelli subinclusis. Capsula erecta, oblonga, erostris.—Herba terrestris, tubere indiviso. Folia ad basin caulis pauca. Spica tenuis, elongata, floribus parvulis subdissitis. Bracteæ angustæ, flore breviores.

Species 1, Chinæ et Cochinchinæ incola.

Genus characteres genitalium fere *Bonateæ* ostendit, cum habitu et perianthio potius *Habenariæ* sect. *Peristylis*, a Reichb. f. in Trans. Linn. Soc. xxx. 139 ad *Habenariam* reducitur.

316. **Satyrium,** *Swartz in K. Vetensk. Acad. Nya Handl. Stockh.* xxi. 214, *non Linn.* (Diplecthrum, *Pers. Syn.* ii. 508.)—Sepala subæqualia, libera, cum petalis subsimilibus a labello aversa, patentissima v. reflexa. Labellum (superum) ad basin columnæ sessile, erectum, latum, concavum galeatum v. cucullatum, indivisum, extus in calcaria 2 descendentia productum v. rarius 2-saccatum. Columna sub labello erecta, brevis v. longiuscula, teres, stigmate specie terminali lato concavo v. 2-labiato labio superiore (rostello) sæpius majore. Anthera cum clinandrio in dorsum columnæ reflexa, loculis adnatis prominentibus distinctis subparallelis apicibus quoad antheram inferis sed anthera reflexa ascendentibus; pollinia in quoque loculo granulosa, in caudiculam demum interdum valde elongatam ob clinandrium reversum ascendentem producta, anthera dehiscente glandulis sæpius majusculis nudis discretis v. rarius in unam connatis affixa. Capsula erecta, oblonga, erostris.—Herbæ terrestres, tuberibus indivisis. Folia in parte inferiore caulis pauca, rarius secus caulem elatum plurima. Spicæ sæpius dense floribundæ, floribus mediocribus v. majusculis rarius parvis. Bracteæ membranaceæ v. subfoliaceæ, interdum in spica juniore imbricatæ, sæpe demum arcte reflexæ, in una specie nana flores subsuperantes.

Species editæ fere 50, Indiæ orientalis, ins. Mascarensium et pro maxima parte Africæ australis et tropicæ incolæ. *Lindl. Gen. et Sp. Orch.* 335. *Reichb. f. in Flora* 1865, 182. *Sond. in Linnæa* xix. 83. *Bauer, Illustr. Orch. Fructif. t.* 12 *ad* 14. *Ker in Journ. Sc. R. Instit.* viii. *t.* 3. *Wight, Ic. Pl. t.* 929, 1716 *ad* 1718. *A. Rich. Fl. Abyss. t.* 89 *ad* 92. *Jacq. Hort. Schœnbr. t.* 179 (*Orchis*). *Andr. Bot. Rep. t.* 315. *Bot. Mag. t.* 1512, 2172, 6625. *Bot. Reg. t.* 416, 703, 1840, *t.* 18. *Lodd. Bot. Cab. t.* 104.

Satyridium, *Lindl. Gen. et Sp. Orch.* 345, *Harv. Thes. Cap. t.* 87, species unica Capensis, a *Satyriis* typicis non differt nisi stigmate solito minore (pariter tamen sub-2-labiato) et polliniorum glandulis in unam connatis.

Aviceps, *Lindl. Gen. et Sp. Orch.* 345, species Capensis, est *Satyrium pumilum,* Thunb., uti jam conjecit Lindley, etsi petala a Thunbergio descripta in speciminibus haud invenit. Est planta pumila, dense foliata, bracteis foliaceis flores subsuperantibus. Flores in speciminibus nostris jam emarcidos examinare nequivimus. Bolus tamen, in Journ. Linn. Soc. xix. 237, specimine meliore nuperrime examinato descriptionem Thunbergii omnino confirmavit, petalis præsentibus sed parvis basi cum sepalis in massam carnosam arcte coalitis.

317. ? **Pachites,** *Lindl. Gen. et Sp. Orch.* 301.—Sepala subæqualia, libera, patentia. Petala sepalis similia nisi paullo minora. Labellum patens, indivisum, ecalcaratum, petalis subsimile. Columna cylindracea, rostello terminata crassissimo carnoso ad utrumque latus auriculato; stigma sub rostello brachiis 2 linearibus erectis appendiculatum. Anthera cum clinandrio in dorsum columnæ reflexum; loculis parallelis adnatis, apicibus inferis sed reversione antheræ erectis brevibus; pollinia . . . Capsula erecta, anguste oblonga, erostris.—Herba terrestris, foliosa, habitu *Disæ* specierum nonnullarum. Folia linearia, erecta. Spica elongata, teres, crassa, floribus parvis numerosis sessilibus. Bracteæ lineares, flores subæquantes.

Species 1, Africæ australis incola, ex specimine unico Burchelliano fructifero floribus jam emarcidis nota, et quoad characteres ulterius probanda.

318. **Disa,** *Berg. Pl. Cap.* 348.—Sepala æquilonga, libera, posticum galeatum, nunc dorso v. basi in calcar polymorphum productum, nunc saccatum umbonatum v. planum, lateralia patentia. Petala nunc sepalis lateralibus similia, nunc minora obliqua v. valde polymorpha. Labellum a basi columnæ patens, ecalcaratum, sepalis sæpius minus et sessile, v. interdum longe unguiculatum, lamina indivisa sub-3-loba v. lacero-fimbriata. Columna brevis, crassiuscula; rostelli lobi laterales erecti v. apice supra glandulas recurvi, medius parvus; stigma ad basin columnæ a rostello distans, carnosum pulvinatum v. elevato-cupulatum, plus minus basi labelli adnatum, integrum. Anthera cum clinandrio suberecta reclinata v. in dorsum columnæ reflexa, loculis elevatis parallelis adnatis, apicibus (inferis) extremitate reverso-erectis v. ascendentibus interdum longiusculis, lobis lateralibus rostelli applicitis; pollinia in loculis solitaria, laxe granulosa, caudiculis sæpius elongatis, glandulis 2 nudis discretis affixa. Capsula oblonga, angusta v. fere linearis, erecta.—Herbæ terrestres, habitu *Habenariæ*, tuberibus indivisis, caule nunc elato folioso, nunc tenui paucifolio v. foliis ad squamas vaginantes reductis. Flores in una specie maximi solitarii v. gemini, in aliis majusculis v. mediocribus laxe spicati v. racemosi, nunc parvi dense longeque spicati v. interdum fere in corymbum conferti v. ad 1 v. 2 reducti. Bracteæ sæpius floribus breviores.

Species ad 50, Africæ tropicæ et australis et ins. Mascarensium incolæ. *Lindl. Gen. et Sp. Orch.* 346, *et in Hook. Lond. Journ.* i. 15. *Sond. in Linnæa* xix. 89. *Reichb. f. in Flora* 1865, 181; *in Linnæa* xx. 688; *Otia Hamb.* 105. *Bauer, Illustr. Orch. Gen. t.* 14. *Ker in Journ. Sc. R. Inst. Lond.* iv. *t.* 6, v. *t.* 1. *Lindl. Sert. Orch. t.* 49. *Harv. Thes. Cap. t.* 41, 84 *ad* 86. *A. Rich. Fl. Abyss. t.* 93, 94. *Hook. Ic. Pl. t.* 214. *Bot. Mag. t.* 4073, 4091, 6529, 6532. *Bot. Reg. t.* 324, 926.

Genus quoad habitum, petalorum et labelli formam, et antheram suberectam v. magis minusve reflexam polymorphum, a Lindleyo et Reichenbachio in sectiones 12 divisum quarum tamen aliæ monotypicæ potius species quam sectiones, aliæ characteribus valde incertis definitæ v. quam maxime artificiales. *Trichochila* tamen distinguitur foliis ad basin caulis confertis gramineis fere filiformibus et labello nunc sessili nunc longissime unguiculato sæpius dentato v. lacero-fimbriato; et *Disella* floribus parvis dense spicatis. De columnæ structura cfr. Bolus in Journ. Linn. Soc. xix. 233, qui rite *D. barbatam*, Sw., ad *Herscheliam* refert.

Penthea, *Lindl. Introd. Nat. Syst. ed.* 2, 446; *Gen. et Sp. Orch.* 360; *et in Journ. Linn. Soc.* vi. 138, *Sond. in Linnæa*, xix. 104, species 7 v. 8, Africæ occidentalis australis v. tropicæ continet, a *Disa* separatas ob sepalum posticum omnino ecalcaratum, sed ex Harv. Thes. Cap. i. 53, species intermediæ occurrunt, et *Penthea* cum *Disa* jungenda, quod confirmat Bolus.

319. **Herschelia,** *Lindl. Gen. et Sp. Orch.* 362.—Sepala subæquilonga, libera, posticum late galeatum, basi in calcar breve basi conicum productum, lateralia ovata v. oblonga, plana, patentia. Petala minora, in acumen obliquum varie curvum producta. Labellum a basi columnæ patens, ecalcaratum, sessile, integrum v. fimbriatum. Columna brevis, crassiuscula; rostelli lobi 3 angusti erecti, laterales incurvi cum medio æquilongo recto glandulam includentes; stigma ad basin columnæ transverse adnatum, a rostello distans, carnosum, pulvinatum, distincte didymum. Anthera cum clinandrio erecta v. leviter reclinata; loculis elevatis parallelis, apicibus (inferis) brevibus; pollinia in loculis solitaria, subglobosa, laxe granulosa, caudiculis brevibus glandulæ unicæ integræ affixa. Capsula anguste oblonga v. subclavata, erecta.—Herbæ terrestres *Disis* e sectione *Trichochila* simillimæ. Tubera indivisa. Folia radicalia longa, anguste linearia, fere filiformia, caulina ad squamas vaginantes reducta. Flores mediocres, laxe spicati.

Species 2, Africæ australis incolæ. *Bolus in Journ. Linn. Soc.* xix. 234; *H. cœlestis*, Lindl. (*Disa graminifolia*, Swartz; Ker in Journ. Sc. R. Inst. Lond. vi. t. 1, f. 2) et *H. barbata*, Bolus (*Disa barbata*, Swartz, Lindl. Gen. et Sp. Orch. 354) cujus forte varietates sunt *Disa lacera*, Sw., et *D. multifida*, Lindl.

320. **Monadenia,** *Lindl. Gen. et Sp. Orch.* 356.—Sepala æquilonga, libera, posticum erectum, subincurvum, galeatum, basi in calcar descendens productum, lateralia patentia.

Petala erecta, angusta, subfalcata, sæpe carnosula. Labellum a basi columnæ patens, angustum, carnosum, indivisum, ecalcaratum. Columna brevissima, rostello (an semper?) amplo membranaceo subplicato vix lobato; stigma sub rostello ad basin labelli crassum, carnosum, pulvinatum. Anthera cum clinandrio reclinata, lata, loculis elevatis adnatis, apicibus (inferis) horizontalibus v. ascendentibus convergentibus; pollinia in loculis solitaria, grosse granulosa, caudiculis longiusculis post dehiscentiam glandulæ unicæ (duabus connatis?) affixis. Capsula erecta, oblonga v. angusta.—Herbæ terrestres, foliatæ, tuberibus indivisis, habitu *Disæ* specierum nonnullarum. Folia angusta. Flores parvuli v. mediocres, in spica sæpius densa subsessiles. Bracteæ membranaceæ, flores sæpe æquantes.

Species ad 12, Africæ australis incolæ. *Lindl. l. c. Sond. in Linnæa* xix. 100. *Bot. Reg. t.* 210 (*Disa*). Genus *Disæ* valde affine, differt rostello amplo, pollinarii glandulis in unam concretis et quodammodo perianthii forma sed characteres in vivo ulterius probandi. Bolus tamen pro genere distincto admittit.

321. **Schizodium,** *Lindl. Gen. et Sp. Orch.* 358.—Sepala subæquilonga, posticum erectum, concavum v. galeatum, basi in calcar descendens productum, lateralia libera, patentia. Petala erecta v. patentia, angusta, basi dilatata v. lobata. Labellum a basi columnæ patens, liberum, supra unguem latum concavum v. fere saccatum contractum, ecalcaratum; lamina angusta v. lata, indivisa. Columna brevissima, rostello prominente 2-lobo; stigma ad basin columnæ crasse carnosum, pulvinatum, a labello liberum. Anthera cum clinandrio reclinata v. reflexa, lata, loculis latis adnatis parallelis, apicibus (inferis) brevibus horizontalibus v. ascendentibus rostelli lobis adnatis; pollinia in loculis solitaria, grosse granulosa, caudiculis breviusculis, glandulis arcte approximatis v. distantibus. Capsula erecta, obovoidea v. oblonga, sæpe incurva.—Herbæ terrestres, tenues, tuberibus indivisis. Folia subradicalia, sæpius parva, patentia, petiolata, ovata v. spathulata.

Species ad 10, Africæ australis incolæ. *Lindl. l. c. Reichb. f. in Linnæa* xx. 694. Genus a *Disa* differt imprimis habitu et labello a stigmate omnino libero.

322. **Brownleea,** *Harv. in Hook. Lond. Journ.* i. 16.—Sepala æquilonga, posticum erectum, concavum v. galeatum, ecalcaratum, lateralia patentia, obliqua. Petala sepalis lateralibus subsimilia v. magis obliqua, basi sæpe sepalo postico leviter cohærentia. Labellum margine cum columna connatum, brevissimum, valde concavum v. saccatum nec calcaratum, lamina minima angusta erecta. Columna brevissima, rostello erecto valde prominente sub-2-lobo; stigma sub rostello latum, crassiusculum, a latere sæpius utrinque in processum parvum productum, a labello liberum. Anthera cum clinandrio brevissimo reflexa, loculis majusculis prominentibus adnatis, apicibus (inferis) horizontalibus in lobos rostelli ascendentibus; pollinia in loculis solitaria, laxe granulosa, caudiculis brevibus, glandulis distinctis. Capsula erecta, breviter v. longe oblonga, erostris.—Herbæ terrestres, glabræ, caule debili longiusculo, medio 1–2-foliato. Folia membranacea, latiuscula v. angusta. Flores in una specie majusculi, laxe breviterque racemosi, in altera parvi, dense spicati, in tertia inflorescentia intermedia.

Species 4, Africæ australis incolæ. *Sond. in Linnæa* xix. 106. *Harv. Thes. Cap. t.* 103, 104. Genus certe *Disæ* affine, etsi stigma vix pulvinatum.

323. ? **Forficaria,** *Lindl. Gen. et Sp. Orch.* 362.—Sepala libera, concava, posticum majus, lateralia æstivatione imbricans, ecalcaratum. Petala libera, setacea, genuflexa, hirsuta. Labellum carnosum, truncatum, liberum, nanum, ecalcaratum. Columna brevissima, stigmate adnato excavato; rostellum . . . Anthera reclinata, loculis adnatis, apicibus (reflexis) brevibus; pollinia . . . Capsula erecta, oblonga, erostris.—Herba terrestris, habitu fere *Disæ* sect. *Trichochilæ*. Folia radicalia conferta, longe lineari-subulata, rigida. Scapus aphyllus, squamis paucis distantibus. Spica laxa, pauciflora. Bracteæ flore breviores.

Species 1, Austro-Africana, e specimine unico Dregeano in herb. Lindl. nota. Hujus flores examinare nequimus, sed vix cum analysi Lindleyana convenire videntur, et genus quoad characteres et affinitates valde dubium remanet.

324. **Brachycorythis,** *Lindl. Gen. et Sp. Orch.* 363.—Sepala libera, conniventia v. demum patentia, lateralia postico ecalcarato sæpius latiora, obliqua. Petala sepalis lateralibus similia nisi angustiora. Labellum a basi columnæ patens, liberum, ungue amplo concavo subcarnoso sulcatoque ecalcarato apice contracto, lamina dilatata 3-dentata. Columna brevis, rostello inter glandulas brevi erecto 2-lobo, extus utrinque processu pulviniformi instructo; stigma ad basin columnæ magnum, carnosum, concavum, a labello liberum. Anthera cum clinandrio erecta v. leviter reclinata, lata, loculis latis adnatis parallelis, apicibus (inferis) brevibus rostelli lobos erectos amplectentibus; pollinia in loculis solitaria, grosse granulosa, caudiculis breviusculis, glandulis majusculis contiguis. Capsula erecta, anguste oblonga.—Herbæ terrestres, foliosæ, tuberibus indivisis elongatis. Folia sessilia, gradatim in bracteas foliaceas abeuntia. Spica floribunda, bracteis lanceolatis foliaceis flores sæpius parvulos superantibus.

Species 4 v. 5, Africæ australis et tropicæ occidentalis incolæ. *Lindl. l.c. Reichb. in Flora* 1865, 183; *Otia Hamb.* 59, 104. *Harv. Thes. Cap. t.* 53, 54.

Genus habitu facile distinctum, a *Schizodio* differt sepalo postico ecalcarato.

B. tenuior, Reichb. f. in Flora 1865, 183, e Natal, nobis ignota, ex descriptione vix congener videtur.

325. **Schizochilus,** *Sond. in Linnæa*, xix. 78.—Sepala libera, conniventia, demum patentia, lateralia postico ecalcarato vix majora. Petala sepalis minora, obliqua. Labellum basi cum columna connatum, patens, ungue lato concavo basi in calcar descendens producto apice contracto, lamina integra v. 3-fida. Columna brevis, rostello inter glandulas elevato lato integro subgaleato; stigma ad basin columnæ elevatum, carnosum, concavum. Anthera cum clinandrio erecta v. leviter reclinata, lata, loculis elevatis adnatis parallelis, apicibus (inferis) brevibus rostelli lobis lateralibus adnatis; pollinia in loculis solitaria, grosse granulosa, caudiculis brevibus, glandulis dissitis. Capsula parva, ovoidea v. oblonga, erecta.—Herbæ terrestres, glabræ, infra medium foliatæ, tuberibus . . . Folia angusta, superiora parva, distantia. Flores parvi, dense spicati, subsecundi. Bracteæ angustæ, floribus breviores.

Species 4, Africæ australis incolæ.

Genus a Reichenbachio f. in *Flora*, 1867, 116, cum *Brachycorythide* jungitur, sed nobis bene distinctum videtur habitu, labelli calcare cum ungue cavo *Brachycorythidis* (etiam in *Schizochilo* supra calcar observando) non comparando, rostelli forma, aliisque notis.

326. **Platycoryne,** *Reichb. f. in Bonpl.* 1855, 212.—Sepalum posticum erectum, latum, galeatum, acutum, ecalcaratum; lateralia libera, reflexa, angusta. Petala basi columnæ subadnata, angusta, inæqualiter 2-loba. Labellum cum basi columnæ continuum, patens, lineare, indivisum, basi in calcar longum productum. Columna sub anthera brevissima, rostelli lobis lateralibus dilatatis, medio erecto crassiusculo subcomplicato; stigma ad basin columnæ labello subadnatum, crassissimum, elevatum, pulvinatum. Anthera erecta v. subreclinata, connectivo basi a clinandrio non distincto superne tamen libero lato; loculis magnis adnatis parallelis, apicibus (inferis) longiusculis divergentibus lobis lateralibus rostelli adnatis; pollinia in loculis solitaria, multiglandulosa, caudiculis elongatis, glandulis nudis dissitis. Capsula . . .—Herba terrestris. Folia pauca, parva, angusta, distantia, breviter lateque vaginantia. Flores mediocres, breviter laxeque spicati. Bracteæ late vaginantes, fere cucullatæ.

Species 1, Madagascariensis.

Genus *Disæ* (*Penthea*) valde affine.

327. **Pterygodium,** *Sw. in K. Vetensk. Acad. Nya Handl. Stockh.* xxi. 217, *t.* 3 E.—Sepalum posticum cum petalis sæpe majoribus in galeam connivens et plus minus cohærens, lateralia postico æqualia v. minora, libera, patentia v. reflexa. Labellum basi columnæ adnatum ultra antheram productum in laminam (appendiculam *auct. pl.*) incurvo-erectam polymorpham explanatam galeatam v. cucullatam, dorso appendicula patente (lamina *auct. pl.*) angusta v. lata indivisa dentata v. 2–3-loba instructum. Columna brevissima, stigmate transverso v. rostello utrinque in processum brachiatum v.

polymorphum producto. Antheræ connectivum late membranaceum, emarginatum v. 2-partitum, basi a clinandrio non distinctum, cum lateribus rostelli continuum, loculis adnatis, apicibus (inferis) in rostello ascendentibus v. abrupte erectis; pollinia in loculis solitaria, granulosa, caudiculis brevibus v. elongatis, glandulis nudis. Capsula erecta, oblonga, costis obtusis interdum valde prominentibus.—Herbæ terrestres, aliæ pauciflore v. rarius 1-floræ, habitu *Ophrydis*, aliæ erectæ, elatæ, foliosæ, spica floribunda, habitu *Habenariæ* specierum majorum. Tubera in speciebus paucis observata indivisa.

Species ad 10, Africæ australis incolæ. *Lindl. Gen. et Sp. Orch.* 366. *Sond. in Linnæa* xix. 109. *Reichb. f. in Flora* 1867, 117. *Ker in Journ. Sc. R. Inst. Lond.* vi. *t.* 1, viii. *t.* 3, ix. *t.* 4. *Harv. Thes. Cap. t.* 94. Species Abyssinicæ Richardii a Reichenbachio rite ad *Disperim* referuntur.

Genus labello apice dorsoque varie producto facile cognoscendum, quoad ejusdem formam et processus columnæ variat de specie in speciem, quod in speciminibus siccis difficillime observatur; in series 2 habitu dividitur. Anthera ut in *Disa* sæpius plus minus reflexa, sed in *P. volucri*, Sw. (OMMATODIO, *Lindl. Gen. et Sp. Orch.* 365) ut in *Disæ* serie *Macrantharum* suberecta est.

328. **Disperis**, *Sw. in K. Vetensk. Acad. Stockh. Nya Handl.* xxi. 218. (Dryopeia, *Thou. Orch. Iles Afr. t.* 1 *ad* 3. Dipera, *Spreng. Syst. Veg.* iii. 676.)—Sepalum posticum angustum, cum petalis latissimis concavis in galeam latam antice apertam v. fere clausam connivens v. sæpius agglutinatum, lateralia libera, patentia, membranacea, obliqua, dorso sæpissime calcarata v. saccata. Labellum angustum, columnæ ultra antheram adnatum, apice sub-2-labiatum 2-brachiatum v. varie dilatatum v. appendiculatum. Columna brevis, labello omnino adnata; stigma transversum, interdum processubus 2 contortis appendiculatum. Anthera cum clinandrio suberecta v. reflexa, loculis distinctis parallelis v. arcte contiguis adnatis, apicibus (inferis) brevibus; pollinia in loculis solitaria, granulosa, caudiculis brevibus, glandulis dissitis. Capsula erecta, oblonga, erostris v. breviter rostrata.—Herbæ terrestres, teneræ, tuberibus indivisis. Folia secus caulem pauca dissita, v. rarius 2 subopposita, nunc angusta, nunc cordato-amplexicaulia. Flores mediocres, solitarii pauci v. plures laxe spicati. Bracteæ subherbaceæ, lanceolatæ v. ovatæ, interdum flores subæquantes.

Species ad 20, Indiæ orientalis, Africæ tropicæ et australis et ins. Mascarensium incolæ. *Lindl. Gen. et Sp. Orch.* 369, *et in Hook. Lond. Journ.* i. 14. *Reichb. f. in Flora* 1865, 180; *in Linnæa* xxii. 860, xli. 55; *Otia Hamb.* 73, 102. *Ker in Journ. Sc. R. Inst.* v. *t.* 1, *f.* 2, 3, *et* vi. *t.* 1. *Harv. Thes. Cap. t.* 106, 148, 171, 172. *Wight, Ic. t.* 930, 1719.

In *D. capensi*, Sw., sepala in acumen longum tenue producuntur. In specie Abyssinica (*Schimper, n.* 1295), cæterum *D. oppositifoliæ* simillima, sepalum posticum angustum petala longe superat et *Disæ* calcar simulat.

329. **Corycium**, *Sw. in K. Vetensk. Acad. Nya Handl. Stockh.* xxi. 220.—Sepalum posticum angustum, cum petalis latissimis basi concavis v. saccatis in galeam connivens v. agglutinatum, lateralia membranacea, fere ad apicem connata. Labelli unguis columnæ inter antheræ loculos adnatus, lamina erecta v. incurvo-incumbens transverse lunata v. divaricato-2-loba v. quasi sagittata auriculis longe productis parallelis, dorso in appendicem cuneatam v. 2-lobam sæpe producta. Columna brevissima, labello adnata, rostello latiusculo undulato v. breviter lobato; stigma parvum v. 2-pulvinatum. Anthera in dorsum columnæ reversa, v. ei adnata, loculis inter se distantibus labelli unguem marginantibus v. sub eo subocculitis, apicibus brevissimis inferis at ob reversionem antheræ ascendentibus; pollinia in loculis solitaria, grosse granulosa, caudiculis brevibus, glandulis parvis. Capsula sessilis, erecta, oblonga, interdum breviter rostrata.—Herbæ terrestres, foliosæ, tuberibus indivisis. Folia angusta, plana v. undulato-crispa. Flores parvi v. mediocres, in spica densa numerosi. Bracteæ flores haud superantes.

Species ad 10, Africæ australis incolæ. *Lindl. Gen. et Sp. Orch.* 368. *Sond. in Linnæa* xix. 110. *Reichb. f. in Linnæa* xix. 375. *Ker in Journ. Sc. R. Inst.* vi. *t.* 1, viii. *t.* 3. *Bauer, Illustr. Orch. Gen. t.* 15. *Bot. Reg.* 1838, *t.* 45.

In analysi Baueriana, f. 5, labellum a dorso, in f. 4, a facie spectatur, appendix dorsalis in ha

specie (*C. bicolore*), lamina late cordata v. sublunata longior est. In *C. crispo* labellum in lobos 2 angustos divaricatos (stigmatis brachia, *Lindl.*?) dividitur, appendice dorsali (labello, *Lindl.*) longe obovata retusa; in *C. exciso* lamina basi in auriculas 2 longissimas angustas parallelas producitur; in *C. latifolio*, Harv., lamina terminalis lanceolata v. subcordata est, appendice nulla dorsali.

330. **Ceratandra,** *Eckl.; Lindl. Gen. et Sp. Orch.* 363.—Sepalum posticum erectum, cum petalis in galeam agglutinatum, lateralia libera, patentia, plana. Labellum columnæ adnatum, ultra antheras unguiculatum, patens, lamina lunata v. transversa, nuda v. appendiculata. Columna brevis, labello adnata; rostelli lobi laterales elongati, erecti, canaliculati v. a latere convoluti, medius brevissimus v. ampliatus; stigma sub rostello transversum, interdum 2-lobum v. 2-partitum. Anthera cum clinandrio reflexa, loculis adnatis, apicibus inferis at ob reversionem antheræ erectis lobis lateralibus rostelli applicitis v. subinvolutis; pollinia in loculis solitaria, granulosa, caudiculis longiusculis erectis, glandulis nudis.—Capsula erecta v. subpatens, anguste oblonga, erostris.—Herbæ terrestres, foliosæ, fibris irregulariter in tubera incrassatis. Folia angusta. Flores mediocres, in racemo denso v. spica conferti, breviter pedicellati v. sessiles, rarius pauci laxe racemosi. Bracteæ flore breviores.

Species 7 v. 8, Africæ australis incolæ. *Sond. in Linnæa*, xix. 108. *Bauer, Illustr. Orch. Gen.* *t.* 16.

C. Harveyana, Lindl. l. c. 365, pro sectione (*Evota*) separatur, ob rostellum amplissimum sinuatum fere galeatum, lobis vix distinctis. Flores in herb. Lindl. solo vidimus, ubi structuram examinare nequimus.

TRIBUS V. CYPRIPEDIEÆ.

331. **Cypripedium,** *Linn. Gen. n.* 1015. (Criosanthes, *Raf. in Journ. Phys.* lxxxix. 102.)—Sepala patentia, libera v. lateralia sæpius sub labello ad apicem connata. Petala libera, nunc sepalis multo angustiora, nunc sublatiora. Labellum sessile, patens, inflato-calceiforme; lobi laterales ad basin calceoli parvi, auriculiformes, inflexi v. patentes. Columna brevis, teres. Antheræ perfectæ 2, ad latera rostelli sessiles v. brevissime stipitatæ, subglobosæ, loculis parallelis contiguis; pollen granulosum; antheridium pone rostellum erectum v. incumbens, late laminiforme v. carnosum, facie interdum loculos 2 imperfectos ferens. Rostellum inter antheras perfectas erectum v. antrorsum inflexum, breve, apice in discum rotundatum 3-angulare v. 3-lobum subtus (antice) papilloso-stigmatosum dilatatum. Capsula elongata v. oblonga, 1-locularis (placentis intrusis sed medium cavi non attingentibus).—Herbæ terrestres v. rarius epiphyticæ, rhizomate brevi v. repente, caule erecto simplici varie foliato. Pedunculus terminalis, simplex, 1- rarius 2-florus, v. rarissime flores plures foliaceo-bracteati. Flores speciosi, pedicellati.

Species editæ ultra 40, plures tamen vix distinctæ, Europæ, Asiæ temperatæ et tropicæ, Americæ borealis et Mexici incolæ. *Lindl. Gen. et Sp. Orch.* 525. *Reichb. f. in Walp. Ann.* iii. 602; *in Bonpl.* 1855, 227; *in Bot. Zeit.* 1862, 214; 1863, 128; 1865, 99. *Salisb. in Trans. Linn. Soc.* i. 76, *t.* 2, 3 (ubi nomina specifica Aitoniana perperam mutata). *Blume, Orch. Archip. Ind.* 164. Præter icones infra citatas genus in diariis hortulanorum recentioribus passim illustratur.

Species ex habitu et foliis facile in series 3 sequentes distribuuntur:—

1. *Foliosæ.* Folia secus caulem 3–∞, alterna, venis prominentibus percursa. Species Americanæ Europææ v. Asiæ temperatæ. *Reichb. Ic. Fl. Germ. t.* 496 *ad* 498. *Nees, Gen. Fl. Germ. Monocot.* iii. *n.* 12. *Barla, Ic. Orch. Alp. Marit. t.* 63. *Dcne. in Jacquem. Voy. Bot. t.* 166. *Blume, Orch. Archip. Ind. t.* 60. *Hook. Fl. Bor. Amer. t.* 206. *Bot. Mag. t.* 216, 911, 2938, 3024, 5855. *Bot. Reg. t.* 1534, 1666; 1846 *t.* 58. *Sweet, Brit. Fl. Gard. ser.* 2, *t.* 1.

Inter species Americanas *C. passerinum*, Reichb., et *C. californicum*, A. Gray, insignes sunt floribus solito minoribus et capsula brevi. ARIETINUM, *Beck, Bot. N. and Midl. U. S.* 352, est *C. arietinum*, *Bot. Mag. t.* 1569; Sweet, Brit. Fl. Gard. t. 213, species parvula angustifolia, sepalis lateralibus fere a basi liberis.

2. *Diphyllæ.* Folia 2, venis prominentibu percursa v. membranacea. Species temperatæ. Huc

includuntur *C. acaule*, Ait., ex America boreali, foliis ad basin caulis scapiformis approximatis. *Bot. Mag. t.* 192. *Sweet, Brit. Fl. Gard. ser.* 2, *t.* 161. *C. guttatum*, Sw., ex Asia temperata, foliis secus caulem dissitis, *Reichb. Ic. Fl. Germ. t.* 495, et *C. japonicum*, Thunb., et *C. debile*, Reichb. f. e Japonia, foliis in medio caule subopposititis. *Blume, Orch. Archip. Ind. t.* 59.

3. *Coriaceæ.* Folia ad basin caulis scapiformis 1–2-flori conferta, coriacea, sæpe angusta. Species omnes tropicæ Asiaticæ usque ad Borneo extensæ. *Blume, Rumphia*, iv. 56, *t.* 195, 198; *Orch. Archip. Ind. t.* 58. *Lindl. Collect. Bot. t.* 32. *Wight, Ic. t.* 1760. *Hook. Exot. Fl. t.* 34, 35. *Bot. Mag. t.* 2129, 3412, 4234, 4901, 4990, 5024, 5349, 5362, 5508, 5513, 5791, 5922, 6175, 6296, 6432, 6490. *Bot. Reg. t.* 788, 1991; 1842, *t.* 17. *Reichb. f. Xen. Orch. t.* 103, 132, 133, 141, 161, 162, 201, 209.

332. **Selenipedium**, *Reichb. f. Xen. Orch.* i. 3, *t.* 2, 27, 44, 62, 181.—Sepala patentia, posticum liberum, lateralia sub labello ad apicem connata. Petala libera, nunc sepalis multo angustiora interdum longe caudata, nunc sepalis sublatiora obtusa. Labellum sessile, patens, inflato-calceiforme (nisi abnorme). Columna brevis, teres. Antheræ perfectæ 2, ad latera rostelli sessiles v. brevissime stipitatæ, subglobosæ, loculis parallelis contiguis; pollen granulosum; antheridium pone rostellum erectum v. incumbens late laminiforme v. carnosum. Rostellum inter antheras perfectas breve, erectum v. antrorsum inclinatum, apice in discum subtus (antice) papilloso-stigmatosum dilatatum. Ovarium perfecte 3-loculare. Capsula elongata, 3-locularis.—Herbæ terrestres, rhizomate brevi v. repente, caule erecto varie foliato. Pedunculus terminalis, simplex v. ramosus, ∞-florus. Flore speciosi v. rarius mediocres, pedicellati.

Species ad 10, Americæ australis montanæ incolæ. *Reichb. f. in Seem. Bot. Her. t.* 44. *Hook. Ic. Pl. t.* 658. *Bot. Mag. t.* 5466, 5614, 5970, 6217 (*ic. omnes sub Cypripedio*).

Genus a *Cypripedio* vix nisi ovario perfecte septato et patria distinguitur. Species in series 2 distribuuntur:—

1. *Coriaceæ.* Folia ad basin caulis conferta, coriacea. Racemus laxus, sæpe ramosus, floribus speciosis. Bracteæ sæpius spathaceæ. Huc referuntur icones omnes supra citatæ.

2. *Foliosæ.* Folia secus caulem alterna, venis prominentibus percursa, angusta. Flores in racemo densiusculo mediocres v. parvuli. Bracteæ ovatæ, patentes. Huc *S. palmifolium*, Reichb. f. Xen. Orch. t. 2, cum specie ei valde affini, utraque e Guiana. Habitus ei *Apostasiæ* accedit.

Uropedium, *Lindl. Orch. Linden.* 28; *Brongn. in Ann. Sc. Nat. ser.* 3, xiii. 113; *Reichb. f. Xen. Orch.* i. 32, *t.* 15; *Regel, Gart. Fl. t.* 315, est species Colombiana, *S. caudato* in omnibus conformis, nisi labello non calceolato, sed petalis conforme v. basi paullo latiore concavoque. Est verisimiliter, sententia Blumei aliorumque, varietas monstruosa v. abnormis etsi persistens, quæ eandem rationem habet *Selenipedio*, quam *Aclinia Dendrobio, Paxtonia Spathoglottidi, Argyrorchis Macodi*, etc.

333. **Apostasia**, *Blume, Bijdr.* 423, *t.* 5, *et Nov. Pl. Fam. in Ann. Sc. Nat. ser.* 2, ii. 93. (Niemeyera, *F. Muell. Fragm. Phyt. Austral.* vi. 96.)—Sepala petala et labellum consimilia, æqualia, libera, patentia v. recurva. Columna brevis. Antheræ perfectæ 2, ad latera rostelli breviter stipitatæ, angustæ, erectæ, loculis parallelis contiguis sæpe parum inæqualibus; pollen granulosum; antheridium pone rostellum erectum angustum v. 0. Rostellum (stylus) ad apicem columnæ erectum, elongatum, apice in discum parvum stigmatosum integrum v. 3-dentatum dilatatum. Ovarium perfecte 3-loculare. Capsula linearis, 3-locularis.—Herbæ terrestres, rhizomate brevi, caule erecto simplici undique foliato. Folia angusta, venis prominentibus percursa. Spicæ in axillis summis v. in apice caulis sessiles, confertæ, simplices v. ramosæ, sæpissime patentes v. recurvæ. Flores parvi, sessiles. Bracteæ angustæ.

Species ad 4, Indiæ orientalis Archipelagi Malayani et Australiæ tropicæ incolæ. *R. Br. in Wall. Pl. As. Rar.* i. 74, *t.* 84, 85. *Bauer, Illustr. Orch. Fruct. t.* 15. *Griff. Ic. Pl. As. t.* 282. *Benth. Fl. Austral.* vi. 395. *Reichb. f. Xen. Orch. t.* 196; *et in Flora*, 1872, 278.

Charactères florales et fructus, labello excepto, parum a *Selenipedio* differunt, et habitus et folia ab illis *Selenipedii palmifolii* haud dissimilia.

334. **Neuwiedia**, *Blume, Nov. Pl. Fam. in Ann. Sc. Nat. ser.* 2, ii. 93.—Sepala et petala consimilia, æqualia, libera, conniventia v. demum patentia. Labellum petalis

paullo latius, subspathulatum, cæterum simile. Columna brevis. Antheræ perfectæ 3, erectæ, stipitatæ, angustæ, loculis parallelis contiguis, 2 ad latera rostelli, tertium posticum; pollen granulosum. Rostellum (stylus) ad apicem columnæ erectum, elongatum, apice in discum parvum antrorsum obliquum stigmatosum dilatatum. Ovarium perfecte 3-loculare. Capsula ovoideo-3-quetra, breviter rostrata.—Herbæ terrestres, rhizomate brevi, caule erecto simplici foliato. Folia longa, in petiolum contracta, venis elevatis percursa. Spica terminalis, densa, simplex, sæpe elongata. Flores parvi, sessiles. Bracteæ angustæ, flores interdum superantes.

Species 3, Malaccæ et Archipelagi Malayani incolæ. *Reichb. f. Xen. Orch.* ii. 13, 215, *t.* 106, *et in Bonpl.* 1857, 58.

ORDO CLXX. **SCITAMINEÆ.**

Endl. Gen. 221. Horaninow, Prod. Monogr. Scitam. Petropoli, 1862, folio, cum tabb. 4. MUSACEÆ, ZINGIBERACEÆ et MARANTACEÆ, Lindl. Veg. Kingd. 163 ad 169. MUSÆ et CANNÆ, Juss. Gen. Pl. 61, 62.

Flores hermaphroditi v. rarius polygami, irregulares. *Perianthium* superum, ad normam duplici serie 3-merum, exterius calycinum, interius corollinum, segmentis tamen sæpe varie connatis v. uno alterove deficiente. *Sepala* nunc libera, valde imbricata, parum inæqualia v. uno latiore, nunc in calycem tubulosum 3–5-dentatum v. spathaceo-fissum connata, rarius basi tubo corollæ adnata, sæpius tenuia rigidula, interdum colorata v. herbacea. *Corolla* basi tubulosa limbo 3-partito, v. petala 3 a basi soluta v. in unum concavum v. fere spathaceum connata, laciniis petalisve valde inæqualibus v. rarius subæqualibus. *Andrœcium* ad normam duplici serie 3-merum sed valde irregulare; stamina nunc 5 æqualia libera sexto deficiente v. parvo, nunc sæpius unum solum perfectum, cæteris in staminodia petaloidea irregulariter polymorpha basi varie connata mutatis. *Antheræ* lineares, nunc loculis 2 parallelis contiguis v. connectivo petaloideo dissitis, nunc loculo 1 solo ad marginem connectivi petaloidei. *Ovarium* inferum, 3-loculare, v. loculis 2 parvis vacuis specie 1-loculare, v. rarius revera 1-loculare placentis 3 parietalibus v. perfecte 2-loculare. *Stylus* terminalis, elongatus, indivisus, nunc ut videtur simplex excentricus, liber v. plus minus andrœcio unilateraliter adnatus, apice in stigma globosum v. oblongum, sæpe obliquum v. inflexum, vertice foveolatum v. 2-labiatum sæpeque ciliatum incrassatum, nunc e 3 verisimiliter compositus, centralis, liber, stigmate brevi v. oblongo 3–6-dentato v. 3-fido; ubi stylus simplex excentricusque adsunt sæpe in vertice ovarii ad latera styli stylodia 2 lineari-subulata v. pulviniformia, libera v. inter se connata, v. rarius andrœcio lateraliter adnata parumque prominula. *Ovula* in quoque loculo solitaria a basi erecta, v. ∞ placentis axilibus rarius parietalibus 1–∞-seriatim affixa, horizontalia v. ascendentia, anatropa. *Fructus* calyce persistente coronatus v. perianthio toto deciduo nudatus, 3-locularis v. abortu 1–2-locularis, nunc carnosus indehiscens, nunc loculicide 3-valvis, v. pericarpio tenuiore lateraliter rumpens. *Semina* 1–∞, sæpius globosa oblonga v. irregulariter angulata, inappendiculata, arillo varie carnoso lacero v. stupposo fulta v. fere involuta; testa membranacea v. coriacea, ad hilum plus minus intrusa; integumentum internum tenue, albumini adnatum v. ad hilum incrassatum. *Albumen* copiosum, album, durum v. interdum plus minus farinaceum. *Embryo* in canali centrali albuminis erectus rectus incurvus v. hippocrepicus, interdum vitello tenui v. sat copioso involutus, radicula juxta hilum sæpius prominente.

Herbæ sæpius perennes, inter majores, rhizomate horizontali duro v. varie tuberoso, rarius annuæ. Caulis nunc abbreviatus v. vix ullus, nunc elatus simplex basi foliorum delapsorum cicatricibus annulatus. Folia nunc omnia subradicalia vaginis interdum circa scapum convolutis caulem simulantibus, nunc in caule florifero v. sterili solitaria v. plura, vaginis caulem involventibus; lamina supra vaginam sessilis v. petiolata, sæpius ampla,

veris numerosis crebris parallelis a costa media divergentibus valde obliquis v. subtransversis. Scapus seu pedunculus florifer terminalis v. e rhizomate inter folia nascens, rarius axillaris, simplex v. rarius ramosus. Bracteæ primariæ nunc foliaceæ imbricatæ nunc cymbiformes dissitæque, bifariæ v. quaquaversæ, in paucis generibus minimæ v. obsoletæ. Flores sub quaque bractea solitarii v. sæpius 2–∞, singuli bracteola membranacea v. spathacea stipati, v. in paucis generibus bracteolæ deesse videntur.

Species ad 450, per regiones calidiores utriusque orbis late dispersæ, perpaucæ extra tropicos extensæ.

Ordo naturalissimus, tam foliis quam floribus bene limitatus, nec cum ullo alio generibus intermediis connexus.

FORMÆ ABNORMES.

Ovarium 1-loculare placentis parietalibus in generibus 4 prioribus, perfecte 2- nec 3-loculare in *Tapeinochilo*.

CONSPECTUS GENERUM.

Tribus I. Zingibereæ. Calyx tubulosus v. spathaceus. Stamen 1, anthera 2-loculari; staminodia petaloidea 2 lateralia varia v. obsoleta, labellum indivisum 2-fidum v. 2-partitum, omnia basi corollæ tubo adnata. Ovarii loculi v. placentæ parietales 3, rarissime 2, ∞-ovulati; stylus (simplex) tenuis, liber, apice loculis antheræ amplexus, stigmate subcapitato loculos sæpius superante; stylodia 2 libera v. subconnata. Embryo rectus. Embryo centralis, rectus.

* *Ovarium 1-loculare, placentis 3 parietalibus.*

1. MANTISIA. Corollæ tubus elongatus. Staminodia lateralia filiformia, in medio filamenti elongati opposita, patentia. Caules foliati steriles; scapus florifer ramosus, aphyllus.—*Ind. or.*

2. GLOBBA. Corollæ tubus elongatus. Staminodia lateralia ovata, lobis corollæ approximata iisque similia. Filamentum elongatum nudum; anthera nuda v. a latere v. basi appendiculata. Thyrsus v. racemus laxus, in caule foliato terminalis.—*Ind. or., Archip. Malay.*

3. GUILLAINIA. Corollæ tubus elongatus. Staminodia lateralia petalis breviora, erecta, basi cum labello conniventia. Filamentum elongatum, petaloideum; anthera connectivo apice producto appendiculata. Inflorescentia in caule foliato terminalis, longe spicata.—*Nov. Caled.*

4. HEMIORCHIS. Corollæ tubus brevis. Staminodia lateralia lobis corollæ approximata quibus subsimilia. Filamentum breve; anthera inappendiculata. Scapus florifer aphyllus, spica simplici, bracteis caducis.—*Burma.*

** *Ovarium longe ultra medium v. sæpissime perfecte 3-loculare, placentis axilibus.*

† *Staminodia lateralia ampla petaloidea.*

5. ROSCOEA. Spica in caule foliato terminalis, bracteis 1-floris paucis membranaceis imbricatis v. dissitis. Staminodia lateralia erecta, basi angustata. Filamentum inter staminodia erectum; antheræ connectivum basi in calcar 2-fidum productum.—*Himalaya.*

6. KÆMPFERIA. Spica in caule foliato terminalis v. in scapo aphyllo præcox, bracteis 1-floris membranaceis imbricatis. Filamentum breve; antheræ connectivum basi nudum, petaloideum, ultra loculos sæpe productum.—*Ind. or., Archip. Malay., Afr. trop.*

7. GASTROCHILUS. Spica in caule foliato terminalis v. in scapo aphyllo præcox, bracteis secundis membranaceis imbricatis. Filamentum breve; anthera inappendiculata; labellum concavum.—*Burma, Malacca.*

8. HEDYCHIUM. Spica v. thyrsus in caule foliato terminalis, densa v. laxa, bracteis 1-∞-floris imbricatis v. dissitis. Filamentum elongatum, angustum; antheræ connectivum inappendiculatum.—*Ind. or., Archip. Malay.*

9. CURCUMA. Spica dense strobiliformis, bracteis concavis v. cucullatis 2-∞-floris basi imbricatis apice patentibus sæpe coloratis. Staminodia lateralia basi cum filamento petaloideo connata. Anthera basi 2-calcarata loculis contiguis.—*Asia, Afr. et Australia intertrop., ins. maris Pacifici.*

10. HITCHENIA. Spica strobiliformis *Curcumæ*, bracteis coloratis rigidioribus. Staminodia

lateralia lobis corollæ similia v. minora. Filamentum angustum, complicatum; anthera ecalcarata, loculis connectivo petaloideo separatis.—*Ind. or.*

†† *Staminodia lateralia parva dentiformia v. 0, rarius longiora angusta labello adnata.*

11. Tapeinochilus. Inflorescentia strobiliformis, bracteis latis concavis imbricatis apice recurvis. Anthera ecalcarata, connectivo ultra loculos brevi rotundato. Ovarium 2-*loculare.*—*Archip. Malay., Austral. trop.*

12. Amomum. Inflorescentia strobiliformis, in scapo aphyllo brevissimo v. elongato, rarissime in caule foliato terminalis, bracteis imbricatis sæpius 2–3 floris. Filamentum breve; antheræ loculi apice divergentes, connectivo ibidem plus minus dilatato brevi, v. ultra loculos in cristam integram v. 3-lobam producto.—*Ind. or., Archip. Malay., ins. maris Pacifici, Afr. trop.*

13. Cyphostigma. Scapi florentes aphylli, e rhizomate flexuoso-ascendentes, fere a basi floriferi, bracteis parvis dissitis 1–2-floris. Filamentum breve; antheræ connectivum in cristam 3-lobam dilatatum.—*Zeylania.*

14. Elettaria. Scapi florentes longi, aphylli, flexuosi, fere a basi floriferi, bracteis membranaceis dissitis 2–3-floris. Filamentum brevissimum; antheræ loculi usque ad apicem contigui, connectivo non dilatato.—*Ind. or. penins., Zeylania.*

15. Zingiber. Inflorescentia *Amomi.* Filamentum breve; antheræ loculi contigui, connectivo ultra loculos in appendicem longam linearem producto.—*Ind. or., Archip. Malay., ins. Mascar. et maris Pacifici.*

16. Costus. Inflorescentia strobiliformis, in caule foliato terminalis, sessilis, v. rarius in scapo brevi aphyllo, bracteis latis imbricatis. Antheræ loculi approximati, in medio filamento petaloideo elongato adnati.—*Utriusque orbis reg. trop.*

17. Burbidgea. Racemus terminalis, bracteis caducis. Corollæ tubus elongatus. Filamentum brevissimum; antheræ connectivum ultra loculos in appendicem longam lanceolatam concavam productum. Fructus linearis.—*Borneo.*

18. Leptosolena. Panicula terminalis. Corollæ tubus elongatus. Filamentum breve; antheræ connectivum ultra loculos non productum.—*Ins. Philippinæ.*

19. Strobidia. Panicula terminalis, bracteis caducis. Corollæ tubus brevis. Antheræ connectivum ultra loculos in appendicem ellipsoideam incurvam productum. Ovarium ellipsoideum.—*Sumatra.*

20. Alpinia. Thyrsus racemiformis v. panicula terminalis. Filamentum elongatum; antheræ connectivum latiusculum, loculis brevius, v. in appendicem brevem latam productum. Fructus globosus.—*Asia trop. et subtrop., Australia, ins. Pacif.*

21. Renealmia. Thyrsus racemiformis v. racemus in scapo aphyllo v. rarius in caule foliato terminalis. Filamentum brevissimum; antheræ connectivum angustissimum, apice basique loculis brevius.—*Amer. et Afr. trop.*

Tribus II. Maranteæ. Sepala libera v. in tubum conniventia vix cohærentia. Stamen 1; anthera 1-locularis, in andrœcii lobo v. filamento lateralis; staminodia petaloidea, in andrœcium irregulariter et varie lobatum basi connata; andrœcii tamen lobi sæpius 5 v. 6, quorum 1 v. 2 laterales, 1 anticus labellum dictus, 2 v. 3 postici, quorum 1 v. 2 cucullati, 1 antherifer. Ovarii loculi 1-ovulati; stylus simplex, excentricus, andrœcio inclusus intusque plus minus lateraliter adnatus, superne incurvus v. involutus, stigmate valde obliquo v. a latere sub-2-labiato. Embryo valde incurvus v. hippocrepicus.

Andrœcii lobi sæpe de specie in speciem variant et characteres quos præbent, in paucis speciebus adhuc rite observati, rarius ad genera distinguenda sufficiunt, et ulterius ad vivum confirmandi v. reformandi; sequentes interdum plerique ex inflorescentia deducti.

* *Ovarium specie 1-loculare, loculis 2 minimis vacuis. Genera (speciebus 2 exceptis) Americana.*

22. Ischnosiphon. Inflorescentia spiciformis, bracteis convolutis rhachin floresque arcte includentibus. Corollæ tubus tenuis.—*Amer. trop.*

23. Maranta. Inflorescentiæ rami tenues, pauciflori. Bracteæ sub ramulis angustæ, convolutæ, rhachin arcte includentes. Flores pedicellati, ebracteati. Corollæ tubus cylindraceus, interdum basi gibbus.—*Amer. trop.*

24. Stromanthe. Inflorescentia in pedunculo longo sæpius composita, brevis, laxiuscula. Bracteæ bracteolæque sæpius coloratæ, patentes, diu persistentes. Petala a basi solvenda.—*Brasilia.*

25. Thalia. Inflorescentia paniculata. Bracteæ sub ramis patentes, deciduæ. Flores secus ramulos ultimos laxe spicati, per paria bracteis caducis inclusi. Petala libera v. vix basi connata.—*Amer. et Afr. trop.*

26. Myrosma. Spicæ unilaterales, solitariæ v. per 2–5 confertæ, bracteis complicatis secundis 2-seriatim imbricatis persistentibus. Flores sub quaque bractea ∞, per paria breviter bracteolati. Corollæ tubus brevis.—*Brasilia, Guiana, Madagascaria.*

** *Ovarium sæpissime 3-loculare, 3-ovulatum. Genera* (Calathea *excepta*) *gerontogea.*

27. Clinogyne. Inflorescentiæ terminalis rami tenues, pauciflori. Bracteæ sub ramulis angustæ, convolutæ, rhachin arcte includentes, diu persistentes, demum sæpe deciduæ. Flores gemini, breviter pedicellati. Petala in tubum conniventia vix cohærentia. Ovarium interdum 1-ovulatum.—*Ind. or., Afr. trop.*

28. Trachyphrynium. Inflorescentia terminalis, simplex v. parce ramosa, spiciformis. Bracteæ complicatæ, primum imbricatæ, anthesi peracta caducissimæ. Flores gemini. Petala basi in tubum conniventia. Ovarium dense papillosum. Capsula tuberculosa v. echinata, 3-valvis.—*Afr. trop.*

29. Thaumatococcus. Spicæ e rhizomate in scapo brevi aphyllo imbricato-bracteatæ, floribus geminis. Corollæ tubus brevis. Fructus lævis, crassus, carnosus, triqueter, indehiscens.—*Afr. trop.*

✓ 30. Phrynium. Inflorescentia strobiliformis capitata v. interrupte spicata, in folii petiolo specie lateralis, scapo nempe v. pedunculo folii vagina arcte involuto. Corollæ tubus sæpius brevis. Fructus indehiscens v. 3-valvis.—*Ind. or., Archip. Malay.*

31. Calathea. Inflorescentia strobiliformis v. capitata, imbricato-bracteata, v. rarius laxius spiciformis, pedunculo in caule foliato terminali v. rarius scapo e rhizomate aphyllo. Flores sub quaque bractea sæpius ∞. Corollæ tubus sæpius tenuis.—*Amer. trop., rarius Afr. trop.*

Tribus III. Canneæ. Sepala libera. Stamen 1, anthera 1-loculari in andrœcii lobo laterali, lobis cæteris 4 andrœcii (staminodiis) nudis. Ovarii loculi ∞-ovulati; stylus simplex, ima basi tubo andrœcii adnatus, superne liber complanatus, stigmate terminali adnato interdum uno latere breviter decurrente. Capsula papillosa tuberculosa v. echinata. Embryo centralis, rectus.

✓ 32. Canna. Racemus in caule foliato terminalis, simplex v. parce ramosus, floribus speciosis sub quaque bractea solitariis.—*Utriusque orbis reg. calid.* (*in orb. vet. inquilinæ?*).

Tribus IV. Museæ. Sepala libera v. in tubum spathaceo-fissum connata. Stamina perfecta 5, libera, antheris linearibus 2-locularibus, sexto imperfecto v. deficiente. Stylus centralis, liber, stigmate 3–6-dentato v. 3-fido.

33. Heliconia. Sepala libera v. lateralia corollæ adnata. Corollæ tubus brevis, limbus elongatus concavus genitalia involvens. Ovarii loculi 1-ovulati. Fructus indehiscens v. in coccos secedens.—*Amer. trop.* (*in Asia trop. inquilina?*).

✓34. Musa. Calyx tubulosus, mox spathaceo-fissus. Corolla inclusa, genitalia involvens. Ovarii loculi ∞-ovulati. Fructus carnosus, indehiscens.—*Orb. vet. reg. trop.*

35. Strelitzia. Sepala libera. Petalum exterius breve latum concavum, lateralia longa, angusta, uno latere connata, altero latere longe appendiculata. Capsula loculicide 3-valvis.—*Afr. austr.*

36. Ravenala. Sepala libera. Petala longa, angusta, libera, inappendiculata, exterius lateralibus brevius. Capsula loculicide 3-valvis.—*Madagasc., Bras. bor., Guiana.*

GENUS EXCLUSUM.

Nyctophylax, *Zipp. in Flora*, 1829, 286, *absque char.*, est planta timorensis, ab auctoribus recentioribus non recognita nec ullibi quantum scimus definita, et nomen delendum.

Tribus I. Zingibereæ.

1. **Mantisia,** *Sims, Bot. Mag. t.* 1320.—Calyx tubuloso-campanulatus, breviter 3-lobus. Corollæ tubus elongatus, tenuis; lobi 3, ovati, patentes, quorum 2 plani, tertius paullo major, concavus. Staminodia lateralia lineari-subulata, in medio filamento opposita,

patentia; labellum deflexum, emarginatum v. breviter 2-dentatum; filamentum elongatum, incurvum; antheræ loculi 2, oblongi, discreti, connectivo ad utrumque latus alato-dilatato ultra loculos non producto, marginibus integris v. emarginatis. Ovarium 1-loculare, placentis parietalibus; stylus excentricus, filiformis, in canali filamenti receptus, stigmate parvo. Fructus . . .—Caules foliati steriles, foliis in ordine angustis, acumine longo torto. Scapi florentes aphylli, thyrso laxo. Bracteæ tenuiter membranaceæ, subscariosæ, violaceæ. Flores pallide violacei, labello flavo.

Species 2, Indiæ orientalis incolæ, quarum *M. saltatoria*, Sims, sola a nobis visa. *Horan. Prod. Monogr. Scitam.* 19. *Andr. Bot. Rep. t.* 615. *Rosc. Scitam. t.* 112. *Roxb. Corom. Pl. t.* 230 (*ic. omnes sub Globba*).

2. **Globba**, *Linn. Mant. n.* 1287, *pro parte.* (Manitia, *Giseke, Prælect. Linn.* 209. Hura, *Kœn. in Retz, Obs.* iii. 49. Sphærocarpos, *Gmel. Syst.* i. 9.)—Calyx tubuloso-campanulatus, breviter 3-lobus. Corollæ tubus elongatus; lobi 3, ovati, tertio sæpius paullo majore concavo. Staminodia lateralia petaloidea, corollæ lobis similia v. longiora iisque approximata; labellum deflexum, emarginatum, postice breviter 2-appendiculatum, basi cum filamento in cupulam connatum; filamentum elongatum, incurvum, canaliculatum; antheræ loculi 2, contigui v. parum distantes, connectivo utroque latere membranaceo-dilatato ultra loculos non producto. Ovarium 1-loculare, placentis parietalibus; stylus excentricus, filiformis, in canali filamenti receptus, stigmate ultra loculos turbinato v. fere urceolato; stylodia filiformia. Fructus globosus v. oblongus, pericarpio siccitate membranaceo demum irregulariter rupto v. (ex Roxburghio) ab apice 3-valvi. Semina subglobosa, arillo (an semper?) crasso spongioso lacero.—Caules e rhizomate annui, erecti, in ordine haud elati. Folia lanceolata, rarius ovata, sæpius in acumen anguste caudiforme producta. Thyrsus in caule foliato terminalis, rarius ad racemum reductus, ramulis seu pedunculis simplicibus sæpius 2–∞-floris. Bracteæ nunc caducissimæ, nunc persistentes foliaceæ, dissitæ v. imbricatæ; in pluribus speciebus bracteæ inferiores tantum persistunt imbricatæ, vacuæ v. bulbillos rugosos foventes. Flores flavi v. rarius violascentes.

Species ad 24, Indiæ orientalis et Archipelagi Malayani incolæ. *Horan. Prod. Monogr. Scitam.* 19. *Miq. Fl. Ind. Bat. Suppl.* 612.

Genus a Horaninovio aliisque in sectiones 4, forte nimis artificiales, ex antheræ indole dividitur:—

1. *Aplanthera.* Anthera inappendiculata, loculis connectivo angustissimo v. vix ullo arcte approximatis. Huc *G. suaveolens*, Sm. Exot. Bot. t. 117, *G. ophioglossa*, Wight, Ic. t. 2002, *G. orixensis*, Roxb. Corom. Pl. t. 229, species nobis ignota, ex icone a *G. suaveolente* parum differt foliis acumine filiformi destitutis, floribus minoribus. *G. orixensis*, Wall. Cat., est ipsa *G. suaveolens*, quæ ad *Aplantheram*, nec ad *Ceratantheram* pertinet.

2. *Careyella.* Anthera inappendiculata, loculis connectivo vix iis latiore separatis. Huc *G. Careyena*, Rosc. Scitam. t. 110, Lodd. Bot. Cab. t. 691. *G. sessiliflora*, Bot. Mag. t. 1428.

3. *Ceratanthera.* Anthera basi appendiculis seu calcaribus 2 acuminatis v. setiformibus integris instructa. Huc *G. pendula*, Roxb. Corom. Pl. t. 228. CERATANTHERA, *Lestib. in Ann. Sc. Nat. ser.* 2, xv. 341.

4. *Marantella.* Antheræ connectivum ad utrumque latus in appendicem marginatam v. bifidam expansum. Bracteæ sæpe ovatæ, herbaceæ, persistentes. Huc *G. marantina*, Linn.; Sm. Exot. Bot. t. 103. Rosc. Scitam. t. 111. Lodd. Bot. Cab. t. 100. *G. Schomburgkii*, Bot. Mag. t. 6298. *G. versicolor*, Sm. Exot. Bot. t. 117, f. a, b, c. *G. marantinoides*, Wight, Ic. t. 2001. (*G. bracteosa*, Horan.)

COLEBROOKIA, *Don, apud Lestib. in Ann. Sc. Nat. ser.* 2, xv. 341, includit *Careyellam* et *Marantellam.*

3. **Guillainia**, *Vieill. in Bull. Soc. Linn. Norm.* x. 92.—Calyx tubulosus, coloratus, apice 3-dentatus. Corollæ tubus elongatus; lobi æquales, obtusi, erecti. Staminodia lateralia petaloidea, petalis breviora, erecta, basi cum labello conniventia; labellum majus, subsaccatum, 3-lobum, lobo medio minore; filamentum petaloideum, elongatum, ultra

antheram in appendicem brevem productum. Ovarium inferum (1-loculare ?), placentis 3 parietalibus ; stigma complanato-infundibuliforme, ciliatum. Fructus . . .—Herba rhizomate tuberoso, foliis *Globbæ*. Inflorescentia terminalis, longe spicata, floribus sæpius geminis in axilla bracteæ latæ, concavæ erectæ ciliatæ coloratæ.' (*Char. ex Vieilliard.*)

Species 1, Novo-Caledonica, a nobis non visa.

4. **Hemiorchis,** *Kurz in Journ. Asiat. Soc. Beng.* xlii. 108, *t.* 8.—Calyx brevis, superne campanulatus, 3-fidus. Corollæ tubus calyce brevior ; lobi tubo longiores, ovati, posticus lateralibus latior. Staminodia lateralia petaloidea, lobis lateralibus corollæ similia, basi corniculo parvo aucta ; labellum paullo longius, latum, valde concavum, fere saccatum ; filamentum breve ; anthera erecta, loculis approximatis, connectivo angusto ultra loculos non producto. Ovarium ovoideum, 1-loculare, placentis 3 parietalibus ; stylus filiformis, stigmate parvo subgloboso. 'Capsula 1-locularis, subplicato-10-sulcata, 3-valvis. Semina conica, basi albo-arillata.'—Rhizoma crassum, repens. Folia post anthesin erumpentia, a nobis non visa. Scapi aphylli, pallidi, tomentelli, bracteis tenuiter membranaceis plus minus tecti. 'Spica terminalis, simplex, primum densa, per anthesin elonganda, floribus numerosis parum distantibus albo-virescentibus, labello aurantiaco. Bracteæ breves, hyalinæ, sub anthesi deciduæ.

Species 1, Burmanica.

5. **Roscoea,** *Sm. Exot. Bot. t.* 108.—Calyx longe tubulosus, 2–3-dentatus, membranaceus, plus minus spathaceo-fissus. Corollæ tubus sæpius elongatus, superne breviter ampliatus, lobi 3, posticus erectus incurvus concavus, laterales patentes v. recurvi. Staminodia lateralia petaloidea, erecta, conniventia, oblongo-spathulata, basi contracta ; labellum maximum, emarginatum v. 2-fidum ; filamentum inter staminodia lateralia breve, erectum ; anthera linearis, medium versus filamenti affixa, loculis contiguis, connectivo basi in calcar longum incurvum semi-2-fidum v. fere 2-partitum producto. Ovarium 3-loculare ; stylus cum filamento erectus, stigmate ultra loculos globoso v. turbinato apice ciliato. Fructus oblongus, demum sæpe 3-valvis. Semina ovoidea, arillo plus minus cupulato ; embryo centralis, linearis, rectus.—Rhizoma e fibris crassis carnosis fasciculatis. Folia angusta v. subcordato-lanceolata, vaginis longis laxis nunc amplissimis. Inflorescentia terminalis, fasciculata v. spicata, sessilis v. pedunculata. Flores singuli bractea spathacea stipati, purpurei cærulei v. flavi.

Species 6, Himalayanæ. *Horan. Prod. Monogr. Scitam.* 20. *Rosc. Scitam. t.* 64. *Hook. Exot. Fl. t.* 144. *Wall. Pl. As. Rar. t.* 242, 255. *Royle, Ill. Pl. Himal. t.* 89, *f.* 1 *ad* 3. *Wight, Ic. t.* 2013. *Bot. Mag. t.* 4630. *Bot. Reg.* 1840, *t.* 61. *Lodd. Bot. Cab. t.* 1404.

Icones supra citatæ *Roscoeas* genuinas referunt, quibus flores in fasciculum seu capitulum conferti, nunc intra vaginam superiorem sessile, nunc longe pedunculatum, purpurei v. cærulei ; corollæ tubus elongatus, tenuis ; ovarium angustum, capsula oblonga pericarpio membranaceo lateraliter fisso vix valvato. 'CAUTLEA, *Royle, Ill. Pl. Himal.* 361, sectionem v. fere genus distinctum præbet, cui flores in spica exserta plus minus dissiti (an semper ?) flavi ; corollæ tubus vix calycem excedens ; ovarium breve, latum ; capsula globosa, pericarpio coriaceo 3-valvi, valvis demum patentissimis sub placenta carnosa semina diu retinentibus. Huc pertinent *R. gracilis*, Sm. (*R. lutea*, Royle, l. c. t. 89, f. 2), *R. spicata*, Sm. (*R. elatior*, Sm., ex char. dato, specimen tamen Smithianum in Herb. Hook. est *R. gracilis*), et species adhuc inedita.

6. **Kæmpferia,** *Linn. Gen. n.* 7 ; *Hort. Cliff. t.* 3.—Calyx hyalinus v. membranaceus, longe tubulosus, 2–3-dentatus, superne breviter spathaceo-fissus. Corollæ tubus elongatus, exsertus ; lobi lanceolati, acuti, æquales, patentes v. reflexi. Staminodia lateralia ample petaloidea, ovata, basi sæpe breviter unguiculata, patentia ; labellum 2-fidum v. 2-partitum, rarius integrum, staminodiis lateralibus subsimile v. basi maculatum, nunc amplissimum ; anthera in filamento brevissimo erecta, loculis linearibus dissitis ad margines connectivi lati concavi ultra loculos in cristam petaloideam integram v. dentatam producti. Ovarium 3-loculare ; stylus filiformis, stigmate ultra loculos antheræ globoso v. turbinato apice ciliato. Fructus ovoideus v. oblongus, pericarpio tenui. Semina subglobosa, arillo lacero brevi ;

embryo centralis, linearis, rectus.—Fibræ radicales sæpius tuberoso-incrassatæ. Folia in caule sæpius brevi pauca. Spicæ in caule foliato v. in scapo radicali squamato terminales.

Species ad 18, Africæ et Asiæ tropicæ incolæ. *Horan. Prod. Monogr. Scit.* 21.

Genus commode dividitur in sectiones 3, ad inflorescentiam solam tamen definitas:—

1. *Protanthium*, Horan. Scapi florentes breves, densiflori, aphylli, ante caules foliiferos e rhizomate protensi. Folia interdum ampla. *Rosc. Scitam. t.* 95, 97. *Jacq. Hort. Schœnbr. t.* 317. *Red. Lil. t.* 49. *Wall. Pl. As. Rar. t.* 56. *Wight, Ic. t.* 2029. *Bot. Mag. t.* 920, 5763, 6054.

Cienkowskia, *Solms in Schweinf. Beitr. Fl. Æthiop.* 167, *t.* 1, species Africana labello maximo 2-fido, antheræ crista petaloidea longa integra v. utroque latere 1-dentata, est ipso auctore fatente species *Kæmpferiæ* ad *Protanthium* pertinens.

2. *Stachyanthesis.* Scapi florentes elongati, aphylli, floribus longe spicatis bracteis dissitis. Huc pertinent *K. scaposa* ex India orientali (*Monolophus scaposus*, Dalz., Wight, Ic. t. 2030), *K. rosea*, Schweinf. ex Africa, et species nova Khasyana.

Monolophus, *Wall. Pl. As. Rar.* i. 24, *t.* 24; *Horan. Prod. Monogr. Scitam.* 22, quoad *K.* v. *M. linearem*, Wall., et *K.* v. *M. secundum*, Wall., caule tenero ∞-foliato, inflorescentia terminali subspicata, *Stachyanthesin* cum *Soncoro* connectit.

3. *Soncorus*, Horan. Flores pauci, caulem brevem foliatum terminantes. Folia sæpe pauca, haud raro ad 2 subsessilia suboppositaque reducta. *Rosc. Scitam. t.* 92 *ad* 94, 96. *Red. Lil. t.* 144. *Wall. Pl. As. Rar. t.* 27. *Wight, Ic. t.* 899. *Bot. Mag. t.* 850, 5600. *Bot. Reg. t.* 173, 1212. *Lodd. Bot. Cab. t.* 587, 980.

Tritophus, *Lestib. in Ann. Sc. Nat. ser.* 2, xv. 341, est *K.* (*Soncorus*) *ovalifolia*, Roxb. Corom. Pl. t. 278, antheræ crista 3-4-dentata.

Cadalvena, *Fenzl in Sitzungsber. Akad. Wiss. Wien*, li. 139, species Æthiopica, ab auctore a *Kæmpferia* separatur ob ovarium apice 2-loculare 2-ovulatum cæterum farctum, quod verisimiliter ex observatione ovarii imperfecti sumptum fuit. In speciminibus a Schweinfurthio communicatis ovaria sæpe abortiva, in uno perfecto loculos 3 invenimus ∞-ovulatos et planta omnino *Kæmpferiæ* (*Soncori*).

7. **Gastrochilus,** *Wall. Pl. As. Rar.* i. 22, *t.* 24, 25.—Calyx brevis, spathaceo-fissus. Corollæ tubus exsertus, interdum longissimus; lobi æquales, conniventes, nutantes. Staminodia lateralia petaloidea, lobis corollæ latiora nec longiora; labellum maximum, latum, concavum fere saccatum, integrum, margine sinuato-crispum; anthera in filamento brevissimo erecta, loculis parallelis dissitis ad margines connectivi lati ultra loculos non producti. Ovarium 3-loculare, loculis ∞-ovulatis; stylus filiformis, stigmate ultra loculos subgloboso. Fructus . . .—Herba habitu *Kæmpferiæ*, rhizomate repente v. fibroso, tuberibus subsessilibus fasciculatis. Folia ampla. Flores nunc in caule foliato unilateraliter spicati, bracteis secundis imbricatis, nunc in scapo radicali aphyllo bracteato pauci.

Species 3 v. 4, Burmanicæ. *Horan. Prod. Monogr. Scitam.* 22. *Bot. Mag. t.* 3930, 4010.

8. **Hedychium,** *Kœn. in Retz Obs.* iii. 73.—Calyx tubulosus, 3-dentatus. Corollæ tubus elongatus; lobi angusti, æquales, patentes. Staminodia lateralia nunc lobis corollæ similia v. etiam angustiora, nunc latiora, petaloidea, obovali-oblonga spathulata v. late ovata; labellum petaloideum, amplum, emarginatum, v. angustius integrum 2-fidumve; filamentum elongatum, angustum, complicatum, canaliculatum v. fere filiforme; anthera sæpissime linearis, loculis contiguis infra insertionem sæpe breviter productis, connectivo tenuissimo nec apice cristato nec basi calcarato. Ovarium 3-loculare, loculis ∞-ovulatis; stylus filiformis, stigmate ultra loculos antheræ parvo subgloboso, foveola parva. Capsula loculicide 3-valvis. Semina subglobosa, arillo vario; embryo centralis, rectus, crassiusculus.—Rhizoma horizontale, tuberosum. Caules erecti, foliati, sæpius elati. Folia utrinque basi stipula appressa aucta v. nuda. Thyrsus terminalis, spiciformis, sæpius pulcherrimus, nunc densus bracteis latis herbaceis imbricatis, nunc longior, bracteis plus minus dissitis. Flores sub quaque bractea solitarii v. plures, bracteas superantes, singuli bracteola complicata stipati.

Species ad 25, Asiæ tropicæ incolæ. *Horan. Prod. Monogr. Scit.* 29. *Wall. in Hook. Kew Journ.* v. 321 (*excl. H. scaposo ad Kæmpferiam referendo*). *Rosc. Scitam. t.* 47 *ad* 63. *Hook. Exot. Fl. t.*

46. *Roxb. Corom. Pl. t.* 251. *Sm. Exot. Bot. t.* 107. *Wight, Ic. t.* 2008 *ad* 2012. *Bot. Mag. t.* 708, 2078, 2300, 2378, 2637, 2969, 3039, 4516. *Bot. Reg. t.* 157, 526, 767, 774, 1209. *Lodd. Bot. Cab. t.* 604, 653, 723, 856, 1785, 1795, 1881, 1902.

Genus a Roscoeo et serius a Horaninovio in series 2 dividitur: 1, *Gandasulium*, Horan., stamine labello breviore v. rarius vix longiore; et 2, *Macrostemium*, Horan., stamine labello multo longiore; a Wallichio minus apte in series A. *Coronariæ*, bracteis in spica densa arcte imbricatis, et B. *Spicatæ*, bracteis in spica elongata dissitis sæpe patentibus.

H. Horsfieldii, Br., sectionem *Brachychilum*, Br., ex Wall. in Hook. Kew Journ. v. 376 format, labello nano retuso sessili, stigmate quasi 2-labiato labio inferiore elongato. Species vix congener videtur. Specimina nobis desunt. In *H. villoso*, Roxb., specieque affini, anthera abbreviata, loculis ad basin connectivi crassi divergentibus.

GAMOCHILUS, *Lestib. in Ann. Sc. Nat. ser.* 2, xv. 341, est *H. speciosum*, Wall. Pl. As. Rar. t. 285, a Wallichio ipso serius ad varietatem *H. Gardneri*, Wall., reductum, a Lestiboudoiso generice separatur ob labellum integerrimum acutiusculum nec emarginatum.

9. **Curcuma**, *Linn. Gen. n.* 6. (Stissera et Erndlia, *Giseke, Prælect. Linn.* 207, 209.)—Calyx tubulosus, 2–3-dentatus, interdum hinc breviter fissus. Corollæ tubus brevis v. elongatus, superne dilatatus; lobi ovati v. oblongi, subæquales v. posticus longior breviterque acuminatus. Staminodia lateralia petaloidea, basi cum filamento anguste petaloideo plus minus connata, petalum 3-fidum lobo medio antherifero simulantia; labellum paullo majus, superne dilatatum, integrum emarginatum v. 2-fidum; anthera in filamento petaloideo sessilis, loculis contiguis, connectivo latiore basi in calcara 2 producto. Ovarium 3-loculare, loculis ∞-ovulatis; stylus filiformis, stigmate ultra loculos antheræ erecto v. inflexo, æquali v. dorso gibbo antice 2-labiato ciliato. Capsula globosa, pericarpio membranaceo sub-3-valvi. Semina ovoidea v. oblonga, lævia, arillo nunc brevi, nunc lacero laciniis semen superantibus; embryo linearis, rectus, tenuis v. crassiusculus.—Rhizoma crassum, fibris tuberiferis. Caules erecti, 1–10-pedales. Folia sæpe ampla. Florum thyrsi densissimi, strobiliformes, oblongi v. elongati, bracteis concavis v. cucullatis amplis imbricatis apice rotundatis, superioribus sæpe vacuis coloratis pulcherrime comosis. Flores sub quaque bractea 2–∞, sessiles, singuli bracteola spathacea stipati. Fructus intra bracteas inclusi.

Species enumeratæ ultra 30, Asiæ tropicæ incolæ, usque ad Africam tropicam Australiam tropicam et insulas maris Pacifici extensæ, nonnullæ tamen cultæ v. varietates e cultura eductæ, et fere omnes in speciminibus exsiccatis difficillime determinandæ. *Horan. Prod. Monogr. Scit.* 22. *Berg, Darst. Offic. Gew. t.* 34 *a.* *Rosc. Scitam. t.* 99 *ad* 109. *Red. Lil. t.* 473. *Salisb. Par. Lond. t.* 96. *Jacq. Hort. Vind.* iii. *t.* 4 (*Amomum*). *Roxb. Corom. Pl. t.* 151, 201. *Wall. Pl. As. Rar. t.* 10, 57. *Wight, Ic. t.* 2005, 2006. *Bot. Mag. t.* 1546, 4435, 5620, 5821, 5909. *Bot. Reg. t.* 886.

Horaninow l. c. species distribuit in series 3: *Exantha*, scapis lateralibus, v. extrafoliaceis; *Amphiantha*, scapis lateralibus et centralibus; et *Mesantha*, scapis centralibus, quæ tamen non semper bene distinctæ videntur. *C. Roscoeana*, Wall., potius ad *Hitcheniam* referenda.

10. **Hitchenia**, *Wall. in Trans. Med. Phys. Soc. Calc.* vii. 215.—Calyx tubulosus, membranaceus, 3-dentatus. Corollæ tubus elongatus, lobi 3, subæquales, oblongi v. lineares. Staminodia lateralia petaloidea, lobis similia nisi minora; labellum lobis corollæ longius, angustum, superne oblongum, recurvum, 2-dentatum; filamentum labello æquilongum, angustum, complicatum; anthera terminalis, loculis dissitis ad margines connectivi lati inappendiculati ecalcarati. Ovarium 3-loculare, loculis ∞-ovulatis; stylus filiformis, stigmate ultra loculos antheræ haud magno clavato antice transverse foveolato. Capsula obovato-3-gona, pericarpio rigide membranaceo varie rupto nunc 3-valvi.—Herbæ habitu et inflorescentia omnino *Curcumæ*, bracteæ tamen thyrsi sæpius rigidiores striatæque.

Species 3 v. 4, Indiæ provinciarum orientalium incolæ. *Horan. Prod. Monogr. Scit.* 24 (*errore Hitchinia*). Huc pertinent *H. glauca*, Wall., e Burma; *H. Careyana*, Wall. Cat. Herb. Ind. 6595 sub *Curcuma*, e Silhet, cujus corollæ lobi, labium et filamentum multo angustiora quam in *H. glauca*; species nova Malayana cujus tamen corollas imperfectas examinare nequimus; et ad *Hitcheniam* potius quam *Curcumam* referrimus *H.* (*C.*) *Roscoeanam*, Wall. Pl. As. Rar. t. 9, Bot. Mag. t. 4667.

11. **Tapeinochilus,** *Miq. in. Ann. Mus. Lugd. Bat.* iv. 101, *t.* 4.—Calyx herbaceus, breviter tubulosus, apice 3-fidus. Corollæ tubus brevis, lobi breves, subæquales v. posticus paullo latior. Staminodia lateralia linearia, cum labello brevi erecto truncato connata; filamentum petaloideum, cum connectivo oblongo continuum, labello paullo brevius, apice rotundum, loculos paullo superans; antheræ loculi adnati, approximati, ecalcarati. Ovarium 2-loculare, ∞-ovulatum; stylus filiformis, stigmate dilatato plano exappendiculato apice ciliato; stylodia in unum lineare apice 2-dentatum coalita. Capsula calyce rigidulo coronata, rimis 2 lateralibus sæpe irregularibus dehiscens. Semina angulata, arillo parvo.—Caulis foliatus, elatus, sæpe ramosus, foliorum vaginis obtectus. Folia in vaginis subsessilia, decidua. Florum thyrsus terminalis, magnus, strobiliformis, densissimus, bracteis latis rigide coriaceis basi imbricatis superne recurvo-patentibus acutis, calycibusque pulchre coccineis. Flores sub quaque bractea 1–3; corollæ pallide flavescentes, bracteas vix superantes.

Species 1, Archipelagi Malayani et Australiæ tropicæ incola. Specimina nostra omnia fructifera, characteres corollæ et andrœcii ex ic. et descr. Miquelii sumpsimus.

12. **Amomum,** *Linn. Gen. n.* 2.—Calyx tubulosus v. superne dilatatus, apice 3-fidus. Corollæ tubus nunc vix calycem excedens, nunc tenuis longeque exsertus, lobi 3, æquales, patentes, v. posticus paullo latior erectiorque. Staminodia lateralia ad dentes parvos reducta; labellum sæpius amplum, rotundatum v. basi convolutum, integrum v. late 3-lobum; filamentum breve, planum; antheræ erectæ loculi elongati, glabri v. dense pilosi, apice divergentes, cæterum fere contigui, connectivo a basi angusta apice inter loculos dilatato, iis nunc subbreviore sinuato, nunc sæpius ultra loculos in appendicem seu cristam brevem integram seu magnam rotundatam integram v. varie 3-fidam producto. Ovarium 3-loculare, ∞-ovulatum; stylus tenuis, stigmate ultra loculos antheræ nunc parvo subgloboso, nunc crasso dorso subgibbo; stylodia longiuscula, linearia, carnosula. Fructus globosus v. oblongus, interdum in rostrum crassiusculum attenuatus, pericarpio crassiusculo lævi rugoso v. echinato, indehiscens v. irregulariter ruptus. Semina globosa v. obovoideo-truncata.—Rhizoma nunc horizontale crassum, nunc elongatum repens. Caules foliati sæpius steriles. Scapi florentes e rhizomate aphylli squamis obtecti nunc sub inflorescentia brevissimi nunc elongati. Inflorescentia strobiliformis, globosa oblonga v. elongata, bracteis coriaceis imbricatis. Flores intra bracteas solitarii v. sæpius 2–3-ni, singuli bracteola spathiformi stipati, sessiles, corollæ limbo solo v. rarius tubo elongato e bracteis exserto. In speciebus perpaucis inflorescentia in caule foliato terminalis sessilis.

Species ad 50, Africæ et Asiæ tropicæ incolæ, usque ad Australiam tropicam et insulas maris Pacifici extensæ. *Horan. Prod. Monogr. Scit.* 28 (*Amomum*), 31 (*Geanthus* et *Donacodes*). *Oliv. et Hanb. in Journ. Linn. Soc.* vii. 109.

Genus, sectione *Cenolopho* excepto, naturale facileque distinctum, a pluribus auctoribus in genera 2 dividitur ad antheræ connectivum limitata, charactere tamen non semper bene definito, nobis potius pro sectionibus habenda videntur.

1. *Geanthus.* Scapi florentes aphylli. Antheræ connectivum apice parum dilatatum loculos non v. breviter superans. Species omnes Asiaticæ Australianæ v. ins. maris Pacificæ. GEANTHUS, *Reinw. in Syll. Pl. Soc. Ratisb.* ii. 5. ELETTARIÆ sect., *Blume, Enum. Pl. Jav.* i. 51.

Sectio facile in series 3 dividitur: a. *Longifloræ*, scapo florido abbreviato, corollæ tubo tenui calyce duplo saltem longiore. Huc *Elettaria coccinea*, Bl., *E. glaberrima*, Zoll. et Mor., affinesque. b. *Brevi-scapæ*, inflorescentia in rhizomate fere sessili v. scapo brevi fulto. Corollæ tubus calyce inclusus v. vix exsertus. Species numerosæ. Huc *Alpinia costata*, Roxb. Pl. Corom. t. 252, *A. linguiformis*, Roxb. l. c. t. 276. *Elettaria fœtens*, Bl., *E. rosea*, Teijsm. et Binn., *E. nemoralis*, Thw., *E. cannæcarpa*, Wight, Ic. t. 2007, *Amomum Ceruga*, Seem. Fl. Vit. t. 89, *A. Scottii*, F. Muell. Fragm. Phytogr. Austral. viii. 24, affinesque. c. *Scaposæ*, inflorescentia globosa, interdum bracteis exterioribus majoribus involucrata, scapo elongato squamato fulta: *Elettaria floribunda* et *E. involucrata*, Thw., e Zeylania; *A. Fenzlii*, Kurz in Journ. Asiat. Soc. Beng. xlv. t. 12, cum speciebus 3 v. 4 ex Archipelago Malayano. Huc etiam referenda *Alpinia magnifica*, Rosc. Scitam. t. 75, Bot. Mag. t. 3192 (PHÆOMERIA Lindl. Introd. Nat. Syst. ed. 2, 446; NICOLAIA, *Horan. Prod. Monogr. Scitam.* 32, *t.* 1).

DONACODES, *Blume, Enum. Pl. Jav.* i. 64, si rite ad eam referrimus species 3 Archipelagi Malayani cum *Amomo subulato*, Roxb. Corom. Pl. t. 277, a sectione *Geantho* parum differt connectivo ultra loculos in appendicem brevissimam rotundatam v. truncatam producto.

ACHASMA, *Griff. Notul.* iii. 426, *Ic. Pl. As. t.* 355 *ad* 357, et STENOCHASMA, *Griff. Notul.* iii. 431, *Ic. Pl. As. t.* 358, 359, quorum specimina non vidimus, ex iconibus omnino *Amomi* sect. *Geanthum* referunt, excepto labello anguste linguiformi.

ETLINGERA, *Giseke, Prælect. Linn.* 209, est *A. littorale*, Kœn., species ex descr. Kœnigii in Retz, Obs. iii. 52 ad *Geanthum* pertinens.

2. *Euamomum.* Scapi florentes aphylli. Antheræ connectivum ultra loculos in cristam latam integram v. 3-lobam productum. MAROGNA, TORYMENES, et ALEXIS, *Salisb. in Trans. Hort. Soc.* i. 282, 283, *absque char.*

Species numerosæ, inter quas fere 20 Africanæ, quibus labellum sæpius magnum, antheræ crista 3-loba, lobis lateralibus divaricatis, intermedio interdum 2-dentato. *Sims in Kœn. et Sims, Ann. Bot.* i. 13. *Sm. Exot. Bot. t.* 111. *Hook. Kew Journ.* iv. *t.* 5. *Bot. Mag. t.* 4603, 4764, 5250, 5761, 5987.

Species Asiaticæ quoad cristam variant fere de specie in speciem. In *A. Cardamomo*, Linn.; Roxb. Corom. Pl. t. 227, *A. Melegueta*, Rosc. Scitam. t. 98, *A. masticatorum*, Thw., *A. Dallachyi*, F. Muell. Fragm. Phyt. Austral. viii. 25, paucisque aliis, crista 3-loba ut in speciebus Africanis; in *A. dealbato*, Roxb., et *A. sericeo*, Roxb., crista brevis truncata fere *Donacodis*; in *A. pterocarpo*, Thw., lata transversa integra; in *A. graminifolio*, Thw., *A. maximo*, Roxb., Bot. Reg. t. 929, *A. corynostachyo*, Wall. Pl. As. Rar. t. 58, ampla, petaloidea, fere orbiculata, integra; in specie Zeylanica, Thwaites, n. 3864, lata, lobis 2 rotundatis cum intermedio minore triangulari.

Capsula in speciebus Africanis sæpe majuscula, interdum longiuscule rostrata, in Asiaticis valde variat, in *A. sericeo*, Roxb., et *A. dealbato*, Roxb., in longitudinem ∞-alata; in *A. aculeato*, Roxb., et *A. echinato*, Willd., dense echinata.

Scapi in *Euamomo* variant breves pauciflori v. longiores inflorescentia dense globosa; in *A. giganteo*, Oliv. et Hanb., scapus valde elongatus, spicis pluribus dissitis.

HORNSTEDTIA, Retz, Obs. vi. 18 (GREENWAYA, *Giseke, Prælect. Linn.* 206), includit *A. scyphiferum*, Kœn., et *A. Leonurum*, Kœn.; MEISTERA, Giseke, l.c. 205, est *A. n.* 5, Kœn.; WURFBAINIA, Giseke, l.c. 206, est *A. uliginosum*, Kœn.; PALUDANA, Giseke, l.c. 207, est *A. n.* 2, Kœn., genera omnia ex descriptione fusiori Kœnigii in Retz Obs. iii. confecta, et omnia ad *Euamomum* referenda.

3. *Cenolophon.* Spica in caule foliato terminalis, brevis, supra folium ultimum sessilis. CENOLOPHON, *Horan. Prod. Monogr. Scitam.* 36, vix tamen *Blumei*; qui inflorescentiam racemosam descripsit. Huc pertinet *A. vitellinum*, Lindl. Bot. Reg. 1847, t. 52, et *Elettaria rufescens*, Thw. Enum. Pl. Zeyl. 430, species tamen omnes hucusque imperfecte notæ nec in speciminibus examinare potuimus.

DIRACODES, *Blume, Enum. Pl. Jav.* i. 55, a Miquelio cum *Alpinia* comparata, ex charactere brevi auctoris ab *Amomo* non differt nisi inflorescentia terminali, et omnino cum *Cenolopho*, Horan., convenire videtur. Antheræ crista 2-loba dicitur.

GEOCALLIS, *Horan. Prod. Monogr. Scit.* 33 (*Renealmia fasciculata*, Rosc. Scitam. t. 66) ad iconem pictoris in Lucknow indigenæ descripta, est verisimiliter *Amomi* species male delineata.

13. **Cyphostigma,** *Benth. in Hook. Ic. Pl. t.* 1380.—Calyx supra basin elongatam pedicelliformem laxe tubulosus, 3-dentatus, per anthesin spathaceo-fissus. Corollæ tubus tenuis, e calyce breviter exsertus; lobi 3, anguste oblongi, subæquales, revoluto-patentes. Staminodia lateralia 0; labellum sessile, orbiculato-reniforme, patens, late sub-3-lobum, lobo medio magis prominente sub-2-fido; anthera in filamento brevi erecta, loculis contiguis v. apice leviter divergentibus, connectivo angusto ultra loculos in cristam petaloideam orbiculatam crenulato-crispam dilatato. Ovarium globosum v. ovoideum, basi saltem 3-loculare, ∞-ovulatum; stylus filiformis, stigmate ultra antheram breviter exserto crasso oblongo basi in gibbum carnosum subproducto apice circa foveolam ciliato. Fructus . . .—Rhizoma horizontale, crassum, caule brevissimo. Foliorum vaginæ convolutæ, sæpe pedales caulem simulantes, lamina ampla vix petiolata. Scapi floridi aphylli, e rhizomate flexuoso-ascendentes, squamis spathaceis semitecti. Flores intra squamas subdissitas solitarii v. gemini, singuli bracteola spathacea calyce multo breviore stipati.

Species 1 Zeylanica, *C. pulchellum*, Benth. (*Amomum pulchellum*, Thw. Enum. Pl. Zeyl. 318). Andrœcium fere *Amomi*, sed inflorescentia valde diversa.

14. **Elettaria,** *Maton in Trans. Linn. Soc.* x. 250. (Cardamomum, *Salisb. in Trans. Hort. Soc.* 1, 282, *absque char.*)—Calyx membranaceus, tubulosus, breviter 3-lobus. Corollæ tubus cylindraceus, vix e calyce exsertus; lobus posticus oblongus, suberectus, concavus, laterales angustiores recurvo-patentes. Staminodia lateralia ad dentes parvos erectos reducta; labellum obovoideum, lobis corollæ paullo longius, apice patens, late sub-3-lobum; anthera ad faucem corollæ fere sessilis, linearis, loculis usque ad apicem contiguis, connectivo inconspicuo nec ultra loculos producto. Ovarium 3-loculare, ∞-ovulatum; stylus filiformis, stigmate ultra loculos antheræ parvo. Fructus subglobosus v. ovoideo-oblongus, pericarpio crassiusculo, indehiscens. Semina obovoidea, truncata, rugosa (exarillata?); embryo crassiusculus, rectus.—Rhizoma horizontale, crassum. Caules foliati steriles, foliis paucis longis latiusculis. Scapi aphylli, longi, flexuosi, fere a basi florentes, bracteis dissitis membranaceis spathaceis jam sub anthesi sæpius emarcidis. Flores sub quaque bractea 2 v. 3, breviter pedicellati, singuli bracteola complicata stipati.

Species v. fide Thwaitesii varietates 2, imprimis ad fructus formam distinctæ, Zeylaniæ et Peninsulæ Indiæ orientalis incolæ. *White in Trans. Linn. Soc.* x. t. 5 (*Amomum*). *Berg, Darst. Offic. Gew. t.* 34 *c. Roxb. Corom. Pl. t.* 226.

15. **Zingiber,** *Adans. Fam.* ii. 66.—Calyx membranaceus v. hyalinus, tubulosus, breviter 3-lobus. Corollæ tubus cylindraceus, superne parum dilatatus; lobi angusti, posticus erectus, incurvus, concavus, laterales patentes. Staminodia lateralia basi cum labello connata v. præter lobos laterales labelli 0; labellum v. labelli lobus medius lateralibus major, integer v. breviter 2-fidus, interdum crispulus; anthera in filamento brevi erecta, oblonga, loculis inter se parum distantibus, connectivo ecalcarato ultra loculos in appendicem linearem v. subulatam producto. Ovarium 3-loculare, ∞-ovulatum; stylus filiformis, stigmate ultra loculos antheræ sæpius parvo subgloboso. Capsula globosa v. oblonga, pericarpio haud crasso, irregulariter rupta. Semina sæpius majuscula, oblonga, arillo lacero laciniis nunc brevibus, nunc elongatis semen longe superantibus.—Rhizoma horizontale, tuberosum. Caules foliati variant floriferi v. steriles. Thyrsi spiciformes, densi, strobiliformes v. longiusculi, bracteis imbricatis, nunc in scapo radicali aphyllo vaginis obtecto, nunc in caule foliato terminales v. in pedunculo recurvo laterales. Flores sub quaque bractea 1–3, singuli bracteola spathacea stipati.

Species enumeratæ ad 30, sed vix 20 bene distinctæ, Indiæ orientalis, Archipelagi Malayani, ins. Mascarensium et maris Pacifici incolæ. *Horan. Prod. Monogr. Scitam.* 27. *Gærtn. Fruct.* i. 33, *t.* 12. *Van Hall, Obs. Zingib., Lugd. Bat.*, 1858, *cum tabb.* 2.

Genus ad inflorescentiam in sectiones sequentes dividitur:—

1. *Cryptanthium*, Horan. Inflorescentia in rhizomate sessilis v. in scapo brevi terra semi-immersa. —*Rosc. Scitam. t.* 86 *ad* 89. *Wall. Pl. As. Rar. t.* 55. *Wight, Ic. t.* 2004.

2. *Lampuzium*, Horan. Inflorescentia in scapo longiusculo erecto aphyllo epigæa. *Rosc. Scitam. t.* 83 *ad* 85. *Roxb. Corom. Pl. t.* 253. *Berg, Darst. Offizin. Gew. t.* 34 *b. Sm. Exot. Bot. t.* 112. *Jacq. Hort. Vind.* iii. *t.* 54 (*Amomum*). *Wight, Ic. t.* 2003. *Andr. Bot. Rep. t.* 555. *Bot. Mag. t.* 1426, 2000, 6019. Jægera et Dietrichia, *Giseke, Prælect. Linn.* 203, 208. Cassumunar, *Colla, Nov. Scit. Gen. Comm., Taurini*, 1830, *cum tab.* 1.

3. *Pleuranthesis*. Inflorescentia in pedunculo a latere caulis foliati recurvo. Staminodia lateralia brevia, libera, incurva. Species unica nota, *Z. Clarkei*, King mss., e Sikkim, *Hook. f. et Thoms., G. King*.

4. *Dymczewiczia*. Inflorescentia in caule foliato terminalis. *Rosc. Scitam. t.* 90, 91. Dymczewiczia, *Horan. Prod. Monogr. Scitam.* 26. Horaninow genus suum distinxit præter inflorescentiam, staminodiis lateralibus 2 ovatis petaloideis, quæ in *Zingibere* deesse dicuntur. Semper tamen adesse videntur nunc parvula libera, sæpius tamen cum labello plus minus a latere coalita et pro lobis lateralibus suis descripta. In *Z.* (*Dymczewiczia*) *capitato* pariter cum labello basi connata sunt.

Zerumbet, *Lestib. in Ann. Sc. Nat. ser.* 2, xv. 329, includit species omnes quibus staminodia lateralia minima v. labello alto adnata.

16. **Costus,** *Linn. Gen. n.* 3. (Banksea, *Kœn. in Retz, Obs.* iii. 75. Tsiana, *Gmel. Syst.* i. 9. Hellenia, *Retz, Obs.* vi. 18. Planera, *Giseke, Prælect. Linn.* 205. Jacuanga,

Lestib. in Ann. Sc. Nat. ser. 2, xv. 329, 341. Gissanthe, *Salisb. in Trans. Hort. Soc.* i. 279, *absque char.*)—Calyx laxe tubulosus, sæpius brevis, apice 3-fidus. Corollæ tubus brevis, lobi oblongi petaloidei, subæquales. Staminodia lateralia 0 (v. minuta?); labellum amplum, obovatum, basi cucullatum, apice patens; filamentum petaloideum cum connectivo oblongo plano integro loculos longe superante continuum; antheræ loculi in medio connectivo adnati approximati, apice breviter divergentes. Ovarium 3-loculare, ∞-ovulatum, placentis axilibus interdum in parte superiore undulato-crispis; stylus filiformis; stigmate semilunari ciliato, interdum nec in omnibus speciebus appendice dorsali crassiuscula v. plana quasi 2-labiato. Capsula globosa v. ovoidea, sæpe 3-sulca, calyce coronata, demum inter costas lateraliter dehiscens. Semina obovoidea v. subglobosa, breviter arillata, testa lævi; embryo in canale centrali rectus, crassus.—Caules elati, foliati, vaginis interdum laxis in ligulam latam productis obtecti, lamina sessili v. breviter petiolata decidua. Spica crassa, globosa v. ovoidea, strobiliformis, terminalis, inter folia ultima sessilis v. rarius in scapo aphyllo; bracteæ latæ, imbricatæ. Flores speciosi, coccinei albi flavi v. rosei.

Species ad 25, Americæ, Africæ, Asiæ et Australiæ inter tropicos incolæ. *Horan. Prod. Monogr. Scitam.* 36. *Rosc. Scitam. t.* 77 *ad* 82. *Jacq. Ic. Rar. t.* 1, 202 (*Alpinia*); *Fragm. t.* 67, 77 *ad* 80. *Lestib. in Ann. Sc. Nat. ser.* 2, xv. *t.* 21. *Wight, Ic. t.* 2014. *Ruiz et Pav. Fl. Per. t.* 3, 4. *Bot. Mag. t.* 4979, 5894. *Bot. Reg. t.* 665, 683, 899, 1594.

In *C. maculato*, Rosc., *C. globoso*, Bl., aliisque paucis caules foliati elongati sterilesque; scapi floriferi breves, vaginis obtectis omnibus aphyllis v. summis breviter laminiferis. In speciebus nonnullis Africanis v. Brasilianis folia sub spica brevi pauca lata conferta patentiaque quasi rosulata, caule infra rosulam brevi v. elongato; bracteæ in his angustæ; andrœcium omnino *Costi*.

17. **Burbidgea,** *Hook. f. Bot. Mag. t.* 6403.—Calyx anguste tubulosus, truncatus, obscure 2–3-dentatus. Corollæ tubus elongatus; lobi laterales patentes, late oblongi, posticus latior erectus. Staminodia lateralia 0; labellum erectum, longe stipitatum, concavum, apice breviter dilatatum in laminam ovato-cordatam breviter 2-fidam; filamentum breve; antheræ loculi inter se parum distantes, connectivo ultra loculos in appendicem longam petaloideam late linearem producto. Ovarium 3-loculare, ∞-ovulatum; stylus filiformis, stigmate ultra loculos antheræ parvo obliquo. Fructus longe siliquæformis. Semina (immatura) fusiformia, arillo lacero.—Rhizoma repens. Caulis erectus, foliis nitidis. Flores in racemo terminali speciosi, breviter pedicellati, singuli bractea angusta spathacea caducissima stipati.

Species 1, Borneensis.

18. **Leptosolena,** *Presl, Rel. Hænk.* i. 111, *t.* 18.—Calyx anguste tubulosus, truncatus, obscure 2-dentatus. Corollæ tubus elongatus, tenuis; lobi 3, patentes, subæquales. Staminodia lateralia 0?; labellum oblongo-ovatum (in icone anguste oblongum), lobis corollæ longius, pendulum; filamentum breve, basi postice squama ovata diaphana (staminodia lateralia?) munitum; antheræ loculi apice divergentes, connectivo non producto. Ovarium 3-loculare, loculis ∞-ovulatis; stylus filiformis, stigmate ultra loculos antheræ infundibuliformi ciliato. Capsula 3-locularis.—Caulis foliatus erectus, foliis angustis. Inflorescentia terminalis, sessilis, composita, laxiuscula; floribus erectis. Corollæ tubus 3-pollicaris. (*Char. ex ic. et descr. Preslii.*)

Species 1, ins. Philippinarum incola, a nobis non visa. Videtur *Burbidgeæ* affinis.

19. **Strobidia,** *Miq. Fl. Ind. Bat. Suppl.* 614.—Calyx laxe subcampanulatus, 3-dentatus, demum spathaceo-fissus. Corollæ tubus brevis; lobi subæquales, posticus angustus deflexus, laterales paullo latiores horizontales sub labello conniventes. Staminodia lateralia parva, linearia, labello partim adnata; labellum erectum, fornicato-concavum; filamentum strictum, florem superans, superne transiens in connectivum latum incurvum apice prope loculorum verticem utrinque minute tuberculatum. Ovarium 3-loculare, loculis ∞-ovulatis; stylus filiformis, stigmate . . . Capsula baccata.—Caulis erectus,

gracilis. Panicula terminalis, ramis alternis brevibus. Bracteæ sub ramulis parvæ; bracteolæ latæ, imbricatæ. (*Char. ex Miq.*)

Species 1, Sumatrana, a nobis non visa.

20. **Alpinia,** *Linn. Gen. n.* 4. (Catimbium, *Juss. Gen. Pl.* 62. Languas, *Kœn. in Retz, Obs.* iii. 64. Heritiera, *Retz, Obs.* vi. 17, *t.* 1. Buekia, Albina *et* Martensia, *Giseke, Prælect. Linn.* 204, 207. Galanga, *Salisb. in Trans. Hort. Soc.* i. 281, *absque char.*)—Calyx laxe tubulosus, breviter 3-lobus, interdum demum spathaceo-fissus. Corollæ tubus brevis v. calyce paullo longior; lobi patentes, postico sæpius latiore. Staminodia lateralia parva dentiformia, v. linearia, v. 0; labellum patens, sæpius latum, corollam superans; filamentum elongatum, nunc fere filiforme, nunc latiusculum concavum; antheræ loculi discreti, connectivo latiusculo nunc loculis breviore, nunc apice bifido v. in appendicem brevem rotundatam v. truncatam loculos superantem producto. Ovarium 3-loculare, loculis ∞-ovulatis; stylus filiformis, basi interdum (in *A. Galanga*) in glandulam stylodiis similem incrassatus, stigmate ultra loculos antheræ subgloboso ciliato; stylodia glanduliformia, carnosa, crassiuscula, erecta v. depressa. Fructus globosus, siccus v. baccatus, indehiscens v. rarius 3-valvis. Semina in quoque loculo sæpius placenta carnosa a pericarpio solubili (arillo ?) involuta.—Rhizoma horizontale v. repens, caulibus erectis foliatis. Flores in thyrso racemiformi v. rarius laxe paniculato in caule foliato terminali. Bracteæ membranaceæ, spathiformes v. parvæ; bracteolæ sub quoque flore nunc breves cupulatæ truncatæ per anthesin delapsæ v. emarcidæ, nunc membranaceæ alabastrum omnino includentes.

Species notæ fere 40, Asiæ tropicæ et subtropicæ, Australiæ et ins. maris Pacifici incolæ. *Horan. Prod. Monogr. Scitam.* 33. *Benth. Fl. Austral.* vi. 264. *Hance in Journ. Linn. Soc.* xiii. 6. *Rosc. Scitam. t.* 67 *ad* 74 *et t.* 76 (*Hellenia*). *Jacq. Fragm. t.* 68 (*Zerumbet*). *Red. Lil. t.* 60, 174 (*Globba*). *Sm. Exot. Bot. t.* 106. *Andr. Bot. Rep. t.* 501 (*Hellenia*). *Griff. Ic. Pl. As. t.* 353, 354. *Wight, Ic. t.* 2026 *ad* 2028. *Presl, Symb. t.* 43; *Rel. Hænk. t.* 17 *et t.* 21 (*Hellenia*). *Seem. Fl. Vit. t.* 87, 88. *Bot. Mag. t.* 1900, 1903. *Bot. Reg. t.* 141, 328, *et t.* 1037 (*Hellenia*).

Horaninow genus in sectiones 2 dividit; *Ethanium*, bracteis parvis nunc minimis, bracteolis majoribus membranaceis; et *Catimbium*, bracteis primariis magnis membranaceis. *Ethanium*, Salisb., est *Renealmia racemosa* quam Horaninow cum *R. caribæa* (nostro sensu inepte) ad *Alpiniam* revocat.

Hellenia, *Willd. Spec. Pl.* i. 4, *Horan. Prod. Monogr. Scit.* 35, a nonnullis ad *A. chinensem*, *A. cæruleam* affinesque paucas limitatur et pro genere proprio servatur, antheræ connectivo apice crista brevi appendiculato, et fructus pericarpio crustaceo nec carnoso; sed fructus omnino idem in *A. Allugha*, Rosc., a Willdenowio ad *Helleniam* a plerisque ad *Alpiniam* relata, connectivo inappendiculato, et connectivi appendicula in speciebus paucis ubi producitur, sæpius brevissima est.

Amomum parviflorum, Presl, Rel. Hænk. t. 19, stirps Philippinensis, scapo florente laterali v. radicali interdum ramoso, floribus parvis in thyrso spiciformi denso, ex speciminibus Cumingianis n. 1327 ad *Alpiniam* (*Helleniam*) referendum videtur.

Kolowratia, *Presl, Rel. Hænk.* i. 113, *t.* 20, ex ic. et descr. habitum et flores præbet *Alpiniæ* cujusdam *A. giganteæ*, Bl., affinis. Capsula tamen lanceolato-linearis dicitur, 2-locularis et 2-sperma et seminis forma a *Scitamineis* omnino aliena. An revera ad eandem plantam pertinet?

Cenolophon, *Blume, Enum. Pl. Jav.* 60, a Horaninovio ad species nonnullas refertur ab *Amomo* distinctas inflorescentia terminali quas pro sectione *Amomi* habemus. Character brevis Blumei tamen plantam indicat inflorescentia racemosa et habitu *Alpiniæ*, nec a speciebus typicis hujus generis differre videtur nisi antheræ connectivo in cristam subrotundam obsolete 4-dentatam producto. Genus valde dubium, nec a Miquelio nec a Horaninovio nec a nobis visum.

Monocystis, *Lindl. Introd. Nat. Syst. ed.* 2, 445, est *Hellenia abnormis*, Lindl. in Trans. Hort. Soc. vii. 60, planta e seminibus Chinensibus culta, quæ ex descriptione fusiore in omnibus cum *Alpinia* (*Hellenia*) *Chinensi* convenit, excepto ovario intus spongioso, 1-loculari, ovulo unico excentrico e basi loculi oblique erecto. Specimen non vidimus, verosimiliter casu abnorme.

21. **Renealmia,** *Linn. f. Suppl.* 7. (Ethanium *et* Gethyra, *Salisb. in Trans. Hort. Soc.* i. 281, 282, *absque char.* Peperidium, *Lindl. Introd. Nat. Syst. ed.* 2, 446.)—Calyx

cupulatus v. laxe tubulosus, breviter 3-lobus. Corollæ tubus brevis v. rarius calyce longior; lobi diu erecti v. demum patentes, subæquales v. posticus latior concavus. Staminodia lateralia linearia, breviter dentiformia v. longiuscula; labellum obovatum, erectum, concavum, truncatum, corollam non superans; filamentum brevissimum, planum; anthera erecta, loculis discretis, connectivo tamen angustissimo apice basique loculis breviore. Ovarium 3-loculare, loculis ∞-ovulatis; stylus filiformis, stigmate ultra loculos antheræ clavato v. infundibuliformi; stylodia depressa, glanduliformia, annulum fere perfectum circa basin styli formantia. Capsula globosa, a latere irregulariter dehiscens. Semina pauca, subglobosa, testa basi valde intrusa umbilicata.—Caules foliati mediocres v. elati. Racemi v. thyrsi racemiformes nunc e rhizomate in scapo aphyllo squamato, nunc ad apicem caulis foliati terminales. Bracteæ membranaceæ, haud imbricatæ. Flores sub quaque bractea 1–3 v. plures; bracteolæ in aliis speciebus sub ovario membranaceæ, spathaceæ, alabastrum involventes, in aliis sub pedicello minimæ.

Species ad 14, Americæ tropicæ incolæ, cum una ex Africa tropica occidentali. *Horan. Prod. Monogr. Scit.* 32. *Rosc. Scitam. t.* 65. *Jacq. Fragm. t.* 74 *ad* 76 (*Alpinia*). *Ruiz et Pav. Fl. Per. et Chil. t.* 2 (*Amomum*). *Pœpp. et Endl. Nov. Gen. et Sp. t.* 134 *ad* 136. *Bot. Mag. t.* 2494. *Bot. Reg. t.* 777.

R. racemosa et *R. caribæa* a Horaninovio ad *Alpiniam* removentur ob inflorescentiam in caule foliato terminalem, sed characteres florales uti patria omnino *Rencalmiæ*.

Tribus II. Maranteæ.

22. **Ischnosiphon,** *Kœrn. in Nouv. Mém. Soc. Imp. Nat. Mosc.* xi. 316, *t.* 10, 11, *et in Bull. Soc. ejusd.* 1862, i. 80. (Hymenocharis, *Salisb. in Trans. Hort. Soc.* i. 276, *absque char.*)—Sepala libera, angusta, brevia v. longa angustissimaque. Corollæ tubus cylindraceus, tenuis, elongatus, lobi 3, subæquales v. interdum valde inæquilati. Andrœcii tubus supra faucem corollæ abbreviatus; lobi petaloidei 5, lateralis unicus; labellum latum, intus oblique cristatum; cucullati (an semper?) 2, quorum unus a latere lobulo reflexo auctus; staminifer angustus v. uno latere dilatatus, anthera margini adnata 1-loculari. Ovarium specie 1-loculare, 1-ovulatum, loculis 2 parvis vacuis; stylus inclusus, tubo breviter adnatus, superne involutus, stigmate incrassato obliquo. Capsula ovoideo-oblonga (vertice dehiscens?). Semen erectum, oblongum, arillo ubi notus carnoso in stipite seminis reflexo; embryo hippocrepicus.—Herbæ sæpius elatæ nunc altissimæ, ramosæ; caulis foliatus inflorescentia terminatus v. fasciculos laterales ferens, alios foliatos alios florentes. Inflorescentia v. ejus rami spicas simulantes, bracteis complicato-convolutis secus rhachin dissitis v. approximatis rhachin floresque arcte includentibus. Flores intra quamque bracteam ∞, bracteolis angustis separati, corollarum apicibus andrœciique lobis solis e bractea exsertis.

Species enumerat Kœrnicke 16, Americæ tropicæ incolas. *Horan. Prod. Monogr. Scitam.* 11. *Jacq. Fragm. t.* 72, 73 (*Maranta*). *Rudge, Pl. Gui. t.* 2, 3, 37 (*Maranta*). *Rosc. Scitam. t.* 42 (*Phrynium*).

Huc etiam rite a Kœrnickio relatæ videntur *Calathea leucophæa*, *C. laxa*, et *C. polyphylla*. Pœpp. et Endl. Nov. Gen. et Sp. ii. 29, t. 129 ad 131, etsi ovarium 2–3-ovulatum dicitur (an errore?); flores et inflorescentia delineati et descripti omnino *Ischnosiphonis*.

23. **Maranta,** *Linn. Gen. n.* 5.—Sepala 3, angusta, subæqualia. Corollæ tubus cylindraceus, æqualis v. (in *M. bicolore*) basi refractus fere gibbus; lobi subæquales. Andrœcii tubus supra faucem corollæ abbreviatus, nunc vix e tubo corollæ prominens; lobi petaloidei forma et ratione varia, 1 v. 2 laterales sæpe ampli; labellum amplum v. lateralibus brevius, intus oblique v. excentrice varie cristatum; cucullatus nudus v. a latere lobulum reflexum v. loculi rudimentum ferens; staminifer petaloideus, anthera uniloculari margini adnata. Ovarium specie 1-loculare 1-ovulatum, loculis 2 minimis vacuis; stylus inclusus, tubo stamineo adnatus, superne involutus, stigmate late obliquo concavo fere 2-labiato. Fructus ovoideus v. oblongus, rarius 3-angulatus, obliquus, gibbus v. prorsus

æqualis, pericarpio carnoso sæpius viridi. Semen erectum, arillo exteriore viridi, interiore scarioso lacero, stipatum, testa fere crustacea ; embryo albumine solido inclusus, hippocrepicus.—Rhizoma varie tuberosum v. repens. Caules nunc breves herbacei paucifoliati, nunc elatiores, ramosi, basi interdum sublignosi. Folia in vaginis plus minus petiolata. Inflorescentia terminalis, laxe dichotoma, parce tamen ramosa v. interdum subsimplex, ramulis paucifloris. Bracteæ sub ramulis angustæ, spathaceæ, ramulum arcte includentes. Pedicelli breves, 1-flori, sæpe gemini, ebracteolati.

Species ad 10, Americæ tropicæ incolæ, una alterave interdum in orbe vetere introducta. *Horan. Prod. Monogr. Scitam.* 9. *Kœrn. in Bull. Soc. Imp. Nat. Mosc.* 1862, i. 32 (*quoad sect. Eumarantam*). *Rosc. Scitam. t.* 25 *ad* 30, 32. *Hayne, Arzn. Gew.* ix. *t.* 25, 26 (*ic. a Rosc. imitatæ*). *Wall. Pl. As. Rar. t.* 286 (*specimen hortense*). *Bot. Mag. t.* 2307, 2398. *Bot. Reg. t.* 786. *Lodd. Bot. Cab. t.* 921, 1924. *Regel, Gartenfl. t.* 220. *Saund. Ref. Bot. t.* 237.

Marantopsis, *Kœrn. in Bull. Soc. Imp. Nat. Mosc.* 1862, i. 97, est *Maranta lutea*, Jacq. Ic. Rar. t. 201, cum specie ut videtur *Stromanthi*.

Species Asiaticæ a Kœrnickio sub *Maranta* inclusæ (*M. cuspidata*, Rosc., et *M. Blumei*, Kœrn.) ad *Clinogynem* pertinent.

24. **Stromanthe,** *Sond. in Hamb. Gart. Zeit.* v. (1849) 225. (Marantæ sect., *Kœrn. in Bull. Soc. Imp. Nat. Mosc.* 1862, i. 54.)—Sepala 3, libera, ovali-oblonga, tenuia, æqualia, corollam æquantia. Petala 3, a basi solvenda, sepalis parum angustiora. Andrœcii tubus brevis ; lobi petaloidei valde irregulares, 2 laterales angusti inæquales plus minus spathulati ; labellum intus crista obliqua instructum ; cucullatus obliquus ; staminifer angustus, anthera 1-loculari adnata. Ovarium specie 1-loculare, 1-ovulatum, loculis 2 parvis vacuis ; stylus inclusus, basi tubo stamineo adnatus, superne inflexus subinvolutus, stigmate oblique incrassato-dilatato. Fructus subglobosus, calyce diu coronatus, pericarpio carnosulo. Semen subconforme, erectum ; embryo intra albumen valde curvatus v. hippocrepicus.—Rhizoma crassum, horizontale. Caules foliati erecti, subramosi, basi foliorum vaginis longis obtecti. Folia in vaginis brevissime petiolata. Inflorescentia in pedunculo terminali longo laxiuscula, plus minus composita, sæpius a basi ramosa lataque, rarius angusta fere racemiformis, tota colorata sæpius sanguinea. Bracteæ bracteolæque spathiformes, coloratæ, patentes, diu persistentes, ramulos inflorescentiæ sæpe superant.

Species 3, Brasilianæ. *A. Gris in Ann. Sc. Nat. ser.* 4, ix. 185, *t.* 6. *Lemaire, Jard. Fleur. t.* 401. *Bot. Mag. t.* 4646, *ic. in Fl. des Serres, t.* 785, *et in Lemaire, Jard. Fleur. t.* 268 (*Thalia*) *repetita*, cum una ex America centrali (*Kœrn.*) nobis ignota. Huc etiam pertinere videtur *Thalia hexantha*, Pœpp. et Endl. Nov. Gen. et Sp. ii. 24, t. 132, cujus tamen specimina non vidimus.

25. **Thalia,** *Linn. Gen. n.* 8. (Peronia, *DC. in Red. Lil.* vi. *t.* 342.)—Sepala 3, libera, æqualia, membranacea, corollæ æqualia v. multo breviora. Petala 3, libera v. vix basi brevissime connata, æqualia v. posticum vix latius. Andrœcii tubus brevis, lobi petaloidei valde irregulares, lateralis (unicus ?) latiusculus ; labellum latum, intus crista obliqua auctum ; cucullati 2, alter lobulo reflexo auctus, alter angustus (interdum planus v. deficiens ?) ; staminifer angustus, anthera 1-loculari lateraliter adnata. Ovarium specie 1-loculare 1-ovulatum, loculis 2 parvis vacuis ; stylus basi breviter tubo stamineo adnatus, inclusus, crassiusculus, involutus, stigmate crasso a latere 2-labiato dorso gibboso-appendiculato. Capsula oblongo-ovoidea v. globosa, pericarpio haud crasso. Semen 1, erectum, arilli laciniis 2-3 involutis brevibus ; embryo hippocrepicus.—Herbæ annuæ ? Folia pauca, ampla, florale nunc conforme nunc cæteris multo angustius. Panicula terminalis. Bracteæ sub ramulis patentes, deciduæ. Flores secus ramulos per paria laxe spicati, paribus intra bracteam membranaceam spathaceam breviter pedicellatis, bracteis cum fructu v. cum floribus abortientibus deciduis, rhachin sæpe flexuosam denudantibus.

Species ad 5, Americæ tropicæ incolæ v. usque ad Americæ borealis civitates australiores extensæ, una etiam in Africa tropica obvia. *Kœrn. in Bull. Soc. Imp. Nat. Mosc.* 1862, i. 73. *Rosc. Scitam. t.* 45, 46. *Nees in Linnæa* vi. t. 4. *Bot. Mag. t.* 1690.

26. **Myrosma,** *Linn. f. Suppl.* 8, 80. (Marantæ *sect.* Saranthe *et* Xerolepis, *Kœrn. in Bull. Soc. Imp. Nat. Mosc.* 1862, i. 58, 66.)—Sepala 3, libera, corollæ æqualia v. paullo breviora. Corollæ tubus brevis, cylindraceus, lobi patentes, parum inæquales v. posticus latior. Andrœcii tubus supra corollæ tubum brevis; lobi petaloidei valde irregulares, 2 laterales patentes obovoidei inæquales; labellum latum, intus crista obliqua instructum; 1 v. 2 plus minus cucullati; staminifer brevis angustus, anthera 1-loculari hinc adnata. Ovarium specie 1-loculare, 1-ovulatum, loculis 2 minimis vacuis; stylus inclusus, basi tubo stamineo adnatus, superne involutus, stigmate a latere 2-labiato dorso appendiculato. Fructus ovoideo-oblongus, sæpe truncatus, pericarpio siccitate tenui. Semen 1, erectum, arillo in lacinias carnosulas apice inflexas diviso; embryo albumine inclusus, hippocrepicus. —Rhizoma tuberosum. Caules erecti, breves. Folia pleraque radicalia, caulina pauca, vaginis petiolisque longis. Spicæ terminales v. in axillis superioribus solitariæ v. plures confertæ, complanatæ, unilaterales, bracteis distiche imbricatis complicatis secundis. Flores sub quaque bractea plures, bractea fere omnino inclusi, per paria bracteola brevi complicata stipati.

Species ad 12, quarum una Madagascariensis, cæteræ Americæ tropicæ incolæ.

THALIANTHUS *macropus*, Klotzsch in Rich. Schomb. Reise Brit. Gui. iii. 1125 (nomen tantum), est species typica, *M. cannæfolium*, Linn. f. (*Calathea Myrosma*, Lindl.), in Guiana frequens; icon tamen *Phrynii myrosmatis*, Rosc. Scitam. t. 39, nequaquam convenit, bracteis undique imbricatis nec secundis, videtur vera species *Calatheæ*. *Thalia unilateralis*, Pœpp. et Endl. Nov. Gen. et Sp. ii. 24, t. 133, cum speciebus 2 Brasilianis, *Gardner*, *n.* 3461 *et* 3462, omnino *Myrosmati* conveniunt. Species Brasilianas a Kœrnickio descriptas non vidimus. *Phrynium unilaterale*, Baker in Saund. Ref. Bot. t. 312, species Madagascariensis (*M. madagascariensis*, Benth.), ab Americanis paullulum differt sepalis corollæ tubo multo brevioribus. *Phrynium setosum*, Rosc. Scitam. t. 41 (SARANTHE, *Kœrn. in Reg. Gartenz.* 1858, 79), est species Brasiliensis, *M. setosum*, Benth., inflorescentia dense setoso-hispida insignis. Roscoe capsulam errore 3-spermam dixit.

27. **Clinogyne,** *Salisb. in Trans. Hort. Soc.* i. 276, *nomen tantum.*—Sepala 3, libera, æqualia, brevia, angusta. Petala 3, subæqualia, in tubum longiusculum conniventia vix tamen connata, apice breviter patentia. Andrœcii tubus longiusculus; lobi petaloidei valde irregulares, laterales (1 v. 2?) obovati, patentes; labellum obovatum, intus costa obliqua instructum; cucullatus obliquus; staminifer angustus v. unilateraliter dilatatus, anthera 1-loculari margini adnata. Ovarium 3-loculare, loculis 1-ovulatis, ovula tamen 1–2 interdum mox abortiva; stylus inclusus, tubo stamineo alte adnatus apice involutus, stigmate dilatato. Fructus globosus compressus v. 3-dymus, indehiscens, 1–3-spermus. Semina subglobosa, arillo lacero laciniis carnosulis sub semine inflexis v. involutis; embryo hippocrepicus.—Caules e rhizomate tuberoso v. sublignoso erecti, foliati, sæpe ramosi. Inflorescentia terminalis (*Marantæ*), laxe dichotoma, tenuis v. interdum ample paniculata, ramulis virgatis. Bracteæ sub ramulis angustæ, spathaceæ, ramulum arcte includentes. Pedicelli breves, intra bracteas gemini.

Species 7 v. 8, Indiæ orientalis et Africæ tropicæ incolæ, habitu et inflorescentia *Marantæ*, florum structura *Phrynio* affiniores. In *C. dichotoma* (*Phrynio dichotomo*, Roxb.) fructus turbinatus, crassiusculus, vertice truncatus, 2-dymus 2-spermus v. 3-dymus 3-spermus, plus minus rugosus, angulis acutiusculis; in *C. grandi* (*Maranta grandi*, Miq. Fl. Ind. Bat. Suppl. 616, *Phrynio dichotomo*, Kœrn. in Nouv. Mém. Soc. Nat. Mosc. xi. t. 8, 9, non Roxb.) globosus est, lævissimus, nitidus, 1-spermus; in *C. virgata* (*Maranta virgata*, Wall.; Wight, Ic. t. 2015) compressus, 2-spermus, v. globosus 1-spermus.

Species Africanæ includunt *C. filipedem* (*Phrynium filipes*, Benth. in Hook. Fl. Nig. 532), cum 3 adhuc ineditis. *Maranta cuspidata*, Rosc. Scitam. t. 31, ex icone videtur species *C. filipedi* valde affinis nisi eadem. Specimina Schweinfurthiana n. 3103 speciem indicant *C. grandi* affinem, sed fructus 3-locularis est 3-spermus.

28. **Trachyphrynium,** *Benth. gen. nov.*—Sepala 3, libera, subæqualia, latiuscula, corollæ tubum æquantia. Petala 3, unguibus erectis in tubum conniventibus (nec connatis?), laminis patentibus oblongis æqualibus v. postica parum latiore. Andrœcii

tubus e corolla breviter exsertus ampliatus ; lobi petaloidei 2 laterales obovati, inæquales ; labellum latum, intus oblique fere in longitudinem cristatum ; cucullatus parum dilatatus ; staminifer irregularis, anthera a latere adnata 1-loculari. Ovarium papillis carnosis dense vestitum, 3-loculare, loculis 1-ovulatis ; stylus inclusus, basi tubo stamineo adnatus, apice incurvus, sub stigmate dorso crassiuscule appendiculatus, stigmate inflexo 2-valvi. Capsula subglobosa, 3-dyma, 3-locularis, v. abortu 2-dyma 2-locularis, pericarpio crassiusculo extus dense tuberculoso v. echinato, in valvas 3 v. abortu 2 breviter v. usque ad basin dehiscens. Semina ovoidea v. globosa, nigra, arillo reflexo, laciniis carnosulis linearibus arcte-confertis flexuoso-convolutis.—Caules elati, ramosi, interdum basi sublignosi, erecti v. subscandentes, foliati. Inflorescentia terminalis v. intra folia summa sessilis, spiciformis, simplex v. ramis paucis divaricatis. Bracteæ complicatæ, ante anthesin arcte imbricatæ alabastra includentes, anthesi peracta caducissimæ rhachin nudam flexuosam more *Thaliæ* relinquentes. Flores sub quaque bractea in pedicello brevissimo gemini, sessiles, in una specie a collectore albi dicuntur, in altera rubri, in tertia pallide cærulei.

Species nobis adsunt 4 v. 5, Africæ tropicæ occidentalis incolæ, quarum una etiam in terra Niamniam a Schweinfurthio lecta sub n. 3061.

29. **Thaumatococcus,** *Benth. gen. nov.*—Sepala 3, libera, subæqualia, corolla parum breviora. Corollæ tubus breviter cylindraceus, lobi obovales, subæquales. Andrœcii tubus supra faucem corollæ brevis ; lobus petaloideus lateralis unicus, oblique ovalis ; labellum latum, undulatum ; cucullatus . . . ; staminifer angustus, anthera 1-loculari a latere adnata. Ovarium 3-loculare, loculis 1-ovulatis ; stylus crassiusculus tubo stamineo basi adnatus, apice inflexus, stigmate oblique incrassato dorso appendiculato. Fructus crasse carnosus, truncatus, obtuse 3-queter, angulis tamen siccitate acutis fere alatis, indehiscens, 3-locularis. Semina in loculis solitaria, erecta, magna, ovata, compressiuscula, arillo crasso mucilaginoso siccitate duro nitidissimo omnino involuta ; testa albumini farinaceo adnata et embryo hippocrepicus omnino normales.—Rhizoma lignosum, repens, caulibus brevissimis. Folia e rhizomate oriunda vaginis paucis brevibus stipata, petiolo erecto longissimo, lamina ampla. Scapi breves e rhizomate ascendentes, fere a basi floriferi, bracteis erectis spathaceis subimbricatis obtecti. Flores intra bracteas gemini, bracteola stipati, vix bracteas excedentes.

Species 1, Africæ tropicæ occidentalis incola, ubi fructus *Katemphe* dictus cum fructu *Bumeliæ dulcissimæ* 'bacca miraculosa' nuncupatur. *Bennett in Pharmac. Journ.* xiv. 161, *cum ic.* (*Phrynium Danielli*).

Species a Horaninovio perperam cum *Calathea colorata* et *Stromanthe sanguinea* (*Phrynio,* Hook.) associata, a quibus longe differt habitu inflorescentia floribus et fructu.

30. **Phrynium,** *Willd. Spec. Pl.* i. 17. (Phyllodes, *Lour. Fl. Coch.* 13.)—Sepala 3, angusta. Corollæ tubus calyce brevior v. vix longior, lobi 3, anguste oblongi, subæquales. Andrœcii tubus e corolla breviter exsertus ; lobus petaloideus lateralis integer v. 3-fidus (rarius laterales 2 ?) ; labellum latum, intus transverse cristatum ; cucullatus 1 v. interdum 2, altero hinc lobulo reflexo aucto ; staminifer linearis, uno latere interdum petaloideo-appendiculatus, anthera 1-loculari a latere adnata. Ovarium 3-loculare, loculis 1-ovulatis, v. in speciebus cæterum similibus loculis 2 parvis vacuis 1-ovulatum evadit ; stylus basi tubo stamineo adnatus, inclusus, superne involutus, stigmate incrassato a latere 2-valvi. Fructus ovoideus globosus v. 2–3-dymus, pericarpio crassiusculo demum tenuiore interdum dehiscente. Semina 1–3, ovoidea v. oblonga, erecta, angulata v. compressiuscula, arillo carnoso brevi reflexo.—Caules foliati in rhizomate repente brevissimi, foliis subradicalibus, petiolis longis erectis caulem simulantibus ; floriferi erecti, 1-foliati v. rarius ∞-foliati inflorescentia laterali capitata v. spicata ad basin v. specie in medio petiolo sessili. Bracteæ primariæ serie simplici imbricatæ v. approximatæ. Flores sub quaque bractea sæpius numerosi, per paria bracteola complicata stipati, bracteolis etiam sæpe

pluribus vacuis præsertim in speciebus globoso-capitatis. Folium caulis floriferi interdum ad vaginam absque lamina reductum.

Species fere 20, Indiæ orientalis, Archipelagi Malayani et Africæ tropicæ incolæ. *Kœrn. in Bull Soc. Imp. Nat. Mosc.* 1862, i. 100, *excl. sp.*

Species commode in series 3 distribuuntur:—

1. *Capitatæ.* Inflorescentia dense globoso-capitata, bracteis imbricatis. Huc *P. capitatum*, Willd., *P. imbricatum*, Roxb., *P. densiflorum*, Blume, affinesque Indicæ fructu sæpius 3-spermo. *Wight, Ic. t.* 2016, cum *P. parvifloro*, Roxb.; Rosc. Scitam. t. 34, fructu 1-spermo.

2. *Subbaccatæ.* Florum fasciculi ut in *Capitatis* densi, e spicis brevibus bracteatis compositi. Fructus fere baccatus, indehiscens. Arillus in vivo mucilaginosus seminis dimidium obtegens. Species 3, Africanæ: 1. *P. brachystachyum*, Kœrn. (*Maranta brachystachya*, Benth. in Hook. Fl. Nigr. 531) glabrum, spicis 2–3, fructiferis vix 2-pollicaribus, bracteis subimbricatis. 2. *P. villosum*, vaginis inflorescentiaque molliter villosis, spicis 3–4, fructiferis laxis vix 2-pollicaribus. Folia quam in *P. brachystachyo* angustiora. Bracteæ angustiores longioresque. Pedicelli præter flores 2 normales, sæpius rudimenta 2 bulbiformia ferunt. 3. *P. macrostachyum*, folio florali ultrapedali latissime ovato, spicis fructiferis 4–8-pollicaribus. Ad sinum Ambas, *Mann, n.* 1335.

3. *Spicatæ.* Bracteæ ut in *Capitatis* flores ∞ arcte includentes, sed secus rhachin plus minus elongatam dispositæ. Huc *P. sumatranum*, Miq. Fl. Ind. Bat. Suppl. 616, quod verisimiliter idem ac *P. spicatum*, Roxb., ovario 3-ovulato; *P. zeylanicum* (*Maranta spicata*, Thw.), ovario 1-ovulato, loculis 2 minimis vacuis, cæterum *P. sumatrano* simillimum; *P. fasciculatum*, Kœrn. (*Calathea fasciculata*, Presl, Rel. Hænk. t. 16), e Philippinis; et species 4 Africanæ, quarum 2 caule florifero 1-foliato *P. sumatrano* valde affines, et 2 caule florifero plurifoliato, etsi inflorescentia ut in cæteris in petiolo folii ultimi specie lateralis. Huc includitur, *P. ramosissimum*, Benth. in Hook. Fl. Nig. 532 (Mann, n. 1907) petalis brevibus latissimis insigne, cum specie affini adhuc inedita.

P. dichotomum, Roxb., *P. virgatum*, Roxb., et *P. filipes*, Benth., species a Kœrnickio in *Phrynio* retentæ, ab aliis ob habitum ad *Marantam* relatæ, genus formant *Clinogyne*, Salisb.

31. **Calathea,** *G. F. W. Mey. Prim. Fl. Esseq.* 6.—Sepala 3, libera, æqualia, valde imbricata. Corollæ tubus tenuis, calyce brevior v. multo longior; lobi 3, patentes, æquilongi, postico sæpius latiore. Andrœcii tubus e corolla brevissime exsertus; lobi petaloidei varii, lateralis sæpius latus; labellum latum, intus (an semper?) ecristatum; cucullatus uno latere plus minus appendiculatus; staminifer angustus v. uno latere petaloideo-dilatatus, anthera 1-loculari a latere adnata. Ovarium 3-loculare loculis 1-ovulatis v. rarius loculis 2 parvis vacuis specie 1-loculare 1-ovulatum; stylus basi tubo stamineo adnatus, inclusus, superne incurvus v. involutus, dorso apice plus minus papilloso-appendiculatus, stigmate inflexo a latere 2-valvi. Fructus ovoideus truncatus v. 3-dymus, pericarpio sæpius siccitate tenui. Semina 3, rarius 1–2, erecta, ovoidea, truncata, arillo reflexo e laciniis linearibus flexuosis confertis; embryo hippocrepicus.—Caules e rhizomate tuberoso v. repente sæpe elati, foliati, interdum humiles. Inflorescentia in caule foliato terminalis v. rarius in scapo brevi aphyllo radicalis, nunc strobiliformis globoso-capitata v. dense spiciformis, bracteis imbricatis quaquaversis, exterioribus interdum dilatatis involucrantibus v. summis vacuis comosis, nunc longius spicata, bracteis subdistichis. Flores intra quamvis bracteam sæpius plures, bracteolis numerosis intermixti.

Species notæ ad 60, quarum 2 Africæ tropicæ occidentalis, cæteræ omnes Americæ tropicæ incolæ. *Kœrn. in Bull. Soc. Imp. Nat. Mosc.* 1862, i. 111, in sectiones sequentes distribuendæ:—

1. *Eucalathea.* Spicæ solitariæ v. paucæ, in caule foliato pedunculatæ v. rarius subsessiles, bracteis latis coriaceis laxe imbricatis distincte distichis subspiraliter 2-seriatis v. rarius quaquaversis. *Jacq. Fragm. t.* 63, 64, 69, 70 (*Maranta*). *Bot. Mag. t.* 6205. Huc forte referendum *Phrynium dicephalum*, Pœpp. et Endl. Nov. Gen. et Sp. t. 128, cujus specimina non vidimus. Inflorescentia *Eucalatheæ*, sed spicæ et bracteæ multo minores. Horaninow bracteas *Eucalatheæ* oppositas describit, quod in genere nunquam vidimus.

Eucalatheæ affines sunt species 2, ex Africa tropica occidentali, *C. Mannii*, Benth., folis summis longe petiolatis confertis spica inter folia unica subsessili sub-2-pollicari, bracteis coriaceis distichis acuminatis ultrapollicaribus, Fernando Po, *Mann, n.* 1173; et *C. conferta*, Benth., foliis summis longe petiolatis confertis, spicis inter folia pluribus sessilibus confertis, 1–1½-pollicaribus, bracteis

paucis latis obtusis quaquaversis imbricatis spica tota parum brevioribus. Ad montem Cameroon, altit. 3000 ped. *Mann*, *n.* 2144.

2. *Macropus.* Pedunculus longus subradicalis, spica unica, bractea majuscula convoluta v. paucæ dissitæ. Huc *C. tubispatha*, Bot. Mag. t. 5542, *C. villosa*, Lindl. Bot. Reg. 1845, t. 14; Bot. Mag. t. 4973, cum specie tertia inedita a Gardnero in prov. Ceara lecta; et quarta, *C. Glaziovi*, Benth., e Rio Janeiro, *Glaziou*, *n.* 8044, cui inflorescentia *Macropodis*, sed vaginæ pedunculus et spica undique mollissime villosæ, spica densa ultrapollicaris, bracteis distichis, floribus parvis.

3. *Breviscapus.* Spicæ strobiliformes, in scapo brevi subradicali solitariæ; bracteis acuminatis imbricatis quaquaversis. Corollæ tubus sæpius e bracteis exsertus. *Rosc. Scitam. t.* 33 (*Phrynium*). *Bot. Reg. t.* 932. *Pœpp. et Endl. Nov. Gen. et Sp. t.* 125, 126., *Baker in Saund. Ref. Bot. t.* 311. *Regel, Gartenfl. t.* 255. Huc etiam verisimiliter referendum *Phrynium pachystachyum*, Pœpp. et Endl. Nov. Gen. et Sp. t. 127, a nobis non visum.

4. *Pseudophrynium.* Spicæ strobiliformes, crassæ, in caule foliato brevi v. elato solitariæ, pedunculatæ, bracteis quaquaversis imbricatis rotundatis appressis v. apice subfoliaceo-patentibus. *Rosc. Scitam. t.* 36 *ad* 38, 40 (*Phrynium*). *Jacq. Fragm. t.* 71. *Bot. Mag. t.* 1926. *Bot. Reg. t.* 385 (*Maranta*), 962, 1210. *Lodd. Bot. Cab. t.* 1148, 1781, 1879. *Regel, Gartenfl. t.* 167, 515. *C. longibracteata*, Lindl. Bot. Reg. t. 1020, Lodd. Bot. Cab. t. 1719, *Pseudophrynium* cum *Monostiche* connectit.

5. *Microcephalum.* Species humiles. Spicæ parvæ, paucifloræ, in scapo subradicali solitariæ, bracteis imbricatis quaquaversis. Huc pertinent *C. Makoyana*, Belg. Hortic. 1872, t. 25. *C. guianensis*, Kl., affinesque 3.

6. *Monostiche.* Inflorescentia in pedunculo longo capitata, bracteis confertissimis quaquaversis herbaceo-acuminatis patentibus. MONOSTICHE, *Kœrn. in Regel Gartenfl.* 1858, 88. Huc pertinent *Maranta capitata*, Ruiz et Pav. Fl. Per. et Chil. t. 5, *C. Veitchiana*, Bot. Mag. t. 5535, species vix a præcedente distincta, et *Phrynium coloratum*, Bot. Mag. t. 3010. *Phrynium comosum*, Rosc. Scitam. t. 35, his potius quam aliis affine est. Capsula haud raro nec semper 1-sperma evadit. *Monostiche Danieli*, Horan., a præcedentibus valde diversa, est *Thaumatococcus* nobis.

Phrynium ellipticum, Rosc. Scitam. t. 44, a nobis non visum, ab omnibus *Calatheis* differre videtur inflorescentia laxa, a Kœrnickio dubie ad *Ischnosiphonem* refertur.

GŒPPERTIA, Nees in Linnæa vi. 337, est genus spurium e *Calatheæ* et *Marantæ* speciebus foliis pictis compositum.

TRIBUS III. CANNEÆ.

32. **Canna,** *Linn. Gen. n.* 1.—Sepala 3, corollæ tubo arcte appressa, imbricata, obtusa. Petala 3, basi breviter v. longiuscule cum androecio in tubum connata, apice recurvo-patentia, angusta, subæqualia. Androecium petaloideum, basi breviter tubulosum, lobi angusti v. cuneato-oblongi, 3 exteriores nunc subæquales imbricati, nunc 2 plus minus connati tertio libero, nunc omnino deficientes; 2 interiores angustiores, quorum unus antherifer alter nudus; anthera linearis, 1-locularis, lobo petaloideo a latere adnata. Ovarium 3-loculare, loculis ∞-ovulatis; stylus linearis, complanatus, ima basi tubo stamineo adnatus paullo altius tubum fere in loculos 2 dividens, ultra tubum liber, sæpe leviter dilatatus, vertice stigmatosus, papillis etiam interdum ad marginem interiorem breviter decurrentibus; adsunt etiam interdum in loculo majore tubi staminei stylodia 2 parva tubo hinc adnata. Capsula globosa v. ovoidea, extus papillosa tuberculosa v. echinata, evalvis, pericarpio deliquescente demum fibroso. Semina globosa, testa membranacea v. carnosa siccitate subcrustacea; embryo in centro albuminis duri obovoideus, sæpe compressus, rectus.—Herbæ erectæ, sæpe elatæ, foliatæ. Flores speciosi, in racemo terminali simplici v. parce ramoso erecti v. rarius penduli, sub quaque bractea solitarii, breviter pedicellati v. subsessiles; bracteæ membranaceæ, dissitæ, ovarium sæpius æquantes. Perianthium sæpe leviter obliquum, non tamen 2-labiatum ut ab auctoribus pluribus dicitur, nam lobi exteriores (labium superius auctorum) interiores (labium inferius) a basi omnino includunt.

Species vix 30, omnes Americanæ tropicæ v. subtropicæ, quarum una per regiones calidiores utriusque orbis latissime dispersa, et aliæ 2 v. 3 in orbe veteri hinc inde obviæ, verisimiliter inquilinæ. A hortulanis species ultra 100 enumeratæ, sunt pro maxima parte varietates hortenses inter

se parum diversæ. Horaninow, Prod. Monogr. Scitam. 14, species 66 recenset. Regel. in Ind. Sem. Hort. Petrop. 1866, ad 25 bene notas reducit, præter nonnullas adhuc dubias. A Roscoeo, quem secutus est Regel, in series 3 sequentes distribuuntur:—

a. Lobi exteriores andrœcii 3, distincti, inter se sæpius parum inæquales. *Rosc. Scitam. t.* 1 *ad* 14. *Wawra in Pr. Maxim. Reise, Bot.* 143, *t.* 22. *Red. Lil. t.* 201, 331, 354. *Hook. Exot. Fl. t.* 47, 53, 228. *Bot. Mag. t.* 454, 2302, 2316, 2323, 2498, 3437. *Bot. Reg. t.* 206, 470, 576, 771, 772, 775, 776, 1311, 2004. *Lodd. Bot. Cab. t.* 449, 622, 634, 1693. *Fl. des Serres* x, *t.* 1055.

b. Lobi exteriores andrœcii 2 (duobus in unum integrum v. 2-fidum coalitis). *Rosc. Scitam. t.* 15 *ad* 22. *Bot. Mag. t.* 2085, 2317, 4854. *Bot. Reg. t.* 773, 1231, 1276, 1358. *Lodd. Bot. Cab. t.* 1950.

c. Lobi exteriores andrœcii omnino deficientes. *Rosc. Scitam. t.* 23, 24. *Ruiz et Pav. Fl. Per. et Chil. t.* 1. *Lodd. Bot. Cab. t.* 743. Distemon, *Bouché in Linnæa*, xviii. 494.

Achirida, *Horan. Prod. Monogr. Scitam.* 18, *t.* 2, est *C. iridiflora*, Ruiz et Pav.; Bot. Mag. t. 1968, Bot. Reg. t. 609, floribus longis speciosis pendulis insignis, sed characteres omnino *Cannæ* seriei *a. C. iridiflora*, Carr. in Rev. Hort. 1875, 291, forma pulchra a Ruiziana distincta, hybrida dicitur hortensis.

Eurystylus, *Bouché in Linnæa* xviii. 485, est *C. flaccida*, Dill.; Rosc. Scitam. t. 6, Red.Lil. t. 107; Salisb. Ic. Rar. t. 2; Lodd. Bot. Cab. t. 562, species boreali-Americana e serie *a*, lobis petaloideis andrœcii latissimis insignis.

Tribus IV. Museæ.

33. **Heliconia**, *Linn. Mant. n.* 1297.—Sepala 3, linearia, libera v. lateralia plus minus corollæ adnata. Corollæ tubus brevis, latus, interdum fere globosus, limbus elongatus, apice sub-3-lobus, lobis lateralibus tamen multo minoribus, et uno sæpe obsoleto. Stamina perfecta 5, ad apicem tubi affixa, æqualia, filamentis linearibus, sextum ad staminodium lineare v. oblongum anantherum plus minus petaloideum perfectis multo minus reductum; antheræ lineares, 2-loculares. Ovarium 3-loculare, loculis 1-ovulatis; stylus centralis, filiformis, stigmate parum incrassato denticulato. Fructus ovoideus v. breviter oblongus, truncatus, pericarpio crassiusculo indehiscente, 3-locularis v. abortu 1–2-locularis. Semina in loculis solitaria, erecta, testa ad hilum plus minus intrusa; embryo in cavo centrali albuminis duriusculi erectus, brevis.—Caules e rhizomate perenni specie erecti, elati, foliati, revera tamen (an semper?) e vaginis foliorum elongatis convolutis scapum seu pedunculum involventibus compositus. Foliorum lamina ampla. Inflorescentia terminalis, pedunculata, erecta v. recurvo-pendula. Bracteæ spathaceæ, secus rhachin flexuosam dissitæ, sæpius pulchre coloratæ, nunc angustæ, submembranaceæ, primum erectæ, mox patentes, nunc late cymbiformes complicatæ, basi rhachi adnatæ, coriaceæ, patentissimæ. Flores intra basin spathæ fasciculati, pedicellati, fasciculorum rhachi interdum parum elongata racemum unilateralem intra spatham inclusum formantes.

Species ad 25, Americæ tropicæ incolæ, quarum una interdum in orbe vetere hinc inde inquilina. *Horan. Prod. Monogr. Scitam.* 38. *L. C. Rich. in Nov. Act. Nat. Cur.* xv., *Suppl.* 13, 24, *t.* 8 *ad* 12. *Hook. f. in Journ. Linn. Soc.* vii. 68. *Wawra in Pr. Maxim. Reise, Bot.* 142, *t.* 21. *Ruiz et Pav. Fl. Per. et Chil. t.* 303 *ad* 305. *Red. Lil. t.* 151, 382, 383. *Jacq. Hort. Schœnbr. t.* 48, 49. *Hook. Exot. Fl. t.* 190. *Fisch. Sert. Petrop. t.* 20. *Andr. Bot. Rep. t.* 124, 640. *Bot. Mag. t.* 502, 4475, 4685, 5315, 5416, 5613. *Bot. Reg. t.* 374, 1648. *Maund, Botanist, t.* 101.

Heliconiopsis, *Miq. Fl. Ind. Bat.* iii. 590, species Amboinensis, a nobis non visa (*Heliconia buccinata*, Roxb. Fl. Ind. i. 670), ex descriptione auctoris omnino cum *Heliconia Bihai*, Linn., convenit. Hæc species, in America calidiore late dispersa, etiam in aliis regionibus hinc inde occurrit, an olim ex America introducta? Specimina vidimus e Nova Caledonia, *Pancher*.

34. **Musa**, *Linn. Gen. n.* 1141.—Calyx elongatus, striatus, primum tubulosus, mox spathaceo-fissus, apice 3-fidus 3-dentatus v. 5-dentatus, dentibus 2 accessoriis dum adsint e sinubus oriundis sæpe acutioribus. Corolla calyce inclusa brevior que v. in *M. rosacea* ei subæqualis, genitalia involvens, apice varie truncato-dentata. Stamina perfecta 5, filamentis crassiusculis filiformibus; antheræ lineares, erectæ, 2-loculares, loculis parallelis

contiguis; staminis sexti rudimentum interdum adest parvum, rarius lineare staminibus perfectis brevius. Ovarium 3-loculare, loculis ∞-ovulatis; stylus e basi crassiuscula filiformis, centralis, stigmate subgloboso breviter 6-dentato. Fructus carnosus, indehiscens, 3-locularis. Semina subglobosa v. irregulariter angulata, ad hilum sæpe excavata, testa crassa dura apice basique albumine farinaceo intrusa; embryo sub hilo prominens, subtruncatus, in margine albuminis dilatatus.—Caulis e petiolorum basibus convolutis constans, erectus, elatus, interdum quasi arborescens. Folia ampla, longa. Scapus e foliorum centro protrusus, racemo longo terminali. Bracteæ magnæ late spathiformes, secus rhachin dissitæ. Flores fasciculati, sessiles, plerique abortu unisexuales, ♂ intra bracteas superiores, ♀ intra inferiores, alii tamen adsunt ☿ sed sæpius steriles.

Species editæ ultra 20, regionum tropicarum orbis veteris incolæ, nonnullæ tamen ad varietates cultas reducendæ. *Horan. Prod. Monogr. Scitam.* 40. *L. C. Rich. in Nov. Act. Nat. Cur.* xv., *Suppl.* 11, *t.* 1. *Gærtn. Fruct. t.* 11. *Colla in Mem. Acad. Torin.* xxv. 333, *t.* 13 *ad* 15. *Kirk in Journ. Linn. Soc.* ix. 128. *Red. Lil. t.* 307, 308, 443. *Jacq. Hort. Schœnbr. t.* 445, 446. *Roxb. Corom. Pl. t.* 223, 275, 300. *Wight, Ic. t.* 2017 (*quoad fig.* 4 *et* 5 *male*). *Andr. Bot. Rep. t.* 47. *Bot. Mag. t.* 1559, 3849, 3850, 5223, 5224, 5402, 5975. *Bot. Reg. t.* 706. *Lodd. Bot. Cab. t.* 475, 615, 684. *Paxt. Mag.* iii. 51 *cum ic.*

In *M. paradisiaca*, Linn., et affinibus corolla brevis, lata, plus minus 2–3-loba, lobis lateralibus latis, medio anguste acuminato interdum obsoleto; in *M. coccinea*, Roxb., calyx apice 3-dentatus, dentibus lateralibus dorso seta rigida reflexa armatis, medio breviter 2-appendiculato; corolla calyce parum brevior, angusta, striata, ei *Heliconiæ* similis, lobis 2 lateralibus parvis; in *M. rosacea*, Jacq., lobi laterales corollæ vix conspicuæ.

Ensete, Bruce, a Horaninovio Prod. Monogr. Scitam. 40, pro genere proprio distinguitur ob staminodium loco staminis sexti bene evolutum, et fructum abortu 1–4-spermum nec polyspermum; sed staminodium parvum etiam in aliis speciebus sæpe adest, et seminum numerus in genere valde variabilis.

35. **Strelitzia,** *Ait. Hort. Kew.* i. 285, *t.* 2.—Sepala 3, libera, longa, carinata, lateralia concava, tertium acutissime acuminatum, carina valde elevata marginibus recurvis revolutisve. Petala inter se valde dissimilia, exterius breve, latum, concavum, fere cucullatum, lateralia longa, linearia, uno latere sibimet cohærentia, dorso in longitudinem lamina petaloidea decurrente appendiculata, circa genitalia convoluta. Stamina 5, petala subæquantia; antheræ lineares, 2-loculares, filamento longiores. Ovarium 3-loculare, loculis ∞-ovulatis; stylus filiformis, elongatus, stigmate e basi crassiuscula in ramos 3 lineares e petalis exsertos diviso. Capsula (nec a nobis nec a botanicis recentioribus visa) ex Gærtnero obovoideo-oblonga, 3-quetra, loculicide 3-valvis. Semina in loculis pauca, superposita, arillo lanato v. villoso 2-valvi ad medium tecta; embryo . . .—Rhizoma nunc hypogeum nunc in caulem erectum, lignosum, cicatricibus foliorum delapsorum annulatum productum. Folia in vaginis longis scapum seu pedunculum involventibus sessilia v. petiolata, ampla, flabellatim bifaria. Scapus terminalis v. in axillis superioribus e foliorum vaginis breviter exsertus. Bracteæ magnæ, spathaceæ, cymbiformes, acuminatæ, ad apicem scapi solitariæ v. 2 parum distantes. Flores magni, speciosi, intra spatham pauci, breviter pedicellati, perianthio longe exserto.

Species 4 v. 5, Africæ australis incolæ. *Horan. Prod. Monogr. Scitam.* 42. *L. C. Rich. in Nov. Act. Nat. Cur.* xv., *Suppl.* 12, 17, *t.* 2, 3. *Gærtn. Fruct.* ii. 270, *t.* 139 (*Heliconia*). *Red. Lil. t.* 77, 78. *Andr. Bot. Rep. t.* 432. *Bot. Mag. t.* 119, 120, 4167, 4168. *Bot. Reg. t.* 516. *Reg. Gartenfl. t.* 235.

S. Nicolai, Regel, ab *S. augusta*, Thunb. (*Heliconia alba*, Linn.), non differre videtur.

36. **Ravenala,** *Adans. Fam.* ii. 67. (Urania, *Schreb. Gen. Pl.* 212.)—Sepala 3, libera, longa, angusta, acuminata, subæquilonga, intermedio lateralibus latiore, carina valde prominente. Petala 3, exterius cæteris brevius, angustum, subcomplicatum, lateralia longa, angusta, sepalis similia nisi paullo minora, inappendiculata, genitalia amplectentia. Stamina 5, petalis paullo breviora; antheræ lineares, 2-loculares, filamento multo longiores. Ovarium

3-loculare, loculis multiovulatis; stylus filiformis, elongatus, subangulatus, stigmate oblongo-clavato breviter 6-dentato. Capsula ovoideo-3-quetra v. oblonga, loculicide 3-valvis. Semina in quoque loculo numerosa, 2–∞-seriatim superposita, transverse oblonga, arillo fimbriato-lacero subinclusa; embryo . . .—Caulis nunc brevis foliis subradicalibus, nunc erectus lignosus (usque ad 30-pedalis) cicatricibus foliorum delapsorum annulatus. Folia magna conferta, flabellatim bifaria, petiolis longis basi concavis vix vaginatis. Scapi v. pedunculi in axillis superioribus petiolo breviores v. longiores. Bracteæ spathaceæ, plures, cymbiformes, acuminatæ, bifariam patentes. Flores in spatha plures, magni, brevissime pedicellati, intra spatham brevissime racemosi, perianthiis longe exsertis.

Species 2, altera Brasiliæ borealis et Guianæ, altera Madagascariæ incola. *Horan. Prod. Monogr. Scitam.* 43. *L. C. Rich. in Nov. Act. Nat. Cur.* xv, *Suppl.* 12, 19, *t.* 4 *ad* 8 (*Urania*). *Sonnerat, Voy. Ind. Or.* iii. 244, *t.* 124 *ad* 126. *Jacq. Hort. Schœnbr. t.* 93. *Endl. Iconogr. t.* 42.

Phenakospermum, *Endl. Prod. Fl. Norf.* 35, *in Adnot.*; *Miq. Stirp. Surin.* 212, *t.* 62, 63, genus propositum fuit ad speciem Americanam characteribus minimi valoris a Madagascariense separatam. Utraque variare videtur caule nunc brevissimo nunc lignoso ∞-pedali.

Ordo CLXXI. **BROMELIACEÆ.**

Endl. Gen. 181. Lindl. Veg. Kingd. 147.

Flores regulares, hermaphroditi v. rarius abortu dioici. *Perianthium* superum semisuperum v. inferum, duplici serie 3-merum, exterius calycinum, e sepalis 3 liberis v. rarius basi in tubum connatis, æstivatione convoluto-imbricatis; interius corollinum, e petalis 3 unguibus sæpius in tubum conniventibus v. connatis, laminis erectis v. patentibus æstivatione convoluto-imbricatis. *Stamina* 6, intra basin corollæ affixa, nunc omnia libera, nunc 3 sepalis opposita libera, 3 petalis opposita iisque plus minus adnata, nunc omnia corollæ alte adnata specie sub apice tubi affixa; filamenta filiformia v. crassiuscula. *Antheræ* lineares, rarius oblongæ, nunc medio dorso affixæ versatiles, nunc prope basin v. rarius ima basi affixæ, erectæ, loculis 2 parallelis contiguis longitudinaliter dehiscentibus, connectivo inappendiculato. *Ovarium* inferum semisuperum v. si superum lata basi affixum, 3-loculare. *Stylus* elongatus filiformisque v. abbreviatus, interdum præter ramos stigmatosos subnullus; stigmata (v. styli ramuli stigmatosi) 3, brevia v. linearia, introrsum papillosa, erecta v. recurvo-patentia, haud raro sigillatim torta v. omnia in massam ovoideam contorta. *Ovula* in quoque loculo ∞, sæpius numerosa, angulo centrali affixa, anatropa, ascendentia horizontalia v. pendula, interdum ad chalazam breviter appendiculata. *Fructus* nunc carnosus perianthio toto emarcido v. sepalis solis coronatus, indehiscens v. a latere irregulariter ruptus, nunc siccus, ab apice libera septicide v. rarius loculicide 3-valvis. *Semina* oblonga ovata v. linearia, testa membranacea undique nucleo appressa v. apice basique rarius circumcirca in appendiculam producta. *Albumen* farinaceum, copiosum. *Embryo* parvus, rarius lineari-acuminatus, juxta hilum in cavo parvo v. sulco albuminis collocatus, rarius longius intrusus.

Herbæ epiphyticæ v. saxicolæ, rarissime terrestres, caule præter scapum v. pedunculum florentem sæpius brevi, rarius elongato undique foliato. Folia sæpius ad basin caulis dense rosulata, interdum longissima, nunc rigida pungentia et margine spinuloso-serrata, nunc mollia angusta integerrima sæpeque furfuracea, rarius secus caulem pendulum sparsa. Inflorescentia terminalis v. rarissime lateralis; spicata v. varie paniculata, pedunculo v. scapo interdum valde elongato squamis bracteæformibus instructa. Bracteæ primariæ haud raro amplæ, coloratæ, imbricatæ dissitæ v. exteriores involucrantes, interdum parvæ

v. minutæ. Flores sub quaque bractea solitarii v. plures, fasciculati v. subspicati, singuli sæpe bracteola spathiformi basi stipati v. fere inclusi.

Species plus minus notæ vix 350, omnes Americanæ, tropicæ v. subtropicæ. plures tamen, exsiccatu difficiles v. rarius floriferæ, in herbariis nostris desunt et ulterius recognoscendæ.

Ordo naturalis et facile distinctus, nulli arcte affinis, ab *Amaryllidaceis* bene separatur habitu, perianthio exteriore distincte calycino, albumine farinaceo et embryonis situ, a Linnæo in genera duo *Bromeliam* et *Tillandsiam*, ab auctoribus recentioribus in tribus 3 optime limitatas divisus. Has tamen J. G. Beer rejecit, et in "Die Familie der Bromeliaceen" Wien, 1857, systema proposuit novum, hortulanis forte commodum, imprimis ad variationes vegetationis constructum, sed characteribus floris et fructu fere undique neglectis, botanicis minime conveniens.

FORMÆ ABNORMES.

Flores dioici in *Hechtia*.

Antheræ in annulum circa stylum connatæ in *Guzmania*.

Capsula loculicide 3-valvis in *Puya*, septicide 3-valvis valvis 2-fidis quasi 6-valvis in *Dyckia*.

CONSPECTUS GENERUM.

Tribus I. Bromelieæ. Ovarium inferum, ovulis horizontalibus v. pendulis. Fructus carnosus, indehiscens v. a latere rumpens. Semina inappendiculata. Folia sæpissime spinoso-serrata (excepta *Ronnbergia*).

* *Sepala ad apicem ovarii inter se libera. Petala basi v. alte in tubum coalita.*

1. STREPTOCALYX. Panicula terminalis. Sepala lata, valde imbricata. Corollæ tubus longus. *Bras. trop., Guiana.*

2. BROMELIA. Panicula terminalis. Sepala ovato-oblonga v. linearia, parum imbricata. Petala basi in tubum brevem connata.—*Ind. occid., Amer. trop.*

3. KARATAS. Capitulum terminale, densum, inter folia superiora involucrantia sessile. Sepala oblonga v. angusta.—*Amer. trop.*

4. GREIGIA. Capitulum crassum, inter folia inferiora sessile, bracteis acutis imbricatis spinoso-serratis. Sepala angusta. Corollæ tubus longus.—*Chile.*

** *Calycis v. perianthii tubus supra ovarium cyathiformis v. breviter cylindraceus, sepalis ad apicem tubi v. cyathi inter se liberis. Petala libera v. basi breviter connata.*

5. CRYPTANTHUS. Capitulum densum, inter folia subsessile, bracteis exterioribus foliaceis, interioribus bracteolisque parvis. Petala basi in tubum brevem connata.—*Brasilia.*

6. DISTEGANTHUS. Spicæ strobiliformes, in rhizomate subsessiles, bracteis imbricatis. Petala libera, basi circa stamina interiora convoluta.—*Cayenna.*

7. RONNBERGIA. Thyrsus terminalis, dense spiciformis. Petala et stamina libera.—*Nov. Grenada.*

8. OCHAGAVIA. Spica terminalis. Petala et stamina libera.—*Ins. Juan Fernandez.*

9. PORTEA. Spica terminalis, longa v. brevis densaque. Petala libera. Stamina 3 libera, 3 petalis alte adnata.

10. RHODOSTACHYS. Capitulum terminale, densum, inter folia conferta sessile. Ovarii v. perianthii cyathus brevis. Petala et stamina libera.—*Chile, Colombia, Guiana.*

*** *Sepala petalaque ad apicem ovarii libera.*

11. ANANAS. Inflorescentia dense strobiliformis. Ovaria fructusque receptaculo carnoso basi adnata v. omnino inclusa. Bracteæ in strobilo maturo parum prominentes.—*Amer. trop.*

12. ÆCHMEA. Spica simplex v. ramosa v. panicula, sæpissime terminalis, floribus distichis v. quaquaversis, bracteis sæpius parvulis, rarius spica in capitulum contracta bracteis imbricatis. Ovula in loculis ∞. Stigmata sæpissime spiraliter contorta.—*Amer. trop.*

13. ARÆOCOCCUS. Flores minimi, in panicula laxa, bracteis minutis. Ovula in loculis 1–2.—*Bras. bor., Guiana.*

14. BILLBERGIA. Racemus v. panicula angusta, terminalis. Sepala quam in *Æchmea* angustiora, erecta. Petala longiora. Stigmata linearia, vix contorta.—*Amer. trop.*

15. QUESNELIA. Inflorescentia strobiliformis, bracteis membranaceis laxe imbricatis utroque latere transversim plicatis. Sepala ovata. Petala angusta.—*Brasilia.*

Tribus II. Pitcairnieæ. Ovarium superum lata basi affixum, v. basi toro plus minus immersum semisuperum, superne semper liberum, ovulis ascendentibus. Fructus capsularis, 3-valvis. Seminum testa apice basique in appendiculam linearem integram v. circumcirca in alam membranaceam producta, v. rarius semina inappendiculata. Folia sæpissime spinoso-serrata.

16. Brocchinia. Panicula pyramidalis, ampla, floribus parvis. Filamenta brevia, basi connata. Ovarium apice breviter tantum liberum. Capsula clavata, septicide 3-valvis. Semina utrinque anguste appendiculata.—*Brasilia.*

17. Pitcairnia. Racemus terminalis, simplex v. parce ramosus, floribus angustis sæpius speciosis. Filamenta libera. Ovarium pro maxima parte liberum; stylus filiformis. Capsula septicide 3-valvis. Semina utrinque anguste appendiculata v. (in *Pepinia*) ala parva rarius circumdante appendiculata, v. rarius omnino nuda.—*Amer. trop.*

18. Puya. Racemus terminalis, simplex v. pyramidato-ramosus. Perianthia quam in *Pitcairnia* patentiora. Stylus filiformis. Capsula *loculicide 3-valvis.* Semina circumcirca alata. —*Andes Amer. austr.*

19. Encholirion. Racemus simplex, dense floribundus, pedicellis quaquaversis sæpe fasciculatis. Stylus abbreviatus. Capsula angusta, septicida, valvis introrsum clausis semina includentibus. Semina breviter stipitata, apice inappendiculata.—*Brasilia.*

20. Dyckia. Spica in scapo axillari simplex v. ramosa, elongata, dissitiflora. Petala uno latere valde dilatata. Stylus infra stigmata subnullus. Capsula septicide 3-valvis, *valvis 2-fidis.* Semina plana, inæqualiter marginata.—*Brasilia.*

21. Hechtia. Flores *dioici*, secus pedunculum prælongum simplicem v. ramosum dissite glomerati. Stylus abbreviatus. Capsula profunde 3-sulca, septicide 3-valvis. Semina breviter appendiculata.—*Mexico.*

Tribus III. Tillandsieæ. Ovarium lata basi affixum, superum v. rarius basi toro leviter immersum, ovulis ascendentibus. Fructus capsularis, septicide 3-valvis, valvis (saltem endocarpii) introrsum subclausis semina omnino includentibus. Seminum testa basi in stipitem apice sæpius in appendiculam producta, in fila numerosa demum sæpe patentia fissa, pappum simulans. Folia integerrima.

22. Sodiroa. Sepala ad medium in tubum connata, apice lata patentia. Petalorum ungues intra tubum angustissimi. Caules dependentes, foliis gramineis, apice pauciflori.—*Andes Amer. austr.*

23. Caraguata. Sepala erecta, valde imbricata. Petala alte in tubum coalita, filamentis intus alte adnatis. Inflorescentia terminalis, nunc densissime capitata, nunc plus minus elongata angusta v. dense pyramidata.—*Ind. occid., Amer. trop.*

24. ? Schlumbergeria. Omnia *Caraguatæ* nisi inflorescentia laxior ramosa.—*Amer. austr.*

25. Guzmania. Sepala erecta. Petala basi in tubum convoluta, superne in limbum cupulatum 3-fidum connata. Antheræ *in annulum circa stylum connatæ.* Spica simplex.—*Ind. occid., Amer. trop.*

26. Tillandsia. Sepala erecta. Petala et stamina libera. Seminum stipes cum testæ filis infra nucleum longa, appendix ultra nucleum brevis. Inflorescentia varia, simplex v. ramosa.—*Amer. trop. et bor.*

27. Catopsis. Sepala erecta. Petala et stamina libera. Seminum stipes cum testæ filis brevis, appendix ultra nucleum cum testæ filis longissima flexuosa. Inflorescentia simplex v. ramosa, floribus quam in *Tillandsia* minoribus.

GENUS EXCLUSUM.

Weldenia, *Schultes* in Endl. Gen. 185 dubie *Bromeliaceis* ascripta, est **Commelinacea.**

Tribus I. Bromelieæ.

1. **Streptocalyx,** *Beer, Bromel.* 141.—Sepala supra ovarium libera, lata, valde imbricata, mucronulata. Petala alte in tubum connata, apice ovata, patentia. Stamina prope apicem tubi affixa, æqualia, filamentis complanatis; antheræ prope basin affixæ, corollam non excedentes. Ovarium inferum, ovulis in loculis ∞, horizontalibus v. pendulis; stylus filiformis, stigmatibus spiraliter contortis. Fructus . . .—Folia ampla, rosulata, spinoso-serrata. Panicula terminalis, floribunda; ramuli nunc simplices pauciflori, bracteas mem-

branaceas coloratas vix superantes, floribus sessilibus, nunc divisi, bracteas minores superantes, floribus longe pedicellatis.

Species 3, Brasiliæ tropicæ et Guianæ incolæ.

2. **Bromelia,** *Linn Gen. n.* 395, *pro parte.* (Agallostachys, *Beer*, *Bromel.* 35.)—Sepala supra ovarium libera, ovato-oblonga v. linearia, erecta. Petala basi in tubum brevem connata, supra tubum erecto-conniventia, apice latiore patentia, basi (an semper?) esquamata. Stamina omnia corollæ tubo affixa, petalis breviora; antheræ lineares, erectæ, juxta basin affixæ. Ovarium inferum, ovulis in loculis ∞ horizontalibus v. pendulis; stylus filiformis, stigmatibus vix tortis apice oblique introrsum papillosis. Fructus (*ex Gærtn.*) ovoideus, carnosus. Semina in loculis ∞; embryo juxta hilum parvus, intrusus. —Folia pleraque subradicalia, rosulata, longa, rigida, margine plus minus spinuloso-serrata. Panicula terminalis, ampla, pyramidata v. angusta, ramulis dense v. laxe ∞-floris, bractea membranacea spathiformi v. rarius parvula stipatis. Flores singuli breviter pedicellati, bracteola minima v. laxe membranacea.

Species 4 v. 5, Americæ tropicæ incolæ: *B. chrysantha*, Jacq. Hort. Schœnbr, t. 55; *B. Pinguin*, Linn.; Red. Lil. t. 396 (Ananas, Gærtn. Fruct. t. 11); *B. fastuosa*, Lindl. Collect. t. 1; *B. sylvestris*, Willd.; Bot. Mag. t. 2392, et *B. antiacantha*, Bertol. Misc. iv. t. 1. In hac specie ovarii loculos vidimus septis spuriis fere in locellos 2 divisos.

Bromelia, Plum., nomen fuit potius specificum quam pro genere definitum, apud Linnæum omnes *Bromeliaceas* includit ovario infero, hodie species 5 Linneanæ omnes ad genera diversa ab uno alterove auctore referuntur. Nos cum pluribus botanicis, pro specie typica habemus *B. Pinguin*, quæ *Agallostachys*, Beer. *B. Ananas*, Linn., est *Ananas*, Adans. *B. Karatas*, Linn., est *Karatas*, Adans. *B. lingulata* et *B. nudicaulis* in *Æchmea* includuntur.

3. **Karatas,** *Adans. Fam.* ii. 67. (Nidularium, *Lemaire*, *Jard. Fleur.* iv., *Misc.* 60, *t.* 411. Regelia, *Lemaire*, *Illustr. Hortic.* 1860, *sub t.* 245, *non Schau.*)—Sepala supra ovarium libera, oblonga v. angusta, erecta. Petala basi v. alte in tubum connata, apice obtusa, erecta v. vix patentia. Stamina omnia tubo corollæ affixa, petalis breviora; antheræ lineares, erectæ, basi v. juxta basin inter lobos basales affixæ. Ovarium inferum, ovulis in loculis ∞ horizontalibus v. pendulis; stylus filiformis, stigmatibus brevibus vix tortis. Fructus (in *K. Plumieri*) oblongo-fusiformis, carnosulus, 3-locularis, demum (in sicco) loculicide dehiscens. Semina numerosa, ovata, plus minus compressa, testa crassiuscula; embryo prope hilum parvus obovoideus breviter oblique intrusus. Folia rosulata, sæpe longissima, spinoso-serrata. Flores in capitulum densum sessile simplex v. compositum terminale conferta, foliis floralibus a basi spathacea linearibus dense cincti, receptaculo lato carnoso parum convexo v. breviter conico, singuli bractea membranacea stipati.

Species ad 10, Indiæ occidentalis et Americæ australis tropicæ incolæ, Brasilianæ plures. *Morren in Belg. Hortic.* 1872, 129, *t.* 11 *ad* 13. *Wawra in Œsterr. Bot. Zeitschr.* 1880, 112. *Jacq. Hort. Vind. t.* 31, 32; *Ic. Rar. t.* 60 (*Bromelia*). *Red. Lil. t.* 457 (*Bromelia Karatas*, species a *K. Plumieri, Morr.*, distincta). *Bot. Mag. t.* 2892 *et* 5502 (*Billbergia*) *et t.* 6024. *Reg. Gartenfl. t.* 211 (*Bromelia*) *et t.* 224. *Lemaire, Illustr. Hortic.* 1860, *t.* 245.

Wawra l.c. *Karatas* a *Nidulario* distinguit antheris in priore basifixis in *Nidulario* dorsifixis, in omnibus speciebus tamen filamentum cum connectivo dorsali continuum, inter lobos basales antheræ liberum est, differentia inter lobos basales abbreviatos v. elongatos parum valet.

4. **Greigia,** *Regel*, *Gartenfl.* xiv. (1865) 137, *t.* 474.—Sepala supra ovarium libera, longa, angusta, leviter imbricata. Corollæ tubus longus, cylindraceus, limbus campanulatus, 3-partitus, segmentis ovatis. Stamina ad apicem tubi affixa, filamentis brevibus; antheræ magnæ, corolla paullo breviores. Ovarium inferum, 3-quetrum v. fere 3-alatum, ovulis in loculis ∞ horizontalibus v. pendulis; stylus filiformis, stigmatibus breviter linearibus erectis. Fructus siccus, duriusculus, fibrosus (indehiscens?), apice 3-queter, basi in stipitem longum contractus. Semina . . .—Folia rosulata, longa, angusta, rigida, spinoso-

serrata. Florum capitulum crassum, inter folia inferiora sessile; bracteæ rigidæ, acutæ, spinoso-serratæ, imbricatæ, exteriores involucrantes ovato-lanceolatæ, interiores circa flores angustæ. Flores numerosi, in receptaculo subconico sessiles, singuli bracteolis sæpius 3 angustis stipati.

Species 2?, Chilenses. *Phillippi in Linnæa,* xxxiii. 246 (*Bromelia*). *Carrière in Rev. Hortic.* 1880, 255.

5. **Cryptanthus,** *Otto et Dietr. Allgem. Gart. Zeit.* 1836, 298. (Pholidophyllum, *Vis. Sem. Hort. Patav.* 1847, 4, *ex eod. in Mem. Istit. Venet.* v. 343.)—Sepala supra perianthii basin seu ovarii apicem tubulosum distincta, imbricata. Petala basi in tubum brevem connata, superne oblonga patentia. Stamina tubo corollæ affixa, 3 petalis opposita iis paullo altius adnata; antheræ oblongæ, corolla paullo breviores. Ovarium inferum, ovulis in loculis ∞ horizontalibus v. pendulis; stylus filiformis, stigmatibus lineari-lanceolatis recurvo-patulis vix tortis. Fructus subbaccatus, indehiscens. Semina . . .—Folia rosulata, conferta, recurvo-patentia, spinuloso-serrata. Flores in capitulo terminali intra folia subsessili plures, singuli ad axillas foliorum floralium gradatim ad bracteas parvas reductorum sessiles, bracteolis parvis stipati.

Species Brasiliana, cujus formæ plures a hortulanis distinctæ, a Bakero ad unam reducuntur. *Bot. Reg. t.* 1157 (*Tillandsia*). *Bot. Mag. t.* 5270 (*Billbergia*). *Baker in Saund. Ref. Bot. t.* 287. *Wawra in Pr. Maxim. Reise, Bot.* 163, *t.* 87. *Morren, Belg. Hortic.* 1881, *t.* 17.

Madvigia. *Liebm. in Ann. Sc. Nat. ser.* 4, ii. 373, *Walp. Ann.* vi. 66, a Morrenio ad *Cryptanthum* reducitur. Descriptio auctoris differt petalis a basi liberis.

6. **Disteganthus,** *Lemaire, Fl. des Serres,* 1847, *t.* 227.—Sepala supra perianthii basin seu ovarii apicem cyathiformem basi in tubum connata, superne ovata, imbricata. Petala libera, basi conniventia, superne patentia. Stamina cum petalis affixa, libera, interiora sub pelliculis petalorum tubulatim involuta; antheræ dorsifixæ. Ovarium inferum, loculis 3–4-ovulatis; stylus filiformis, stigmatibus spiraliter convolutis. Bacca capsularis, calyce marcescente coronata.—Folia rosulata, spinoso-serrata. Spicæ in rhizomate subsessiles, strobiliformes, squamis coloratis imbricatis, summis flores flavos foventibus. (*Char. ex Lemaire.*)

Species 1, Cayennensis, a nobis non visa. Genus cum 2 sequentibus nobis non nisi ex descriptionibus v. iconibus notum, omnia videntur hinc *Cryptantho* hinc *Rhodostachyo* affinia.

7. **Ronnbergia,** *Morren ex André, Illustr. Hortic.* 1874, 120, *t.* 177.—Sepala supra perianthii basin v. ovarii apicem cyathiformem distincta, erecta, ala unilaterali marginata, contorto-imbricata. Petala in tubum convoluta, apice breviter patentia. Stamina libera, filamentis filiformibus; antheræ breviter lineares, inclusæ. Ovarium inferum, ovulis in loculis ∞ pendulis; stylus filiformis, stigmatibus brevibus contortis. Fructus . . .—Caulis erectus. Folia ampla, integerrima, longe petiolata. Thyrsus terminalis, dense spiciformis, bracteis inferioribus longis angustis erectis, superioribus parvis. Flores cærulei, iis *Billbergiæ* subsimiles. (*Char. ex ic. et descr. André.*)

Species 1, Novo-Granatensis, a nobis non visa.

Genus structura florum videtur *Rhodostachyo* affine, sed inflorescentia diversa, et foliis integerrimis in tribu anomalum.

8. **Ochagavia,** *Philippi in Ann. Sc. Nat. ser.* 4, vii. 107.—Sepala supra perianthii basin v. ovarii apicem tubulosum affixa, erecta. Petala intra sepala affixa, libera. Stamina intra petala affixa, libera, filamentis filiformibus basi dilatatis; antheræ oblongolineares, infra medium dorsifixæ. Ovarium inferum, loculis ∞-ovulatis; stylus filiformis, apice stigmatoso incrassatus, truncatus, sub-3-lobus. Fructus baccatus.—Caules (pedales) dense foliati, foliis breviusculis subtus argenteo-lepidotis spinoso-serratis. Spica terminalis, floribus roseis, bracteis elongato-rhombeis. (*Char. ex Philippi.*)

Species 1, ins. Juan Fernandez incola, a nobis non visa. Genus evidenter *Rhodostachya* affine.

9. **Portea**, *C. Koch, Ind. Sem. Hort. Berol.* 1856, *App.* 7.—Sepala supra perianthii basin seu ovarii apicem cyathiformem distincta, ovata v. ovato-lanceolata, valde imbricata, apice obliqua aristata. Petala elongata, libera, erecta, basi intus squamis 2 fimbriatis appendiculata. Stamina 3 petalis alte adnata, 3 libera petalis alterna; antheræ versatiles, petalis breviores. Ovarium inferum, loculis ∞-ovulatis; stylus filiformis, stigmatibus linearibus in massam ovoideam spiraliter convolutis. Fructus . . .—Caules breves, foliis numerosis rosulatis elongatis rigidis spinuloso-serratis. Pedunculus terminalis, squamis coloratis spathaceis obtectus, inflorescentia in specie typica elongata, bracteis membranaceis squamis pedunculi similibus nisi majoribus, primum imbricatis demum sæpe dissitis. Flores sub bracteis superioribus solitarii, sub inferioribus 2–3-ni. Petala iis *Billbergiæ* similia, bracteas non superantia.

Species 3 v. 4, Americanæ, verisimiliter Brasilianæ. *Walp. Ann.* vi. 67. *Houllet in Rev. Hortic.* 1870, 230, *cum ic.* *Regel, Gartenfl.* 1875, 166, *t.* 829 (*Billbergia*). *Baker in Saund. Ref. Bot. t.* 285 (*Hohenbergia*). Specimen Uruguayense, *Gibert, n.* 1414, a Morrenio ad *P. Legrellianam* (*Ortgiesiam palliolatam*, Morr.). relatum, nobis videtur speciem pluribus notis distinctam indicare.

Ortgiesia, *Regel, Gartenfl.* 1867, 193, *t.* 547, species a nobis non visa, ex charactere dato a *Portea* non differre videtur nisi inflorescentia (juniore) abbreviata inter folia sessili.

10. **Rhodostachys**, *Philippi in Linnæa*, xxix. 57, xxx. 201. (Ruckia, *Regel, Gartenfl.* 1868, 69, *t.* 571.)—Sepala supra perianthii basin seu ovarii apicem cyathiformem distincta, erecta, valde imbricata. Petala libera, imbricata, basi sæpius intus glandulis v. squamellis 2 parvis instructa. Stamina libera, filamentis filiformibus; antheræ breviter v. longiuscule lineares, petala subæquantes v. breviter exsertæ. Ovarium inferum, ovulis in loculis ∞ horizontalibus v. pendulis; stylus filiformis, stigmatibus vix tortis. Fructus . . .—Folia rosulata, longa, linearia, rigidula, spinuloso-serrata. Capitulum terminale, intra folia floralia numerosa involucrantia sessile. Flores in receptaculo hemisphærico v. breviter conico subsessiles, singuli bractea ovata sæpius ciliato-denticulata stipati.

Species editæ 6 v. 7, Chile Colombiæ v. Guianæ incolæ. *Rudge, Pl. Gui. t.* 49. *Lindl. in Paxt. Fl. Gard.* ii. *t.* 65. *C. Gay, Fl. Chil. t.* 67 (*omnes sub Bromelia*), quarum nobis adsunt 3, *Bromelia bicolor*, Ruiz et Pav.; Morren, Belg. Hortic. 1873, t. 14, foliis anguste linearibus floralibus basi rubris cæterum viridibus; *Hechtia pitcairniæfolia*, Verlot in Rev. Hortic. 1868, 211, cum ic., foliis ut in *R. bicolore*, basi rubris cæterum viridibus sed latioribus, et *Bromelia Joinvillei*, Morren in Belg. Hortic. 1876, t. 10, foliis latioribus, floralibus plerisque viridibus, nonnullis intimis undique rubris v. basi viridibus superne rubris. *Bromelia longifolia*, Rudge, cæteræque nobis non nisi iconibus et descriptionibus notæ sunt.

11. **Ananas**, *Adans. Fam.* ii. 67. (Ananassa, *Lindl. Bot. Reg. sub t.* 1068, *et t.* 1081.)—Sepala supra ovarium libera, lata, acuminata, carinata, arcte imbricata. Petala erecta, leviter imbricata, basi mediantibus filamentis leviter cohærentia, cæterum libera, intus basi sæpius squamellis 2 minimis instructa. Stamina 3, petalis alterna, libera v. iis lateraliter leviter cohærentia, 3 petalis opposita iisque basi adnata; antheræ lineares, corolla breviores. Ovarium inferum, carnosum, rhachi crassa lata basi adnatum v. omnino immersum, ovulis in loculis pluribus horizontalibus v. pendulis; stylus filiformis, stigmatibus linearibus rectis v. leviter incurvis. Fructus carnosi, ima basi v. omnino receptaculo carnoso immersi; omnes ejusdem inflorescentiæ cum bracteolis et rhachi v. receptaculo in syncarpium strobiliforme connati, v. si partim decidui, basin relinquentes persistentem. Semina pauca, ovoidea v. oblonga, compressiuscula, testa tenuiter coriacea appressa; embryo juxta hilum parvus, intra albumen intrusus v. semi-immersus.—Caulis brevis, dense v. parce foliatus, foliis longis spinoso-serratis. Inflorescentia terminalis, strobiliformis, globosa ovoidea v. oblonga, densissima, floribus quaquaversis sub quaque bractea solitariis sessilibus v. immersis; bracteæ apice tantum plus minus prominentes, sæpe spinuloso-dentatæ; summæ vacuæ, plus minus foliaceo-dilatatæ, haud raro comam viviparam formant.

Species 5 v. 6, Americæ tropicæ incolæ, v., si formas cultas *A. sativæ* pro speciebus distinctis descriptas retineas, usque ad 8 v. 10 æstimantur. *Rœm. et Schult. Syst.* vii. 1283. *Morren, Belg. Hortic.* 1872, *t.* 17, 19; 1878, 140, *t.* 4, 5. *DC. in Mem. Soc. Phys. Gen.* vii. 161, *cum tabb.* 2. *Bot. Mag. t.* 1554, 5025.

Auctores plures genus limitant ad *A. sativum*, Schult.; hæc species, originis adhuc incertæ, a temporibus antiquissimis culta et varietates numerosas præbens, insignis est syncarpio maximo succulento fere semper coma coronato. Formæ sic dictæ in America australi sylvestres, v. ab incolis pro fibra cultæ, syncarpio multo minore minusque succoso nec eduli gaudent. Ab his generice distinguere nequimus ACANTHOSTACHYUM, *Link, Klotzsch et Otto, Ic. Pl. Rar.* i. 24, *t.* 9, strobilo minore angustiore vix comato, sed florum structura omnino *A. sativi*, et bracteæ, basi cum fructu connatæ, in receptaculo cum pericarpii basi persistunt post lapsum partis maximæ fructus. *Æchmea Veitchii*, Baker in Bot. Mag. t. 6329; Morren, Belg. Hort. 1878, t. 9 (*Chevaliera*), characteres præbet *Acanthostachyos*, sed caulis seu scapus florifer præter squamas vaginantes aphyllus est. CHEVALIERA, *Gaudich. Voy. Bonite Bot. t.* 61, 62, species 2 Brasilienses a nobis non visæ, ex iconibus multo melius ad *Ananas* quam ad *Æchmeam* referendæ videntur.

12. **Æchmea,** *Ruiz et Pav. Prod.* 47, *t.* 8; *Syst. Veg.* 83; *Fl. Per. et Chil.* iii. 37, *t.* 264.—Sepala supra ovarium libera, sæpius lata, valde imbricata. Petala libera v. basi mediantibus filamentis leviter cohærentia, erecta v. apice breviter patentia, intus basi sæpius squamulis 2 instructa. Stamina 3 petalis alterna libera v. iis leviter cohærentia, 3 petalis opposita iisque basi adnata; antheræ lineares, corolla breviores. Ovarium inferum, sæpius 3-quetrum et basi attenuatum, loculis ∞- rarius 2-3-ovulatis; stylus filiformis, stigmatibus linearibus v. oblique dilatatis plus minus spiraliter convolutis. Fructus brevis, sepalis coronatus, carnosulus v. siccus, indehiscens v. a latere fissus. Semina numerosa, parva nunc minima, oblonga v. fere linearia, recta v. incurva, teretia v. angulata, nuda v. appendice parva cellulosa coronata; embryo juxta hilum sæpius longe acuminatus non v. vix albumini intrusus.—Herbæ sæpius brevicaules, foliis confertis v. rosulatis longis rigidis plus minus spinuloso-serratis. Pedunculus (excepta *Æ. paniculata*) terminalis, floribus nunc in spica simplici quaquaversis, nunc in ramulis paniculæ sæpius angustæ distichis v. quaquaversis, intra bracteas sessilibus v. rarius pedicellatis. Bracteæ sæpius parvæ, rarius flores subsuperantes imbricatæque.

Species ad 60, Americæ australis incolæ. *Baker in Trim. Journ. Bot.* 1879, 129 (excl. sp. n. 11 ad 13 quas ad *Ananas* referrimus). *Wawra in Œsterr. Bot. Zeitschr.* 1880, 116.

Genus in sectiones sequentes pro maxima parte a Bakerianis mutuatas dividimus:—

1. *Amphilepis.* Spicæ plures, simplices v. rarius 2-fidæ, compressæ, secus pedunculum seu paniculæ axin sessiles v. pedunculatæ. Bracteæ sub floribus ovatæ, complicatæ, rigidæ, striatæ, bifariam imbricatæ; bracteolæ minimæ. Species 3, Indiæ occidentalis incolæ.

2. *Platyæchmea.* Spicæ in paniculam simplicem dispositæ. Bracteæ bifariæ, sub floribus nunc membranaceæ latissimæ laxæ subbullatæ, nunc latæ striatæ subcarinatæ, v. fere cartilagineæ complicato-carinatæ enerves. Sepala oblonga, mucronata. *Lindl in Paxt. Fl. Gard.* iii. *t.* 80 (*Billbergia*). *Vell. Fl. Flum. Ic.* iii. *t.* 138 (*Tillandsia*). *Bot. Mag. t.* 5447. *Lemaire, Jard. Fleur. t.* 269. *Morren, Belg. Hort.* 1881, *t.* 13.

3. *Pironneaua.* Spicæ breves, in panicula simplici sessiles v. pedunculatæ. Bracteæ quaquaversæ, confertæ, imbricatæ. *Salisb. Parad. Lond. t.* 40. *Reichb. Iconogr. Exot. t.* 239, 240. *Lodd. Bot. Cab. t.* 801 (*omnes sub Bromelia*). *Vell. Fl. Flum. Ic.* iii. *t.* 135 (*Tillandsia*). *Bot. Mag. t.* 5668. PIRRONNEAUA, *Gaudich. in Voy. Bonit. Bot. t.* 63.

4. *Euæchmea.* Panicula longa, laxa, ramulis brevibus paucifloris cymoso-ramosis rarius 1-floris, floribus dissitis, lateralibus sessilibus, terminali v. solitario infra bracteam pedicellato. Bracteæ cyathiformes, cuspidatæ. Huc species typica Floræ Peruvianæ, *Æ. paniculata* Ruiz et Pav. t. 264, scapo laterali, et *Æ. platynema* (*Pironneaua*, Gaud. in Voy. Bonit. Bot. t. 64), quoad inflorescentiam et bracteas *Æ. paniculatæ* conformis, sed pedunculus centralis et flores minores.

5. *Lamprococcus.* Panicula longa, laxa, ramulis brevibus v. laxifloris *Euæchmeæ*, sed bracteæ minutæ v. 0, et flores interdum parvi. *Rev. Hortic.* 1875, 311, *cum ic. Bot. Mag. t.* 4293, 5235. LAMPROCOCCUS, *Beer, Bromel.* 103. *Regel, Gartenfl. t.* 539, 694. *Morren, Belg. Hortic.* 1861, *t.* 11. *Wawra in Pr. Maxim. Reise, Bot.* 162, *t.* 28. ANDROLEPIS, *Brongn. in Morren, Cat. Brom.* (*nomen tantum*) ex *Morr.*

6. *Hohenbergia.* Spicæ laxiusculæ v. confertifloræ, in panicula simplici dispositæ, floribus sessilibus quaquaversis sæpius parvulis. Bracteæ parvæ nec imbricatæ. *Pœpp. et Endl. Nov. Gen. et Sp. t.* 159. *Knowles et Westc. Fl. Cab. t.* 134. *Bot. Mag. t.* 3186, *et t.* 3304 (*Billbergia*). *Baker in Saund. Ref. Bot. t.* 284. *Morren, Belg. Hortic.* 1862, 97, *cum ic.* (*Hoplophytum*). HOHENBERGIA, *Schult. Syst.* vii. 71, 1251. *Morren, Belg. Hortic.* 1879, *t.* 18.

H. Legrelliana, Baker in Saund. Ref. Bot. t. 285, est *Porteæ* species.

7. *Pothuava.* Spica simplex, densa, floribus numerosis sessilibus quaquaversis. Bracteæ sæpius parvæ, interdum membranaceæ cyathiformes, vix tamen imbricatæ. *Bot. Mag. t.* 4832, 6441. *Saund. Ref. Bot. t.* 286 (*Hohenbergia*). *Hook. Exot. Fl. t.* 143 (*Bromelia*). POTHUAVA, *Gaudich. Voy. Bonite, Bot.* 116, 117. HOPLOPHYTUM, *Morren, Belg. Hortic.* 1865, *cum ic. absque num.*; 1878, *t.* 5.

Ad *Pothuavam* etiam referendum est MACROCHORDIUM, *De Vriese, Beer, Bromel.* 145, bracteis membranaceis cyathiformibus v. angustis. Huc *Æ. bromeliæfolia*, Baker (*Tillandsia bromeliæfolia*, Rudge, Pl. Gui. t. 50; *Bromelia melanantha*, Bot. Reg. t. 766); *Macrochordium luteum*, Regel Gartenfl. t. 544, affinesque. ECHINOSTACHYS, *Brongn. in Planch. Hort. Donat.* 25; *Bot. Mag. t.* 5321; *Morren, Belg. Hortic.* 1880, *t.* 18 (*Æchmea*), bracteis mucronato-subaristatis, est pariter *Æchmeæ* species.

ANDROLEPIS, *Brongn. ex Houllet in Rev. Hortic.* 1870, 12, species nobis ignota, a C. Kochio, Wochenschr. iv. 190, ad *Pothuavam* refertur.

8. ? *Pectinaria.* Inflorescentia densa, breviter pyramidata v. capituliformis sed ramosa, bracteis imbricatis pectinato-serratis. Huc *Æ. fasciata*, Bot. Reg. t. 1130, Bot. Mag. t. 4883, Fl. des Serres, t. 207 (omnes sub *Billbergia*); *Æ. pectinata*, Baker, et *Æ. Burchellii*, Baker, quoad specimen n. 3487, species omnes quoad characteres revidendæ.

Specimen Burchellianum n. 3323 (*Bromelia aurantiaca*, Burch.), a Bakero in *Æ. Burchellii* inclusum, est, fide Morrenii, *Nidularii* species (ad *Karatas* referenda).

9. ? *Canistrum.* Inflorescentia densa fere capituliformis, bracteis exterioribus membranaceis amplis involucrata. Flores omnino *Æchmeæ* apparent etsi habitus alienus. Species enumerat Baker 3. CANISTRUM, *Morren, Belg. Hortic.* 1873, 257, *t.* 15; 1874, 376, *t.* 16; 1879, *t.* 13, 14.

13. **Araeococcus,** *Brongn. in Ann. Sc. Nat. ser.* 2, xv. 370.—Sepala supra ovarium libera, minima, ovata, membranacea, imbricata. Petala sepalis paullo longiora, libera, esquamata. Stamina libera, æqualia; antheræ dorsifixæ, petalis paullo breviores. Ovarium inferum, ovulis in quoque loculo 1–2, collateraliter pendulis; stylus filiformis, stigmatibus brevibus erectis. Fructus late ovoideus, subcarnosus, indehiscens. Semina pauca, interdum abortu solitaria, oblonga, testa nigra; embryo juxta hilum parvus, intra albumen farinosum parum intrusus.—Caules e rhizomate subrepente erecti, basi vaginis foliorum obtecti; vaginæ inferiores nudæ, superiores lamina longa angusta parce spinoso-serrata instructæ. Panicula terminalis, pedunculata, ampla, laxa, cymoso-composita. Bracteæ secus ramos flexuosos distantes, parvæ. Flores minuti, sub bracteis sessiles.

Species 1, Brasiliæ borealis et Guianæ incola.

14. **Billbergia,** *Thunb. Dec. Pl. Bras.* 30, *ex Schult.*—Sepala supra ovarium libera, erecta, leviter imbricata. Petala elongata, libera, nunc anguste linearia, erecta v. apice parum dilatata patentiaque v. demum revoluta, basi sæpius squamulis 2 integris lacerisve instructa. Stamina intra petala affixa, libera, v. 3 petalis opposita iis plus minus adnata, filamentis filiformibus; antheræ versatiles, petalis vix breviores v. subexsertæ. Ovarium inferum, ovulis in loculis numerosis horizontalibus v. pendulis; stylus filiformis, stigmatibus linearibus incurvis subtortis. Fructus . . .—Folia conferta, patentia, spinoso-serrata. Panicula terminalis, dense thyrsoidea v. laxior, haud raro ad racemum reducta. Flores sessiles v. breviter pedicellati, quam in *Æchmea* longiores, intra bracteas solitarii v. in ramulo brevi 2–3-ni. Inflorescentia variat erecta v. recurvo-pendula.

Species ad 20, Americæ tropicæ incolæ. *Schult. Syst.* vii. 1254 (*excl. sp.*). *Walp. Ann.* vi. 72. *Wawra in Œsterr. Bot. Zeitschr.* 1880, 115. *Pœpp. et Endl. Nov. Gen. et Sp. t.* 157. *Hook. Exot. Fl. t.* 41, 42. *Bot. Mag. t.* 1732 (*utr. sub Bromelia*), *t.* 4756, 4835, 5090, 5114, 6342, 6432. *Bot. Reg. t.* 203, 344 (*Bromelia*), *t.* 1068. *Lodd. Bot. Cab. t.* 76 (*Tillandsia*). *Morren, Belg. Hortic.* 1866,

t. 11; 1871, *t.* 1, 14; 1872, *t.* 1; 1873, *t.* 1, 16, 17; 1874, *t.* 1, 8; 1875, *t.* 1, 13; 1876, *t.* 1, 15, 20, 22; 1877, *t.* 3; 1878, *t.* 1; 1880, *t.* 8; 1881, *t.* 5. *Colla in Mém. Acad. Torin.* xxvi. *t.* 19 (*Pourretia*).

HELICODEA, *Lemaire, Illustr. Hortic.* xi. *t.* 421, est *B. zebrina*, Lindl.; Lodd. Bot. Cab. t. 1912; Morren, Belg. Hortic. 1872, t. 4; Bot. Mag. t. 2686 (*Bromelia*), species insignis inflorescentiæ indumento furfuraceo, sepalis latioribus, petalis per anthesin insigniter revolutis, antheris angustissimis linearibus fere basifixis. Fructus in hac crassus, ovoideus, rugosus, sulcatus, fissuris lateralibus irregulariter dehiscens, in cæteris speciebus nobis ignotus, nec quantum scimus adhuc descriptus.

LIBONIA, *Lemaire, Illustr. Hortic.* ii. *t.* 48, est *Billbergia marmorata*, Lemaire l. c. JONGHEA, *Lemaire, Jard. Fleur.* ii. *t.* 180, est *Billbergia splendida*, Lemaire l. c., genus utrumque ab auctore dubie propositum.

15. **Quesnelia,** *Gaudich. Voy. Bonite, Bot. t.* 54. (Lievena, *Regel, Gartenfl.* 1880, 289, *t.* 1024.)—Sepala supra ovarium libera, ovata, imbricata. Petala libera, angusta, apice in laminam patentem dilatata, basi intus squamellis 2 denticulatis instructa. Stamina 3, petalis alterna, libera, 3 petalis opposita iis basi adnata; antheræ oblongo-lineares, prope basin dorsifixæ, petalis breviores. Ovarium inferum, supra loculos breviter cupulatum; stylus filiformis, stigmatibus in massam oblongam spiraliter contortis. Fructus . . .—Folia conferta, longa, spinuloso-serrata. Pedunculus terminalis, elatus, squamis spathaceis obtectus. Inflorescentia strobiliformis, simplex, ovoidea v. oblonga, crassa. Bracteæ quaquaversæ, laxe imbricatæ, membranaceæ, coloratæ, sub apice utroque latere transversim plicatæ. Flores sub quaque bractea solitarii, apice breviter exserti.

Species 3 v. 4? Brasilienses. *Morren, Belg. Hort.* 1881, *t.* 4 (18?). *Fl. des Serres, t.* 1028 (*Billbergia*). *Wawra in Œsterr. Bot. Zeitschr.* 1880, 149, quoad species inflorescentia strobiliformi; Wawra tamen ad *Quesneliam* ducit species omnes *Billbergiæ* quarum stamina petalis opposita iis basi adnata, character ut videtur interdum valde incertus.

TRIBUS II. PITCAIRNIEÆ.

16. **Brocchinia,** *Schult. Syst.* vii. 70, 1250.—Sepala petaloidea, oblonga, erecta. Petala sepalis subsimilia nisi paullo latiora, basi contracta, intus nuda. Staminum filamenta brevia, libera v. basi cum calyce corollaque breviter connata. Ovarium fere inferum, brevi tantum parte intra florem prominens, ∞-ovulatum; stylus brevis, 3-gonus, stigmatibus brevibus erectis v. patentibus. Capsula clavata, subcylindracea v. obtuse 3-quetra, dura, apice breviter septicide 3-valvis. Semina ascendentia, imbricata, oblonga, compressa, apice basique in appendicem ensiformem membranaceam v. crassiusculam producta.—Folia rosulata v. erecta, late ligulata, abrupte acuminata acumine subcalloso, margine integerrima. Panicula terminalis, ampla, pyramidalis, furfuraceo-scabra v. glabra. Bracteæ sub ramis spathaceæ, acumine interdum pungente, superiores parvæ. Flores secus ramos fasciculati v. sparsi, parvi nunc minimi.

Species 3, typica Brasiliensis, a nobis non visa, 2 Guianenses, inclusa *Cordyline micrantha*, Baker in Gard. Chron. 1880, ii. 243.

B. Plumierii, Griseb. Fl. Brit. W. Ind. 593, characteres Schultzianos *Brocchiniæ* non præbet. Specimina Imrayana ad *Pitcairniam* pertinere videntur.

17. **Pitcairnia,** *Lhér. Sert. Angl.* 7, *t.* 11. (Hepetis, *Sw. Prod. Fl. Ind. Occid.* 56.)—Sepala libera, lanceolata, acuta, imbricata, rigidula. Petala libera, unguiculata, erecta v. apice patentia, basi intus sæpius squamellis 2 minutis instructa. Stamina intra petala affixa, libera, filamentis filiformibus v. complanatis; antheræ lineares, juxta basin dorsifixæ. Ovarium lata basi affixum v. toro plus minus immersum, superne v. fere omnino liberum, ovulis in loculis numerosis ascendentibus; stylus elongatus, filiformis, stigmatibus linearibus spiraliter tortis. Capsula septicide 3-valvis. Semina numerosa, testa nucleo lineari v. parvulo adnata, in speciebus plerisque apice basique in appendiculam linearem sæpius setiformem producta, appendicula tamen in sect. *Pepinia* rara v. 0; embryo parvus, in albumine farinaceo leviter intrusus.—Folia nunc ad basin caulis brevis,

nunc ad apicem caulis plus minus elongati, conferta v. rosulata, rigida et spinoso-serrata v. tenuiora integerrimaque. Racemus terminalis, simplex v. parum ramosus, interdum in spicam confertus, elongatus v. ad fasciculum pauciflorum reductus. Bracteæ nunc minimæ, nunc calycem æquantes v. amplæ, patentes v. interdum laxe imbricatæ, herbaceæ v. coloratæ. Flores pedicellati v. subsessiles, sæpe speciosi.

Species ad 70, Americæ tropicæ incolæ, *Baker in Trim. Journ. Bot.* 1881, 225, in sectiones sequentes a Bakerianis parum mutatas distribuendæ:—

1. *Cephalopitcairnia*. Flores in caule brevissimo intra folia imbricata v. rosulato-patentia sessiles. *Bot. Mag. t.* 4591. *Bot. Reg.* 1840, *t.* 71 (*Puya*). *Lindl. in Paxt. Fl. Gard.* iii. *t.* 86 (*Puya*). *Lemaire, Jard. Fleur. t.* 291.

In *P. heterophylla*, Beer, caulis fere bulbiformis, folia alia imbricata brevia simpliciter spinescentia v. spinoso-serrata, alia superiora elongata integerrima. In specie Colombiana ei affini, scapus e centro foliorum breviter exsertus, capitulum pauciflorum ferens. In *P. tabulæformi*, Lindl.; Morren, Belg. Hortic. 1862, 257, cum ic.; Lemaire, Illustr. Hortic. t. 344, folia omnia latiuscula, plano-patentia, conferta, floribus in centro rosulæ sat numerosis.

2. *Eupitcairnia*. Pedunculus plus minus elongatus, racemum simplicem v. rarius ramosum ferens. Bracteæ sæpius parvulæ. Semina utrinque subsetaceo-appendiculata. *Jacq. f. Ecl. t.* 79. *Red. Lil. t.* 73 *ad* 76. *Ruiz et Pav. Fl. Per. et Chil. t.* 258 *ad* 260. *Presl, Rel. Hænk. t.* 23 (*Pourretia*). *Wawra in Pr. Maxim. Reise, Bot. t.* 27. *Andr. Bot. Rep. t.* 249, 322. *Link, Kl. et Otto, Ic. Pl. Rar. t.* 25. *Bot. Mag. t.* 824, 856, 1416, 1462, 1547, 2657, 2813, 4540, 4709, 4770, 4775, 5356, 6318, 6480, 6600, 6606. *Bot. Reg. t.* 1011, 1069, 1092. *Lemaire, Jard. Fleur. t.* 127, 407. *Fl. des Serres, t.* 844, 847. *Regel, Gartenfl. t.* 53, 557, 781. *Illustr. Hortic.* xx. *t.* 139. *Rev. Hortic.* 1875, 251, *cum ic.* ORTHOPETALUM, *Beer, Brom.* 70.

COCHLIOPETALUM, *Beer, Brom.* 68, species paucas continet, petalis demum insigniter revolutis. *Bot. Mag. t.* 2411, 2642. *Lodd. Bot. Cab. t.* 722. *Regel, Gartenfl. t.* 114. *Illustr. Hortic.* xxii. *t.* 205.

3. *Neumannia*. Racemus seu potius spica elongata v. rarius brevis densa v. interrupta. Bracteæ ovatæ v. lanceolatæ, amplæ, calycem obtegentes, imbricatæ v. rarius dissitæ. *Link, Kl. et Otto, Ic. Pl. Rar. t.* 1. *Bot. Mag. t.* 4241, 4309, 4696, 4705, 5225, 6535. *Regel, Gartenfl. t.* 113. *Fl. des Serres, t.* 162, 253, 254, 915. *Rev. Hortic.* 1881, 390, *cum ic.* NEUMANNIA, *Brongn. in Ann. Sc. Nat. ser.* 2, xv. 369. PHLOMOSTACHYS, *Beer, Brom.* 45. LAMPROCONUS, *Lemaire, Jard. Fleur.* ii. *sub t.* 127.

4. *Pepinia*. Semina nuda v. apice basique v. circumcirca ala brevi plana membranacea appendiculata. PEPINIA, *Brongn. ex Illustr. Hortic.* xvii. 32, *t.* 5. Species quoad inflorescentiam in series 2 distribuendæ: *a.* Racemus densus v. longiusculus inter folia ad apicem caulis conferta sessilis. Huc *P. punicea*, Lindl., et *P. aphelandræflora*, Lemaire. *b.* Racemus longus laxus interdum ramosus, floribus longe pedicellatis. Folia ad basin subbulbiformem caulis conferta. Huc *P. nuda* et *P. consimilis*, Baker, *P. ferruginea*, Ruiz et Pav.; Bot. Mag. t. 5234 (*P. asterotricha*, Pœpp. et Endl. Nov. Gen. et Sp. t. 158. MELINONIA, *Brongn. in Morr. Cat. Brom. Jard. Liege*, 1873, nomen tantum), et *P. cærulea* (*Puya cærulea*, Miers in Lindl. Bot. Reg. 1840, t. 11).

18. **Puya**, *Molin. Hist. Chil. ed. Angl.* i. 130, 288, *char. valde manco.* (Pourretia, *Ruiz et Pav. Prod.* 46, *t.* 7; *Syst. Veg.* 80; *Fl. Per. et Chil.* iii. 33, *t.* 256, 257.)—Sepala libera, oblonga v. lanceolata, erecta, leviter imbricata. Petala libera, basi in tubum latum conniventia, superne subæqualiter patentia, latiuscula. Stamina libera, filamentis filiformibus; antheræ oblongæ v. lineares, dorsifixæ. Ovarium superum, lata basi affixum, 3-loculare, ovulis numerosis; stylus elongatus, stigmatibus brevibus subpatentibus. Capsula oblonga v. pyramidata, profunde 3-sulca, loculicide 3-valvis. Semina numerosa, compressa, ala membranacea cincta, placentis affixa primum in axi connatis, capsula dehiscente inter se solvendis et valvarum centro valde prominenti adhærentibus.—Folia nunc ad basin caulis, nunc ad apicem caulis elati crassi elongata, conferta, spinoso-serrata. Racemus terminalis, simplex v. pyramidato-ramosus. Flores sub bracteis solitarii, speciosi.

Species 3 v. 4, Peruvianæ v. Chilenses. *Pœpp. et Endl. Nov. Gen. et Sp. t.* 156. *Gaudich. Voy. Bonite, Bot. t.* 41 *ad* 44. *Fisch. Sert. Petrop. t.* 19. *Bot. Mag. t.* 4715, 5732. *Regel, Gartenfl. t.* 225.

P. virescens, Hook. Bot. Mag. t. 4991, cujus specimen non vidimus, a Kochio ad *Pitcairniam* relata, est ex Morren *Schlumbergeriæ* species.

19. **Encholirion,** *Mart. in Schult. Syst.* vii. 68, 1233. (Prionophyllum, *C. Koch, App.* iv., *Sem. Hort. Berol.* 1873, 3.)—Sepala libera, brevia, ovata, imbricata. Petala multo longiora, libera, angusta, erecta v. a basi subpatentia. Stamina libera, filamentis filiformibus; antheræ dorsifixæ. Ovarium superum, lata basi affixum, elongatum, in stylum brevem productum, loculis ∞-ovulatis; stigmata linearia, erecta, subtorta. Capsula anguste 3-gona, in valvas introrsum clausas seu carpella distincta septicide dehiscens. Semina numerosa, parva, brevissime stipitata, apice inappendiculata.—Folia rosulata, longa, angusta, rigida, valide spinuloso-serrata. Racemus terminalis, simplex v. parce ramosus, longus, dense floribundus, pedicellis fasciculatis quaquaversis, bracteis minimis.

Species ad 6, Brasilienses. Præter speciem typicam *E. spectabile*, Mart., huc pertinere videntur, *Dyckia montevidensis*, et *D. catharinensis*, C. Koch.

Encholirion Augustæ, Schomb., est *Caraguatæ* species.

20. **Dyckia,** *Schult. Syst.* vii. 65, 1194.—Sepala libera, ovata, imbricata. Petala longiora, basi angustata, superne latere uno valde dilatata, convoluto-imbricata, demum patentia. Stamina libera v. basi cum petalis breviter connata, filamentis filiformibus v. crassiusculis; antheræ prope basin affixæ. Ovarium superum, lata basi affixum, 3-quetrum, elongato-pyramidatum, loculis ∞-ovulatis; stylus subnullus, stigmatibus linearibus subtortis. Capsula 3-sulca, septicide 3-valvis, valvis alte 2-fidis. Semina (in *D. rariflora*) numerosa, plana, horizontaliter superposita, margine incrassato a nucleo solubili uno latere in membranam parvam attenuato; embryo basi ex albumine prominens, acumine secus marginem extenso.—Folia dense rosulata, crassiuscula, spinuloso-serrata. Spica in scapo (an semper?) axillari elongata, simplex v. ramosa, floribus sessilibus dissitis bractea parva stipatis.

Species ad 6, Brasilianæ. *Bot. Mag. t.* 3449. *Bot. Reg. t.* 1782. *Lemaire, Jard. Fleur. t.* 224. *Saund. Ref. Bot. t.* 236.

In *D. rariflora*, Schult., stamina basi cum petalis in cupulam connata, in cæteris speciebus a basi libera. In *D. frigida*, Hook. f. Bot. Mag. t. 6294 (Garrielia *encholirioides*, Gaudich. Voy. Bonite, Bot. t. 115), filamenta crassiuscula, libera. Huic etiam valde affinis est ex descriptione, Cottendorfia *florida*, Schult. Syst. vii. 64, 1193. Navia, Schult. l.c. 65, 1195, ex descriptione includit species 2 *Dyckiæ* fructiferæ. Fructum speciei typicæ *Dyckiæ* auctor non vidit.

21. **Hechtia,** *Klotzsch ex Zucc. in Abhandl. Akad. Wiss. Münch.* iii. 239, *t.* 6.—Flores abortu dioici. Sepala libera, ovata, imbricata. Petala paullo longiora, breviter connata, in limbum subcampanulatum patentia. Stamina in flore ♂, staminodia in flore ♀, ima basi corollæ adnata, filamentis cæterum liberis, corolla parum breviora; antheræ oblongæ, prope basin affixæ. Ovarium in flore ♀ pyramidato-3-quetrum, lata basi affixum v. toro breviter immersum, 3-loculare, ∞-ovulatum; stylus brevis nunc brevissimus, stigmatibus 3 linearibus; ovarii rudimentum in flore ♂ sæpe stylos 3 nudos filiformes fert. Capsula profunde 3-sulca, fere 3-partita, septicide 3-valvis, valvis subclausis (v. carpellis distinctis), marginibus tantum in axi cohærentibus demum solvendis integris. Semina subsessilia, linearia, ascendentia, testa appressa plerumque ultra nucleum in appendicem brevem producta.—Folia dense rosulata, longa, rigida, valide spinoso-dentata. Pedunculus terminalis, prælongus, simplex v. parce ramosus, floribus secus rhachin glomeratis parvulis, glomerulis dissitis sessilibus hinc inde in spicas breves abeuntibus. Flores ♂ fœmineis similes nisi paullo minores.

Species 2 v. 3, Mexicanæ. *H. Ghiesbrechtii*, Lemaire, Illustr. Hortic. x. t. 378, Bot. Mag. t. 5842, ab *H. glomerata*, Zucc., non differre videtur, et auctor ipse ad eam reduxit *Dasylirion pitcairniæfolium* ab eo prius editum. *H. cordylinoides*, Baker in Bot. Mag. t. 6554, est species inflorescentia laxiore ramosiore et floribus minoribus (♂ solis adhuc notis) insignis. *H. stenopetala*, Kl., nobis ignota est. *H. pitcairniæfolia*, Verl., est *Rhodostachyos* species.

Tribus III. Tillandsieæ.

22. **Sodiroa,** *André in Bull. Soc. Bot. Fr.* xxiv. 167.—Sepala ad medium in tubum cylindraceum connata, superne valde dilatata, in alabastro convoluto-imbricata, per anthesin patentia. Petala intra calycem angustissima, inferne plus minus cohærentia, laminis e calyce exsertis ovatis patentibus. Stamina "tubo adnata, inclusa, dorsifixa, antheris sagittatis connatis" (*André*). Ovarium liberum, 3-loculare, placentis axilibus, ovulis numerosis; stylus filiformis, apice clavatus, stigmatibus 3 brevibus. Capsula 3-gona, coriacea (*Tillandsiæ*). Semina angusta, numerosa, erecta, basi in stipitem demum in fila fissum pappiformem producta.—Caules ab arboribus pendentes, 1–3-pedales et ultra, usque ad inflorescentiam foliati, basi radicantes et vaginis emarcidis obtecti. Folia linearia, caricina v. graminea, basi in vaginam brevem dilatata. Flores speciosi, ad apicem caulis pauci, ad axillam bracteæ coloratæ solitarii, breviter pedicellati, flavescentes v. virescentes, folio florali ad basin inflorescentiæ spathaceo-coloratæ.

Species 3, Andium Colombiæ et Ecuadoriæ incolæ. Specimina typica non vidimus, duo tamen nobis adsunt evidenter iis proxime affinia, uno in provincia Antioquia a Kalbreyero, altero ad flumen Pastasia in Ecuadoria a Pearceo lecto. In floribus examinatis stamina jam delapsa fuerunt. Genus perianthii indole ab omnibus facillime distinctum.

23. **Caraguata,** *Lindl. Bot. Reg. sub t.* 1068.—Sepala erecta, rigidula, valde imbricata, basi sæpius breviter connata, cæterum libera. Petala alte in tubum connata, laminis liberis patentibus. Stamina tubo fere omnino adnata, antheræ ad apicem tubi fere sessiles, erectæ, liberæ. Ovarium liberum, lata basi affixum, loculis ∞-ovulatis; stylus filiformis, stigmatibus breviter linearibus erectis tortis. Capsula 3-gona (*Tillandsiæ*), septicide dehiscens, valvis subclausis. Semina angusta, numerosa, basi in stipitem longum demum in fila fissum subpappiformem producta.—Folia integerrima, inferiora conferta, basi crassa lata concavaque, superiora minora angustiora, summa sub inflorescentia interdum majora involucrantia. Inflorescentia terminalis, densa, capituliformis, v. plus minus elongata. Flores sub quaque bractea ∞, conferti.

Species notæ 5, Indiæ occidentalis, Americæ centralis v. Colombiæ incolæ.

In specie typica *C. ligulata*, Lindl., inflorescentia denso globosa v. fere depressa, copiose involucrata; specimina nostra fructifera, sed ex Jacq. Stirp. Amer. 92, t. 62, 3-pollicaris est; in *C. Zahnii*, Hook. f. Bot. Mag. t. 6059, Morren, Belg. Hort. 1873, t. 19, flores multo minores et inflorescentia laxior exinvolucrata. *C. splendens*, Planch. in Fl. des Serres, t. 1091, videtur *C. ligulatæ* affinis sed bracteæ involucrantes minores magis coloratæ et flores indescripti. Planta Cubensis, *Wright, n.* 678, a Grisebachio ad *C. ligulatam* relata, est certe diversa et forte *Tillandsiæ* species. In *C. Augustæ* (*Encholirion Augustæ*, Schomb.), ex speciminibus Rob. Schomb. n. 687, Rich. Schomb. n. 1021, inflorescentia quam in præcedentibus paullo longior, bracteis laxiusculis, inferioribus acuminatis; in *C. musaica*, André in Illustr. Hortic. xxiv. t. 268 (Massangia, *Morren in Belg. Hortic.* 1877, 59, 199, t. 8), scapus squamatus elongatus, bracteæ exteriores coloratæ florentibus non longiores, sed characteres florales omnino *Caraguatæ*; in *C. Vanvolxemii*, André in Illustr. Hortic. xxv. t. 326, inflorescentia elongata, bracteis coloratis subdissitis.

24. ? **Schlumbergeria,** *Morren, Belg. Hortic.* 1878, 311; 1879, 225, 360, *t.* 19.—Sepala erecta, convoluto-imbricata, libera. Petala alte in tubum connata, laminis liberis patentibus v. demum reflexis. Stamina tubo adnata, filamentis apice breviter liberis recurvis; antheræ dorsifixæ. Ovarium liberum, lata basi affixum, loculis ∞-ovulatis; stylus filiformis, stigmatibus recurvis crassiusculis non tortis. Capsula 3-gona (*Tillandsiæ*). Semina numerosa, basi in stipitem longum demum in fila fissum subpappiformem producta.—Folia rosulata, integerrima, longe ligulata. Flores mediocres v. majusculi, in spica ramosa laxiuscule dispositi; bracteæ calyce breviores, bracteolæ spathaceæ calycem amplectentes. (*Char. ex Morren.*)

Species 2, Austro-Americanæ, a nobis non visæ. Morren speciei typicæ adjunxit *Puyam virescentem*, Hook. Bot. Mag. t. 4991, cujus specimina nobis desunt. Genus verisimiliter cum *Caraguata* jungendum.

25. **Guzmania,** *Ruiz et Pav. Fl. Per et Chil.* iii. 37, *t.* 261.—Sepala erecta, rigidula, imbricata, basi breviter in tubum connata. Petalorum ungues in tubum convoluti v. cohærentes, laminæ in limbum campanulatum 3-fidum connatæ. Stamina plus minus petalorum unguibus adhærentia, filamentis apice liberis; antheræ dorsifixæ, lineari-sagittatæ, in annulum circa stigmata intra limbum corollæ connatæ. Ovarium liberum, lata basi affixum, loculis ∞-ovulatis; stylus filiformis, stigmatibus oblongis v. breviter linearibus erectis. Capsula (*Tillandsiæ*) 3-gona, septicide dehiscens, valvis subclausis. Semina angusta, numerosa, basi in stipitem longum demum in fila fissum subpappiformem producta.—Caules basi foliati, foliis longis basi dilatatis concavis integerrimis, superioribus ad squamas foliaceas reductis. Spica terminalis, bracteis foliaceis imbricatis, inferioribus viridibus, superioribus coloratis. Flores sub quaque bractea solitarii.

Species 3 v. 4, Americæ tropicæ ab Ecuadoria usque ad Indiam occidentalem incolæ. *Schult. Syst.* vii. 1231. *Hook. Exot. Fl. t.* 163 *bis. Lindl. Collect. t.* 8. *Bot. Mag. t.* 5220. *Lodd. Bot. Cab. t.* 462. *Fl. des Serres, t.* 918, 1089.

In *G. tricolore*, Ruiz et Pav., et in *G. erythrolepide*, Brongn., ei valde affini, spica longa densa bracteis imbricatis quaquaversis; adsunt tamen species 2, altera a Seemannio ad Loja Ecuadoriæ lecta, altera Novo-Granatensis, floribus minoribus paucioribus in spica brevi bracteis distichis.

26. **Tillandsia,** *Linn. Gen. n.* 396. (Renealmia, *Linn. Gen. ed.* 1, 340, *non Linn. f.*)—Sepala erecta, rigidula, libera, valde imbricata. Petala libera, decidua, unguibus erectis in tubum conniventibus, laminis patentibus. Stamina intra petala affixa, libera, filamentis filiformibus; antheræ oblongo-lineares, erectæ, petalis breviores v. interdum exsertæ. Ovarium superum, lata basi affixum v. rarius toro leviter immersum, ovulis in loculis numerosis ascendentibus; stylus filiformis, stigmatibus brevibus patentibus. Capsula oblonga v. linearis, septicide 3-valvis, exocarpio interdum solubili membranaceo cujusve valvis subplano; valvæ endocarpii v. interdum pericarpii totius marginibus placentiferis inflexis subclausæ, maturitate inter se solvendæ, quasi carpella libera efficiunt. Semina numerosa, longe linearia, ascendentia, nucleo parvo oblongo basi in stipitem longe filiformem producto, testa tenui ultra nucleum breviter, secus stipitem longe, in appendicem linearem maturitate in fila numerosa capillaria fissam producta, hæc fila demum, a basi (hilo minuto) soluta et in nucleum persistentia, pappum simulant; nuclei stipes ipse capillaris intra fila testæ iis simillimus est; embryo in parte inferiore nuclei sæpius albumine superiore farinaceo longior.—Herbæ epiphyticæ v. saxicolæ, rarissime terrestres; glabræ v. sæpe plus minus furfuraceæ. Folia angusta, integerrima. Spica terminalis simplex v. composita, rarius ad pedunculum 1-florum reducta. Bracteæ variæ. Flores sub quaque bractea solitarii.

Species plus minus notæ fere 120, Americæ tropicæ incolæ, paucæ usque ad Americam borealem extensæ. *Roem. et Schult. Syst.* vii. 1199. *Walp. Ann.* vi. 94. *C. Koch, App.* 4, *Ind. Sem. Hort. Berol.* 1873. *Griseb. in Nachr. K. Gesellsch. Wiss. Göttingen*, 1864, 14. *Wawra in Œsterr. Bot. Zeitschr.* 182, 218 (*Vriesia*) *et* 221 (*Tillandsia*).

Genus sat polymorphum, a variis auctoribus in plura divisum, sed in integrum servatum naturale est et bene limitatum. Sectiones sequentes præsertim ad inflorescentiam distinctæ.

1. *Strepsia.* Pedunculi 1-flori, 2–3-bracteati, interdum 2–3-flori, floribus singulis 1-bracteatis. Stylus brevis. Indumentum furfuraceum. Strepsia, *Nutt. Gen.* i. 208, *T. usneoidem* et *T. recurvatam*, includens. Auctores recentiores sectionem ad *T. usneoidem*, Linn., Morren, Belg. Hortic. 1877, t. 17, Bot. Mag. t. 6309 limitant, foliis secus caulem elongatum pendulum dissitis. *T. recurvata*, Nutt., affinesque, foliis in caule brevi confertis, sectionem seu genus formant Diaphoranthema, *Beer, Brom.* 153. *Baker in Trim. Journ. Bot.* 1878, 236. *Ruiz et Pav. Fl. Per. et Chil. t.* 270, *f. b*, 271, *f. a, c.*

2. *Wallisia*, Regel. Spica in pedunculo longiusculo simplex, brevis, bracteis distichis. Petalorum laminæ amplæ, latæ, patentes. Stylus sæpius ut in *Strepsia* brevis. Species paucæ Americæ australis extratropicæ incolæ. *Reg. Gartenfl.* xviii. 193, t. 619. *Illustr. Hortic. t.* 610 (*Vriesia*). *Morren, Belg. Hortic.* 1870, *t.* 12; 1871, *t.* 20. Phytarrhiza, *Vis. in Mem. Istit. Venet.* v. 340, *cum tab.* 1. *Morren, Belg. Hortic.* 1879, *t.* 20. Amalia, *Hort. Hisp.*, nomen ab Endlichero aliisque memoratum at forte adhuc ineditum. Planta jam anno 1825 in Horto Barcinonensi culta fuit

sub nomine *Amaliæ aerisincolæ*, Bahi. In *Wallisiis* typicis stylus brevis, stigmatibus brevibus connatis omnino *Streptiæ*; in *T. xiphioide*, *Bot. Mag. t.* 5562, Bot. Reg. t. 105, stylus elongatus *Platystachyæ*, sed spica brevis pauciflora et petalorum laminæ amplæ *Wallisiæ*. *T.* (*Wallisia*), *Hamaleana*, Morren, Belg. Hortic. 1870, t. 5, species nobis ignota, ex icone ab hac sectione differt inflorescentia ramosa.

3. *Platystachya*. Spica nunc elongata simplex, nunc sæpius plus minus composita, bracteis distichis imbricatis v. dissitis. Petala elongata, basi intus non squamata, laminis parvulis. Stamina haud raro exserta. Stylus elongatus. Species numerosæ. *Jacq. Stirp. Amer. t.* 63. *Hook. Exot. Fl. t.* 173, 205. *Gaudich. Voy. Bonite t.* 67, 68. *Ruiz et Pav. Fl. Per. et Chil. t.* 265 *ad* 268, 270 *b. Presl, Rel. Hænk. t.* 24. *Saund. Ref. Bot. t.* 288. *Bot. Mag. t.* 3275, 4288, 5287. *Bot. Reg. t.* 749. *Morren, Belg. Hortic.* 1869, *t.* 18; 1871, *t.* 12; 1872, *t.* 23; 1876, *t.* 14, 16; 1877, *t*, 15, 18; 1878, *t.* 18; 1879, *t.* 6, 10; 1880, *t.* 15. PLATYSTACHYA, *C. Koch ex Beer, Bromel.* 80, *pro parte*. ALLARDTIA, *Dietr. in Allgem. Gartenz.* 1852, 241; *Antoine in Œsterr. Bot. Zeitschr.* 1878, 56, *cum ic.* Huc etiam certe referenda fide Morrenii, BONAPARTEA, *Ruiz et Pav. Fl. Per. et Chil.* iii. 38, *quoad B. junceam, t.* 262 (ACANTHOSPORA, *Spr. Syst.* ii. 25), fructus analysi in icone Pavoniana falsa. *B. strobilantha*, Ruiz et Pav. l. c. t. 263, est versimiliter species altera *Tillandsiæ* e sectione *Anoplophyto*.

4. *Vriesia*, a *Platystachya* differt petalis basi intus squamellis 2 instructis. Inflorescentia simplex v. rarius ramosa. Ovarium in specie typica *T. psittacina* et in *T. splendente*, Brongn. (*Vriesia speciosa*, Hook.), toro breviter immersum, in cæteris speciebus lata basi affixum. *Gaudich. Voy. Bonite, Bot. t.* 65, 66, 69, 70. *Wawra in Pr. Maxim. Reise, Bot. t.* 25, 26, 86. *Bot. Mag. t.* 2841, 4382, 4415, 5108, 6014, 6435. *Regel, Gartenfl. t.* 518, 671. *Morren, Belg. Hortic.* 1870, *t.* 85; 1874, *t.* 14; 1875, *t.* 23; 1878, *t.* 14; 1880, *t.* 1, 15. *Illustr. Hortic. t.* 516 (*pleræque sub Vriesia*). VRIESIA, *Lindl. Bot. Reg.* 1843, *t.* 10.

T. (*Vriesia*) *ringens*, Griseb., e Cuba et Panama, insignis est floribus maximis in panicula parce ramosa dissitis paucis, perianthio valde incurvo.

5. *Anoplophytum*, a *Platystachya* differt bracteis in spica brevi v. longiuscula quaquaversis. *Bot. Mag. t.* 5229, 5246, *Morren, Belg. Hortic.* 1880, *t.* 11. ANOPLOPHYTUM, *Beer, Brom.* 39. *Morren, Belg. Hortic.* 1878, *t.* 13; 1881, *t.* 11.

PITYROPHYLLUM, *Beer, Brom.* 79, est *T. ionantha*, Planch. in Fl. des Serres, t. 1006, Bot. Mag. t. 5892, species humilis, floribus paucis longis in medio rosulo foliorum sessilibus, stylo longo exserto; cui addidit Morren, Belg. Hort. 1878, t. 11, *T. brachycaulon*, Schlecht.

6. *Coniostachya*, Griseb. Inflorescentia ramosa, densa, bracteis magnis imbricatis quaquaversis, exterioribus sæpius foliaceis. Species paucæ, andinæ, iconibus nullis adhuc illustratæ. *T. Malsinei*, Baker, Bot. Mag. t. 6495, ab auctore huc relata, melius a Morrenio inter *Vriesias* inclusa.

27. **Catopsis**, *Griseb. in Nachr. Gesellsch. Wiss. Götting.* 1844, 10, 21. (Pogospermum, *Brongn. in Ann. Sc. Nat. ser.* 5, i. 327. Tussacia, *Klotzsch ex Beer, Brom.* 99, *non aliorum.*)—Sepala libera, erecta, obtusa, valde imbricata. Petala sepalis vix v. rarius subduplo longiora, libera v. leviter cohærentia, erecta v. apice breviter patentia. Stamina libera, inclusa. Ovarium superum, lata basi affixum, loculis ∞-ovulatis; stylus brevissimus v. subnullus, stigmatibus erectis patentibus v. recurvis. Capsula (*Tillandsiæ*) septicide dehiscens valvis subclausis. Semina ascendentia, oblonga, basi in stipitem nunc semine breviorem rarius longiorem attenuata, apice ultra nucleum in appendicem nunc brevissimam nunc longissimam producta, testa basi et ultra nucleum in fila numerosa capillaria fissa pappum simulans; embryo (ubi notus) ad basin albuminis parvus, in albumen farinaceum breviter intrusus.—Folia in caule brevi membranacea v. crassiuscula, integerrima. Spica terminalis, simplex v. sæpius paniculato-ramosa. Flores secus ramulos rectos v. flexuosos sessiles, remoti v. distiche conferti, quam in *Tillandsia* minores, bracteis brevibus.

Species ad 8?, Indiæ occidentalis, Mexici et Andium Americæ australis incolæ. *Ruiz et Pav. Fl. Per. et Chil.* t. 269, 271 *b.* *Hook. Exot. Fl. t.* 218. *Link, Kl. et Otto, Ic. Pl. Rar. t.* 40 (*omnes sub Tillandsia*).

Grisebach errore semina pendula descripsit, appendice stipite nuncupata et vice versa. *Tussacia*, Willd., a Beerio citata, ex charactere manco in Schult. Syst. vii. 10, 57, est planta longe aliena sed adhuc dubia.

Ordo CLXXII. HÆMODORACEÆ.

Endl. Gen. 170. Lindl. Veg. Kingd. 151.

Flores hermaphroditi, regulares v. parum irregulares. *Perianthium* corollinum v. extus tomentosum lanatumve, supra v. circa ovarium persistens, v. demum circumscisse deciduum, tubo 0 v. plus minus evoluto, segmenta v. lobi 6, distincte 2-seriata, v. specie uniseriatim induplicato-valvata v. plana leviter imbricata. *Stamina* nunc 6, tubo v. fauci v. lobis ipsis perianthii affixa v. opposita, omnia perfecta v. 1–3 ad staminodia reducta, nunc 3, lobis interioribus opposita; filamenta filiformia, longa v. brevissima, inter se libera, v. ima basi in annulum connata. *Antheræ* ovatæ oblongæ v. lineares, sæpe sagittatæ, basi v. inter lobos basales v. dorso prope basin affixæ, erectæ v. demum versatiles, loculis 2 parallelis rima longitudinali introrsum v. a latere v. rarius poris terminalibus dehiscentibus. *Ovarium* inferum, semi-inferum v. lata basa excepta intra perianthium liberum, 3-loculare v. rarius septis jam sub anthesi deliquescentibus sub-1-loculare. *Stylus* filiformis v. rarius abbreviatus v. subnullus, apice stigmatoso vix v. parum incrassato 3-sulco, v. rarius stigmata 3 demum brevissime patentia. *Ovula* in quoque loculo placentæ axili affixa, nunc solitaria v. pauca collateralia hemi-anatropa, nunc ∞, anatropa. *Capsula* nunc superne v. omnino libera perianthio persistente vestita, supra basin denudata, loculicide 3-valvis, nunc omnino infera, perianthio coronata, varie dehiscens v. indehiscens. *Semina* in loculis plurima pauca v. solitaria, v. interdum in toto fructu unicum, globosa oblonga angulata v. plano-compressa; testa crassiuscule membranacea, coriacea v. tenuis. *Embryo* parvus, a hilo distans v. ei proximus, in foveola marginali situs v. intra marginem albuminis carnosi in canali centrali breviter rarius longius intrusus.

Herbæ perennes, glabræ v. tomento farinoso v. lana intricata vestitæ, rarius pilosæ. Rhizoma breve, tuberosum, haud raro vaginis foliorum emarcidorum fibrosis cormum formans, fibris radicalibus sæpe fasciculatis. Folia ad basin v. infra medium caulem sæpius conferta, sæpe disticha, anguste linearia v. a latere complanata subensiformia, vaginis equitantibus, rarius quaquaversa. Inflorescentia terminalis, nunc ample paniculata v. thyrsoidea, nunc dense cymosa v. simpliciter spicata racemosa capitata v. ad flores 1–2 reducta. Bracteæ sæpius parvulæ.

Species enumeratæ ad 120, Australiæ imprimis austro-occidentalis, Africæ australis, Americæ borealis v. australis v. Asiæ mediæ v. orientalis incolæ.

Ordo sat naturalis et accurate limitatus genera continens plurima parva sed inter se bene distincta, *Bromeliaceis* quodammodo accedit ovario in eadem serie infero semi-infero v. libero, et embryonis situ; folia interdum iis *Iridearum* accedunt, characteres plures *Amaryllidearum*, a quibus imprimis embryonis situ distinguendus. *Ophiopogoneæ* et *Conanthereæ*, a plerisque botanicis *Liliaceis* anomalis adscriptæ, ab hoc ordine differunt et *Hæmodoraceis* melius convenire videntur ovario sæpius plus minus infero, et embryone in albumine intruso nec incluso.

CONSPECTUS GENERUM.

Tribus I. Euhæmodoreæ. Perianthium persistens; segmenta distincte 2-seriata, interiora exterioribus plus minus obtecta, tubo supra ovarium 0 v. rarius breviter evoluto. Stamina 3 v. rarius 6.

* *Stamina 3. Ovula in loculis 1–2 v. pauca, collateralia.*

1. Hæmodorum. Inflorescentia varia, semper glabra. Ovarium fere liberum, loculis 2-ovulatis. Semina peltata.—*Australia.*

2. Wachendorfia. Panicula effusa v. thyrsiformis, sæpe villosa. Perianthium obliquum, segmentis posticis decurrentibus. Ovarium liberum, pilosum, loculis 1-ovulatis. Semina lateraliter affixa.—*Afr. austr.*

3. SCHIECKIA. Panicula thyrsiformis, villosula. Perianthium æquale, segmentis exterioribus decurrentibus. Ovarium liberum, glabrum, loculis 3–5-ovulatis. Semina in loculis sæpius 2. —*Amer. trop.*

4. HAGENBACHIA. Inflorescentia gracilis, ramosa, pedicellis secus ramos geminis. Perianthii segmenta patentia. Filamenta segmentis interioribus alte adnata. Ovarium liberum, loculis 2-ovulatis.—*Brasilia.*

5. DILATRIS. Inflorescentia cymosa, tomentosa v. viscoso-villosa. Ovarium inferum, loculis 1-ovulatis. Semina plana v. convexiuscula.—*Afr. austr.*

6. LACHNANTHES. Inflorescentia cymosa, tomentoso-lanata. Ovarium inferum, loculis 5–6 ovulatis. Semina pauca, peltata.—*Amer. bor.*

7. BARBERETTA. Racemus gracilis, simplex, glaber. Ovarium liberum, abortu 1-loculare 1-ovulatum.—*Afr. austr.*

** *Stamina* 3. *Ovula in loculis numerosa.*

8. XIPHIDIUM. Panicula simplex, glabra. Ovarium liberum.—*Amer. trop.*

*** *Stamina* 6. *Ovula in loculis* 1 *v.* 2, *collateralia. Fructus abortu* 1-*locularis*, 1-*spermus.*

9. LANARIA. Inflorescentia cymosa, plumoso-lanata. Perianthii tubus brevis. Filamenta lobis alte adnata. Ovarium fere inferum, loculis 2-ovulatis.—*Afr. austr.*

10. PHLEBOCARYA. Herba ciliato-pilosa. Inflorescentia cymoso-paniculata. Flores parvi, tubo 0. Ovarium inferum, loculis 1-ovulatis, septis sæpe evanidis.—*Australia.*

Tribus II. Conostyleæ. Perianthium persistens; lobi subæquales, specie uniseriatim subvalvatæ. Stamina 6. Ovarii loculi (excepta *Macropidia*) ∞-ovulati.

11. TRIBONANTHES. Flores lanati, solitarii v. pauci capitati v. cymosi. Perianthii segmenta patentia, basi in tubum latum subconnata. Filamenta brevia, erecta, in appendices integras v. dentatas producta. Ovarium liberum.—*Australia austr. occid.*

12. CONOSTYLIS. Inflorescentia capitata v. dense cymosa, plumoso-tomentosa v. villosa. Filamenta nuda. Ovarium inferum.—*Australia.*

13. BLANCOA. Flores plumoso-lanati, pauci, magni, penduli, racemosi. Perianthium tubulosum, rectum. Ovarium angulis solis adnatum.—*Australia austr. occid.*

14. ANIGOZANTHOS. Flores plumoso-lanati, magni, dense spicati v. racemosi, secundi. Perianthium tubulosum, limbo obliquo. Ovarium inferum. Capsula apice 3-valvis.—*Australia austr. occid.*

15. MACROPIDIA. Flores plumoso-lanati, magni, dense spicati. Perianthium tubulosum, limbo oblique patente. Ovarium inferum, loculis 1-ovulatis. Semina cum pericarpii valvis a septis persistentibus decidua.—*Australia austr. occid.*

16. LOPHIOLA. Panicula cymosa, albo-lanata, floribus parvulis. Ovarium fere liberum. Capsula 3-valvis.—*Amer. bor.*

17. ALETRIS. Spica longa, simplex, floribus parvulis lepidoto-farinosis. Ovarium semi-inferum. Capsula 3-valvis.—*Amer. bor., Asia or.*

Tribus III. Ophiopogoneæ. Perianthium marcescens, sub fructu persistens; segmenta subæqualia, consimilia, plana. Stamina 6. Ovarii loculi 2-ovulati. Pericarpium post anthesin ruptum nec auctum. Semina bacciformia, subglobosa, exserta. Racemus simplex. Flores parvuli.

18. PELIOSANTHES. Perianthii tubus supra ovarium brevis, limbus rotato-patens. Filamenta brevissima, in annulum faucem perianthii subclaudentem connata, antheris parvis ovatis. Stigma in vertice conico ovarii subsessile. Folia longe petiolata, latiuscula.—*Ind. or., Archip. Malay.*

19. OPHIOPOGON. Perianthium supra ovarium erecto-patens. Filamenta erecta, distincta, antheris linearibus breviora. Stylus longiusculus. Folia longe linearia v. rarius petiolata latioraque.—*Ind. or., Asia or., Japonia.*

20. LIRIOPE. Perianthium a basi ovarii patens. Filamenta subhypogyna, distincta, antheris oblongis subæquilonga. Stylus columnaris. Folia longe linearia.—*Japonia, China.*

21. SANSEVIERIA. Perianthii tubus longus, tenuis. Filamenta filiformia. Ovarium liberum, lata basi affixum.—*Afr. trop. et austr., Ind. or.*

Tribus IV. Conanthereæ. Perianthium demum circa v. supra ovarium circumscisse deciduum, segmenta subæqualia consimilia v. exteriora parum dissimilia, plana. Stamina v. staminodia 6, æqualia v. 1 v. 3 cæteris dissimilia; antherarum loculi sæpius poro terminali v. rarius brevi dehiscentes. Ovarii loculi (excepto *Odontostomo*) ∞-ovulati. Capsula superne loculicide dehiscens. Flores laxe paniculati v. rarius racemosi v. solitarii.

22. Conanthera. Perianthii tubus campanulatus. Stamina omnia perfecta, antheris consimilibus linearibus in conum conniventibus.—*Chili.*

23. Cyanella. Perianthii tubus 0. Stamina omnia perfecta, 3 tamen sæpe cæteris dissimilia.—*Afr. austr.*

24. Zephyra. Perianthii tubus brevis, angustus. Stamina 4 perfecta, 2 ad staminodia reducta.—*Chile.*

25. Tecophilæa. Perianthii tubus brevis, angustus. Stamina 3 perfecta, unilateralia, 3 lateris oppositi ad staminodia reducta.—*Chile.*

26. Odontostomum. Perianthii tubus cylindraceus, lobi patentes v. reflexi. Stamina omnia perfecta, antheris consimilibus ovoideis erectis. Ovarii loculi 2-ovulati.—*California.*

GENERA EXCLUSA.

Vellozia et Barbacenia, Vand., a nonnullis in *Hæmodoraceis* inclusæ, ad **Amaryllideas** referendæ.

Tribus I. Euhæmodoreæ.

1. **Hæmodorum,** *Sm. in Trans. Linn. Soc.* iv. 213.—Perianthii tubus 0; segmenta subæqualia v. exteriora breviora. Stamina 3, ad basin segmentorum interiorum affixa, filamentis liberis sed in flore aperto basi segmentis involutis; antheræ ovatæ oblongæ v. lineares. Ovarium sub anthesi inferum v. vertice plano v. 3-dymo parum prominens, 3-loculare; stylus indivisus, stigmate vix incrassato; ovula in loculis 2, collateralia, placentæ axili crassiusculæ lateraliter affixa, hemianatropa. Capsula superne accreta, sæpe fere omnino supera, 3-dyma, rimis 3 loculicide dehiscens. Semina plana, ovata v. orbiculata, marginibus acutis v. fere in alam productis, placentæ crasso-carnosæ peltatim affixa, collateralia; embryo parvus, a hilo distans, albumine carnoso parum intrusus.—Herbæ erectæ, glabræ, fibris radicalibus fasciculatis sæpe crasse carnosis. Caulis basi haud raro leviter incrassatus, reliquiis fibrosis foliorum vetustorum obtectus cormum simulans. Folia radicalia basi vaginantia, equitantia, a latere complanata v. teretia, sæpe longa; caulina pauca, breviora. Flores sæpius parvuli, ad apicem caulis capitati fasciculati cymosi paniculati v. interrupte spicati. Bracteæ parvæ. Perianthii segmenta circa fructum persistentia. Inflorescentia siccitate nigra, glaberrima.

Species 17, Australianæ. *Benth. Fl. Austral.* vi. 418. *Endl. Iconogr. t.* 98. *Hook. Ic. Pl. t.* 866. *Bot. Mag. t.* 1610.

2. **Wachendorfia,** *Linn. Gen. n.* 61. (Pedilonia, *Presl, Nov. Pl. Gen., Pragæ*, 1829, *cum ic.*)—Perianthium obliquum, tubo 0; segmenta angusta v. obovato-oblonga, exteriora præsertim posticum a cæteris sæpe dissimilia in pedicellum decurrentia, interiora 2 postica basi exterioribus adnata, anticum a basi liberum. Stamina 3, ima basi segmentorum interiorum affixa v. fere libera, filamentis filiformibus; antheræ sagittatæ, subversatiles. Ovarium basi latiuscula affixum, cæterum liberum, dense pilosum, 3-dymum, 3-loculare; stylus filiformis, sæpe basi flexus, stigmate vix incrassato; ovula in loculis solitaria, lateraliter affixa, hemianatropa. Capsula 3-dyma, lobis a latere valde compressis acutis quasi 3-alata, 3-locularis, loculicide dehiscens. Semina in loculis solitaria, lateraliter affixa, testa in *W. thyrsiflora* lævi, in *W. paniculata* dense echinata; embryo parvus, oblongus v. anguste conicus, albumine carnoso duriusculo semi-immersus.—Rhizoma breve, in tubera oblonga v. globosa incrassatum. Caulis erectus, basi interdum incrassatus. Folia pauca, ensiformia v. rarius linearia, interdum magna, plus minus plicato-venosa. Panicula terminalis, nunc ampla effusa, nunc longa anguste thyrsiformis floribunda, sæpe villosa. Flores flavi.

Species enumeratæ 7, sed vix 3 bene distinctæ videntur, Africæ australis incolæ. *Ræm. et Schult. Syst.* i. 485. *Gærtn. Fruct. t.* 15. *Sm. Ic. Pict. t.* 5. *Red. Lil. t.* 93. *Andr. Bot. Rep.* 398. *Bot. Mag. t.* 614, 616, 1060, 1166, 2610.

3. **Schleckia,** *Meissn. Gen. Pl.* 397; *Comm.* 300. (Troschelia, *Klotzsch in Rich. Schomb. Reise,* 1066.)—Perianthium vix obliquum, tubo 0; segmenta angusta, exteriora ad pedicellum æqualiter decurrentia, interiora 2 postico breviter adnata, anticum a basi liberum. Stamina perfecta 3, quorum 1 basi segmento antico affixum, 2 segmentis superioribus opposita vix tamen adnata, adsunt etiam interdum staminodia 1–2 ananthera segmentis exterioribus opposita. Ovarium basi lata affixum, cæterum liberum, glabrum, 3-dymum, 3-loculare; stylus filiformis, stigmate vix incrassato; ovula in loculis pauca, sæpius 3–5, hemianatropa, pendula. Capsula 3-dyma, lobis acutiusculis omnino *Wachendorfiæ*, loculicide 3-valvis. Semina in quoque loculo sæpius 2 perfecta.—Rhizoma breve, subtuberosum. Caules elati. Folia ad basin caulis conferta, ensiformia v. linearia, venosa. Panicula anguste thyrsiformis, floribunda, villosula. Flores nutantes, quam in *Wachendorfia* minores, perianthio circa capsulam persistente.

Species 1, Brasiliæ, Guianæ et Venezuelæ incola. *H. B. et K. Nov. Gen. et Sp. t.* 698 (*Wachendorfia*).

4. **Hagenbachia,** *Nees et Mart. in Nov. Act. Nat. Cur.* xi. 18, *t.* 2.—Perianthii tubus 0; segmenta subæqualia, patentia. Stamina 3, filamentis segmentis interioribus alte adnatis; antheræ prope apicem segmentorum fere sessiles, breves, cordatæ. Ovarium liberum, 3-dymum, 3-loculare; stylus filiformis, stigmate vix incrassato; ovula in loculis 2, collateralia. Capsula 3-dyma, loculicide 3-valvis. Semina compressa.—Fibræ radicales fasciculatæ. Folia radicalia conferta, longa, laxe ensiformia, striata. Scapus subaphyllus, tenuis, ramosus. Flores parvi, breviter pedicellati, pedicellis geminis per paria secus ramos dissitis. Bracteæ parvæ. (*Char. ex Nees et Mart.*)

Species 1, Brasiliensis, a nobis non visa. *Rœm. et Schult. Syst.* i. *Mant.* 353.

5. **Dilatris,** *Berg, Pl. Cap.* 9, *t.* 3, *f.* 5.—Perianthii tubus 0; segmenta subæqualia, ovata subscariosa, v. angusta viscoso-villosa. Stamina 3, ad basin segmentorum interiorum affixa, filamentis erectis liberis longiusculis rigidulis; antheræ ovatæ v. oblongæ, versatiles. Ovarium globosum v. ovoideum, fere omnino inferum, apice brevissime liberum, convexum, 3-loculare; stylus filiformis, stigmate vix incrassato; ovula in loculis solitaria, placentæ crassæ v. peltatæ lateraliter affixa. Capsula globosa v. ovoidea, demum loculicide 3-valvis ?. Semina in loculis solitaria, orbiculata v. late ovata, plana v. concaviuscula, testa nigra.—Rhizoma breve, crassum. Caulis erectus, rigidulus, præter inflorescentiam simplex. Folia ad basin caulis conferta, disticha, equitantia, ensiformia v. linearia, rigidula. Inflorescentia terminalis, cymosa, plus minus composita, in *D. corymbosa,* Thunb. tenuiter subflocoso-tomentosa, in *D. viscosa,* Thunb. viscoso-villosa.

Species 2, Africæ australis incolæ. *Rœm. et Schult. Syst.* i. 483 (*excl. D. Heritiera*). *Gærtn. f. Fruct.* iii. *t.* 182. *Sm. Exot. Bot. t.* 16.

6. **Lachnanthes,** *Ell. Bot. S. Car. and Georg.* i. 47. (Heritiera, *Gmel. Syst. Nat.* ii. 113, *non Ait.* Gyrotheca, *Salisb. in Trans. Hort. Soc.* i. 327, *absque char.*)—Perianthii tubus 0; segmenta angusta, 3 exteriora paullo minora. Stamina 3, ad basin segmentorum interiorum affixa, filamentis filiformibus segmentis sublongioribus; antheræ oblongæ, versatiles. Ovarium inferum, vertice planum, 3-loculare; stylus elongatus, stigmate vix incrassato; ovula in loculis pauca (ad 6), circa marginem placentæ peltatæ stipitatæ collateraliter affixa. Capsula globosa (demum 3-valvis ?). Semina pauca, orbiculata, plana, placentæ peltatim affixa, omnino *Hæmodori.*—Rhizoma brevissimum, interdum stoloniferum, fibris radicalibus fasciculatis. Caulis præter inflorescentiam simplex. Folia pauca, longa, plana, angusta, disticha, basi equitantia. Inflorescentia terminalis, dense cymosa, plus minus composita, tomentoso-lanata. Flores quam in *Lophiola* paullo majores, perianthio persistente tomentoso-lanato.

Species 1, boreali-Americana. *Mich. Fl. Bor. Amer. t.* 4 (*Heritiera*).

7. **Barberetta,** *Harv. Gen. S. Afr. Pl. ed.* 2, 377.—Perianthii tubus 0, segmenta subæqualia, patentia, tenuia, glabra. Stamina 3, ad basin segmentorum interiorum affixa, filamentis filiformibus segmenta superantibus; antheræ parvæ, ovatæ, dorso supra basin

affixæ. Ovarium liberum, glabrum, obliquum, loculo 1 perfecto, 1 v. 2 parvis vacuis; stylus filiformis, terminalis sed ob loculos 2 vacuos excentricus apparet, stigmate vix incrassato; ovulum in loculo perfecto 1, placentæ crassiusculæ lateraliter affixum. *Fructus* . . .—Caulis prope basin in tuber globosum incrassatus. *Folia* pauca, plana, laxiuscula, flaccida, venis ad 5 cæteris validioribus percursa. Racemus terminalis, elongatus, gracilis, simplex. Pedicelli filiformes 1-flori, basi bractea lineari complicata amplexi. *Perianthium* aureum, tenuiter petaloideum, parvulum.

Species 1, Africæ australis incola.

8. **Xiphidium,** *Aubl. Pl. Gui.* 33, *t.* 11.—Perianthii tubus 0; segmenta æqualia, oblonga, patentia, basi non decurrentia. Stamina 3, ad basin segmentorum interiorum affixa, filamentis brevibus; antheræ oblongæ, majusculæ, erectæ. Ovarium liberum, 3-loculare; stylus filiformis, apice stigmatoso obtuso 3-sulco; ovula in loculis numerosa, pendula. Capsula globosa, loculicide 3-valvis. Semina numerosa, parvula, subglobosa v. leviter angulata, testa verruculosa; embryo ad marginem albuminis duriusculi leviter intrusus.—Rhizoma breve. Folia latiuscule linearia v. longe lanceolata, disticha, membranacea, equitantia. Flores parvuli, glabri, secus ramos simplices paniculæ breviter pedicellati, unilaterales.

Species a nonnullis distinguuntur 2, apud alios unius varietates sunt, Americæ tropicæ a Brasilia usque ad Indiam occidentalem incolæ. *Ræm. et Schult. Syst.* i. 487, *Mant.* 320. *Walp. Ann.* i. 842. *Griseb. Cat. Pl. Cub.* 252. *Bot. Mag. t.* 5055.

9. **Lanaria,** *Ait. Hort. Kew.* i. 462. (Argolasia, *Juss. Gen.* 60. Augea, *Retz, Obs.* v. 3, *absque char.*)—Perianthium supra ovarium breviter tubulosum; lobi lineares, tubo sublongiores, exteriores paullo breviores. Stamina 6, filamentis lobis perianthii alte adnatis apice breviter liberis; antheræ oblongæ, versatiles. Ovarium fere inferum, apice conico intra perianthium breviter libero, 3-loculare; stylus filiformis, stigmate vix incrassato; ovula in loculis 2, collateralia, a latere prope basin affixa. Capsula subglobosa, perianthio coronata, vix dehiscens, abortu 1-locularis, 1-sperma. Semen globosum, testa coriacea fere crustacea nigra nitida, albumine carnoso; embryo minimus.—Rhizoma breve, lignosum. Caulis basi fibris rigidis foliorum vetustorum reliquiis obtectus, validus, præter inflorescentiam simplex. Folia subradicalia, longe linearia, plana, rigidula, venosa. Inflorescentia terminalis, cymosa, plus minus composita, undique lana plumosa densissime obtecta.

Species 1, Africæ australis incola. *Ræm. et Schult. Syst.* vii. 294. *Schnitzl. Iconogr.* i. *t.* 62. *Lam. Illustr. t.* 34 (*Argolasia*).

10. **Phlebocarya,** *R. Br. Prod.* 301.—Perianthii tubus 0, segmenta subæqualia. Stamina 6, ad basin segmentorum affixa, filamentis brevibus liberis; antheræ erectæ, basifixæ, lineares, rimis lateralibus dehiscentes. Ovarium inferum, primum 3-loculare, sed septis sæpe jam sub anthesi deliquescentibus mox 1-loculare v. valde imperfecte septatum; stylus subulatus, stigmate vix incrassato; ovula in loculis solitaria, a basi ascendentia. Fructus indehiscens, perianthio persistente coronatus. Semen sæpius abortu unicum, erectum, testa membranacea, albumine carnoso.—Herbæ pilosæ, rhizomate brevi. Folia radicalia fasciculata, anguste linearia v. subulata, longiuscula, rigidula, sæpius ciliata. Scapi seu caules florentes inter folia aphylli iisque breviores, tenues, sæpius 2-fidi v. dichotomi. Flores ad apices ramorum parvuli, dense v. laxe cymulosi, cymulis sæpius paniculatis.

Species 3, Australiæ austro-occidentalis incolæ. *Benth. Fl. Austral.* vi. 424. *Hook. Ic. Pl. t.* 1175, 1176.

TRIBUS II. CONOSTYLEÆ.

11. **Tribonanthes,** *Endl. Nov. Stirp. Dec.* 27; *Iconogr. t.* 109.—Perianthii segmenta subæqualia, basi in tubum brevem campanulatum connata v. conniventia, laminis patenti-

bus. Stamina 6, filamentis tubo perianthii applicitis v. adnatis, superne breviter erectis in appendices 2 breves integras v. dentatas productis; antheræ sagittatæ, inter appendices filamenti affixæ, connectivo sæpe ultra loculos producto. Ovarium liberum, 3-loculare, apice conico in stylum brevem producto; ovula in loculis numerosa, placentæ ∞-seriatim affixa. Capsula apice conico perianthio persistente inclusa, loculicide 3-valvis. Semina numerosa, obovata, plano-compressa.—Rhizoma v. caudex brevis, in tubera plura subglobosa tunicis membranaceis involuta incrassatus. Caulis simplex, foliis paucis linearibus. Flores dense lanati, ad apicem caulis solitarii, v. pauci in cymam v. capitulum terminale conferti. Bracteæ parvæ v. rarius una alterave capitulum æquans.

Species 5, Australiæ austro-occidentalis incolæ. *Benth. Fl. Austral.* vi. 426.

12. **Conostylis,** *R. Br. Prod.* 300.—Perianthii tubus supra ovarium campanulatus v. breviter cylindraceus, rarius 0 v. longiusculus; lobi subæquales, specie 1-seriati, fere induplicato-valvati, v. 3 interiores paullo minores. Stamina 6, basi loborum affixa, filamentis brevibus; antheræ oblongæ v. lineares, basi sagittatæ. Ovarium inferum v. semi-inferum, apice conicum, 3-loculare; stylus filiformis, apice stigmatoso vix incrassato 3-sulco v. breviter 3-fido; ovula in loculis ∞, sæpe numerosa, placentis stipitatis affixa. Capsula apice conico loculicide 3-valvis. Semina, ubi nota, pauca, oblonga, rugulosa; embryo prope hilum parvus, vix albumini carnosulo intrusus.—Rhizoma breve, interdum stolonifer, v. caulis ipse basi fasciculato-ramosus v. quasi prolifer. Folia ad basin caulis v. ramorum conferta, sæpe disticha, linearia subteretia v. a latere complanata rigidulaque. Scapi v. pedunculi inter foliorum fasciculos nunc brevissime 1–2-flori, nunc plus minus elongati, nudi v. paucisquamati. Flores in capitulum v. cymam densam terminalem conferti, cum inflorescentia tota plus minus plumoso-tomentosi v. villosi.

Species 32, omnes Australianæ. *Benth. Fl. Austral.* vi. 428. *F. Muell. Fragm. Phytogr. Austr.* ix. 50.

Genus in sectiones sequentes dividitur:—

1. *Brachycaulon.* Perianthium usque ad ovarium in segmenta 6 divisum. Antherarum loculi a basi discreti, penduli. Placentæ parvæ, pauciovulatæ.

2. *Catospora.* Perianthii tubus plus minus evolutus. Antheræ sagittatæ. Placentæ cujusve loculi recurvæ, dilatatæ, subtus ∞-ovulatæ. *Lindl. Swan Riv. App. t.* 6. *A. Rich. Sert. Astrolab. t.* 28 (*quoad placentas male*). *Hook. Ic. Pl. t.* 853. *Fl. des Serres, t.* 259.

3. *Euconostylis.* Perianthii tubus plus minus evolutus. Antheræ sagittatæ. Placentæ stipitatæ, vix recurvæ, ovulis numerosis undique obtectæ. *Bot. Mag. t.* 2989.

4. *Androstemma.* Perianthii tubus elongatus, lobis angustis. Filamenta elongata. Placentæ peltatæ, margine ∞-ovulatæ. ANDROSTEMMA, *Lindl. Swan Riv. App.* 46. *Field, Sert. Pl. t.* 33.

13. **Blancoa,** *Lindl. Swan Riv. App.* 45.—Perianthium cylindraceum, tubo longo; lobi æquales, erecti, breves, fere induplica o-valvati. Stamina 6, ad apicem tubi affixa, filamentis brevissimis; antheræ ovato-oblongæ. Ovarium tubo perianthii inclusum eique angulis 3 adnatum, inter angulos fere a basi liberum, apice breviter conicum, 3-loculare; stylus longe filiformis, stigmate vix incrassato; ovula in loculis ∞, placentæ adnatæ affixa. Capsula perianthio persistente inclusa, apice conico loculicide 3-valvis. Semina pauca, oblonga, striata.—Caules breves, in rhizomate fasciculati v. ima basi ramosi. Folia conferta, disticha, equitantia, linearia, a latere complanata, rigidula. Flores ad apicem caulis pauci, majusculi, breviter racemosi, penduli, dense plumoso-lanati.

Species 1, Australiæ austro-occidentalis incola. *Benth. Fl. Austral.* vi. 441.

14. **Anigozanthos,** *Labill. Voy.* i. 409, *t.* 22. (Anigosia, *Salisb. in Trans. Hort. Soc.* i. 327. Schwægrichenia, *Spreng. Syst.* ii. 26.)—Perianthium subcylindraceum, plus minus incurvum, tubo longo superne parum v. vix ampliato, latere inferiore sæpe profunde fisso; limbus obliquus, lobis lanceolatis angustisve subvalvatis, inferioribus sæpius altius solutis. Stamina ad apicem tubi inæqualiter affixa, filamentis brevibus; antheræ ovatæ v. breviter oblongæ. Ovarium inferum, apice planum v. conicum; stylus elongatus, filiformis, stig-

mate parum v. vix incrassato; ovula in loculis ∞, sæpius numerosa, placentæ prominenti affixa. Capsula intra perianthium persistens, apice breviter loculicide 3-valvis. Semina perfecta pauca, testa crassiuscula striata v. rugosa.—Rhizoma sæpius crassum, horizontale. Caulis validus. Folia pleraque radicalia, linearia v. ensiformia, interdum teretia, vix disticha. Inflorescentia simplex v. dichotome ramosa, undique plumoso-lanata. Flores magni, secus ramorum v. pedunculi apicem breviter pedicellati v. subsessiles, conferti, rubri purpurascentes virides v. flavescentes.

Species 8, Australiæ austro-occidentalis incolæ. *Benth. Fl. Austral.* vi. 441. *Red. Lil. t.* 176. *Salisb. Parad. Lond. t.* 97. *Lindl. Swan Riv. App. t.* 6. *Bot. Mag. t.* 1151, 3875, 4180, 4507. *Bot. Reg. t.* 2102 *et* 1838, *t.* 37. *Maund, Botanist, t.* 67. *Paxt. Mag.* v. 271, *cum ic. Sweet, Brit. Fl. Gard. ser.* 2, *t.* 265. *Lemaire, Jard. Fleur. t.* 40.

15. **Macropidia,** *Drumm. in Hook. Kew Journ.* vii. 57.—Perianthium subinfundibuliforme, incurvum, tubo superne in faucem ampliato; limbus valde obliquus, lobis longiusculis angustis subvalvatis sub anthesi patentibus. Stamina ad faucem affixa, filamentis longis filiformibus; antheræ oblongo-lineares. Ovarium inferum, apice truncatum, 3-loculare; stylus elongatus filiformis, stigmate leviter clavato; ovula in loculis solitaria, lateraliter affixa. Fructus perianthio coronatus, siccus, 3-locularis, pericarpio demum in valvas 3 a basi soluto, septis duplicatis crassis cartilagineis demum induratis ad axin connatis post semina delapsa persistentibus. Semina in loculis solitaria, 3-quetra, cum pericarpii valvis adnatis sigillatim decidua, testa coriacea; embryo prope basin albuminis carnosi minutus.—Rhizoma crassum caulis validus et habitus *Anigozanthi.* Indumentum plumoso-lanatum, præsertim in floribus atrum. Folia longe ensiformia, striata. Inflorescentia dichotome ramosa. Flores magni, ad apices ramorum dense spicati, secundi.

Species 1, Australiæ austro-occidentalis incola. *Benth. Fl. Austral.* vi. 446 (*errore Macropodia*). *Bot. Mag. t.* 4291 (*Anigozanthos*).

16. **Lophiola,** *Ker in Bot. Mag. t.* 1596.—Perianthium campanulatum, alte divisum, lobis subvalvatis alternis paullo minoribus. Stamina 6, basi loborum affixa iisque breviora, filamentis filiformibus; antheræ oblongæ, juxta basin affixæ, demum sæpius recurvæ. Ovarium basi adnatum, cæterum liberum, apice conicum, 3-loculare; stylus filiformis, stigmate vix incrassato; ovula in loculis ∞, placentis adnatis 2-seriatim affixa, ascendentia. Capsula perianthio persistente inclusa basique adnata, ab apice conico loculicide 3-valvis. Semina plurima, ascendentia, oblongo-teretia, leviter incurva, testa tenui albida; embryo parvus, intra basin albuminis carnosi leviter intrusus.—Rhizoma tenuiter stoloniferum. Folia ad basin caulis pauca, linearia, plana, disticha, equitantia. Panicula terminalis, subdichotome cymosa, densiuscula, undique lana albida vestita. Flores parvuli, flavidi, perianthio extus dense lanato.

Species 1, boreali-Americana. *A. Gray, Man. Bot. N. U. St. ed.* 5, 514. *Pursh, Fl. Bor. Amer. t.* 6 (*Conostylis*).

17. **Aletris,** *Linn. Gen. n.* 428. (Stachyopogon, *Klotzsch in Pr. Waldem. Reise, Bot.* 49, *t.* 94.)—Perianthium tubuloso-campanulatum, lobis brevibus subæqualibus subvalvatis erecto-patentibus. Stamina 6, ad basin loborum affixa, filamentis brevissimis; antheræ ovatæ. Ovarium ima basi v. ad medium inferum, superne liberum, conicum, 3-loculare; stylus brevis v. longiusculus, 3-partibilis, stigmate vix incrassato; ovula in quoque loculo ∞, placentæ elongatæ 2-seriatim affixa. Capsula basi infera, cæterum perianthio persistente inclusa, loculicide 3-valvis. Semina parva, oblonga.—Rhizoma breve, fibris radicalibus fasciculatis. Folia radicalia v. ad basin scapi conferta, lanceolata v. linearia. Scapus elongatus, simplex, aphyllus. Flores parvuli, punctis lepidotis minutis obtecti quasi farinosi, in spicam longam simplicem primum densam demum laxam dispositi, singuli ad axillam bracteæ parvæ sessiles v. breviter pedicellati.

Species ad 8, Americæ borealis, Japoniæ, Chinæ, Indiæ orientalis et Borneo incolæ. *Rœm. et Schult. Syst.* vii. 626. *Willd. Hort. Berol. t.* 8 (*Wurmbea*). *Bot. Mag. t.* 1418. *Lodd. Bot. Cab. t.* 1161.

TRIBUS III. OPHIOPOGONEÆ.

18. **Peliosanthes,** *Andr. Bot. Rep. t.* 605, 634. (Teta, *Roxb. Hort. Beng.* 24, *nomen*; *Fl. Ind.* ii. 165. Bulbospermum, *Blume, Enum. Pl. Jav.* 15.)—Perianthii tubus supra ovarium brevis, late campanulatus; limbus rotato-patens, lobis 6 latis obtusis subæqualibus. Stamina 6, filamentis brevissimis in annulum faucem subclaudentem connatis; antheræ in annulo subsessiles, ovatæ, loculis introrsum dehiscentibus. Ovarium vertice conico excepto inferum, 3-loculare; stigma in vertice ovarii sessile, 3-lobum; ovula in loculis 2, a basi erecta, anatropa. Pericarpium post anthesin ruptum nec auctum. Semina abortu perpauca, in fructu sæpe solitaria, maturatione exserta, oblonga v. globosa, bacciformia, basi reliquiis emarcidis floris imposita, testa crassa carnosa v. succulenta; embryo oblongus, acuminatus, intra basin albuminis carnosi duriusculi plus minus intrusus.—Rhizoma breviter horizontale. Folia radicalia longe petiolata, lanceolata v. latiuscula, utrinque acuminata, venis elevatis subplicata, petiolis basi vaginis imbricatis subdistichis stipatis. Flores parvuli, virentes v. luride violacei, in spica v. racemo simplici dispositi, ad bracteas scariosas solitarii v. rarius fasciculati, breviter pedicellati.

Species ad 8, Indiæ orientalis et Archipelagi Malayani incolæ. *Kunth, Enum. Pl.* v. 306. *Baker in Journ. Linn. Soc.* xvii. 503. *Red. Lil. t.* 415. *Wight, Ic. t.* 2051, 2052. *Bot. Mag. t.* 1302, 1532.

19. **Ophiopogon,** *Ker in Bot. Mag. t.* 1063. (Flueggia, *L. C. Rich. in Schrad. Neues Journ.* ii. 8, *t.* 1, *f.* A, *non Willd.* Slateria, *Desv. Journ. Bot.* i. 243. Chloopsis, *Blume, Enum. Pl. Jav.* 14.)—Perianthii tubus 0; segmenta supra ovarium distincta, subæqualia, sub anthesi patentia. Stamina 6, basi segmentorum affixa iisque breviora, filamentis brevibus erectis; antheræ oblongæ v. lineares, erectæ, basifixæ, loculis a latere subintrorsum dehiscentibus. Ovarium inferum, vertice lato planum v. medio depressum, 3-loculare; stylus longiuscule columnaris, stigmate parvo 3-dentato; ovula in loculis 2, collateralia, erecta, anatropa. Pericarpium post anthesin ruptum nec auctum. Semina abortu perpauca, interdum solitaria, maturatione exserta, globosa v. oblonga, bacciformia, basi reliquiis emarcidis floris imposita, testa crassa carnosa v. succulenta; embryo teres, intra basin albuminis carnosi interdum fere ad medium intrusus.—Rhizoma breve, crassum, fibris radicalibus interdum tuberoso-incrassatis, v. stoloniferum. Caulis foliatus brevissimus, v. interdum magis evolutus simplex. Folia nunc conferta longeque linearia *Liriopis*, nunc oblongo-lanceolata in petiolum angustata, fere *Peliosanthis*, vaginis imbricatis margine sæpe scariosis. Scapi v. pedunculi inter folia radicalia 1–2 v. in caule foliato solitarii terminales. Racemus simplex, bracteis parvis scariosis. Flores violacei cærulescentes v. albi, quam in *Liriope* interdum paullo majores, ad quamvis bracteam sæpe fasciculati, breviter v. longiuscule pedicellati.

Species 4, Indiæ orientalis et Asiæ orientalis usque ad Japoniam incolæ. *Kunth, Enum. Pl.* v. 301 (*Flueggea*). *Baker in Journ. Linn. Soc.* xvii. 500 (*Flueggea*). *Red. Lil. t.* 80 (*Convallaria*). *Wight, Ic. t.* 2050. *Royle, Illustr. Pl. Himal. t.* 96. *Lodd. Bot. Cab.* 1876.

20. **Liriope,** *Lour. Fl. Coch.* 200. (Ophiopogon, *Kunth, Enum. Pl.* v. 297, *et auct. plur.*) —Perianthii tubus 0, segmenta circa ovarium distincta, subæqualia, per anthesin patentia. Stamina 6, hypogyna, filamentis crassiuscule filiformibus erectis; antheræ oblongæ, erectæ, filamento breviores, basifixæ, loculis subintrorsum dehiscentibus. Ovarium superum, toro carnoso tamen medio leviter immersum, vertice leviter depressum, 3-loculare; stylus columnaris, stigmate parvo 3-dentato; ovula in loculis 2, collateralia, erecta, anatropa. Pericarpium post anthesin ruptum nec auctum. Semina abortu perpauca, interdum solitaria, maturatione exserta, globosa, bacciformia, basi reliquiis emarcidis floris imposita, testa crassa carnosa v. succulenta; embryo teres, intra basin albuminis carnosi duriusculi breviter intrusus.—Rhizoma breve, crassum, interdum stoloniferum. Caulis brevissimus, foliis confertis longe linearibus, vaginis brevibus membranaceis v. margine scariosis imbricatis. Scapi v. pedunculi inter folia 1–2, elongati, simplices. Flores

parvuli, violacei v. albidi, racemosi, ad bracteas scariosas fasciculati, pedicellis apice articulatis.

Species 1, Japoniæ et Chinæ incolæ. *Baker in Journ. Linn. Soc.* xvii. 499. *Bot. Mag. t.* 5348. *Bot. Reg. t.* 593. *Lodd. Bot. Cab. t.* 694. Ker in Bot. Mag. sub t. 1063 hanc speciem dubie tantum ad genus suum *Ophiopogonem* junxit, a botanicis recentioribus iterum separatur sed a pluribus infauste sub nomine Keriano descripta, Loureiriano antiquiore neglecto.

21. **Sansevieria,** *Thunb. Prod. Pl. Cap.* 65. (Acyntha, *Medik. Theodora,* 76. Salmia, *Cav. Ic.* iii. 24, *t.* 246.)—Perianthii tubus tenuis, nunc longissimus, apice in faucem parum ampliatus; lobi angusti, æquales, subpatentes, demum interdum fere ad medium tubum solvendi. Stamina 6, tubo ád basin segmentorum affixa iisque æqualia v. parum breviora, filamentis filiformibus; antheræ oblongæ v. lineares, dorsifixæ, loculis discretis medio sæpe breviter tantum connexis a latere subintrorsum dehiscentibus. Ovarium liberum, toro crassiusculo lata basi affixum, 3-loculare; stylus filiformis, elongatus, stigmate parum dilatato indiviso; ovula in loculis solitaria, erecta. Pericarpium tenuissime membranaceum, post anthesin stylo delapso mox deliquescens nec auctum. Semina 1–3, nunc omnia perfecta magna globosa bacciformia basi inter se cohærentia, nunc 1 v. 2 parva, abortiva, testa laxa crassiuscula carnosa v. succulenta, integumento interno tenui appresso; embryo intra basin albuminis carnosi intrusus, teres.—Rhizoma breve, crassum, interdum stoloniferum. Folia rosulata, crassa, cartilaginea, intus fibrosa, sæpe elongata, subplana v. teretia. Scapus simplex, elatus, validus. Flores mediocres v. longi, in racemo sæpe denso ad bracteas scariosas fasciculati, pedicellis apice articulatis.

Species enumeratæ 10, Africæ tropicæ et australis et Indiæ orientalis incolæ. *Kunth, Enum. Pl.* v. 15. *Baker in Journ. Linn. Soc.* xiv. 546; *in Trans. Linn. Soc. Bot. i.* 253. *Jacq. Hort. Vind. t.* 84 (*Aletris*). *Red. Lil. t.* 290, 330. *Roxb. Corom. Pl. t.* 184. *Lindb. in Act. Soc. Sc. Fenn.* x. *t.* 5. *Bot. Mag. t.* 1179, 2634, 5093. *Bot. Reg. t.* 160.

TRIBUS IV. CONANTHEREÆ.

22. **Conanthera,** *Ruiz et Pav. Fl. Per. et Chil.* iii. 68, *t.* 301. (Cumingia, *Don in Sweet, Brit. Fl. Gard. t.* 257, *et ser.* 2, *t.* 88.)—Perianthium infundibuliforme, tubo brevi nunc brevissimo; lobi longiores, oblongi, subæquales, per anthesin patentes v. reflexi. Stamina 6, fauci affixa, lobis breviora, omnia perfecta, filamentis brevissimis; antheræ erectæ, lineares, in conum conniventes, loculis apice v. fere ad basin introrsum dehiscentibus, connectivo membranaceo ultra loculos in acumen integrum v. 2-fidum producto. Ovarium semi-inferum v. vertice convexo excepto inferum, 3-loculare; stylus subulatus, stigmate parvo; ovula in loculis ∞, 2-seriata. Capsula, basi turbinata excepta, supera, ovoideo-3-quetra, apice loculicide dehiscens. Semina ovoidea, testa appressa; embryo in albumine carnoso longiuscule intrusus.—Cormus hypogæus, tunicis fibroso-reticulatis. Folia radicalia v. ad basin caulis pauca, linearia v. lineari-lanceolata. Caulis erectus, superne paniculato-ramosus, bracteis minimis. Flores cærulei, laxe paniculati, pedicellis ebracteolatis.

Species 3 (v. 4?), Chilenses. *Baker in Journ. Linn. Soc.* xvii. 493. *Miers in Trans. Linn. Soc.* xxiv. 506, 507, *t.* 53 (*Conanthera et Cumingia*). *Hook. Exot. Fl. t.* 214. *Bot. Mag. t.* 2496. *Bot. Reg. t.* 1193. *Lodd. Bot. Cab. t.* 904.

Cumingia, Don, ab auctoribus distinguitur perianthii segmentis altius in tubum subcampanulatum connatis v. conniventibus, minusque superne patentibus; tubus tamen adest in specie typica Pavoniana, etsi brevior, et in *C. trimaculata,* Don in Sweet Brit. Fl. Gard. ser. 2, t. 88, multo brevior delineatur quam in *C. campanulata,* Don.

23. **Cyanella,** *Linn. Gen. n.* 420.—Perianthii tubus 0; segmenta usque ad ovarium distincta v. ima basi brevissime connata, patentia, subæqualia. Stamina 6, basi segmentorum affixa, omnia perfecta at sæpe dimorpha, filamentis brevissimis v. filiformibus; antheræ oblongæ v. oblongo-lineares, erectæ, obtusæ, ecalcaratæ, loculis apice breviter v. rima longiore introrsum dehiscentibus. Ovarium semi-inferum, v. basi lata concava

excepta superum, 3-loculare; stylus filiformis, stigmate parvo; ovula in loculis ∞, 2-seriata. Capsula ovoideo-3-quetra, loculicide dehiscens. Semina ovoidea, testa appressa, embryo in albumine carnoso intrusus.—Cormus fibroso-tunicatus, v. (ex icone *C. orchioidis*) rhizoma crasse tuberosum annulatum. Folia radicalia v. ad basin caulis pauca, lanceolata v. linearia. Caulis simplex v. parce ramosus. Flores violacei rosei flavi v. albi, laxe racemosi paniculati v. solitarii, pedicellis ebracteolatis. Bracteæ parvæ v. obsoletæ.

Species 4 v. 5, Africæ australis incolæ. *Kunth, Enum. Pl.* iv. 635. *Baker in Journ. Linn. Soc.* 496. *Jacq. Ic. Rar. t.* 447; *Hort. Vind.* iii. *t.* 35. *Red. Lil. t.* 373. *Gærtn. Fruct. t.* 17. *Andr. Bot. Rep. t.* 141. *Bot. Mag. t.* 568, 1252. *Bot. Reg. t.* 1111. *Lodd. Bot. Cab. t.* 732. *Saund. Ref. Bot. t.* 259.

TRIGELLA, *Salisb. Gen. Pl. Fragm.* 46, est *C. alba*, Linn., foliis radicalibus lineari-teretibus scapisque 1-floris dense fasciculatis, antheris omnibus æqualibus consimilibus. PHARETRELLA, *Salisb. l. c.* 47, est *C. orchiformis*, Jacq., foliis latiusculis, caule ∞-floro, antheris 3 majoribus filamentis brevibus, 3 minoribus filamentis longioribus. In cæteris speciebus folia linearia v. lanceolata, caulis ∞-florus, anthera una cæteris sæpius major, filamento breviore.

24. **Zephyra,** *Don in Edinb. N. Phil. Journ.* xiii. 236. (Dicolus, *Philippi, Descr. Pl. Nuev.* ii. (1873), 74.)—Perianthium basi breviter et anguste tubulosum; lobi multo longiores, obovato-oblongi, plani, subæquales. Stamina fauci affixa, lobis multo breviora, 4 perfecta quorum 3 collateralia, filamentis brevibus, staminodia 2, staminibus perfectis uno latere alterna, linearia, apiculo parvo instructa; antheræ perfectorum oblongæ, infra medium dorsifixæ, basi calcaratæ, loculis apice poris v. rimis brevibus dehiscentibus. Ovarium semi-inferum v. ad ⅔ superum, 3-loculare; stylus subulatus, stigmate parvo; ovula in loculis ∞, 2-seriata. Capsula, basi turbinata excepta, supera, ovoideo-3-quetra, apice loculicide dehiscens. Semina ∞, ovoidea, testa laxiuscula; embryo in albumine carnoso longiuscule intrusus.—Rhizoma profunde hypogæum a nobis non visum. Caulis erectus, paucifoliatus, superne paniculato-ramosus. Folia linearia v. infima lineari-lanceolata, basi longe vaginata, superiora in bracteas parvas abeuntia. Flores cærulei, laxe subcorymboso-paniculati, pedicellis tenuibus ebracteolatis.

Species 1, Chilensis. *Miers in Trans. Linn. Soc.* xxiv. 503, *t.* 53. *Baker in Journ. Linn. Soc.* xvii. 495.

25. **Tecophilæa,** *Bert.; Colla in Mem. Accad. Sc. Torin.* xxxix. 19, *t.* 55. (Distrepta, *Miers, Trav. Chil.* ii. 529, *ex eod. in Trans. Linn. Soc.* xxiv. 504. Phyganthus, *Pœpp. et Endl. Nov. Gen. et Sp.* ii. 71, *t.* 200. Pœppigia, *Kunze in Reichb. Consp.* 212[a].)—Perianthium supra ovarium breviter et anguste tubulosum; lobi multo longiores, obovato-oblongi, plani, subæquales. Stamina fauci affixa, lobis multo breviora, 3 perfecta, unilateralia, filamentis brevibus basi dilatatis, 3 staminodia ad latus alterum floris linearia, apiculo parvo instructa; antheræ perfectorum oblongæ, infra medium dorsifixæ, basi calcaratæ, loculis apice poris v. rimis brevibus dehiscentibus. Ovarium vertice conico excepto inferum, 3-loculare; stylus subulatus, stigmate parvo; ovula in loculis ∞, 2-seriata. Capsula vertice conico loculicide dehiscens. Semina ∞, ovoidea, testa appressa; embryo in albumine carnoso longiuscule intrusus.—Cormus hypogæus, fibroso-tunicatus. Folia radicalia pauca v. unicum, basi vagina longa scariosa inclusa, lamina patente lineari v. lanceolata. Scapus basi cum foliis vagina inclusus, cæterum aphyllus, 1-florus v. laxe pauciflorus. Flores cærulei, pedicello longiusculo nudo v. prope basin bracteola parva instructo.

Species 2, Chilenses. *Baker in Journ. Linn. Soc.* xvii. 495. *Regel, Gartenfl. t.* 718.

26. **Odontostomum,** *Torr. Bot. Whipple Exped.* 94 (150), *t.* 24.—Perianthium hypocrateriforme, tubo cylindraceo æquali; lobi 6, subæquales, patentes v. reflexi; coronæ squamellæ 6, lineares, breves, lobis alternæ, ad faucem ab annulo stamineo bene distinctæ. Stamina 6, fauci intra squamellas æqualiter affixa, lobis breviora, filamentis

inferne complanatis basi in annulum connatis; antheræ erectæ, basifixæ, ovoideæ, didymæ, loculis poro terminali dehiscentibus. Ovarium basi lata excepta superum, 3-loculare; stylus filiformis, stigmate parvo; ovula in loculis 2, collateralia, ascendentia. Capsula basi lata excepta supera, subglobosa, 3-dyma, loculicide dehiscens. Semina in loculis 1–2, obovoidea, erecta, testa appressa; embryo in albumine carnoso longiuscule intrusus.—Cormus fibroso-tunicatus. Caulis erectus, ramosus. Folia linearia, pleraque infra medium caulem conferta, longe vaginata, sub ramis solitaria, minora. Flores parvuli, albidi v. flavidi, secus ramos racemosi, breviter pedicellati. Bracteæ sub pedicellis lineares, summæ minimæ, bracteola in pedicello parva.

Species 1, Californica. *S. Wats. Bot. Calif.* ii. 160. *Baker in Journ. Linn. Soc.* xi. 436 (*Odontostemum*).

Ordo CLXXIII. **IRIDEÆ.**

Endl. Gen. 164. Lindl. Veg. Kingd. 159. Baker in Journ. Linn. Soc. xvi. 61. Klatt, Ergänzungen und Berichtigungen zu Baker's Systema, Halle, 1882 (ex Abhandl. Naturf. Gesellsch. Halle, xv.).

Flores hermaphroditi, regulares v. oblique irregulares. *Perianthium* supra ovarium v. ovarii rostrum corollinum, marcescens, demum deciduum, tubo 0 v. plus minus evoluto; segmenta v. lobi 6, distincte 2-seriata, nunc omnia subæqualia similiaque, nunc interiora exterioribus minora v. majora v. forma nec textu dissimilia, v. limbus obliquus lobis posterioribus majoribus. *Stamina* 3, segmentis lobisve exterioribus opposita, tubo v. fauci affixa v. plus minus segmentis adnata; filamenta filiformia, libera v. plus minus in tubum coalita. *Antheræ* ovatæ oblongæ v. lineares, nunc erectæ basifixæ v. breviter supra basin dorsifixæ, nunc plus minus sagittatæ inter lobos basales affixæ demumque versatiles, loculis 2 parallelis contiguis v. connectivo angusto separatis, rimis longitudinalibus extrorsum v. lateraliter dehiscentibus. *Ovarium* inferum, usque ad apicem 3-loculare v. rarius in rostrum tenue solidum productum, placentis axilibus, v. rarissime 1-loculare, placentis 3 parietalibus. *Stylus* filiformis, superne sæpissime 3-fidus, ramis subulatis v. apice varie dilatatis appendiculatisve, indivisis 2-fidis v. laceris, summo vertice v. superne introrsum stigmatosis. *Ovula* in quoque loculo ∞, sæpius numerosa, rarius ad 1–2 reducta, anatropa. *Capsula* globosa obovoidea oblonga v. rarius linearis, interdum 3-dyma v. 3-loba, perianthio delapso annulo prominente v. linea circulari (perianthii basi v. cicatrice) coronata, intra annulum haud raro latiuscule plana v. leviter convexa (false operculata dicta), ab apice v. usque ad basin in valvas 3 loculicide dehiscens. *Semina* pauca v. numerosa, 2-seriatim superposita, rarius in loculis solitaria, funiculis brevibus sæpius brevissimis, estrophiolata, globosa v. mutua pressione angulata v. interdum compresso-plana; testa membranacea v. leviter spongioso-incrassata. *Albumen* corneum, semen implens. *Embryo* parvus, a hilo parum distans, intra albumen perfecte inclusus.

Herbæ perennes. Rhizoma nunc lignosum, nunc repens v. stoloniferum, nunc brevissimum fibras fasciculatas emittens a cormi nucleo non distinctum, interdum in caudicem erectum infra folia brevissimum v. rarius elongatum ramosumque productum. Caules herbacei, in rhizomate fasciculati v. unicus terminalis, v. rhizomate non evoluto basi cum foliorum vetustiorum vaginis in bulbum seu cormum tunicatum incrassati; interdum supra bulbum brevissimi v. obsoleti. Folia ad basin caulis v. caudicis ramorum plerumque conferta, nunc circa caulem fasciculata et anguste linearia, nunc sæpius disticha, a latere complanata basi vaginata et equitantia, in caule ipso sæpius pauca v. præter floralia et spathas 0. Inflorescentia terminalis v. ex axilla folii floralis simplex v. ramosa, v. interdum pedunculi plures fasciculati. Spathæ (bracteæ spathaceæ) terminales v. laterales, membranaceæ scariosæ v. herbaceæ striatæque, concavæ v. complicatæ, flores bracteasque 1–∞ amplectentes v. arcte includentes. Flores si solitarii sessiles v. rarius

pedicellati, si plures sæpius pedicellati, revera intra spatham in cymam unirameam (ripidium) dispositi, sed rhachi brevissima fasciculati apparent, perianthio solo spatham superante. Bracteæ intra spatham tot quot flores, rarissime in spatha uniflora desunt, interdum spathæ subsimiles nisi breviores haud raroque magis scariosæ, interdum in spatha uniflora ea sublatiores 2-nerves 2-carinatæ v. 2-fidæ. Capsulæ maturæ intra spatham sessiles inclusæque v. pedicello accrescente rarius ab initio e spatha exsertæ.

Species notæ paullo ultra 700, per regiones temperatas tropicasque utriusque orbis latissime dispersæ, in regione Mediterranea et Africa australi copiosissimæ, in America tamen haud raræ, in Australia plurimæ, in Asia paucæ.

Ordo facile distinctus, *Amaryllideis* accedit ovario infero et seminum structura, sed constanter differt staminibus 3 solis segmentis exterioribus perianthii oppositis evolutis, et antheris extrorsum v. a latere nec introrsum dehiscentibus.

FORMÆ ABNORMES.

Stamina 2 sola perfecta, filamento tertio ananthero in *Diplarrhena*.

Ovarium uniloculare placentis 3 parietalibus in *Hermodactylo*; apice in rostrum tenue perianthii tubum simulans productum in speciebus nonnullis *Iridis* et *Moreæ*.

CONSPECTUS GENERUM.

Tribus I. Moræeæ. Spathæ terminales v. pedunculatæ, rarissime paucæ secus caulem subsessiles. Flores in spatha 2-∞, rarissime ad unum reducti, pedicellati v. rarius subsessiles. Bracteæ intra spatham concavæ v. carinatæ, floribus oppositæ. Styli rami antheris oppositi iisque sæpe appliciti, sæpius 2-lobi v. 2-appendiculati; stigmata nunc ad basin nunc ad apices loborum ab apicibus antherarum parum distantia. Caules in rhizomate evoluto ebulbosi v. leviter bulbosi in *Iridis* speciebus pluribus, in *Moreæ* sect. *Dicte*, in *Hermodactylo* et in *Marica*, in cæteris omnibus bulbus tunicatus rhizomate non evoluto.

Tribus a 2 sequentibus distinguitur imprimis styli ramis antheris oppositis.

Excepta: styli rami 2-partiti, lobis sub anthesi inter antheras patentibus in *Hexaglottide*.

* *Styli rami 2-alati, alis ultra antheras in lobos petaloideos productis; stigmata immediate supra antheras ad basin loborum transversa.*

1. Iris. Perianthii segmenta basi in annulum v. tubum connata, interiora exterioribus dissimilia, sæpius minora erectiora, rarius inter exteriora patula.—*Eur.*, *Afr. bor.*, *Asia temp.*, *Amer. bor.*

2. Hermodactylus. Omnia *Iridis* nisi ovarium 1-loculare, placentis parietalibus. Capsula 1-locularis, subinflata.—*Gallia merid.*, *Italia*, *Græcia*.

3. Moræa. Perianthii segmenta inter se a basi distincta, interiora exterioribus sæpius multo minora erectiora, nunc angustissima v. minima v. 3-fida, rarius exterioribus similia nisi minora.—*Afr. trop. et austr.*, *Madagascaria*, *Australia*.

** *Styli rami exalati v. rarius 3-alati, ultra antheras in lobos 2–3 producti v. minute dentati; stigmata prope apicem antheræ transversa v. patentia. Filamenta libera.*

4. Marica. Perianthii tubus 0, segmenta interiora exterioribus minora, erecta, sæpius flexuosa v. apice recurva. Styli rami ultra stigma in lobos 2–3 erectos teretes v. planos producti. Caules e rhizomate brevi ebulbosi.—*Amer. et Afr. trop.*

5. Cypella. Perianthium et stylus *Maricæ*. Bulbus tunicatus.—*Amer. austr. trop. et subtrop.*

6. Trimezia. Perianthium *Cypellæ*. Styli rami ultra stigma non producti v. brevissime 2-dentati, dentibus obtusis v. setaceis.—*Ind. occid.*, *Amer. centr.*

*** *Styli rami ad basin antherarum 2-fidi, v. rarius indivisi, antheris paullo breviores v. vix longiores apice solo stigmatosi; stigmatorum rudimenta interdum ad basin loborum patentia. Filamenta in tubum connata.*

7. Tigridia. Perianthii tubus 0, segmenta libera, patentia, interiora exterioribus multo minora obtusa undulata. Styli rami 2-partiti, lobis subulatis.—*Amer. occid. a Chile a Mexicum.*

8. Rigidella. Perianthii tubus 0, segmenta exteriora basi in cupulam conniventia cæterum patentissima, interiora multo minora, erecta, intra cupulam occulta v. tubo stamineo appressa. Styli rami 2-partiti, lobis subulatis.—*Mexico, Amer. centr.*

9. Alophia. Perianthii tubus 0, segmenta interiora exterioribus patentibus multo minora, erecta, acuta, plana. Styli rami breviter 2-fidi, lobis linearibus v. leviter dilatatis.—*Texas, Amer. austr. extratrop., Brasilia.*

10. Ferraria. Perianthii tubus brevis, campanulatus, lobi subæquales, patentes. Styli rami complanati, sæpe 2-fidi, apice fimbriato-multisetosi.—*Afr. austr.*

11. Homeria. Perianthii tubus brevissimus, lobi subæquales, erecto-patentes. Styli rami indivisi, lineares v. latiusculi, apice 2-dentati v. fimbrillati.—*Afr. austr.*

GENUS ANOMALUM.

12. ? Hexaglottis. Perianthii tubus 0, segmenta subæqualia rotato-patentia. Filamenta vix connata. Styli rami 2-partiti, lobi subulati, in alabastro antheris oppositi, demum antheras amplectentes inter easque patentes.—*Afr. austr.*

Tribus II. Sisyrinchieæ. Spathæ terminales v. pedunculatæ, rarissime secus caulem sessiles. Flores in spatha in *Croceis* solitariæ, in cæteris omnibus sæpissime 2–∞, pedicellati v. rarius subsessiles. Bracteæ intra spatham concavæ v. carinatæ, floribus oppositæ. Stylus infra ramos staminibus longior, v. si brevior rami antheris alterni, summo vertice v. introrsum in longitudinem stigmatosi.

Subtribus 1. Croceæ. *Bulbus seu cormus tunicatus. Spathæ 1-floræ, in pedunculis seu scapis terminalês. Genera gerontogea extratropica.*

13. Crocus. Pedunculi seu scapi intra folia radicales. Perianthii tubus longissimus, tenuis, lobi conniventes. Styli rami cuneati dentati v. vario lobati, vertice solo stigmatosi.—*Reg. Mediterr., Eur. et Asia med.*

14. Syringodea. Pedunculi seu scapi intra folia radicales. Perianthii tubus longissimus, tenuis, lobi patentissimi v. conniventes. Styli rami subulati, indivisi, superne introrsum stigmatosi.—*Afr. austr.*

15. Galaxia. Pedunculi intra folia cum iis ad apicem caudicis brevis subhypogæi fasciculati. Perianthii tubus tenuis. Filamenta in tubum connata. Stylus apice petaloideo-dilatatus, fimbriatus v. cuneato-3-lobus, vertice solo stigmatosus.—*Afr. austr.*

16. Romulea. Pedunculi intra folia radicales v. in caule elongato plures. Perianthii tubus brevissimus, rarius longiusculus. Styli rami subulati, apice plus minus 2-fidi, lobis introrsum stigmatosis.—*Eur. occid., reg. Mediterr., Afr. occid. et austr.*

Subtribus 2. Cipureæ. *Bulbus seu cormus tunicatus. Spathæ 2–∞-floræ, rarissime 1-floræ. Perianthii tubus 0 v. brevissimus, lobi v. segmenta æqualia v. interiora paullo minora. Genera omnia Americana.*

17. Cipura. Spathæ ad apicem caulis plures, angustæ, fasciculatæ. Filamenta libera. Styli rami indivisi, petaloideo-dilatati. Capsulæ e spatha exsertæ.—*Amer. trop.*

18. Sphenostigma. Spatha terminalis v. paucæ longiuscule pedunculatæ. Filamenta libera. Styli rami indivisi, lanceolati v. cuneati. Capsulæ e spatha exsertæ.—*Amer. trop.*

19. Eleutherine. Spatha terminalis v. paucæ pedunculatæ. Filamenta libera. Stylus brevissimus, ramis longis subulatis indivisis. Capsulæ spatha inclusæ.—*Amer. trop.*

20. Calydorea. Spatha terminalis v. paucæ pedunculatæ rarissime sessiles. Filamenta libera. Stylus elongatus, ramis indivisis subulatis v. apice leviter clavatis. Capsulæ e spatha exsertæ.—*Amer. trop. et subtrop.*

21. Gelasine. Spatha terminalis. Filamenta in tubum brevem connata. Stylus brevis, ramis brevibus obtusis indivisis.—*Amer. austr. extratrop.*

22. Nemastylis. Spatha terminalis v. paucæ pedunculatæ. Filamenta breviter v. in tubum longum connata. Stylus ramis 2-partitis specie 6-fidus, lobis subulatis.—*Amer. trop. et bor.*

Subtribus 3. Eusisyrinchieæ. *Rhizoma brevissimum fibris radicalibus fasciculatis, v. repens, caule terminali non bulboso (exceptis* Bobartia filiformi *et* Keitia). *Spathæ 2–∞-floræ, rarissime 1-floræ. Perianthii tubus 0 v. brevissimus, lobi patentes, æquales v. interiores paullo majores v. minores.*

23. Diplarrhena. Spatha terminalis, addita interdum altera inferiore. Perianthii *lobus posticus cæteris major*. Antheræ perfectæ 2, filamento tertio ananthero. Capsulæ e spatha exsertæ. Semina plana.—*Australia*.

24. Libertia. Spathæ bracteæque breves, laxæ, membranaceæ, in panicula v. secus pedunculum sessiles, florum cymulam v. capitulum non omnino includentes. Perianthii segmenta æqualia v. *interiora paullo majora*. Filamenta libera v. basi breviter connata.—*Chile, Australia, Nov. Zel.*

25. Belamcanda. Inflorescentia 2–3-chotoma. Spathæ terminales bracteæque membranaceo-scariosæ. Filamenta libera. Capsulæ valvæ demum reflexæ, *axin placentiferam persistentem erectam liberantes*. Semina majuscula.—*Ind. or., China, Japonia.*

26. Orthrosanthus. Spathæ oblongæ, sessiles v. pedunculatæ, interdum fasciculatæ. Flores brevissime pedicellati. Filamenta libera v. basi brevissime connata. Styli rami filiformes. Capsulæ spatha inclusæ.—*Amer. austr. extratrop. et Andin., Australia.*

27.? Kritia. Spathæ ovatæ, pedunculatæ. Filamenta ima basi brevissime connata. Styli rami applanati.—*Afr. austr.*

28. Bobartia. Spatha terminalis v. plures fasciculatæ, singulæ bracteis bifariam imbricatis stipatæ. Filamenta libera. Capsulæ e spathis exsertæ.—*Afr. austr.*

29. Sisyrinchium. Spatha terminalis v. plures fasciculatæ. Filamenta plus minus in tubum connata, rarissime libera. Styli rami tenues, indivisi. Capsulæ e spatha exsertæ. Fibræ radicales ad basin caulis fasciculatæ.—*Amer. bor. et austr., Hibernia.*

30. Tapeinia. Spatha terminalis, 1-flora. Herba nana densissime cæspitoso-ramosa. Cætera *Sisyrinchii*.—*Terr. Magell.*

Subtribus 4. Aristeæ. *Rhizoma nunc brevissimum fibris radicalibus fasciculatis, nunc repens v. lignosum et in caudicem erectum abiens. Perianthii tubus plus minus evolutus. Capsulæ spatha sæpissime inclusæ.*

31. Patersonia. Spathæ terminales geminæ. *Perianthii tubus tenuis, lobi exteriores lati patentes, interiores parvi erecti v. 0. Filamenta in tubum connata. Stylus sæpius sub ramis articulatus.—Australia.*

32. Symphyostemon. Spathæ 1–2, *inter folia sessiles v. pedunculatæ.* Perianthium infundibuliforme, *lobis suberectis æqualibus. Filamenta in tubum connata*, superne libera, filiformia; antheræ versatiles. *Styli rami filiformes. Fibræ radicales fasciculatæ.—Amer. austr. extratrop. et Andin.*

33. Chamelum. Spatha terminalis v. plures aggregatæ. Perianthii tubus tenuis, lobi subæquales. Filamenta in tubum brevem connata; antheræ longæ, erectæ. Styli rami brevissimi, recurvi. Rhizoma breviter repens.—*Chile.*

34. Solenomelus. Spatha terminalis. Perianthii tubus tenuis; lobi subæquales. Filamenta in tubum cylindraceum connata; antheræ breves, erectæ, subsessiles. Stylus indivisus, vertice solo ciliato-stigmatosus. Rhizoma breve.—*Chile.*

35.? Cleanthe. Spatha terminalis. Perianthii tubus brevis; lobi patentes, *interiores exterioribus duplo majores*. Styli rami obovati. Rhizoma breve.—*Afr. austr.*

36. Aristea. Spathæ sæpius 1–2-floræ, varie capitatæ cymulosæ corymbosæ v. ramos dichotomos inflorescentiæ terminantes, rarius pluriforæ. Perianthii tubus tenuis, sæpius brevis, lobi æquales, rotato-patentes. Filamenta libera. Stylus elongatus, 3-dentatus v. breviter obovato-3-lobus. Caudex nunc brevissimus nunc plus minus lignosus interdum fruticoso-ramosus.—*Afr. austr.*

37. Witsenia. Spathæ 1-floræ, bracteis bifariam imbricatis spatha ipsa longioribus stipatæ. Perianthii tubus longus, cylindraceus; lobi breves, erecti, æquales. Filamenta libera. Stylus minute 3-dentatus. Caudex fruticosus, ramosus.—*Afr. austr.*

38. Klattia. Inflorescentia et habitus *Witseniæ*. Perianthii tubus brevis, lobi longi, erecti, filiformes, filamentis similes nisi superne leviter lineari-dilatati.—*Afr. austr.*

Tribus III. Ixieæ. Spathæ 1-floræ, secus pedunculum seu ramos inflorescentiæ sæpius plures, sessiles. Flos intra spatham sessilis, bractea 2-nervi 2-carinata v. 2-fida stipatus. Bulbus seu cormus in omnibus præter *Schizostylum* tunicatus. Genera omnia gerontogea, paucis speciebus exceptis Africana.

Tribus a præcedentibus imprimis inflorescentia distinguitur. Series et genera sequentia inter se characteribus valde incertis distincta, formis sæpe intermediis juncta.

* *Perianthium regulare v. parum obliquum, stylo staminibusque subrectis. Styli rami indivisi.*

39. Schizostylis. Styli rami subulati, parte integra multo longiores. Caulis *basi non v. vix bulbosus,* fibris radicalibus fasciculatis. Spathæ virescentes, lanceolatæ.—*Afr. austr.*

40. Hesperantha. Styli rami subulati, parte integra multo longiores. Bulbus seu cormus ut in omnibus sequentibus tunicatus. Spathæ virescentes.—*Afr. austr. et trop.*

41. Geissorhiza. Stylus elongatus, ramis subulatis v. vix dilatatis. Spathæ virescentes, sæpius lanceolatæ.—*Afr. austr., Madagasc.*

42. Dierama. Stylus elongatus, ramis apice cuneato-dilatatis. Paniculæ rami breviter filiformes, in vivo penduli. Spathæ scariosæ *Ixiæ.*—*Afr. austr. et trop.*

43. Streptanthera. Stylus elongatus, ramis apice cuneato-dilatatis sub-2-lobis. Antheræ demum spiraliter tortæ. Spathæ membranaceo-scariosæ more *Sparaxeos* lineis brunneis notatæ. Herbæ humiles, paucifloræ.—*Afr. austr.*

44. Ixia. Styli rami lineares, recurvi, indivisi. Spathæ breves, latæ, membranaceo-scariosæ, sæpe 3-dentatæ.—*Afr. austr.*

Perianthium regulare v. parum obliquum. Stamina subrecta. Stylus rectus v. superne lateralis, ramis tenuibus 2-fidis superne introrsum stigmatosis.

45. Freesia. Perianthii tubus tenuis, curvus, fauce longe campanulata. Spathæ *Ixiæ,* breves, campanulatæ.—*Afr. austr.*

46. Lapeyrousia. Perianthii tubus tenuis, rectus v. superne leviter incurvus, fauce brevi. Filamenta brevia. Spathæ herbaceæ.—*Afr. austr. et trop.*

47. Watsonia. Perianthii tubus curvus, superne ampliatus. Filamenta longiuscula. Spathæ oblongæ lanceolatæ v. angustæ.—*Afr. austr.*

48. Micranthus. Perianthium parvulum, rectum, tubo brevi, fauce lata. Spathæ parvæ, numerosæ, in spica longa stricta eleganter distichæ.—*Afr. austr., ins. Mascar.*

*** *Perianthium sæpe obliquum irregulare v. incurvum, staminibus plus minus unilateralibus. Stylus superne e staminibus lateralis, ramis indivisis.*

49. Acidanthera. Perianthii tubus longus rectus v. leviter incurvus, lobi subæquales, erecto-patentes. Styli rami subulati v. anguste membranacei. Spathæ dissitæ, angustæ.—*Afr. austr. et trop.*

50. Babiana. Perianthium infundibulare, tubo recto sæpius longo, lobi nunc subæquales *Acidantheræ,* nunc valde inæquales *Antholyzæ.* Inflorescentia sæpius simplex, densa, pilosa. Folia sæpius plicato-venosa.—*Afr. austr.*

51. Crocosma. Perianthii tubus cylindraceus, subincurvus, apice non ampliatus, lobi patentes subæquales. Styli rami apice dilatati, denticulati. Capsula subinflato-globosa late 3-loba, spatham subsuperans. Panicula laxa.—*Afr. austr.*

52. Melasphærula. Perianthium tubo subnullo campanulatum, segmentis parum inæqualibus setaceo-acuminatis. Styli rami apice leviter cuneato-dilatati. Capsula late divaricato-3-loba, loculis sæpius 2-spermis. Panicula ampla, laxa. Spathæ parvæ, latæ.—*Afr. austr.*

53. Tritonia. Perianthii tubus tenuis, brevis v. longus, apice non ampliatus, limbus concavus v. campanulatus, æqualis v. obliquus. Styli rami tenues, v. apice clavati v. leviter dilatati. Capsula ovoidea v. oblonga. Spathæ membranaceæ, breves, sæpe dentatæ.—*Afr. austr.*

54. Sparaxis. Perianthii tubus brevis, in faucem ampliatus, limbus parum inæqualis. Styli rami tenues. Spathæ scariosæ, lineis brunneis notatæ, apice fimbriato-dentatæ.—*Afr. austr.*

55. Synnotia. Perianthium infundibuliforme, tubo brevi v. longo, limbo valde inæquali, lobo postico magno erecto. Spathæ scariosæ, lineis brunneis notatæ.—*Afr. austr.*

56. Gladiolus. Perianthium plus minus incurvum, limbo inæquali. Spathæ sæpius lanceolatæ, herbaceæ.—*Eur., reg. Mediterr., Afr. trop. et austr., ins. Mascar.*

57. Antholyza. Perianthii tubus basi tenuis, faux longa tubulosa, incurva, limbus parum v. valde inæqualis.—*Afr. austr.*

GENERA EXCLUSA.

Tecophilæa, Bert., ad tribum *Conanthererarum* inter **Hæmodoraceas** refertur.

Campynema, Labill., in Flora Australiensi in *Irideis* inclusum, melius ad **Amaryllideas** restituendum.

Tribus I. Moræeæ.

1. **Iris**, *Linn. Gen. n.* 59.—Perianthii segmenta infra medium unguiculata, erecta, basi contracta, in tubum brevem nunc brevissimum rarius longiusculum connata (ovarii rostro interdum tubum longum tenuem simulante), 3 exteriorum laminæ plus minus dilatatæ, patentes v. reflexæ, 3 interiora angustiora undique erecta v. apice subpatentia, interdum minima. Stamina ad basin segmentorum exteriorum affixa, filamentis filiformibus liberis v. rarius stylo agglutinatis; antheræ lineares, basifixæ, styli ramis arcte applicitæ v. agglutinatæ, extrorsum dehiscentes. Ovarium 3-loculare, loculis ∞-ovulatis, apice rotundatum, acuminatum v. in rostrum nunc breve nunc longum tenueque perianthii tubum simulans sed intus farctum productum; stylus toro ovarium v. rostrum terminanti impositus, intra perianthii tubum liber, sæpius brevis; rami 3, stylo ipso sæpius longiores supra antheras recurvi, utroque latere alati, alis ultra antheram in lobos 2 erectos petaloideos (stigmatis labium interius auct. plur.) productis; stigmata ad basin loborum styli ramum terminantia, transversa, integra v. partita. Capsula oblonga, brevis v. longiuscula, nunc teres, 3- v. 6-costata v. lævis, nunc distincte 3-quetra, angulis interdum valde prominentibus acutisque, apice obtusa v. breviter rostrata v. in rostrum longum tenue intus farctum productum, infra rostrum 3-locularis, breviter v. rarius usque ad basin loculicide dehiscens; rostrum, si breve, dehiscentia 3-fidum, ad apices valvarum persistens, si longum, varie marcescens v. demum disruptum. Semina sæpius globosa v. pressione angulata v. compressa, testa interdum inæqualiter spongioso-incrassata; embryo in albumine corneo longitudine variat.—Rhizoma nunc lignosum, horizontale v. repens, rarius tenuius et longe repens, nunc brevissimum. Caules solitarii v. fasciculati, simplices v. ramosi basi interdum in bulbum tunicatum, rarius in cormum, incrassati, tunicis, dum persistant, lævibus brunneisque v. in fibras solutis. *Folia ad basin caulis linearia, tenuia, v. plana ensata disticha et equitantia, secus caulem pauca. Spatha unica, terminalis, v. paucæ secus caulem simplicem dissitæ, v. ad apicem caulis confertæ, interdum omnes pedunculatæ in paniculam laxam dispositæ. Flores in spatha sæpius* 2–∞, *rarius solitarii, plus minus pedicellati.*

Species fere 100, Europæ, Africæ borealis, Asiæ temperatæ et Americæ borealis incolæ. *Baker in Gard. Chron.* 1876 (*Iris*); *in Journ. Linn. Soc.* xvi. 122 (*Xiphion*) *et* 136 (*Iris*). *Klatt in Linnæa* xxxiv. 568 (*Xiphion*), 573 (*Coresantha*), 576 (*Gynandriris*), 578 *Oncocyclus*, 587 (*Neubeckia*), *et* 591 (*Iris*); *Ergänz. und Bericht.* 27 (*Xiphion et Juno*), 35 (*Iris*), 39 (*Evansia et Oncocyclus*).

Genus conspicuum, naturale, facileque dignoscendum, quodammodo tamen polymorphum, et a variis auctoribus varie restrictum v. extensum. Tausch in Rœm. et Schult. Syst. i. Mant. Addit. 369, sectiones 6 proposuit, quarum 3, *Limniris*, *Xyridion* et *Spathula*, a Bakero in subgenus suum *Apogon* junctæ sunt; *Pogiris*, Tausch, est *Pogoniris*, Baker; *Lophiris*, Tausch, est *Evansia*, Baker; et *Xiphion*, Tausch, a Bakero pro genere proprio recipitur.

Spach, Revis. Irid. in Ann. Sc. Nat. ser. 3, v. 89, *Iridem* in subgenera 15 divisit, a Bakero in variis subgeneribus suis v. generibus distributa.

Alefeld, in Bot. Zeit. 1863, 290, 297, genus distinctum Neubeckiam proposuit, ad species varias perianthio tubo longissimo crociformi. Hic tamen latet error; in *Croco* tubus verus elongatus tenuisque adest, stylum liberum includens, in *Neubeckia* rostrum ovarii tubum simulat, sed intus farctum est et vertice torum styliferum ad basin tubi brevis perianthii fert.

Parlatore, Nuov. Gen. e Spec. Monocot. 34, genera 3 ab *Iride* separavit, *Hermodactylon*, *Gynandririm* et *Xiphion*; in *Xiphio* præter species *Xiphii*, Baker, includit etiam *Neubeckias* plures, et ovarii rostrum pro perianthii tubo stylo adnato descripsit, sed stylus nequaquam intra rostrum continuitur.

Klatt in Bot. Zeit. 1872, 497, 513, *Iridem* limitavit ad species unguibus loborum exteriorum perianthii barbatis et species perianthiis nudis (*Apogon*, Baker) in genera 2 nova distribuit, Xyridion, Klatt, l. c. 499, et Ioniris, Klatt, l. c. 502, quorum characteres bene intelligere nequimus, quosque nuper in Ergänz. und Bericht. sub silentio prætermittit.

Inter tot discrepantias, sectiones et subsectiones sequentes a generibus subgeneribusque Bakeri parum mutatæ, etsi vix semper naturales, commode admittendæ videntur.

1. *Euiris.* Rhizoma plus minus evolutum nunc brevissimum fasciculato-nodosum, nunc crassum horizontale v. repens, nunc tenue elongatum v. stoloniferum. Caules ad apicem rhizomatis solitarii

v. fasciculati v. secus rhizoma plures basi haud incrassati v. subbulbosi, non tunicati sed interdum (in *I. songarica*, Pall., *I. tenuifolia*, Pall., affinibusque) foliorum emarcidorum reliquiis fibrosis dense obtecti fere cormiformes. Perianthii segmenta interiora (an semper?) bene evoluta, erecta v. rarius superne patentia. *Reichb. Ic. Fl. Germ. t.* 327 *ad* 347. *Jacq. Fl. Austr. t.* 1 *ad* 5. *Waldst. et Kit. Pl. Rar. Hung. t.* 57, 226. *Brot. Phytogr. Lusit. t.* 96. *Desf. Fl. Atl. t.* 5. *Sibth. Fl. Græc. t.* 39, 40. *Ledeb. Ic. Fl. Ross. t.* 101, 102, 342. *Wall. Pl. As. Rar. t.* 86. *Royle, Illustr. Pl. Himal. t.* 91, *f.* 2. Ic. numerosissimæ in *Red. Lil.*; *Jacq. Ic. Rar.*, *Bot. Mag.*, *aliisque diariis hortulanorum.*

Huc includimus subsectiones 5 (subgenera, *Baker*): 1. *Hexapogon*, perianthii segmentorum omnium ungues barbati. 2. *Pogoniris*, perianthii segmentorum exteriorum ungues barbati. 3. *Oncocyclus*, perianthii segmenta exteriora facie pilosa. 4. *Apogon*, perianthii segmenta omnia nuda; et 5, *Evansia*, perianthii segmentorum exteriorum ungues cristati.

ONCOCYCLUS, *Siemss. in Bot. Zeit.* 1846, 706, pro genere proprio ab auctore distinguitur imprimis ad capsulæ valvas apice (mediante rostro?) cohærentes, lateraliter in longitudinem dehiscentes, et semina strophiola nivea instructa. Fructus maturi nobis desunt.

EVANSIA, *Salisb. in Trans. Hort. Soc.* i. 303, *absque char.*, est *I. japonica*, Thunb., species Chinensis et Japonica, a cæteris subgeneris *Evansiæ*, Baker, diversa styli ramorum alis petaloideis longe ciliato-fimbriatis. Inflorescentia laxe paniculata in genere rara est.

2. *Diaphane.* Bulbus v. cormus in rhizomate brevissimo unicus, tunicis fuscis membranaceis v. fibrosis (interdum a fibris *I. songaricæ* parum diversis). Perianthii segmenta imberbia, interiora magna. *Baker in Journ. Linn. Soc.* xvi. 122 (*Xiphii* subgen.). *Boiss. Voy. Esp. t.* 170. *Desf. Fl. Atl. t.* 4. *Bieb. Cent. Pl. Ross. t.* 11. *Red. Lil. t.* 212, 337. *Bot. Mag. t.* 679, 686, 687, 5577, 5890, 5928, 5981, 6033. *Lodd. Bot. Cab. t.* 1829. *Sweet, Brit. Fl. Gard. ser.* 2, *t.* 189. *Reg. Gartenfl. t.* 452. DIAPHANE, *Salisb. in Trans. Hort. Soc.* i. 305, *absque char.*

3. *Juno.* Bulbus v. cormus in rhizomate brevissimo unicus. Perianthii segmenta imberbia, interiora minima erecta v. inter ungues exteriorum patentia. *Baker in Journ. Linn. Soc.* xvi. 123 (*Xiphii* subgen.). *Brot. Phytogr. Lusit. t.* 95. *Desf. Fl. Atl. t.* 6. *Red. Lil. t.* 189, 211. *Bot. Mag. t.* 1. *Bot. Reg. t.* 1876. *Sweet, Brit. Fl. Gard. t.* 255. JUNO, *Tratt. in Rœm. et Schult. Syst.* i. 471, 474, *absque char. et ejusd. Ausw. Gartenpfl.* i. 135, *ex Aschers. in Bot. Zeit.* 1864, 112. THELYSIA, *Salisb. in Trans. Hort. Soc.* i. 303, *absque char.*; *Parlat. Fl. Ital.* iii. 316. COSTIA, *Willk. in Bot. Zeit.* 1860, 131. CORESANTHE, *Alef. in Bot. Zeit.* 1863, 298. Alefeld tamen antheram unam solam perfectam (in *I. persica*) dixit, quod verisimiliter in flore casu abnormi observavit; in speciminibus nostris antheras 3 perfectas vidimus.

4. *Gynandriris.* Cormus in rhizomate brevissimo unicus v. annotino subpersistente duplex. Perianthii segmenta nuda. Filamenta stylo agglutinata at solubilia. Species editæ 5, a Bakero omnes ad *I. Sisyrinchium*, Linn., reductæ, sed forte 2 v. 3 bene distinguendæ. *Cav. Ic. t.* 193. *Red. Lil. t.* 29, 458. *Ten. Fl. Nap. t.* 4. *Sibth. Fl. Græc. t.* 42. *Bot. Mag. t.* 1407 (*Moræa*), et *t.* 6096 (*Xiphion*). *Sweet, Brit. Fl. Gard. t.* 110 (*Moræa*). GYNANDRIRIS, *Parlat. Nuov. Gen. e Spec. Monocot.* 49.

CHAMOLETTA. Adans. Fam. ii. 60, includit *Diaphanem Junonem et Gynandriridem.* XIPHION, Parlat., includit *Diaphanem* cum speciebus nonnullis *Apogonis*, Bak. XIPHION, Baker, includit *Junonem* et *Diaphanem.*

2. **Hermodactylus,** *Adans. Fam.* ii. 60, *char. manco.*—Perianthii tubus brevis, rectus; lobi 3 exteriores basi erectiusculi, superne reflexo-patentes, interiores multo minores, erecto-patentes, lineares lanceolati v. subulati, setaceo-acuminati. Stamina ad basin loborum exteriorum affixa, filamentis lineari-subulatis liberis; antheræ lineares, styli ramis appliciti. Ovarium oblongum, subinflatum, apice in rostrum tenue productum, 1-loculare, placentis 3 parietalibus in loculo parum prominentibus; stylus brevis, ramis 3 supra antheram recurvis 2-alatis, alis ultra antheram in lobos 2 petaloideos productis; stigmata ad basin loborum transversa, 2-partita. Capsula ovoideo-oblonga, subinflata, inter placentas in valvas 3 dehiscens. Semina ∞, subglobosa, testa apice incrassata; embryo in albumine corneo minimus.—Rhizoma sublignosum, crassiusculum, horizontale. Folia ad basin caulis intra vaginas scariosas pauca, longa, linearia, 4-gona (quod in speciminibus siccis rarius apparet). Folium florale longe spathiforme. Spathæ longæ, angustæ, 1-floræ, complicatæ, bractea interiore complicata fere hyalina. Flos breviter stipitatus.

Species 3 distinxit *Sweet, Brit. Fl. Gard. ser.* 2, *t.* 146, quas *Baker in Journ. Linn. Soc.* xvi. 141

in unam junxit Galliæ meridionalis Italiæ et Græciæ incolam. *Klatt in Linnæa*, xxxiv. 582. *Reichb. Ic. Fl. Germ. t.* 348. *Sibth. Fl. Græc. t.* 41. *Red. Lil. t.* 48. *Bot. Mag. t.* 531. *Fl. des Serres, t.* 1083 (*ic. omn. sub Iride*).

Genus ab auctoribus *Iride* inclusum, vix differt nisi ovario hic solum in toto ordine 1-loculari. Adanson ab *Iride* separavit ob perianthium ebarbatum et verisimiliter species plures includit. Parlatore primum in Nuov. Gen. e Spec. Monocot. 45, characteres veros illustravit. De *Hermodactylo* antiquorum cfr. Planch. Hermodactes, Thèse, Paris, 1856, cum tab.

3. **Moræa,** *Linn. Gen. n.* 60.—Perianthii tubus 0; segmenta ad apicem ovarii v. ovarii rostri filiformis libera, sæpe unguiculata, exteriora sæpius basi erectiuscula, maculata, supra medium reflexa v. patentissima, interiora angustiora, omnino erecta v. superne patentia, nunc multo minora v. angustissima, interdum 3-loba, rarius omnia fere a basi patentia consimiliaque, nisi interiora paullo angustiora. Stamina segmentis interioribus opposita, filamentis ima basi dilatatis interdumque liberis, sæpius plus minus in tubum circa stylum connatis, apice breviter filiformibus; antheræ lineares, styli ramis arcte applicitæ. Ovarium 3-loculare, obtusum v. rarius in rostrum longum tenue perianthii tubum simulans productum, ovulis in loculis numerosis; stylus intra stamina brevis v. longiusculus, rami 3 erecti v. supra antheras recurvi, utroque latere alati, alis ultra antheram in lobos 2 erectos petaloideos productis; stigmata ad basin loborum transversa, integra v. 2-partita. Capsula ovoidea oblonga v. rarius linearis v. subglobosa, loculicide dehiscens. Semina ovoidea v. subglobosa, plus minus angulata; embryo in albumine corneo minimus v. longiusculus.—Bulbus v. cormus in rhizomate brevissimo solitarius, v. caulis in rhizomate brevi fibroso ebulbosus. Folia sæpius ad basin caulis pauca, nunc angustissime linearia, nunc ensiformia longaque, floralia spathacea interdum longe acuminata. Spathæ angustæ, nunc in caule tenui solitariæ terminales, nunc in inflorescentia ramosa interdum composita plures, intra folia floralia pedunculatæ, herbaceæ, complicatæ. Flores in spatha sæpius pauci, interdum 2 tantum, rarius plurimi, omnes pedicellati, capsulis e spatha sæpius exsertis.

Species ad 40, Africæ tropicæ et australis, ins. Mascarensium et Australiæ incolæ. *Baker in Journ. Linn. Soc.* xvi. 129 (*Moræa*) *et* 132 (*Vieusseuxia*); *Trans. Linn. Soc. Bot.* i. 270. *Klatt in Linnæa*, xxxiv. 557, *et* 583 (*Dietes*). *Jacq. Ic. Rar. t.* 224, 225; *Hort. Schœnbr. t.* 197; *Hort. Vind.* iii. *t.* 20. *Red. Lil. t.* 71. *Andr. Bot. Rep. t.* 45 (*Iris*). *Salisb. Parad. Lond. t.* 10. *Bot. Mag. t.* 577, 613, 750, 759, 771, 1012, 1045, 1061, 1238, 1276, 1284, 5785. *Bot. Reg. t.* 312.

Genus certe *Iridi* quam maxime affine, sed constanter distinguendum videtur perianthii segmentis inter se a basi distinctis et omnino liberis v. rarius basi columnæ stamineæ agglutinatis, et sæpissime filamentis plus minus monadelphis. Patria etiam diversa. Perianthii segmenta quodammodo polymorpha, sed genera nonnulla a variis auctoribus separata, non satis definita videntur.

Freuchenia, *Eckl. Verz. Pfl. Samml.* 14, est *M. ramosa*, Ker, Bot. Mag. t. 771 (*M. bulbifera*, Jacq. Hort. Schœnbr. t. 197, Bot. Mag. t. 5785) species insignis rhizomate brevissimo seu bulbo non tunicato sed bulbillas numerosas radicibus brevibus rigidis ramosis intermixtis emittente, bulbillæ etiam ad axillas foliorum sæpe apparent. Est fide Bakeri certe *Iris ramosa*, Herb. Thunb., etsi auctor errore quodam flores minutos dixit.

Dietes, *Salisb. in Trans. Hort. Soc.* i. 307, *absque char.*, est *M. iridioides*, Linn., cui associavit Baker et ad sectionem *Iridis* transtulit ob caules ebulbosos, *M. catenulatam*, Ker, *M. bicolorem*, Spr., et *M. Robinsonianam*, F. Muell. Flores tamen omnino *Moræa* nec *Iridis*. Perianthii segmenta omnia patentia observantur etiam in *Moræis* nonnullis typicis. Ad *Dietem* refert Baker icones sequentes. *Jacq. Hort. Schœnbr. t.* 196. *Bot. Mag. t.* 693. *Bot. Reg. t.* 1074, 1404. *Lodd. Bot. Cab. t.* 1861, 1886. *Fl. des Serres, t.* 744. *Dietes Huttoni*, Baker in Bot. Mag. t. 6174, ab auctore serius ad *Moræam spathaceam*, Ker, non Thunb., refertur.

Vieusseuxia, *Delaroche ex DC. in Ann. Mus. Par.* ii. 136, *t.* 42, a *Moræa* distincta fuit, imprimis perianthii segmentis interioribus ab exterioribus patentibus valde diversis, angustis erectis 3-fidis 3-dentatis v. si integris angustissimis v. minimis. Genus a Bakero servatur charactere e filamentis altius monadelphis sumpto. Klatt in Linnæa, xxxiv. 542, 620, *Vieusseuxiam* a subordine suo *Iridearum genuinarum* ad *Sisyrinchium* transfert, nobis tamen a Moræa nequaquam separanda videtur. Segmenta enim interiora in speciebus pluribus Africanis tropicis a Bakero ad *Moræam*

relatis parva sunt angustissima v. 3-fida, et vix latiora in *M. angusta*, Ker, paucisque aliis austro-Africanis, et in *Moræis* normalibus, filamenta variant de specie in speciem altius v. brevius connata v. in paucis speciebus basi potius contigua quam cohærentia.

HYMENOSTIGMA, *Hochst. in Flora*, 1844, 24, genus propositum fuit ad species 2 Abyssinicas characteribus *Vieusseuxiæ*, perianthii segmentis interioribus angustissimis erectis, in una integris in altera 3-fidis. Baker utrasque ad *Moræam* refert.

HELIXYRA, *Salisb. in Trans. Hort. Soc.* i. 305, absque char., est *M. longiflora*, Ker, in Bot. Mag. t. 712, cui perianthii tubus longus tenuis dicitur. Planta nobis non nisi ex icone nota, sed quod tubus vocatur est, verisimiliter in *M. longiflora*, et certe in *M. Burchellii*, Baker (ut in speciebus pluribus *Iridis*), ovarii rostrum elongatum. Baker in Journ. Linn. Soc. xvi. 132, has duas species cum *Iride Sisyrinchio*, Linn., in sectionem suam *Helixyram Moræœ* junxit.

Icones sequentes a Bakero ad *Vieusseuxiam* referuntur. *Jacq. Ic. Rar. t.* 221, 222; *Hort. Schœnbr. t.* 10 (*Iris*). *Red. Lil. t.* 42. *Andr. Bot. Rep. t.* 364. *Bot. Mag. t.* 168, 571 (*Iris*), 593, 696, 702, 772, 1047, 1247. *Fl. des Serres, t.* 423.

Klatt, Ergänz. und Bericht. 31, 34, 40, genera *Moræam, Vieusseuxiam* et *Dietem* admisit et species 4 novas prioris descripsit.

4. **Marica,** *Ker in Bot. Mag. t.* 654, *non ejusd. ibid. t.* 655, *nec Schreb.*—Perianthii tubus 0; segmenta libera, exteriora patentia, ovata v. oblonga, interiora angustiora, a basi erecta, apice recurva, varie undulata v. incrassata. Stamina segmentis exterioribus opposita, filamentis a basi brevissime dilatata erectis liberis filiformibus; antheræ lineares, erectæ, styli ramis v. angulis arcte applicitæ v. agglutinatæ, extrorsum dehiscentes. Ovarium 3-loculare, loculis ∞-ovulatis; stylus basi breviter filiformis, ramis acute 3-quetris v. 3-alatis erectis, angulo exteriore antheræ applicito, angulis lateralibus v. omnibus ultra antheram in lobos erectos acuminatos productis; stigmata ad basin loborum transversa, 2-fida v. 2-partita, breviter horizontaliter patentia. Capsula ovoidea v. oblonga, obtusa v. truncata, loculicide dehiscens. Semina globosa v. mutua pressione angulata, testa crassiuscule membranacea; embryo in albumine durissimo brevis.—Caulis in rhizomate brevi erectus, sæpius validus, ebulbosus. Folia ad basin caulis disticha, elongata, ensiformia, basi equitantia, florale unicum, late ensatum, angulis in caulis alas 2 longe decurrentibus. Spathæ in axilla folii floralis sæpius 2, inæqualiter pedunculatæ v. altera sessilis. Flores in spatha plures, pedicellati, Capsulæ e spatha exsertæ.

Species 9 enumerat Baker in Journ. Linn. Soc. xvi. 149, quarum 1 Africæ tropicæ occidentalis, cæteræ Americæ tropicæ orientalis incolæ. *Lindl. in Trans. Hort. Soc.* vi. *t.* 1. *Hook. Exot. Fl. t.* 222. *Red. Lil. t.* 56 (*Moræa*). *Andr. Bot. Rep. t.* 255 (*Moræa*). *Link et Otto Ic. Pl. Sel. t.* 58. *Bot. Mag. t.* 654, 3713, 3809, 6380. *Bot. Reg. t.* 713. *Lodd. Bot. Cab. t.* 1164. *Klatt in Mart. Fl. Bras.* iii. i. *t.* 66 (*Cypella*); *Ergänz. und Bericht.* 40.

Genus quoad florum structuram valde affine *Cypellæ* cui olim adjunxit Klatt, sed habitu et caule ebulboso satis distinctum videtur. Stylus etiam paullulum diversus est.

5. **Cypella,** *Herb. in Bot. Mag. sub t.* 2637. (Polia, *Ten. Mem. Polia in Mem. Acad. Pontan. anno non dato, t.* 2, *et in Duchartre Rev. Bot.* ii. 125.)—Perianthium tubo nullo basi concavum; segmenta libera, anguste v. late unguiculata, exteriora obovata patentia, interiora multo angustiora, erecta, varie undulato-flexuosa, apice recurva. Stamina segmentis exterioribus opposita, filamentis a basi dilatata liberis breviter filiformibus; antheræ lineares, erectæ, superne angulis styli arcte applicitæ, extrorsum dehiscentes. Ovarium 3-loculare, loculis ∞-ovulatis; stylus basi breviter filiformis, superne sub ramis angulato-3-alatus, alis ultra antheras in lobos 2 v. 3 erectos planos rectos v. incurvo- v. recurvo-patentes æquales v. tertio multo breviore productis; stigmata ad basin loborum ab angulo exteriore divergentia, parva v. longiuscula. Capsula breviter v. longe oblonga, obtusa v. truncata, demum plus minus loculicide dehiscens. Semina numerosa, ubi nota plus minus depresso-complanata.—Bulbus tunicatus. Folia ad basin caulis pauca, nunc angustissima tenuia, nunc in speciebus caule validiore latiora, plicato-venosa. Spathæ angustæ, nunc in caule tenui solitariæ, nunc in caule validiore paucæ v. sat numerosæ, ad folia floralia interdum fasciculatæ, inæqualiter pedunculatæ v. hinc inde

una sessili. Flores in spathis ultimis 1–2-rarius 3, singuli bracteola angusta complicita stipati.

Species 4 v. 5, Americæ australis extratropicæ v. Bolivianæ incolæ. *Bot. Mag. t.* 2599 (*Tigridia*). *Bot. Reg. t.* 949 (*Moræa*). *Sweet, Brit. Fl. Gard. ser.* 2, *t.* 33.

Baker in Journ. Linn. Soc. xvi. 128, species 2 admittit, quibus tamen addendæ videntur: 1. *Ferraria pusilla*, Link et Otto Ic. Pl. Sel. t. 59, a Klattio ad *Cypellam* a Bakero ad *Hesperoxiphion* relata; 2. *C. peruviana*, Baker in Bot. Mag. t. 6213, quæ typus generis HESPEROXIPHION, *Baker in Journ. Linn. Soc.* xvi. 127, et cui valde affinis nisi eadem est species Boliviana a Mandonio et a Pentlandio lecta; 3. *C. plumbea*, Lindl., PHALOCALLIS, *Herb. in Bot. Mag. t.* 3710, *Fl. des Serres, t.* 395, 1466, *Klatt in Mart. Fl. Bras.* iii. i. *t.* 66. Hæc species a typica *C. Herberti* differt imprimis lobis 2 erectis ramorum styli latiusculis incurvo-falcatis quasi conum obtusum formantibus, et stigmatibus parvis parum prominentibus, dum in *C. Herberti*, lobi 2 erecti angusti, tertius dum adsit multo brevior, erectus, et stigmata horizontaliter patentia, lobo tertio interdum parum breviora, omnia tamen in speciminibus nostris siccis variabilia videntur. *C. peruviana*, quoad styli ramorum lobos, intermedia videtur inter *C. plumbeam* et *C. Herberti*, priori tamen propinquior. *C. gigantea* et *C. paludosa*, Klatt, Ergänz. und Bericht. 30, 31, e Brasilia, nobis ignotæ sunt.

Staminodia a Lindleyo in Bot. Reg. 1838, Misc. 71, descripta, in speciminibus nostris desunt.

6. **Trimezia**, *Salisb. in Trans. Hort. Soc.* i. 308, *nomen tantum*, *Herb. in Bot. Reg.* 1844, *Misc.* 88. (Lansbergia, *De Vriese, Epimetr. Ind. Sem. Hort. Lugd. Bat.* 1846, 2. Xanthocromyon, *Karst. in Bot. Zeit.* 1847, 694, *nomen tantum.* Poarchon, *Allem. Tract. Rio Jan.* 1849, *cum ic.* Remaclea, *Morren, Belg. Hortic.* iii. 1, *t.* 1.)—Perianthium tubo nullo basi concavum v. subangustatum; segmenta libera, breviter unguiculata, exteriora lata, patentia v. concavo-conniventia, interiora multo angustiora brevioraque, erectiuscula v. apice reflexa v. concava. Stamina segmentis exterioribus opposita, filamentis liberis brevibus filiformibus; antheræ erectæ, lineares, superne v. fere in toto ramis styli applicitæ, extrorsum dehiscentes. Ovarium 3-loculare, loculis ∞-ovulatis; stylus brevis, angulis 3 in ramos erectos v. parum divergentes antheras vix superantes continuis; hi rami apice quasi truncati, dentibus 2 posticis nunc obtusis vix prominulis, nunc setaceis erectis brevissimis v. longioribus; stigmata ad apices ramorum supra antheras antica, parva, horizontalia. Capsula ovoidea subglobosa v. breviter oblonga, 3-sulca, obtusa, apice loculicide 3-valvis.—Bulbus seu cormus tunicatus. Folia ad basin caulis pauca, longa, nunc plana tenuiter venosa costa prominente, nunc teretia junciformia, florale unicum v. caulis omnino aphyllus. Spatha unica, terminalis, v. 2–3 ex axilla folii floralis longe pedunculatæ. Bracteæ rigidæ, striatæ, v. interiores plus minus scariosæ. Flores intra spatham plures, interdum numerosi, pedicellati. Capsulæ e spatha exsertæ.

Species ad 6, Indiæ occidentalis et Americæ australis incolæ. *Baker in Journ. Linn. Soc.* xvi. 126 (*Lanspergia*). *Jacq. Stirp. Amer. t.* 7. *Red. Lil. t.* 172. *Bot. Mag. t.* 416 (ic. omnes sub *Iride*). *Klatt in Mart. Fl. Bras.* iii. i. *t.* 67 (*Lansbergia*) *et t.* 68 (*Remaclea*); *Ergänz. und Bericht.* 29.

In specie vulgari per Americam tropicam late dispersa, *T. martinicensi*, Herb. (quæ forte species 2 includit), folia plana, tenuiter venosa, costa prominente; pedunculi e folio florali solitarii v. 2–3-ni elongati; styli rami quasi truncati, dentibus apicalibus 2 brevissimis obtusis stigmate patente, ut optime illustratur in icone Allemani *Poarchi* sui, et minus feliciter in icone Klattiana *Remacleæ*. *Lansbergia caracasana*, Vr., ex descriptione Vriesiana et icone Klattiana, species videtur bene distincta, habitu graciliore, floribus multo minoribus, et styli ramorum dentibus apicalibus brevissime setaceis; stigma non delineatur et specimina non vidimus. *T. meridensis*, Herb., nobis ignota, species *T. martinicensi* affinis dicitur sed multo speciosior. In *T. juncifolia*, Klatt, folia radicalia perpauca, longa, junciformia, caulis omnino aphyllus 1–3-pedalis, spatha unica terminalis, styli ramorum dentes apicales longiuscule lineari-setaceæ (nec plani ut in *Cypella*), et stigmata ad basin dentium seu loborum parum prominentia. Species Klattianæ a Bakero numeris 2 ad 5 designatæ nobis ignotæ sunt, sed ex descriptionibus Klattianis in Mart. Fl. Bras. iii. i. 526, vix a *T. juncifolia* differre videntur.

7. **Tigridia**, *Ker in Kœn. et Sims Ann. Bot.* i. 246. (Beatonia, *Herb. in Bot. Mag. sub t.* 3779. Hydrotænia, *Lindl. Bot. Reg.* 1838, *Misc.* 67, 1842, *t.* 39.)—Perianthium basi

concavum, tubo 0; segmenta libera, exteriora latissime unguiculata, lamina lata patente v. incurva, interiora exterioribus multo minora, erecto-patentia, sæpius obtusa, plus minus undulata. Stamina intra segmenta affixa, filamentis in tubum cylindraceum connatis; antheræ ad apicem tubi sessiles, patentes, styli ramis oppositæ. Ovarium 3-loculare, loculis ∞-ovulatis; stylus intra tubum stamineum filiformis; rami ad apicem tubi 2-partiti, lobis anthera brevioribus lineari-subulatis apice stigmatosis, dente ad basin loborum loco stigmatis *Cypellæ* breviter subulato v. glanduliformi nec papilloso v. 0. Capsula oblonga v. lineari-oblonga, apice convexa, breviter loculicide 3-valvis. Semina mutua pressione sæpius angulata.—Bulbus tunicatus. Folia ad basin caulis pauca, angusta, v. latiora et plicato-venosa, caulina v. floralia sæpe 2–3, dissita. Spatha unica terminalis, v. 2 ad axillam folii floralis longe et inæqualiter pedunculatæ. Flores in spatha pauci, in una specie maximi.

Species ad 7, Mexici, Americæ centralis, Peruviæ et Chile incolæ. *Baker in Journ. Linn. Soc.* xvi. 135. *Cav. Diss. Monad. t.* 189 (*Ferraria*), 192, *f.* 2 (*Sisyrinchium*). *Red. Lil. t.* 6 (*Ferraria*). *Andr. Bot. Rep. t.* 178 (*Ferraria*). *Klatt in Linnæa* xxxi. 566, *et in Mart. Fl. Bras.* iii. 1, *t.* 69 (*Beatonia*), *et t.* 70. *Bot. Mag. t.* 532 (*Ferraria*) *et t.* 6295. *Link, Kl. et Otto, Ic. Pl. Rar. t.* 20, 34. *Sweet, Brit. Fl. Gard. t.* 128. *Fl. des Serres, t.* 908, 2174.

Herbert in Bot. Reg. 1843, Misc. 72, speciem typicam grandifloram, *T. pavoniam*, a *Beatoniis* floribus minoribus distinxit imprimis styli ramorum lobis in priore secus margines in *Beatonia* apice solo stigmatosis. In speciminibus siccis distinctio haud bene apparet; papillas stigmatosas in utraque vix breviter decurrentes vidimus. *Hydrotænia*, Lindl., ex ic. et descr. a *Beatonia* non differt nisi dente ad basin loborum stigmatosorum paullo evidentiore et tenui.

8. **Rigidella,** *Lindl. Bot. Reg.* 1840, *t.* 16, *et Misc.* 35.—Perianthium basi cupulatum, tubo nullo; segmenta 3 exteriora unguibus brevibus latis patentia v. reflexa, late oblonga, interiora erecta, stylo appressa, intra cupulam occulta, v. angusta tubum stamineum subæquantia. Stamina intra petala affixa, filamentis in tubum cylindraceum connatis; antheræ in tubo sessiles, erectæ, angulis seu ramis styli oppositæ, extrorsum dehiscentes. Ovarium angustum, 3-loculare, loculis ∞-ovulatis; stylus intra tubum stamineum filiformis, ramis basi breviter crassis mox 2-partitis, lobis lineari-subteretibus erecto-recurvis antheras non excedentibus apice introrsum breviter papillosis, adest etiam sæpius ad basin loborum dens brevis patens stigma *Cypellæ* referens, sed non papillosus. Capsula oblonga, apice convexa, breviter loculicide 3-valvis. Semina subglobosa.—Bulbus tunicatus. Folia radicalia pauca, longa, interdum lata, plicato-venosa, in petiolum longe contracta; floralia longe acuminata. Spathæ longæ, membranaceæ, pedunculos 2–3 longos ad axillas foliorum floralium terminantes. Flores in spatha ∞, interdum numerosi, longe pedicellati. Capsulæ exsertæ.

Species editæ 3, Mexici et Americæ centralis incolæ. *Bot. Reg.* 1841, *t.* 68. *Paxt. Mag.* vii. 247, xiv. 121 *cum ic.* *Fl. des Serres, t.* 502, 2215.

9. **Alophia,** *Herb. in Bot. Mag. sub t.* 3779. (Trifurcia, *Herb. l. c.* Herbertia, *Sweet, Brit. Fl. Gard. t.* 222.)—Perianthium tubo 0, patens; segmenta libera, 3 exteriora breviter unguiculata patentia obovata v. late oblonga, 3 interiora multo minora, acuta, erecta v. vix patentia. Stamina intra perianthium affixa, filamentis in tubum cylindraceum connatis; antheræ ad apicem tubi sessiles, lineares, apice demum sæpe tortæ, styli ramis appressæ. Ovarium 3-loculare, loculis ∞-ovulatis; stylus intra tubum stamineum filiformis; rami 3, divergentes, antheris arcte appliciti iisque breviores, superne 2-lobi, lobis breviter linearibus v. leviter membranaceo-dilatatis in parte superiore margine papillosis. Capsula breviter oblonga, apice truncata v. convexa, loculicide 3-valvis. Semina sat numerosa, mutua pressione angulata.—Bulbus tunicatus. Folia pauca, anguste linearia, v. si paullo latiora leviter plicato-venosa. Spathæ angustæ, herbaceæ, complicatæ, solitariæ, terminales; v. in una specie 2–3 ad axillam folii floralis longe inæqualiterque pedunculatæ. Flores intra spatham plures, longe pedicellati; bracteæ spatha inclusæ. Capsulæ exsertæ.

Species 3 v. 4, Americanæ. *Baker in Journ. Linn. Soc.* xvi. 133. *Bot. Mag. t.* 3862. *Lodd. Bot. Cab. t.* 1547 (*omnes sub Herbertia*).

Species typica Texana, *A. Drummondiana*, Herb., includit *Herbertiam cærulcam*, et *H. Drummondianam*, Herb.; species altera Montevidensis, *A. pulchella*, nob., includit *Herbertiam pulchellam*, Sweet, et *H. lineatam*, Klatt, Ergänz. und Bericht. 34, formam Chilensem a Montevidensi parum diversam. Species 2 Brasilienses, *H. brasiliensis*, Baker, et *H. unguiculata*, Baker, distincte videntur. *H. umbellata*, Klatt in Mart. Fl. Bras. iii. i. 530, *t.* 69, stylo longo ramis brevibus patentibus capsulis aliisque notis characteres *Sisyrinchii* præbet, sed bulbus tunicatus, an ad *Gelasinem* referenda? Filamenta in alabastro brevissima, vix connata.

LARENTIA, *Klatt, Ergänz. und Bericht.* 28, species Colombiana a nobis non visa (*Moræa linearis*, H. B. et K. Nov. Gen. et Sp. i. 321), est, ex charactere dato, verisimiliter *Alophiæ* species (cui olim a Klattio relata), styli ramis ad basin loborum utrinque denticulo instructis, quod interdum observatur in *Rigidella* et *Tigridia*. Plantæ olim a Klattio ad *Alophiam linearem* relatæ sub *Sphenostigmate* v. sub *Calydorea* quærendæ.

10. **Ferraria,** *Linn. Gen. n.* 1018.—Perianthii tubus brevis, campanulatus; lobi 6, patentes, æquales, lanceolati v. oblongi, basi sæpe contracti, margine undulato-crispi. Stamina basi tubi affixa, filamentis in tubum connatis (v. interdum conniventibus?); antheræ ad apicem tubi sessiles v. subsessiles, breves, patentes, loculis interdum basi divergentibus. Ovarium lineare, 3-loculare, loculis ∞-ovulatis; stylus intra tubum stamineum filiformis, rami 3, antheris oppositi, petaloideo-dilatati, plani v. complicati, sæpe 2-fidi v. 2-partiti, apice fimbriato-multiseti, setis superne v. apice papillosis. Capsula anguste oblonga, breviter acuminata, membranacea, 3-valvis. Semina (fide *Kerii*) in tribu majuscula.—Bulbus seu cormus tunicatus, caule foliato superne dense breviterque ramoso. Folia ensiformia, inferiora longa. Spathæ longæ, rigidulæ, complicatæ, striatæ, caulem ramulosque brevissimos terminantes. Flores intra spatham plures, longiuscule pedicellati, bracteis angustis hyalinis. Capsulæ e spatha exsertæ.

Species 6, Africæ australis incolæ. *Baker in Journ. Linn. Soc.* xvi. 105. *Klatt in Linnæa,* xxxiv. 624. *Jacq. Hort. Schœnbr. t.* 450 (*Moræa*); *Hort. Vind. t.* 63. *Cav. Diss. Monad. t.* 190, *f.* 1. *Red. Lil. t.* 28. *Andr. Bot. Rep. t.* 285. *Bot. Mag. t.* 144, 751. *Lodd. Bot. Cab. t.* 1356. *Sweet, Brit. Fl. Gard. t.* 148, 161, 192.

11. **Homeria,** *Vent. Dec. Gen. Nov.* 5.—Perianthium campanulatum v. subinfundibuliforme, tubo brevissimo in faucem ampliato; lobi 6, subæquales, erecto-patentes, integri. Stamina ad basin faucis affixa, filamentis in tubum connatis; antheræ ad apicem tubi sessiles, lineares, ramis styli oppositæ sæpiusque arcte applicitæ. Ovarium lineare, 3-loculare, loculis ∞-ovulatis; stylus tubo stamineo inclusus v. breviter exsertus; rami 3, nunc vix antheris longiores nunc omnino exserti, breviter divergentes, lineares v. latiusculi, apice breviter cuneati, 2-dentati v. fimbrillati, vertice papillosi. Capsula linearis v. anguste oblonga, membranacea, obtusa, demum loculicide 3-valvis. Semina . . .—Bulbus tunicatus. Folia pauca, longa, angusta. Spathæ caulem simplicem v. ramulos brevissimos erectos terminantes, longæ, striatæ. Flores in spatha ∞, longe pedicellati, bracteis interioribus hyalinis. Capsulæ e spatha exsertæ.

Species 5, Africæ australis incolæ. *Baker in Journ. Linn. Soc.* xvi. 104. *Klatt in Linnæa,* xxxiv. 626. *Jacq. Hort. Schœnbr. t.* 12; *Ic. Rar. t.* 226 (*Moræa*). *Red. Lil. t.* 171, 250 (*Sisyrinchium*). *And. Bot. Rep. t.* 404 (*Moræa*). *Bot. Mag. t.* 1033, 1103, 1283, 1612 (*Moræa*). *Sweet, Brit. Fl. Gard. t.* 152, 178, *et ser.* 2, *t.* 178.

12. ? **Hexaglottis,** *Vent. Dec. Gen. Nov.* 6.—Perianthium tubo 0 subrotatum; segmenta oblonga, integra, æqualia, patentia. Stamina segmentis exterioribus opposita, filamentis brevibus basi leviter dilatatis vix connatis; antheræ erectæ, sagittatæ, longæ, rectæ, v. demum subtortæ. Ovarium lineare, 3-loculare, loculis ∞-ovulatis; stylus brevis, ramis antheris oppositis iisque vix æquilongis fere ad basin 2-partitis, lobis tenuibus apice papillosis demum (ex iconibus) inter antheras patentibus easque amplectentibus. Capsula linearis, 3-quetra, membranacea, obtusa, demum loculicide 3-valvis. Semina . . .—Bulbus tunicatus. Caulis ramosus, ramis elongatis virgatis v. flexuosis. Folia pauca, longa, linearia, rigidula. Spathæ secus ramos sessiles, angustæ, complicatæ, rigidulæ, rhachin floresque arcte amplectentes. Flores in spatha plures, bracteis angustis tenuibus oppositi, pedicellati. Bracteæ inclusæ; capsulæ exsertæ.

Species 2 v. 3, inter se valde affines, Africæ australis incolæ. *Baker in Journ. Linn. Soc.* xvi. 99. *Jacq. Hort. Vind.* iii. *t.* 90 (*Ixia*); *Ic. Rar. t.* 228 (*Moræa*). *Bot. Mag. t.* 695 (*Moræa*). *Saund. Ref. Bot. t.* 24 (*Homeria*).

Perianthium primo aspectu ei *Homeriæ* simile, sed tubus 0, filamenta libera et styli rami 2-partiti, his notis et inflorescentia fere *Sisyrinchiearum*, sed styli rami in alabastro examinati antheris more *Moræearum* oppositi.

PLANTIA, *Herb. in Bot. Reg.* 1844, *Misc.* 89, ex charactere dato, est verisimiliter *Hexaglottidis* species.

TRIBUS II. SISYRINCHIEÆ.

13. **Crocus,** *Linn. Gen. n.* 55. (Croeiris, *Schur, Sert. Pl. Transs.* 73, *ex ejusd. Enum. Pl. Transs.* 653.)—Perianthium infundibuliforme, tubo longo tenui superne in faucem ampliato; lobi æquales, erecto-patentes. Stamina fauci affixa, perianthio breviora, filamentis brevibus liberis; antheræ erectæ, lineares, filamento longiores, basi sæpius breviter sagittatæ, inter lobos basifixæ. Ovarium oblongum, 3-loculare, loculis ∞-ovulatis; stylus filiformis, elongatus, ramis lineari-cuneatis apice sæpius dentatis lobatis v. multifidis, extremitate sola stigmatosis. Capsula oblonga, membranacea, loculicide 3-valvis. Semina subglobosa, testa carnosula; albumen carnosum v. subcorneum.—Cormi tunicæ membranaceæ fibrosæ v. reticulatæ. Folia radicalia, longe linearia, non disticha, basi vaginis scariosis cincta. Caulis intra folia sub folio florali non evolutus. Folium florale (*spatha basalis* dictum) dum adsit, in cormo sessile, vagina longa, undique hyalino-scariosum, pedunculos radicales seu scapos 1–∞ basi involvens, in speciebus nonnullis deest, in aliis adsunt 2–3. Spatha in pedunculo seu scapo terminalis, membranacea, ovarium involvens. Flos in spatha unicus, sessilis; adest etiam sæpe intra spatham bractea angusta hyalino-scariosa.

Species enumeratæ 67, imprimis regionis Mediterraneæ incolæ, paucæ usque ad Europam centralem, Caucasum, mare Caspicum et Asiam centralem extensæ. *Herb. in Journ. Hort. Soc.* ii. 249. *Baker in Gard. Chron.* 1873. *G. Maw in Gard. Chron.* 1881, *et Monogr. egreg. cum tabb.* ∞ *mox edend. Reichb. Ic. Fl. Germ. t.* 355 *ad* 361. *Graells, Ramill. Pl. Espan. t.* 4. *Brot. Phytogr. Lusit. t.* 94. *Moggr. Fl. Ment. t.* 20, 40. *Tenore, Mem. Crochi, Fl. Nap. Napoli* 1826, *cum tabb.* 4. *Sibth. Fl. Græc. t.* 35. *Chaub. et Bory, Fl. Pelop. t.* 2, 3. *Bieb. Cent. Pl. Ross. t.* 1. Icones præterea numerosissimæ in diariis operibusque variis hortulanorum.

14. **Syringodea,** *Hook. f. Bot. Mag. t.* 6072.—Perianthium hypocrateriforme v. infundibuliforme, tubo longo gracillimo; lobi subæquales, patentes. Stamina fauci affixa, erecta, filamentis brevibus liberis; antheræ lineari-sagittatæ. Ovarium oblongum, 3-loculare, loculis ∞-ovulatis. Stylus filiformis, elongatus, ramis linearibus tenuibus indivisis superne introrsum papillosis. Capsula . . . - Herbæ pusillæ. Bulbi v. cormi tunicæ læves. Caulis inter folia brevissimus. Folia filiformia, basi squamis hyalinis inclusa. Spathæ intra folia subsessiles, angustæ, hyalinæ. Flos in spatha unicus, subsessilis v. breviter pedicellatus, sub ovario ad apicem pedicelli bractea hyalina angusta stipatus.

Specie 3, Austro-Africanæ. *Baker in Trim. Journ. Bot.* 1876, 67.

Species typica, *S. pulchella*, Hook. f. ab omnibus *Irideis* differt perianthii lobis stellato-patentibus apice incurvis 2-lobis; in *S. bicolore* et *S. filifolia*, Baker, lobi minus patentes integerrimi. Hæ species a Klattio ad *Romuleam* referuntur, differunt tamen tubo longo tenui et styli ramis integerrimis.

15. **Galaxia,** *Thunb. Nov. Gen.* 50; *Diss. Acad.* i. 49, *t.* 2.—Perianthium infundibuliforme, tubo tenui superne in faucem ampliato; lobi æquales, erecto-patentes, oblongi v. ovati, obtusi. Stamina fauci affixa, filamentis in tubum connatis; antheræ lineares, breviter sagittatæ. Ovarium oblongum, 3-loculare, loculis ∞-ovulatis; stylus filiformis, ultra antheras in stigma petaloideum campanulatum fimbriatum v. cuneato-3-lobum margine papillosum dilatatus. Capsula oblonga, truncata v. fere fusiformis, membranacea, loculicide 3-valvis. Semina numerosa, minima, subglobosa.—Herbæ nanæ, caulis supra cormum sub terra simplex, 1–2-squamatus v. nudus, ad terræ superficiem fasciculum densum foliorum et spatharum ferens. Folia extima 1–2 ad vaginas hyalinas reducta,

cætera linearia v. latiuscula, sæpius brevia, basi hyalino-vaginata. Spathæ inter folia sessiles, florem unicum sessilem, cum bractea hyalina includentes, si inflorescentiam in speciminibus siccis difficile observandam rite intelligimus.

Species 2 v. 3, Africæ australis incolæ. *Baker in Journ. Linn. Soc.* xvi. 103. *Klatt in Linnæa,* xxxii. 782; *Ergänz. und Bericht.* 51. *Red. Lil. t.* 246. *Jacq. Ic. Rar. t.* 291. *Cav. Diss. Monad. t.* 189. *Andr. Bot. Rep. t.* 94, 164. *Bot. Mag. t.* 1208, 1292.

16. **Romulea,** *Maratti, Diss. Romul. et Saturn., Romæ,* 1772, 13, *t.* 1. (Trichonema, *Ker in Bot. Mag. t.* 575.)—Perianthium infundibuliforme, tubo brevissimo v. rarius elongato; lobi æquales, erecto-patentes, integri. Stamina fauci affixa, filamentis liberis (v. brevissime connatis?); antheræ lineari-sagittatæ, circa stylum conniventes. Ovarium oblongum, 3-loculare, loculis ∞-ovulatis; stylus filiformis, antheras superans, ramis filiformibus nunc abbreviatis 2-fidis v. 2-partitis, introrsum in longitudine papillosis. Capsula globosa ovoidea v. oblonga, obtusa, membranacea, loculicide 3-valvis. Semina globosa v. angulato-compressa.—Bulbi tunicæ læves. Caulis nunc brevissimus inter folia occultus, nunc breviter evolutus ramosus. Folia radicalia linearia interdum subulata, vagina rarius lanceolato-dilatata, caulina sub pedunculis similia nisi minora. Spathæ ad axillas foliorum floralium longe pedunculatæ, tenuiter herbaceæ, acutæ, complicatæ. Flos in spatha unicus, subsessilis v. breviter pedicellatus. Bractea sub ovario ad apicem pedicelli spatha sæpius brevior, interdum latior, haud raro subscariosa.

Species enumeratæ 54, Europæ occidentalis, regionis Mediterraneæ, Africæ occidentalis et australis incolæ, plures tamen ad varietates reducendæ. *Baker in Journ. Linn. Soc.* xv. 86. *Parlat. Fl. Ital.* iii. 241. *Klatt in Linnæa,* xxxiv. 659 (*Trichonema*); *Ergänz. und Bericht.* 64. *Jacq. Ic. Rar. t.* 271, 272. *Red. Lil. t.* 88, 251. *Reichb. Ic. Fl. Germ. t.* 356. *Lange, Pl. Nov. Hisp. t.* 34. *Ten. Fl. Nap. t.* 3, 203, *et in Atti Acad. Nap.* iii. t. 7. *Moggr. Fl. Ment. t.* 91 *ad* 93. *Vis. Fl. Dalm. Suppl. t.* 2. *Sibth. Fl. Græc. t.* 36. *Jord. et Fourn. Ic. Fl. Eur. t.* 106 *ad* 110. *Webb. Phytogr. Canar. t.* 222. *Andr. Bot. Rep. t.* 170. *Bot. Mag. t.* 265, 575, 1225, 1244, 1392, 1476. *Bot. Reg.* 1847, *t.* 40 (*ic. veter. sub Ixia, poster. sub Trichonemate v. Romulea*).

Spatalanthus, *Sweet, Brit. Fl. Gard. t.* 300, videtur *Romuleæ* species *R. speciosæ*, Bot. Mag. t. 1476 simillima. Filamenta ut in hac specie brevissima delineata, sed breviter connata, quod in *R. speciosa* non apparet.

17. **Cipura,** *Aubl. Pl. Gui.* i. 38, *t.* 13. (Marica, *Schreb. Gen. Pl.* 37.)—Perianthii tubus brevissimus, segmenta latiuscula, plana, distincte v. vix unguiculata, exteriora patentia, interiora subsimilia nisi minora et erectiora. Stamina basi segmentorum affixa, filamentis liberis filiformibus; antheræ oblongo-lineares. Ovarium 3-loculare, loculis ∞-ovulatis; stylus filiformis; rami antheras superantes apice v. fere a basi petaloideo-dilatati, integerrimi v. ciliolati (margine papillosi?). Capsula ovoidea v. oblonga, obtusa v. truncata, loculicide 3-valvis. Semina globosa v. angustata.—Bulbus tunicatus, caule infra inflorescentiam simplici aphyllo. Folia radicalia pauca, nunc angustissima, nunc paullo latiora et plicato-venosa. Spathæ angustæ, in fasciculo terminali plures interdum numerosæ, ad axillam folii floralis longi sessiles v. brevissime pedunculati. Flores intra spathas singulas pauci, interdum ad unum reducti, pedicellati. Capsulæ e spatha exsertæ.

Species ad 4, Indiæ occidentalis Mexici et Americæ australis incolæ. *Baker in Journ. Linn. Soc.* xvi. 125. *Klatt in Mart. Fl. Bras.* iii. i. *t.* 64; *Ergänz. und Bericht.* 28. *Bot. Mag. t.* 646. Huc etiam referenda videtur *Cypella gracilis,* Baker in Journ. Linn. Soc. xvi. 129, quoad specimina Tweediana a Klattio in herb. Kew. incaute *Polia gracilis* nominata, *P. gracilis,* Klatt in Linnæa, xxxi. 545 (*Ferraria,* Link, Kl. et Otto), est vera *Cypellæ* species, in Ergänz. und Bericht. prætermissa videtur.

18. **Sphenostigma,** *Baker in Journ. Linn. Soc.* xvi. 124.—Perianthium explanatum, tubo subnullo; segmenta obovata, patentia, subæqualia v. interiora paullo minora. Stamina basi perianthii affixa, filamentis brevissimis v. longiusculis; antheræ erectæ, oblongo-lineares. Ovarium 3-loculare, loculis ∞-ovulatis; stylus filiformis, elongatus, ramis plus minus dilatatis indivisis lanceolatis v. cuneatis apice papillosis. Capsula obovoidea oblonga v. fere linearis, apice truncata v. convexa, loculicide 3-valvis. Semina

globosa v. angulata.—Bulbus tunicatus. Folia pauca, longa, plicato-venosa. Inflorescentia supra folium florale simplex v. parce ramosa. Spatha unica terminalis v. paucæ, longe pedunculatæ, acuminatæ lanceolatæ v. elongatæ; herbaceæ. Flores in spatha pauci, pedicellati; bractea infima sæpe herbacea spathæ subsimilis, cæteræ v. omnes breviores tenuiores. Capsulæ e spatha exsertæ.

Species nobis adsunt 5, Americanæ tropicæ. *S. Sellowianum*, Baker (*Alophia Sellowiana*, Klatt in Mart. Fl. Bras. iii. i. 516, t. 65), e Brasilia, et *S. lineare* (*Alophia linearis*, Klatt in Linnæa quoad plantam Colombianam), styli ramis apice hyalinis cuneatis, *S. gracile* (*Cypella gracilis*, Baker in Journ. Linn. Soc. xvi. 129) styli ramis apice hyalinis lanceolatis, *S. longispatha* (Cardiostigma *longispatha*, Baker in Journ. Linn. Soc. xvi. 102), planta Mexicana a Herbertio ad *Gelasinam*, a Klattio ad *Rotherbem*, et a Bakero prius ad *Calydoream* relata, styli ramis cuneatis sed quam in cæteris crassioribus. *Alophia linearis*, Klatt, quoad specimina Brasiliana, Gardn., est *Calydorea Gardneri*, Baker. Specimina Spruceana n. 3063 e Baños speciem *Sphenostigmatis* adhuc ineditam indicant. *Sphenostigma angustifolium* et *S. cæruleum*, Klatt, Ergänz. und Bericht. 29, e Brasilia, nobis ignotæ sunt.

19. **Eleutherine**, *Herb. in Bot. Reg.* 1843, *sub t.* 57. (Galatea, *Salisb. in Trans. Hort. Soc.* i. 310, *absque char.*)—Perianthium tubo 0 explanatum; segmenta oblonga, basi contracta, æqualia, patentia. Stamina basi perianthii affixa, filamentis brevibus liberis; antheræ erectæ, lateraliter v. subintrorsum dehiscentes. Ovarium oblongum, 3-loculare, loculis ∞-ovulatis; stylus brevissimus, ramis subulatis indivisis apice stigmatosis. Capsula oblonga, apice truncata, loculicide 3-valvis. Semina ovoidea v. mutua pressione angulata.—Bulbus tunicatus, brunneus. Folia radicalia longa, acuminata, basi longe contracta, plicato-venosa, caulina præter florale 0. Inflorescentia ad axillam folii floralis laxe flexuoso-ramosa, interdum ad pedunculos 2–3 reducta. Spathæ in caule v. pedunculis terminales, oblongæ vix v. non acuminatæ. Flores intra spatham plures, breviter pedicellati, bracteis spatha parum brevioribus. Capsulæ intra spatham omnino inclusæ v. vix apice breviter prominentes.

Species genuinæ 2 v. 3, sub *E. plicata*, Herb., in herbariis confusæ, Indiæ occidentalis et Americæ australis tropicæ incolæ. *Baker in Journ. Linn. Soc.* xvi. 100. *Cav. Diss. Monad. t.* 191, *f.* 1 (*Sisyrinchium*). *Jacq. Ic. Rar. t.* 227 (*Moræa*). *Red. Lil. t.* 352 *v. in textu* 353 (*Sisyrinchium*). *Bot. Mag. t.* 655 (*Marica*).

His addidit Herbert in Bot. Reg. 1843, t. 57, speciem humilem hexandram, ad specimen unicum in horto enatum patria ignota descriptam. In herbariis nostris deest, et species valde dubia remanet verisimiliter ex ordine excludenda.

20. **Calydorea**, *Herb. in Bot. Reg.* 1843, *Misc.* 85. (Botherbe, *Steud. ex Klatt in Linnæa*, xxxi. 562.)—Perianthium tubo subnullo explanatum v. basi breviter campanulatum; lobi basi contracti, patentes, æquales v. interiores paullo minores. Stamina basi perianthii affixa, filamentis erectis liberis; antheræ lineares, apice sæpe flexuoso-recurvæ. Ovarium 3-loculare, loculis ∞-ovulatis; stylus filiformis, ramis subulatis divaricatis apice stigmatoso sæpe leviter clavatis v. emarginatis. Capsula obovoidea, truncata, loculicide 3-valvis. Semina globosa v. angulata.—Bulbus tunicatus, brunneus, lævis. Folia radicalia pauca, angusta, interdum fere filiformia, floralia in caule simplici 1–2. Spatha unica, terminalis, v. paucæ pedunculatæ v. sessiles, angustæ, acutæ v. acuminatæ. Flores intra spatham paucæ, pedicellatæ, bractea exteriore spathacea interdum spatha ipsa paullo longiore. Capsulæ e bracteis exsertæ.

Species ad 8, Americæ australis extratropicæ v. tropicæ et Mexici incolæ. *Baker in Journ. Linn. Soc.* xvi. 101 (excl. *C. punctata ad Nemastylidem referenda*). *Klatt in Mart. Fl. Bras.* iii. i. 543, *t.* 71 (Roterbe); *Ergänz. und Bericht.* 53. *Bot. Mag. t.* 3544 (*Sisyrinchium*).

21. **Gelasine**, *Herb. in Bot. Mag. t.* 3779, *excl. sp. n.* 2 *ad* 4.—Perianthium tubo brevissimo subinfundibuliforme fere campanulatum; lobi æquales, obovati, erecto-patentes. Stamina fauci affixa, filamentis in tubum brevem connatis; antheræ in tubo subsessiles, lineares, rectæ, connectivo angusto. Ovarium 3-loculare, loculis ∞-ovulatis; stylus

brevis, ramis seu lobis stigmatosis brevibus obtusis indivisis. Capsula oblonga, apice truncata v. convexa, loculicide 3-valvis. Semina globosa v. angulata.—Bulbus tunicatus. Caulis simplex. Folia pauca, lanceolato-linearia, plicato-venosa. Spatha unica, terminalis, longiuscula, herbacea, striata. Flores in spatha ∞, pedicellati; bractea infima spathæ subsimilis nisi paullo minor tenuiorque, interiores magis v. omnino scariosæ. Capsulæ e spatha exsertæ.

Species 1, Americæ australis extratropicæ incola. *Baker in Journ. Linn. Soc.* xvi. 106.

22. **Nemastylis,** *Nutt. in Trans. Amer. Phil. Soc.* v. 157. (Nemostylis, *Herb. in Bot. Mag. sub t.* 3779. Eustylis, *Engelm. et Gray, Pl. Lindh.* 27, 28. Chlamydostylis, *Baker in Trim. Journ. Bot.* 1876, 185.)—Perianthium tubo subnullo explanatum; segmenta obovata, æqualia v. interiora paullo minora. Stamina basi perianthii affixa, filamentis nunc brevissime nunc longiuscule in tubum connatis; antheræ erectæ, apice sæpe tortæ, connectivo angusto v. inter loculos latiusculo. Ovarium 3-loculare, loculis ∞-ovulatis; stylus brevis, ramis 2-partitis inter antheras patentibus, lobis æqualibus subulatis apice minute papillosis. Capsula oblonga v. rarius subglobosa, apice truncata, loculicide 3-valvis. Semina globosa v. pressione angulata.—Bulbus tunicatus. Folia angusta, longa, interdum subteretia, rarius anguste ensiformia, floralia 1–2. Spathæ oblongæ v. angustæ, in caule simplici unica terminalis, v. paucæ longe pedunculatæ, striatæ, vix acuminatæ. Flores in spatha pauci v. sat numerosi, pedicellati; bractea infima spathæ sæpe subæqualis, interiores minores. Capsulæ e spatha exsertæ.

Species ad 6, Mexici et Americæ borealis et tropicæ incolæ. *Baker in Journ. Linn. Soc.* xvi. 102 *et* 107 (*Nemastylis et Chlamydostylis*). *Fl. des Serres, t.* 2171.

In specie typica Nuttallii filamenta brevia basi membranaceo-dilatata, brevissime connata, antheræ demum contortæ, connectivo angusto; capsula subglobosa. In *Eustyle*, Engelm. et Gray, filamenta *Nemastylidis*, antheræ rectæ connectivo inter loculos latiusculo; capsula oblonga. In *Chlamydostylibus* plerisque filamenta in tubum longiusculum cylindraceum connata; in *C. Medicæ*, Bak., tamen vix altius connata quam in specie typica; in *C. tenui* antheræ *Nemastylidis*, in cæteris speciebus potius *Eustylidis*. *C. multiflora*, Baker, cui referenda *Calydorea punctata*, Baker, species includere videtur 2 v. 3, inter se affines sed distinctas. Genus in integrum servatum a cæteris *Sisyrinchieis* facile distinguitur styli ramis specie 6 subulatis (3 2-partitis). In *N. furcata*, Klatt, in Mart. Fl. Bras. iii. i. 515, t. 65, specie Montevidense a nobis non visa, styli rami ex ic. et descr. apice breviter tantum bifidi, Baker hanc speciem forte non immerito ad *Calydoream* refert.

23. **Diplarrhena,** *Labill. Voy.* i. 157, *t.* 15.—Perianthium parum inæquale, tubo 0; segmenta basi erecta, 3 exteriora superne patentia, obovata, postico lateralibus paullo majore et concaviusculo, 3 interiora minora, angustiora, minus patentia. Staminum filamenta segmentis exterioribus opposita, brevia, libera, posticum anantherum, lateralia inæqualia, antheris oblongo-linearibus. Ovarium 3-loculare, loculis ∞-ovulatis; stylus filiformis, staminibus multo longior, apice ramis 2 tenuissime membranaceis late obovatis v. flabellatis margine crispa papillosis, ramo tertio minimo v. obsoleto. Capsula oblonga, acute 3-quetra, loculicide 3-valvis. Semina plano-compressa, irregulariter orbiculata, in quoque loculo arcte 1-seriatim superposita; testa crassiuscule membranacea.—Rhizoma breve, caule terminali erecto simplici v. parce ramoso. Folia ad basin caulis longa, angusta, rigidula, lævia, distiche equitantia. Spatha terminalis, rigida, acuminata, addita interdum altera inferiore. Flores in spatha plures, pedicellati; bractea exterior spathæ subsimilis nisi brevior, interiores inclusæ, tenuiores, interdum scariosæ. Capsulæ e spatha exsertæ.

Species 2, Australiæ regionis australis et Tasmaniæ incolæ. *Benth. Fl. Austral.* vi. 399.

24. **Libertia,** *Spreng. Syst. Veg.* i. 127, 168. (Renealmia, *R. Br. Prod. Addenda, non Linn. f.* Nematostigma, *A. Dietr. Spec. Pl.* ii. 509.)—Perianthium campanulatum v. explanatum, tubo 0; segmenta libera, parum inæqualia v. interiora latiora. Stamina intra segmenta affixa, filamentis liberis v. basi breviter connatis; antheræ sagittatæ, versatiles,

loculis lateraliter dehiscentibus. Ovarium 3-loculare, loculis ∞-ovulatis; stylus brevis, ramis longiusculis, lineari-filiformibus v. anguste membranaceo-dilatatis, inter antheras patentibus, papillis stigmatosis terminalibus v. secus margines breviter decurrentibus. Capsula subglobosa obovoidea v. breviter oblonga, obtusa v. truncata, 3-sulca, loculicide 3-valvis. Semina angulata v. compressa, lævia v. foveolato-rugosa.—Rhizoma repens, caule terminali tenui v. elato. Folia ad basin caulis distiche imbricata, equitantia, linearia v. anguste ensiformia, sæpius rigidula, prominenter venosa. Cymulæ nunc laxe umbelliformes, nunc dense fere capituliformes, laxe paniculatæ v. secus pedunculum simplicem v. parce ramosum sessiles. Spathæ bracteæque breves, laxæ, membranaceæ v. scariosæ, flores pedicellatos non includentes.

Species 8, Chile, Australiæ et Novæ Zelandiæ incolæ. *Baker in Journ. Linn. Soc.* xvi. 152. *Hook. f. Handb. N. Zel. Fl.* 274; *Fl. Tasm. t.* 129. *Benth. Fl. Austral.* vi. 412. *Klatt in Linnæa*, xxxi. 380, *et in Mart. Fl. Bras.* iii. i. *t.* 68. *Bot. Mag. t.* 3294, 6263. *Bot. Reg. t.* 1630.

25. **Belamcanda,** *Adans. Fam.* ii. 60. (Pardanthus, *Ker in Kœn. et Sims, Ann. Bot.* i. 246.)—Perianthium tubo brevissimo explanatum; lobi patentes, oblongi, subæquales. Stamina basi perianthii affixa, filamentis filiformibus liberis; antheræ lineares, vix sagittatæ, basifixæ. Ovarium obovoideum, 3-loculare, loculis ∞-ovulatis; stylus filiformis, ramis elongatis apice dilatatis emarginatis papillis terminalibus. Capsula obovoidea, membranacea, loculicide 3-valvis, valvis dehiscentia irregulariter reflexis axin centralem erectum placentiferum relinquentibus. Semina majuscula, subglobosa, axi persistenti diu affixa, testa nitida laxa intus succulenta; embryo in centro albuminis cornei normalis, brevis.—Caules e rhizomate repente erecti, validi. Folia ensiformia, equitantia. Inflorescentia 2-3-chotome ramosa, foliis floralibus sub ramis primariis viridibus spathaceis, superioribus spathisque terminalibus membranaceo-scariosis. Flores intra spatham numerosi, pedicellati, bracteis scariosis oppositi. Capsulæ majusculæ, exsertæ.

Species 1, Indiæ orientalis Chinæ et Japoniæ incolæ, jam diu in hortis culta et hinc inde in variis regionibus inquilina. *Gærtn. Fruct.* i. 40, *t.* 13 (*Ixia*). *Red. Lil. t.* 121. *Bot. Mag. t.* 171 (*Ixia*). *Fl. des Serres, t.* 1632 (*Pardanthus*).

26. **Orthrosanthus,** *Sweet, Fl. Austral. t.* 11.—Perianthium tubo brevi nunc brevissimo explanatum; lobi ovati v. oblongi, subæquales, patentes. Stamina basi perianthii affixa, filamentis liberis v. basi dilatata in cyathum brevissimum connatis; antheræ erectæ, oblongæ. Ovarium oblongo-lineare, 3-loculare, loculis ∞-ovulatis; stylus brevissimus, ramis filiformibus inter antheras patentibus apice stigmatoso vix dilatatis. Capsula oblonga, truncata, basi attenuata, loculicide 3-valvis. Semina ovoidea v. mutua pressione angulata.—Rhizoma lignosum, brevissimum. Folia linearia v. anguste ensiformia, longa, rigidula v. graminea, ad basin caulis equitantia. Inflorescentia terminalis, simplex v. ramosa; spathæ oblongæ, secus ramos sæpius dissitæ, sessiles v. pedunculatæ, interdum plures bractea spathacea inclusæ, bracteis interioribus membranaceis v. scariosis. Flores in quaque spatha sæpius 2–∞, brevissime pedicellati.

Species 7, Americæ australis andinæ v. extratropicæ v. Australiæ occidentalis incolæ. *Baker in Journ. Linn. Soc.* xvi. 112. *Benth. Fl. Austral.* vi. 410. *Bot. Reg. t.* 1090 (*Sisyrinchium*). *Lodd. Bot. Cab. t.* 1474.

O. polystachyus, Benth., ex Australia austro-occidentali, a cæteris differt spathis (præter terminalem) pluribus secus ramos sessilibus.

Klatt, Ergänz. und Bericht. 46, species Americanas ad *Solenomelum* transfert, nobis uti Bakero melius *Orthrosantho* convenire videntur.

27. ? **Keitia,** *Regel in Act. Hort. Petrop.* v. 639.—Perianthium supra basin 6-partitum; lobi patentes, obovati, interiores paullo minores, cæterum consimiles. Stamina ima basi perianthii affixa, filamentis plano-compressis basi tantum connatis sursum liberis sensim attenuatis; antheræ lineari-oblongæ, erectæ, basifixæ. Ovarium 3-loculare, loculis

multiovulatis; styli rami lineares, plani, glabri, indivisi v. rarius ramulus unus ad medium 2-fidus.—Caulis e bulbo evolutus, 4–5-phyllus. Folia ensiformia, decrescentia, inferius v. 2 inferiora solitaria, superiora 3 in apice caulis conferta, alterna, subspathiformia, supremum minutum. Flores dense spicati, spicis pedunculatis axillaribus ovatis, spatha 2-valvi (spatha cum bractea) suffultis. Spatha herbacea, ovata, amplexicaulis, spicam involvens. Bracteæ sub pedicellis ovato-lanceolatæ, membranaceo-hyalinæ, imbricatæ, pedicellos paullo superantes. (*Char. ex Reg.*)

Species unica, Natalensis, a nobis non visa. Ex descriptione auctoris affinis videtur *Orthrosantho* et *Bobartiæ*, quæ genera tamen sæpius ebulbosa. An *Bobartiæ* species *B. filiformi* (pariter bulbosæ) affinis?; an ad *Orthrosanthum* referenda?

28. **Bobartia,** *Ker, Gen. Irid.* 29.—Perianthium explanatum, tubo 0; segmenta oblonga v. ovata, æqualia, patentia. Stamina basi perianthii affixa, filamentis brevibus liberis; antheræ lineares, erectæ. Ovarium obovoideum v. turbinatum, 3-loculare, loculis ∞-ovulatis; stylus brevis; rami longi, filiformes v. superne leviter applanati, indivisi, apice breviterque introrsum papillosi. Capsula globosa v. turbinata truncataque, loculicide 3-valvis. Semina mutua pressione angulata, testa crassiuscule membranacea.—Rhizoma fibrosum; caulis in *B. filiformi* basi in cormum globosum incrassatus, in cæteris speciebus subæqualis. Folia radicalia pauca, anguste linearia, ensiformia v. subteretia, caulina perpauca v. 0. Spicæ ad apicem caulis plures fasciculatæ, v. unica terminalis, folio florali erecto quasi caulem continuante stipatæ. Spicæ ipsæ e bracteis pluribus coriaceis complicatis bifariam imbricatis constantes, quarum exteriores vacuæ, ab extima brevissima gradatim auctæ, ad summam multo longiorem seu spatham flores 2–3 bracteasque totidem minores arcte involventem. Flores pedicellati. Capsulæ e spatha exsertæ.

Species ad 6, Africæ australis incolæ. *Baker in Journ. Linn. Soc.* xvi. 114. *Klatt in Linnæa,* xxxiv. 554. *Thunb. Diss. de Moræa, t.* 1, *f.* 1, 2, *t.* 2, *f.* 1. *Bot. Reg. t.* 229 (*Marica*). *Lodd. Bot. Cab. t.* 1900 (*Xyris*).

BOBARTIA, *Linn. Fl. Zeyl.* 17; *Lam. Illustr. t.* 40, est *Cyperus arenarius*, Retz, descriptio ulterior tamen in Amœn. Acad. i. 387, pro parte ex icone Plukenetiana et descriptione Schefferi sumpta fuit, pro parte e specimine *Moreæ spathaceæ*, Thunb., ut jam indicavit Schumacher in Skriv. Nat. Hist. Selsk. Kiobenh. iii. 8, qui genus delendum dixit. Ker (eo tempore Gawler) primum genus *Iridearum* constituit sub nomine Linneano *Bobartiæ*.

29. **Sisyrinchium,** *Linn. Gen. n.* 1017. (Souza, *Vell. Fl. Flum.* 273, *Ic.* vii. *t.* 1 *ad* 3.)—Perianthium tubo subnullo explanatum concavum v. latissime campanulatum; lobi subæquales, obovati v. oblongi. Stamina basi perianthii affixa, filamentis basi v. alte in tubum connatis v. rarius (in sect. *Nuno*) a basi liberis; antheræ variæ, erectæ v. versatiles. Ovarium globosum v. breviter oblongum, 3-loculare, loculis ∞-ovulatis; stylus filiformis, brevis v. antheras longe superans; rami indivisi, nunc brevissimi, nunc elongato-filiformes, antheris alterni, summo apice stigmatosi. Capsula globosa obovata v. breviter oblonga, sæpius truncata, loculicide 3-valvis.—Radices in rhizomate brevissimo fasciculato-fibrosæ, fibris interdum carnoso-incrassatis. Caules basi æquales v. leviter in cormum incrassati, teretes v. ancipites. Folia radicalia v. ad basin caulis conferta, lineari-teretia v. plus minus ensiformia, semper angusta, caulina pauca v. 0. Spatha nunc unica terminalis, nunc rarius præter terminalem nonnullæ secus caulem sessiles. Flores in quaque spatha plures, pedicellati. Capsulæ e spatha exsertæ.

Species ad 50, omnes Americanæ, tropicæ v. extratropicæ, quarum una hinc inde in variis regionibus inquilina in Hibernia indigena dicitur. *Baker in Journ. Linn. Soc.* xvi. 115. *Klatt in Linnæa,* xxxi. 63 *et* 371; *in Mart. Fl. Bras.* iii. i. 534; *Ergänz. und Bericht.* 42.

Sectiones 2, a Lemaireo propositas et a Klattio acceptas, *Sisyringium* et *Androsolen* intelligere nequimus. Baker sectiones 4 distinxit, imprimis ad caulis foliorumque indolem et inflorescentiam plus minus compositam, quæ tamen vix satis definitæ. Sequentes, pro maxima parte a Herbertio indicatæ, ad floris structuram stabilitæ, nobis certiores videntur.

1. *Bermudiana.* Perianthium explanatum v. rarius basi concavum. Filamenta in tubum cylindraceum fere ad apicem connata; antheræ ad apicem tubi fere sessiles, breves, circa stylum infra ramos confertæ. Flores cæruleæ purpurascentes v. rarius albidi purpureo-striati. *Baker in Journ. Linn. Soc.* xvi. 116, *n.* 8 *ad* 13, 26, 35, 38 *ad* 41. *Klatt in Mart. Fl. Bras.* iii. *t.* 70, *f.* 2, *t.* 71, *f.* 1 *ad* 3. *Cav. Diss. Monad. t.* 192, *f.* 1, 190, *f.* 2. *Red. Lil. t.* 149, 282. *Bot. Mag. t.* 94, 464, 2312. *Bot. Reg. t.* 646 (*Marica*). *Lodd. Bot. Cab. t.* 1220, 1979. BERMUDIANA, *Adans. Fam.* ii. 60.

Sectio *Cephalanthum* a Bakero distincta fuit imprimis spathis dense multifloris. Species 4 priores, n. 38 ad 41, characteres cæterum omnino *Bermudianæ* ostendunt. *S. marginatum* et *S. palmifolium* ad *Echthronema* pertinent.

2. *Echthronema.* Perianthium explanatum. Filamenta basi v. sæpius ad medium in tubum cylindraceum connata, superne libera, patentia; antheræ versatiles. Styli rami longi, tenues, superne sæpe canaliculati. Flores flavi. *Willd. Hort. Berol. t.* 91. *Red. Lil. t.* 47, 275. *Link, Kl. et Otto, Ic. Pl. Rar. t.* 10. *Hook. Ic. Pl. t.* 218 ?, 219, 513. *Bot. Mag. t.* 2116, 2117, 2313. *Bot. Reg. t.* 1067, 1914 (1915 *in textu*). *Baker in Journ. Linn. Soc.* xvi. 116, *n.* 4, 14 *ad* 37, 42 *et* 43 (excl. *S. iridifolia* et *S. Glaziovii* ad *Bermudianam* pertinentibus). ECHTHRONEMA, *Herb. in Bot. Reg.* 1843, *Misc.* 85. HYDASTYLUS, *Salisb. in Trans. Hort. Soc.* i. 310, *absque char.*

Sectio *Spathirhachis*, Klatt, qualis a Bakero reducitur, species includit 5, ex America australi extratropica, floribus omnino *Echthronematis*, sed spathæ nonnullæ præter terminalem secus caulem seu pedunculum sessiles, et bracteæ intra spatham sæpe insigniter scariosæ. *S. cuspidatum* tamen interdum *S. graminifolio*, Lindl., prope accedit, cui spathæ inferiores sessiles 1 v. 2 sæpe adsunt, uti jam in Bot. Mag. t. 3197 delineatur, et in *S. monastachyo*, Baker, spatha sæpe unica terminalis ut in *Echthronematibus* typicis. Ad *Spathirhachin* referuntur, *Sm. Ic. Pict. t.* 9. *Jacq. Hort. Schœnbr. t.* 11 (*Moræa*). *Cav. Ic. t.* 104. *Red. Lil. t.* 66. *Bot. Mag. t.* 701 (*Marica*). *Lodd. Bot. Cab. t.* 1870.

In *S. striato*, Sm., perianthium basi breviter subcampanulatum, lobis patentibus interdum pallidissime tantum flavescentibus v. fere albidis insigniter striatis, sed characteres *Echthronematis*.

3. *Eriphilema.* Perianthium late concavum, subcampanulatum. Filamenta basi in tubum connata v. convoluta, medio sæpius dilatata (tubo ibidem inflato) superne libera, filiformia. Styli rami longiuscule filiformes. Flores purpurei v. rosei. ERIPHILEMA, *Herb. in Bot. Reg.* 1843, *Misc.* 85. Huc pertinent *S. grandiflorum*, Dougl. Bot. Reg. t. 1364, Bot. Mag. t. 3509, Sweet, Brit. Fl. Gard. ser. 2, t. 338, Fl. des Serres, t. 146, *S. junceum*, E. Mey., et *S. Philippii*, Klatt; in hac specie tamen tubus stamineus vix inflatus.

4. ? *Nuno.* Perianthium fere *Bermudianæ* sed filamenta a basi libera filiformia. Species 2, Americæ australis extratropicæ incolæ. *S. Nuno*, Bert., Colla in Mem. Acad. Torin. xxxix. t. 54, et *S. filifolium*, Gaudich., Hook. f. Fl. Ant. t. 126. Sectio vix non pro genere proprio habenda.

Nomen Linneanum a nonnullis in *Sisyringium* v. in *Syorhynchium* mutatum ob etymologiam varie explanatam, in forma tamen pristina retinendum derivatione incerta.

30. **Tapeinia,** *Juss. Gen.* 59.—Perianthium tubo subnullo ima basi subcampanulatum; lobi patentes, ovati, interioribus parum angustioribus. Stamina intra basin perianthii affixa, filamentis breviter in tubum connatis, superne liberis; antheræ longiusculæ, infra medium dorsifixæ. Ovarium 3-loculare, ovulis ∞ in parte inferiore loculorum affixis; stylus filiformis, ramis indivisis subulatis apice stigmatoso vix dilatatis. Capsula subglobosa, 3-sulca, loculicide 3-valvis, valvis coriaceis dehiscentia patentissimis. Semina obovoidea, embryone parvo.—Herba nana, perennis, densissime cæspitosa, ebulbosa. Folia linearia, distiche conferta. Spatha terminalis, flore unico pedicellato, folia vix excedente, pedicello bracteis 2 dissitis instructo.

Species 1, Magellanica. *Hook. f. Fl. Ant.* ii. 353, *t.* 129. *Cav. Diss. Monad. t.* 189, *f.* 4.

31. **Patersonia,** *R. Br. Prod.* 303. (Genosiris, *Labill. Pl. Nov. Holl.* i. 13, *t.* 9.) —Perianthii tubus tenuis, interdum longus; lobi 3 exteriores lati, patentes, 3 interiores parvi, erecti, nunc minuti v. 0. Stamina basi loborum affixa, filamentis plus minus in tubum connatis; antheræ erectæ, oblongæ v. lanceolatæ, connectivo interdum inter loculos leviter dilatato. Ovarium 3-loculare, loculis ∞-ovulatis; stylus filiformis, antheras superans, sæpius prope basin antherarum v. sub ramis constrictus v. articulatus; rami obovati v. oblongi, in alabastro reflexi, demum patentes, margine

papillosi. Capsula oblonga v. linearis, loculicide 3-valvis. Semina (immatura) angusta, sæpe angulata, perfecte matura nobis ignota.—Rhizoma breve. Folia radicalia v. ad basin caulis simplicis conferta, disticha, anguste linearia, graminea v. rigida. Spathæ 2, ad apicem caulis quasi in spicam oblongam v. lanceolatam confertæ, singulæ folio florali spathiformi stipatæ. Flores in spatha 2–∞, rarius solitarii, sessiles v. brevissime pedicellati; bracteæ membranaceæ, plus minus scariosæ. Capsula spatha inclusa.

Species 19, Australiæ extratropicæ v. subtropicæ incolæ. *Benth. Fl. Austral.* vi. 400. *Sweet, Fl. Austral. t.* 15, 39. *Endl. Iconogr. t.* 50. *Bot. Mag. t.* 1041, 2677. *Bot. Reg. t.* 51, 1839, *t.* 60. *Lodd. Bot. Cab. t.* 768, 1182.

32. **Symphyostemon,** *Miers in Trans. Linn. Soc.* xix. 97. (Psithyrisma, *Herb. in Bot. Reg.* 1843, *Misc.* 85. Susarium, *Philippi in Linnæa,* xxxiii. 248, *quoad S. nigricans.*) —Perianthium tubo longiusculo infundibulare; lobi erecto-patentes, subæquales. Stamina fauci affixa, filamentis basi in tubum cylindraceum connatis, superne breviter v. longe filiformibus; antheræ oblongæ, versatiles. Ovarium obovoideum, 3-loculare, loculis ∞-ovulatis; stylus filiformis, ramis filiformibus antheras superantibus apice tenuibus v. subclavatis. Capsula ovoideo-globosa, apice truncata, loculicide 3-valvis. Semina angulata, testa crassiuscula.—Radices fibrosi, more *Sisyrinchii* fasciculati. Folia radicalia linearia, conferta. Scapus nunc brevissimus folia non excedens, nunc elatiusculus aphyllus v. folio florali unico. Spathæ virides, in *S. acauli* 1–2 inter folia subsessiles, in *S. narcissoide* sæpius 2 ex axilla folii floralis pedunculatæ. Flores in spatha plures, pedicellati, bractea exteriore spathæ subsimili, interioribus plus minus scariosis; perianthium flavum albidum v. purpureo-striatum. Capsulæ e spatha exsertæ.

Species 2 v. 3, Americæ australis extratropicæ v. andinæ incolæ. *Baker in Journ. Linn. Soc.* xvi. 121 (*Solenomelis sect.*). *Cav. Diss. Monad. t.* 191, *f.* 3 (*Sisyrinchium*). *Bot. Reg. t.* 1283.
Genus potius *Sisyrinchio* quam *Solenomeli* affine videtur.

33. **Chamelum,** *Philippi in Linnæa,* xxxiii. 250.—Perianthium tubo tenui infundibulare; lobi erecto-patentes, subæquales. Stamina fauci affixa, filamentis in tubum cylindraceum connatis; antheræ erectæ, breviter stipitatæ, tubo longiores. Ovarium oblongum, 3-loculare, loculis ∞-ovulatis; stylus filiformis, antheris demum longior, ramis brevissimis recurvis apice acuto stigmatosis. Capsula ovoidea, loculicide 3-valvis. Semina . . .—Caules e rhizomate breviter repente humiles. Folia pauca, linearia, latiuscula v. subteretia. Spathæ terminales, solitariæ v. plures aggregatæ, herbaceæ, striatæ. Flores in spatha 2 v. pauci, brevissime pedicellati; bractea exterior spathæ subsimilis, interiores plus minus scariosæ. Perianthium flavum. Capsula spatha inclusa.

Species 2, Chilenses. *Baker in Journ. Linn. Soc.* xvi. 121 (*Solenomelis sect.*). Genus antheris et stylo tam a *Solenomele* quam a *Symphyostemone* bene distinctum videtur. *C. andinum,* a Philippio in Linnæa xxix. 62 ad *Sisyrinchium* relatum fuit, stylo non descripto, postea in Linnæa xxxiii. 250 incaute ad *Susarium* (*Symphyostemum*) translatum.

34. **Solenomelus,** *Miers in Trans. Linn. Soc.* xix. 95, *t.* 8. (Cruikshanksia, *Miers, Trav.* ii. 529. Lechlera, *Griseb. in Lechl. Pl. Chil. Exs. n.* 2966.)—Perianthii tubus tenuis, superne in faucem ampliatus; lobi subæquales, patentes. Stamina fauci affixa, filamentis in tubum cylindraceum sæpe glanduloso-villosum connatis; antheræ breviter oblongæ, ad apicem tubi subsessiles, circa stylum arcte conniventes. Ovarium lineare, 3-loculare, loculis ∞-ovulatis; stylus filiformis, indivisus, vix demum apice e tubo stamineo exsertus, vertice stigmatoso ciliato-papilloso. Capsula oblonga, 3-sulca, loculicide 3-valvis. Semina dimidiato-ovoidea, testa dura.—Caules in rhizomate brevi subfasciculati, basi interdum leviter incrassati. Folia radicalia v. ad basin caulis conferta, linearia, plana v. angustissima, secus caulem perpauca. Spatha unica terminalis, v. paucæ longe pedunculatæ,

fere *Orthosanthi*, oblongæ v. lanceolatæ, herbaceæ, striatæ. Flores in spatha plures, breviter pedicellati; bractea exterior spathæ subsimilis, interiores plus minus scariosæ. Perianthium flavum. Capsulæ spatha inclusæ.

Species 2, Chilenses. *Baker in Journ. Linn. Soc.* xvi. 121 (*S. chilensis et S. Lechleri*). *Bot. Mag. t.* 2965 (*Sisyrinchium*). *Fl des Serres, t.* 255 (*Sisyrinchium*).

35. ? **Cleanthe,** *Salisb. in Trans. Hort. Soc.* i. 312.—Perianthii tubus brevis; lobi patentes, obovali-oblongi, interiores exterioribus 2-3-plo majores. Stamina fauci affixa, filamentis liberis; antheræ lineares. Ovarium lineare, pedicelliforme; stylus elongatus, inclinatus, ramis stigmatosis brevibus obovato-dilatatis. Capsula linearis.—Caules in rhizomate fasciculati v. solitarii. Folia radicalia v. ad basin caulis numerosa, disticha, anguste ensiformia. Spatha terminalis, lanceolata, acuminata. Flores in spatha pauci, breviter pedicellati, bractea exteriore spathæ subsimili, interioribus minoribus.

Species 1, Africæ australis incolæ, a nobis non visa. *Thunb. Diss. Moræa t.* 1 (*Moræa melaleuca*). *Bot. Mag. t.* 1277 (*Aristea*). Genus, non nisi ex his iconibus et descriptionibus notum, dubium remanet, sed imprimis segmentis interioribus perianthii maximis inter *Irideas* insigne videtur.

36. **Aristea,** *Ait. Hort. Kew. ed.* 1, i. 67.—Perianthii tubus tenuis, brevis v. bracteas superans; lobi subæquales, rotato-patentes. Stamina fauci affixa, filamentis brevibus liberis; antheræ erectæ, oblongo-lineares. Ovarium 3-loculare, loculis ∞-ovulatis; stylus filiformis, sæpe elongatus, apice indivisus brevissime 3-dentatus v. lobis 3 brevibus cuneato-dilatatis margine stigmatosis. Capsula ovata v. oblonga, 3-quetra, angulis interdum valde prominentibus acutis, loculicide 3-valvis. Semina sæpius compressa.—Fibri radicales fasciculatæ v. sæpius rhizoma plus minus evolutum, caule terminali haud raro breviter lignoso interdum fruticoso ramoso, rarius caules plures fasciculati. Folia ad basin caulis v. in ramis distiche conferta, angusta, equitantia, ensiformia v. graminea, brevia v. elongata. Spathæ 1-2-floræ, rarius ∞-floræ, nunc ad apicem caulis v. ramorum dichotomorum solitariæ, nunc plures secus ramos pedunculatæ v. subsessiles, nunc parvæ, breviter pedunculatæ, in corymbum terminalem compositum dispositæ. Flores intra spatham brevissime v. distincte pedicellati. Bracteæ sæpeque spatha ipsa plus minus scariosæ laceræque. Capsulæ e spatha vix v. breviter exsertæ.

Species ad 15, Africæ australis et tropicæ et Madagascariæ incolæ. *Baker in Journ. Linn. Soc.* xvi. 110 (*excl. A. melaleuca*); *in Trans. Linn. Soc. Bot.* i. 270. *Klatt in Linnæa*, xxxiv. 548; *Ergänz. und Bericht.* 47. *Red. Lil. t.* 462. *Andr. Bot. Rep. t.* 10, 160. *Bot. Mag. t.* 458, 605, 1231.

Genus quoad habitum et inflorescentiam sat polymorphum, flores forma et colore cæruleo in omnibus fere speciebus consimiles videntur. In speciebus inflorescentia dichotoma spathæ interdum ∞-floræ, bractea infima spathæ subsimili, stylus sæpe 3-dentatus; in *A. cyanea* styli lobi late cuneato-dilatati; in *A. capitata* spathæ numerosæ, ∞-floræ, secus caulem confertæ, v. in thyrsum longum dispositæ, inflorescentia speciminibus nonnullis *Libertiæ formosæ* accedente, styli dentes brevissime obtusi; in *A. spirali*, Morr., spathæ quam in cæteris longiores, ∞-floræ, secus caulem plures subsessiles, styli lobi brevissimi obovati, capsula linearis; in *A. corymbosa* (*Witsenia corymbosa*, Ker, Bot. Mag. t. 895. Sm. Exot. Bot. t. 68. Red. Lil. t. 453. Lodd. Bot. Cab. t. 254. Maund, Botanist t. 202. Nivenia, *Vent. Dec. Gen. Nov.* 5. Genlisea, *Reichb. Consp.* 60), caulis more *Witseniæ* fruticosus, spathæ parvæ, 1–2-floræ, in corymbo composito numerosæ breviter pedunculatæ, sed flores omnino *Aristeæ*, et caulis basi breviter lignosus ramosusque in aliis nonnullis speciebus. *A. fruticosus*, Pers., a Thunbergio ad *Witseniam* a Baker ad *Niveniam* relata, tam ab *A. corymbosa* quam a cæteris speciebus differt habitu humili ramoso dense folioso, spathis (1–2-floris ?) inter folia solitariis sessilibus. Habitu potius *Tapeiniæ* accedit, sed flores (quos in speciminibus nostris haud bene examinare potuimus) omnino *Aristeæ* convenire videntur. *A. spiralis*, Ker; Bot. Mag. t. 520 (*Moræa*), a cæteris speciebus differt colore floris non cæruleo.

Wredowia, *Eckl. Verz. Pfl. Samml.* 16, planta Capensis indescripta nec a nobis visa, ab auctore intermedia dicitur inter *Sisyrinchium* et *Aristeam*, a Steudelio Nomencl. ad *Aristeam* refertur.

37. **Witsenia,** *Thunb. Gen. Nov.* 34, *t.* 17.—Perianthii tubus elongatus, cylindraceus, superne leviter incrassatus; lobi erecti, conniventes, exteriores oblongi concavi crassius-

culi dorso tomentosi, interiores breviores, plani subscariosi, apice solo tomentelli. Stamina fauci affixa, perianthio breviora, filamentis crassiusculis liberis; antheræ oblongo-lineares, erectæ, basifixæ. Ovarium 3-loculare, glandula annulari circa styli basin coronatum, loculis ∞-ovulatis; stylus filiformis, e perianthio subexsertus, apice stigmatoso minute 3-dentatus. Capsula coriacea, nitidula, loculicide 3-valvis. Semina pauca, angulata, matura non vidimus.—Caulis lignosus, elatus, ramosus, compressus, acutangulus. Folia erecta, ensiformia, equitantia, rigidula, superiora minora conferta. Bracteæ ad axillas foliorum superiorum ∞, rigidæ, complicatæ, quasi in spica bifariam imbricatæ, ab inferioribus ad 2 summas gradatim auctæ. Spathæ ad axillas bractearum summarum sæpius geminæ, bractea multo minores. Flos intra spatham 1 (v. 2?) subsessilis, bracteas imbricatas longe superans. Bractea seu bracteola intra spatham ea paullo brevior.

Species 1, Africæ australis incola. *Baker in Journ. Linn. Soc.* xvi. 108. *Red. Lil. t.* 245, 463. *Bot. Reg. t.* 5. *Maund, Botanist, t.* 125. *Fl. des Serres, Aug.* 1846, *t.* 4.

38. **Klattia,** *Baker in Journ. Linn. Soc.* xvi. 109.—Perianthii tubus brevis, cylindraceus, ad os constrictus; lobi æquales, erecti, unguibus longe lineari-subulatis filamentis similibus, superne vix in ligulam erectam linearem obtusam dilatatis. Stamina ad apicem tubi cum lobis inserta, iisque primo aspectu simillima, filamentis leviter applanatis; antheræ erectæ, longe lineari-sagittatæ. Ovarium obovoideum, infra apicem crassum solidum 3-loculare, ovulis in loculis solitariis v. perpaucis; stylus filiformis, apice stigmatoso minute 3-dentatus. Capsula brevis, apice indurata, loculicide 3-valvis. Semina in loculis solitaria, immatura oblonga, angulata v. compressa.—Caulis more *Witseniæ* lignosus, ramosus. Folia disticha, conferta, ensiformia, equitantia, rigidula, summa gradatim in bracteas bifariam imbricatas abeuntia. Flores intra bracteas summas gemini (v. 3-4?) sessiles, singuli spatha bracteas multo breviore bracteolaque subsimili stipati. Perianthii lobi filamentiformes, cum filamentis veris styloque e bracteis longe exserti. Capsulæ bracteis inclusæ.

Species 1, Africæ australis incola (*Witsenia partita*, Ker).

Flores, apud Klattium in Linnæa xxxiv. 546, in quaque spica 10 ad 15, in speciminibus nostris paria 2 intra bracteas 1-2 superiores invenimus, comam densam filamentorum formantes.

TRIBUS III. IXIEÆ.

39. **Schizostylis,** *Backh. et Harv. in Bot. Mag. t.* 5422.—Perianthii tubus tenuis, vix in faucem brevissimam ampliatus; lobi æquales, oblongi v. ovati, patentes. Stamina ad faucem affixa, filamentis filiformibus liberis; antheræ lineares, sagittatæ. Ovarium 3-loculare, loculis ∞-ovulatis; stylus brevis, ramis longis filiformibus indivisis, introrsum in longitudine papillosis. Capsula obovoidea v. oblonga, vertice truncata, 3-sulca, membranacea, loculicide 3-valvis. Semina numerosa, angulata.—Caules in rhizomate fasciculati, ebulbosi v. basi leviter bulboso-incrassati. Folia linearia v. anguste ensiformia. Spathæ secus pedunculum simplicem dissitæ, subdistichæ, virescentes, lanceolatæ, complicatæ. Flos in spatha sessilis. Bractea spatha angustior, virescens v. subscariosa, 2-carinata. Perianthium speciosum, rubrum.

Species 2, Africæ australis incolæ. *Baker in Journ. Linn. Soc.* xvi. 108. *Klatt in Linnæa,* xxxv. 380. *Lemaire, Illustr. Hortic. t.* 394 (*a Bot. Mag. repetit.*). *Fl. des Serres, t.* 1637.

40. **Hesperantha,** *Ker in Kœn. et Sims, Ann. Bot.* i. 224.—Perianthii tubus tenuis, longiusculus, abbreviatus v. brevissimus, rectus v. decurvus; limbus patens v. demum reflexus, lobi angusti, subæquales, v. exteriores sæpe paullo majores rigidiores et intensius colorati. Stamina ad faucem affixa, filamentis brevibus erectis; antheræ lineari-sagittatæ, erectæ. Ovarium obovoideum v. oblongum, 3-loculare, loculis ∞-ovulatis; stylus brevis sæpius brevissimus, ramis multo longioribus filiformibus superne introrsum papillosis. Capsula membranacea, obtusa, loculicide 3-valvis. Semina globosa v. angulato-compressa. —Bulbi tunicæ læves, coriaceæ, interdum a basi solutæ deorsum imbricatæ, caule sim-

plici v. unirameo. Folia pauca, anguste linearia. Spathæ secus pedunculum sessiles, dissitæ, secundæ v. quaquaversæ, virescentes, complicatæ v. carinatæ, erectæ v. vix patentes. Flos in spatha sessilis; bractea spatha multo brevior, 2-nervis v. 2-carinata.

Species ad 20, Africæ australis et tropicæ incolæ. *Baker in Journ. Linn. Soc.* xvi. 95. *Klatt in Linnæa,* xxxiv. 647; *Ergänz. und Bericht.* 59. *Jacq. Ic. Rar. t.* 276, 279, 280. *Red. Lil. t.* 441. *Andr. Bot. Rep. t.* 44, 59. *Bot. Mag. t.* 566, 573, 790, 1054, 1254, 1379, 1475 (ic. pleræque sub *Ixia*).

I. radiata in icone Redouteana, t. 441, styli ramos solito breviores ostendit, et species *Geissorhizæ* accedere videtur.

41. **Geissorhiza,** *Ker in Kön. et Sims, Ann. Bot.* i. 223.—Perianthium infundibuliforme, tubo brevi tenui apice breviter ampliato; lobi subæquales, plus minus patentes, basi sæpe angustati. Stamina ad faucem affixa, filamentis brevibus liberis; antheræ lineari-sagittatæ, rectæ v. apice recurvæ, rarius demum tortæ. Ovarium obovoideum, v. oblongum, 3-loculare, loculis ∞-ovulatis; stylus filiformis, longiusculus, ramis linearibus recurvis indivisis parte integra brevioribus, superne interdum leviter membranaceo-dilatatis introrsum ab apice breviter v. longiuscule papillosis. Capsula obtusa, membranacea, loculicide 3-valvis. Semina subglobosa v. angulato-compressa.—Bulbi tunicæ læves, fibrosæ, v. deorsum imbricatæ. Caulis simplex v. parum ramosus. Folia pauca, linearia, angustissima, rarius latius ensiformia. Pedunculus unicus, terminalis, seu pauci e folii summi vagina. Spathæ secus pedunculum paucæ, dissitæ, interdum solitariæ, inferiores sæpius herbaceæ, acutæ, superiores v. interdum omnes plus minus scariosæ, obtusæ v. denticulatæ. Flos in spatha sessilis, bractea spatha breviore scariosa striata sæpius breviter 2-loba. Perianthii tubus rarius spatham excedens.

Species ad 24, v. ex Klattio 31, quarum una Madagascariensis, cæteræ omnes Africæ australis incolæ. *Baker in Journ. Linn. Soc.* xvi. 93 (excl. *G. erecta, G. alpina* et *G. lutea* ad *Hesperantham* referendis). *Klatt in Linnæa,* xxxiv. 650; *Ergänz. und Bericht.* 56.

Genus vix characteribus certis ab *Ixia* distinctum, differt sæpius perianthii limbo minus expanso et spathis saltem inferioribus herbaceis acutis, in sectiones 2 a Bakero dividitur: 1. *Rochea,* perianthii tubo spatham non excedente. *Bot. Mag. t.* 597, 598 (*Ixia*), 672, 1255, 5877. *Andr. Bot. Rep. t.* 245 (*Ixia*). *Sweet, Brit. Fl. Gard. t.* 138. ROCHEA, *Salisb. in Trans. Hort. Soc.* i. 322, *absque char.* 2. *Weihea,* perianthii tubo tenui e spatha exserto. *Bot. Mag. t.* 584. WEIHEA, *Eckl. Verz. Pfl. Samml.* 22.

G. Bojeri, Baker, e Madagascaria, ab Africanis differt capsula longa angusta subcylindracea, sed omnino congener videtur.

42. **Dierama,** *C. Koch in Walp. Ann.* vi. 42.—Perianthium infundibuliforme, tubo brevi in faucem ampliato; lobi subæquales, erecto-patentes. Stamina supra basin faucis affixa, filamentis brevibus rectis; antheræ lineares, erectæ, sagittatæ. Ovarium 3-loculare, loculis ∞-ovulatis; stylus filiformis, rectus, ramis indivisis recurvis apice plus minus cuneato-dilatatis. Capsula obtusa, membranacea, loculicide 3-valvis. Semina subglobosa v. angulato-compressa.—Bulbi tunicæ cum basibus foliorum vetustiorum in fibras numerosas rigidas persistentes solutæ. Folia longa, angusta, inferiora equitantia a latere complanata, superiora pauca, parva. Panicula terminalis, elongata, ramulis filiformibus in vivo pendulis, in speciminibus siccis erecti apparent. Spathæ in ramulis sessiles, scarioso-hyalinæ, vix striatæ, apice laceræ, sæpius 3-fidæ. Flos intra spatham sessilis, bractea spatha angustiore 2-fida.

Species 2 v. 3, florum magnitudine et colore distinctæ, sed ut videtur intermediis connexæ, Africæ tropicæ et australis incolæ. *Baker in Journ. Linn. Soc.* xvi. 99. *Klatt in Linnæa,* xxxii. 751 (errore *Dicrama*); *Ergänz. und Bericht.* 54. *Bot. Mag. t.* 5555. *Bot. Reg. t.* 1360 (*Sparaxis*).

D. cupuliflorum, Klatt in Decken Reise, Bot. 73, t. 3, quod etiam a Thomsonio in Africa tropica lectum fuit, a forma typica austro-Africana *D. penduli* distinguere nequimus.

43. **Streptanthera,** *Sweet, Brit. Fl. Gard. t.* 209, *et ser.* 2, *t.* 122.—Perianthii tubus brevissimus, campanulatus; lobi æquales, rotato-patentes. Stamina fauci affixa, filamentis brevibus erectis liberis; antheræ lineares, demum tortæ. Ovarium 3-loculare, loculis

∞-ovulatis; stylus filiformis, antheras breviter superans, ramis stigmatosis breviter cuneato-dilatatis 2-lobis. Capsula subglobosa, loculicide 3-valvis. Semina globosa.—Herbæ humiles, bulbosæ. Folia ensiformia, lanceolata, erecta v. falcato-patentia. Pedunculi in axillis superioribus 2–3. Spathæ secus pedunculum sessiles, 2–3 v. ad unicam reductæ, membranaceo-scariosæ, maculis brunneis linearibus more *Sparaxeos* notatæ, apice dentatæ v. laceræ. Flos in spatha unicus, sessilis, bractea 2-dentata spatha paullo minore.

Species 2, Africæ australis incolæ. *Baker in Journ. Linn. Soc.* xvi. 92. *Lodd. Bot. Cab. t.* 1359. *Paxt. Mag. Bot.* i. 8, *cum ic.*

Specimen unicum nobis adest, genitalibus in flore unico a vermibus exesis et characterem imprimis ex iconibus citatis sumpsimis. Genus videtur *Sparaxi* affine, sed perianthii forma et genitalibus rectis potius *Ixiæ* v. *Geissorhizæ* accedens.

44. **Ixia,** *Linn. Gen. n.* 56. (Würthia, *Regel, Gartenfl.* ii. 98, *t.* 46.)—Perianthium infundibuliforme v. hypocraterimorphum, tubo tenui brevi v. longiusculo, apice æquali v. leviter ampliato; lobi subæquales, plus minus patentes, sæpius subrotati. Stamina ad faucem affixa, filamentis brevibus erectis liberis v. basi connatis; antheræ lineares, plus minus sagittatæ, erectæ v. apice recurvæ, prope basin affixæ. Ovarium obovoideum v. oblongum, 3-loculare, loculis ∞-ovulatis; stylus filiformis, ramis linearibus recurvis indivisis parte integra brevioribus, introrsum ab apice breviter v. longiuscule papillosis. Capsula obtusa, membranacea, loculicide 3-valvis. Semina subglobosa v. angulato-compressa.—Bulbi v. cormi tunicæ læves v. fibrosæ. Caulis simplex v. parum ramosus. Folia ad basin caulis conferta, anguste ensiformia, erecta, rigidule venosa, secus caulem pauca parva. Spathæ secus pedunculum terminalem seu ramos breves erectos sessiles, sæpe secundæ, breves, latæ, membranaceo-scariosæ, carinatæ v. concavæ, sæpe 3-dentatæ. Flos in spatha unicus, sessilis, bractea spathæ subsimili nisi parum breviore 2-carinata 2-dentata v. interdum 2-partibili.

Species ad 25, Africæ australis incolæ, plures valde variabiles et inter se difficillime distinguendæ. *Baker in Journ. Linn. Soc.* xvi. 90 *et* 96 (*Ixia et Morphixia*). *Klatt in Linnæa* xxxiv. 635; *Ergänz. und Bericht.* 48 (*Morphixia*) *et* 61 (*Ixia*).

Genus vix in sectiones distinctas dividitur; series sequentes characteribus nimis incertis separantur.

In speciebus typicis perianthii tubus brevis v. rarius elongatus, usque ad apicem tenuis; filamenta libera v. vix ima basi subconnata. *Jacq. Ic. Rar. t.* 275, 278; *Hort. Schœnbr. t.* 18 *ad* 23. *Red. Lil. t.* 30, 64, 86, 126, 137, 138, 140, 426, 466. *Vent. Choix, t.* 10; *Jard. Cels. t.* 48. *Andr. Bot. Rep. t.* 23, 29, 50, 155, 159, 186, 196, 232, 256. *Bot. Mag. t.* 128 (*in textu* 127), 522, 539, 549, 589, 594, 623, 624, 629, 789, 846, 1285, 1378. *Bot. Reg. t.* 530. *Lodd. Bot. Cab. t.* 15.

Sect. *Eurydice,* Pers. Syn. i. 48, differt filamentis plus minus sed basi distincte connatis. Red. Lil. t. 41 (*Galaxia*). Andr. Bot. Rep. t. 203, 211, 213, 250, 392. Bot. Mag. t. 607. Huc etiam potius quam *Ixiis typicis* referenda videtur *I. columellaris,* Bot. Mag. t. 630.

Morphixia, *Ker, Gen. Irid.* 105 (Hyalis, *Salisb. in Trans. Hort. Soc.* i. 317, *absque char. Morphixiæ brevicolles,* Baker), ab auctoribus distinguitur perianthii tubo minus tenui, ad faucem interdum leviter ampliato; styli rami etiam interdum leviter membranaceo-dilatati. *M. capillaris,* Ker, quoad formam perianthii et styli ramos a varietatibus nonnullis *Ixiæ polystachyæ* ægre distinguenda est. *Jacq. Ic. Rar. t.* 281, 282. *Red. Lil. t.* 431, 432. *Bot. Mag. t.* 570, 617, 1013.

Morphixiæ longicolles, Baker (Freesia, *Eckl. Verz. Pfl. Samml.* 30, *non aliorum*), a Kerio ad *Tritoniam* relatæ, insignes sunt tubo perianthii longissimo, quam in cæteris speciebus præsertim superne crassiore; a *Tritonia* parum differunt perianthio et stylo rectis. Huc *Jacq. Ic. Rar. t.* 263 (*Gladiolus*). *Red. Lil. t.* 34. *Bot. Mag. t.* 256, 1173, 1502, 1503 (*Tritonia*).

I. anemonæflora, Jacq., et *I. fragrans,* Jacq., Baker in Journ. Linn. Soc. xvi. 91, nobis melius ad *Sparaxin* referendæ videntur. *I. fucata,* Ker in Bot. Mag. t. 1379, Baker, l. c., ad *Hesperantham.*

45. **Freesia,** *Klatt in Linnæa,* xxxiv. 672, *pro parte non Eckl.*—Perianthii tubus e basi tenui curvus, in faucem longe campanulatam ampliatus, limbus parum obliquus, lobis subæqualibus ovatis patentibus. Stamina intra faucem affixa, filamentis liberis filiformibus; antheræ lineares, sagittatæ. Ovarium ovoideum, 3-loculare, loculis ∞-ovulatis; stylus filiformis, stamina demum superans, ramis tenuibus 2-fidis, lobis vix dilatatis recurvis introrsum papillosis. Capsula ovoidea v. subglobosa, loculicide 3-valvis. Semina (imma-

tura) depresso-globosa v. angulata.—Bulbi v. cormi tunicæ fibrosæ. Folia plana, angusta, haud rigida, supra basin caulis conferta. Inflorescentia simplex v. parce ramosa; spathæ in parte superiore patente ramorum unilaterales, breves, ovatæ. Flos in spatha unicus, sessilis, bractea spathæ subæquali 2-carinata.

Species 2, Africæ australis incolæ. *Baker in Journ. Linn. Soc.* xvi. 163. *Jacq. Ic. Rar. t.* 241 (*Gladiolus*). *Red. Lil. t.* 124, 419 (*Gladiolus*). *Bot. Reg. t.* 135 (*Tritonia*). *Lodd. Bot. Cab. t.* 1820 (*Tritonia*). *Reg. Gartenfl. t.* 808. *Klatt in Zeitschr. Schweitz. Gartenb.* 1881, *t.* 3.

46. **Lapeyrousia,** *Pourr. in Mem. Acad. Sc. Toulouse,* 1786, *ex eod. in Journ. Phys.* xxxv. (1789), 425. (Meristostigma, *A. Dietr. Sp. Pl.* ii. 593. Peyrousia, *Sweet, Hort. Brit.* 499. Ovieda, *Spreng. Syst.* i. 147.)—Perianthium infundibuliforme v. fere hypocraterimorphum, tubo tenui interdum longissimo recto v. superne leviter incurvo in faucem brevem sæpius dilatato; lobi subæquales, patentes, v. 2 paullo longiores. Stamina ad faucem affixa, filamentis brevibus liberis; antheræ oblongo-lineares. Ovarium 3-loculare, loculis ∞-ovulatis; stylus filiformis, demum sæpius elongatus, ramis filiformibus 2-fidis, lobis introrsum in longitudine papillosis. Capsula globosa v. ovoidea, loculicide 3-valvis. Semina parva, subglobosa v. angulato-compressa.—Bulbi seu cormi tunicæ fibrosæ v. rigide striatæ basique circumscissæ. Habitus valde varius, foliis sæpius paucis. Spathæ herbaceæ, nunc inter folia conferta sessiles, nunc secus pedunculum seu ramos inflorescentiæ plures sessiles approximatæ v. dissitæ. Flos in spatha unicus, sessilis, bractea spatha breviore 2-nervi v. 2-carinata.

Species ad 18, Africæ australis et tropicæ incolæ. *Baker in Journ. Linn. Soc.* xvi. 154. *Klatt in Linnæa,* xxxii. 776 (*Ovieda*); *Ergänz. und Bericht.* 25.

Genus imprimis ad inflorescentiam in series sequentes dividitur:—

1. *Galaxioideæ.* Caulis humilis. Spathæ herbaceæ, densissime confertæ et foliis floralibus quasi involucratæ, habitum fere *Galaxiæ* præbentes. Huc *L. fasciculata,* Ker, et affines. *Jacq. Ic. Rar. t.* 292 (*Galaxia*). SOPHRONIA, *Licht. in Ræm. et Schult. Syst.* i. 482.

2. *Haplostachyæ.* Caulis humilis, simplex. Spathæ herbaceæ, secus pedunculum simplicem plures, approximatæ. Huc *L. fissifolia* et affines. *Jacq. Ic. Rar. t.* 268 (*Gladiolus*). *Bot. Mag. t.* 1246, et *L. odoratissima,* Baker in Trans. Linn. Soc. Bot. i. 273, t. 36.

3. *Spathaceæ.* Caulis mediocris v. brevis. Spathæ secus ramos divaricatos plures, herbaceæ. *Jacq. Ic. Rar. t.* 269, 270 (*Gladiolus*). *Bot. Reg. t.* 1903. *Sweet, Brit. Fl. Gard. t.* 143, *et ser.* 2, *t.* 39.

4. *Anomatheceæ.* Folia longa. Spathæ parvæ secus ramos paucos elongatos subdissitæ. *Bot. Mag. t.* 606. ANOMATHECA, *Ker in Kœn. et Sims, Ann. Bot.* i. 227. *Klatt in Linnæa,* xxxii. 774; *Ergänz. und Bericht,* 21. *Baker in Journ. Linn. Soc.* xvi. 153. ANOMAZA, *Salisb. in Trans. Hort. Soc.* i. 323, *absque char.*

5. *Corymbosæ.* Inflorescentia corymboso-ramosa, sæpe ramosissima. Spathæ parvæ, secus ramulos breves paucæ, approximatæ. *Jacq. Ic. Rar. t.* 288 (*Ixia*). *Andr. Bot. Rep. t.* 35 (*Ixia*). *Bot. Mag. t.* 595. *Peters, Reise Mossamb. Bot. t.* 58.

6. *Dichotomæ.* Inflorescentia laxe dichotoma. Spathæ longæ, angustæ, ad apices ramorum solitariæ v. rarius 2, inferiore distante. Perianthium longum. Huc *L. fragrans,* Baker in Trans. Linn. Soc. Bot. i. 272, antheris valde inæqualibus, *L. cyanescens,* Baker, l. c., antheris subæqualibus, et *L. fistulosa,* Baker.

47. **Watsonia,** *Mill. Dict.* (Neuberia, *Eckl. Verz. Pfl. Samml.* 37. Meriana, *Trew, Pl. Sel. Ehret.* 11, *t.* 40.)—Perianthii tubus basi tenuis, curvus v. recurvus, superne ampliatus; lobi subæquales, ovati oblongi v. lanceolati, per anthesin patentes. Stamina intra faucem affixa, filamentis liberis filiformibus longiusculis; antheræ oblongo-lineares, versatiles, perianthio breviores. Ovarium 3-loculare, loculis ∞-ovulatis; stylus filiformis, superne lateralis, ramis brevibus sæpe inæqualibus 2-fidis, lobis filiformibus interdum brevissimis superne introrsum papillosis. Capsula globosa ovoidea v. breviter oblonga, loculicide 3-valvis. Semina globosa v. angulato-compressa.—Bulbi tunicæ rigide fibrosæ. Caulis sæpe elatus. Folia longe ensiformia, rigidula, venosa, costa sæpe prominente. Spicæ longæ, simplices v. parce ramosæ. Spathæ lanceolatæ oblongæ v. angustæ, sæpe numerosæ, secus ramos quaquaversæ v. subdistichæ, dissitæ v. subimbricatæ. Flos in spatha unicus, sessilis, bractea interdum 2-fida.

Species enumerat Klatt 25, Africæ australis incolas. *Baker in Journ. Linn. Soc.* xvi. 157 (*excl. sect. Micranthus*). *Klatt in Linnæa*, xxxii. 735; *Ergänz. und Bericht.* 17. *Jacq. Hort. Schœnbr. t.* 13; *Ic. Rar. t.* 229 *ad* 232, 234, 235. *Red. Lil. t.* 11 (*Gladiolus*), 343, 399. *Bot. Mag. t.* 418 *et* 441 (*Antholyza*), 533, 537, 601, 608, 631, 1072, 1193 *ad* 1195, 1406, 1530. *Andr. Bot. Rep. t.* 56 *et* 192 (*Antholyza*), 335 (*Gladiolus*).

Beilia, *Eckl. Verz. Pfl. Samml.* 43, includit species 3 v. 4, a Bakero sub *W. punctata*, Ker, pro varietatibus conjunctas, caule humili tenui, spica simplici, spathis quam in typicis minoribus minus appressis, floribus mediocribus v. parvis, tubo tenui vix in faucem ampliato. Hic tubus in *W. Zeyheri* brevissimus, in *W. punctata* longior, in una varietate longissimus vix apice incurvus. Species cæterum *Lapeyrouseis* spicatis valde affines. *Andr. Bot. Rep. t.* 177 (*Ixia*).

Lomenia, *Pourr. in Mem. Acad. Sc. Toulouse* 1786, *ex eod. in Journ. Phys.* xxxv. (1789) 425 (errore Lemonia, *Pers. Syn.* i. 44), species in ins. Borbonia a Commersonio lecta a nobis non visa, ex descriptione omnino *Watsoniæ* convenit, exceptis stigmatibus 5 (nec 6) an in flore imperfecto observatis?

48. **Micranthus,** *Pers. Syn. Pl.* i. 46.—Perianthium infundibuliforme, rectum, tubo brevi in faucem ampliato; lobi subæquales, oblongi v. angusti, patentes. Stamina fauci affixa, filamentis filiformibus liberis; antheræ versatiles, filamento breviores. Ovarium obovoideum, 3-loculare, loculis pauciovulatis; stylus filiformis, ramis tenuibus haud longis apice breviter 2-fidis introrsum stigmatosis. Capsula parva, obovoideo-3-quetra, obtusa, membranacea, demum loculicide dehiscens. Semina in loculis solitaria v. rarius gemina, anguste oblonga, angulata, erecta.—Bulbi v. cormi tunicæ fibrosæ. Caulis simplex v. parum ramosus. Folia linearia, teretia, fistulosa, v. anguste ensiformia. Spica tenuis, longa, stricta, dense floribunda. Spathæ parvæ, numerosæ, eleganter distichæ, margine interiore scariosæ. Flores parvuli, cærulei v. albi, intra spatham sessiles, bractea scariosa.

Species 2 v. 3, Africæ australis et ins. Mascarensium incolæ. *Baker in Journ. Linn. Soc.* xvi. 159 (*Watsoniæ sect.*), *Klatt in Linnæa*, xxxii. 744. *Jacq. Hort. Schœnbr. t.* 16 (*Gladiolus*). *Red. Lil. t.* 96 *et* 198 (*Ixia*). *Bot. Mag. t.* 523 *et* 553 (*Ixia*). *Lodd. Bot. Cab. t.* 1577.

49. **Acidanthera,** *Hochst. in Flora*, 1844, 25. (Sphærospora, *Klatt in Linnæa*, xxxii. 725.)—Perianthii tubus longus, tenuis, rectus v. leviter incurvus, in faucem parum ampliatus; lobi subæquales, erecto-patentes, oblongi v. fere lineares. Stamina ad faucem affixa, filamentis filiformibus liberis v. medio subcohærentibus; antheræ lineares, erectæ v. versatiles, connectivo interdum nec semper acuminatæ. Ovarium 3-loculare, loculis ∞-ovulatis; stylus filiformis, superne lateralis, ramis indivisis subulatis v. membranaceo-complanatis recurvis, apice introrsum papillosis. Capsula oblonga, membranacea, loculicide 3-valvis. Semina globosa v. angulata.—Cormi tunicæ læves v. fibrosæ. Caulis erectus, simplex v. parce ramosus. Folia pauca, linearia, plana, tenuiter venosa. Spathæ secus caulem v. ramos sæpius paucæ, dissitæ, angustæ, secundæ. Flos in spatha unicus, sessilis, bractea spatha minore tenuioreque, 2-nervi v. 2-fida.

Species ad 12, Africæ tropicæ et australis incolæ. *Baker in Journ. Linn. Soc.* xvi. 159. *Houtt. Handleit. Pfl. Kund.* xii. *t.* 78, *f.* 2 (*Ixia*). *Monatschr. Preuss. Gartenb. Ver.* 1876, *t.* 1.

Genus *Tritoniæ* speciebus longifloris valde affine, et *T. capensis*, Ker, Bot. Mag. t. 618 et 1531 (a Jacq. Ic. Rar. t. 261 ad *Gladiolum*, a Bakero in Journ. Linn. Soc. xvi. 168 ad *Montbretiam*, relata) cum *Montbretia pauciflora*, Baker l.c., nobis melius *Acidantheræ* convenire videntur. Houttuynia, *Houtt. Handleit. Pfl. Kund.* xii. 448, *t.* 85, *f.* 3, ab auctoribus ad *Tritoniam capensem* refertur, sed icon spatham brevem exhibit *Tritoniæ* nec *Acidantheræ* et forma perianthii male cum *T. capense* convenit.

50. **Babiana,** *Ker in Kœn. et Sims, Ann. Bot.* i. 233.—Perianthium infundibuliforme, tubo recto longo v. rarius brevi, superne in faucem sæpius longam ampliato, lobi nunc subæquales, erecto-patentes, angusti, unguiculati v. basi vix contracti, nunc valde inæquales, postico elongato erecto inferioribus multo brevioribus patentibus. Stamina fauci affixa, filamentis filiformibus liberis; antheræ lineari-sagittatæ. Ovarium ovoideum, 3-loculare, loculis ∞-ovulatis; stylus filiformis, elongatus, superne lateralis, ramis indivisis, apice

stigmatoso breviter cuneato v. anguste membranaceo rarius subulato. Capsula ovoidea, sæpe subinflata, loculicide 3-valvis. Semina globosa v. angulata, testa sæpe carnosula.—Bulbi seu cormi tunicæ fibrosæ. Caules sæpius breves, in plerisque speciebus cum foliis pubescentes v. pilosi. Folia sæpius rigidula, plicato-venosa, rarius angustiora læviaque. Inflorescentia sæpius simplex, dense spicata, plus minus pilosa, inter folia subsessilis, rarius longior ramosaque. Spathæ angustæ, longæ v. breves, rigidulæ striatæ v. membranaceæ. Flos in spatha unicus, sessilis, bractea membranacea 2-nervi 2-carinata v. 2-fida.

Species fere 30, quarum una insulæ Socotra, cæteræ omnes Africæ australis incolæ. *Baker in Journ. Linn. Soc.* xvi. 164. *Klatt in Linnæa,* xxxii. 765; *Ergänz. und Bericht.* 13.

Genus quoad species plerasque naturale sed male definitum, imprimis inflorescentia foliis et indumento dignoscendum, characteribus floralibus variis nunc *Acidantheræ* nunc *Antholyzæ* accedit. In sectiones sequentes dividitur:—

1. *Eubabiana.* Spica simplex, brevis, densa, inter folia sæpius subsessilis iisque brevior. Spathæ quaquaversæ v. subdistichæ. Styli rami sæpius anguste membranaceo-dilatati, obtusi. *Jacq. Hort. Schœnbr. t.* 14, 15 (*Gladiolus*); *Ic. Rar. t.* 253. *Andr. Bot. Rep. t.* 137. *Bot. Mag. t.* 576, 638, 1019. Huc pertinet etiam *B. socotrana,* Hook. f. Bot. Mag. t. 6585, ex ins. Socotra.

2. *Acaste.* Spica laxa, basi sæpius breviter ramosa. Styli rami apice breviter cuneati v. clavati. *Jacq. Ic. Rar. t.* 237 *ad* 239 (*Gladiolus*), t. 284 *ad* 287 (*Ixia*). *Red. Lil. t.* 142 (*Gladiolus*). *Bot. Mag. t.* 410 (*Ixia*), 583, 621, 626, 637, 1053. Acaste, *Salisb. in Trans. Hort. Soc.* i. 322 (*absque char.*).

3. *Antholyzoides.* Spica densa, unilateralis, spathis secundis. Perianthii tubus longus nunc subæqualis, nunc valde inæqualis. Styli rami subulati. *Jacq. Ic. Rar. t.* 264, 266. *Red. Lil. t.* 44, 364, in *textu* 361. *Andr. Bot. Rep. t.* 5. *Bot. Mag. t.* 680, 847. *Lodd. Bot. Cab. t.* 1006. In *B. ringente,* Ker, perianthium fere *Antholyzæ æthiopicæ,* Linn., in *B. tubata,* Sweet, et in *B. tubiflora,* Ker, inflorescentia omnino hujus sectionis sed perianthii lobi vix inæquales; styli rami in speciminibus examinatis non dilatati, sed in iconibus nonnullis apice breviter cuneati v. emarginati delineantur.

51. **Crocosma,** *Planch. in Fl. des Serres, t.* 702.—Perianthii tubus cylindraceus, incurvus, apice non ampliatus; limbus demum a basi brevissime concava patens, segmentis oblongis parum inæqualibus. Stamina ad faucem affixa, filamentis longis superne unilateralibus; antheræ lineares, versatiles. Ovarium 3-loculare, loculis ∞- (8–10-) ovulatis; stylus elongatus, superne lateralis, ramis filiformibus apice stigmatoso dilatatis denticulatis. Capsula subinflato-globosa, 3-sulca, brevissime lateque 3-loba. Semina pauca, majuscula, testa crassiuscula.—Bulbi seu cormi tunicæ tenues, fibrosæ. Caulis elatus, paniculato-ramosus. Folia longa, ensiformia, venosa. Spathæ secus ramos paniculæ dissitæ, breves, integræ. Flos in spatha unicus sessilis, bractea membranacea v. subscariosa spathæ subæquali lata 2-carinata sæpeque 2-fida. Perianthium anthesi ineunte leviter incurvum, genitalibus subexsertis. Capsula etsi sessilis spatham æquans v. superans, valvis coloratis demum patentibus, seminibus globosis diu persistentibus.

Species 1, Africæ australis et tropicæ incola. *Baker in Journ. Linn. Soc.* xvi. 163 (*Tritoniæ sect.*). *Klatt in Linnæa,* xxxii. 764. *Bot. Mag. t.* 4335. *Bot. Reg.* 1847, *t.* 61 (*Tritonia*). *Klotzsch in Peters, Reise, Mossamb. Bot. t.* 57 (*Crocanthus*).

52. **Melasphærula,** *Ker in Bot. Mag. t.* 615. (Diasia, *DC. in Bull. Soc. Philom. Par.* iii. 1803, 151 *bis.* Aglaea, *Pers. Syn.* i. 46.)—Perianthium campanulatum, tubo subnullo; segmenta parum inæqualia, oblongo-lanceolata, setaceo-acuminata. Stamina basi perianthii affixa, filamentibus filiformibus, superne unilateralia; antheræ oblongæ. Ovarium breve, late 3-lobum, 3-loculare, loculis 2–3-ovulatis; stylus filiformis, stamina superans, ramis tenuibus indivisis apice stigmatoso leviter cuneato-dilatatis. Capsula brevis, lata, divaricato-3-loba, angulis acutis fere alatis, loculicide 3-valvis. Semina in quoque loculo sæpius 2, ovata, compressa, testa crassiuscula apice subspongiosa.—Bulbus seu cormus parvus, tunicis brunneis lævibus. Folia in caule plura, graminea. Panicula ampla, laxa, ramulis fere filiformibus. Bracteæ ad basin ramorum 2, setaceæ, altera ramulum subtendens integra, altera interior ad basin ramuli 2-fida. Spathæ parvæ, latæ, obtusæ, tenuiter membranaceæ v. hyalinæ, 1-nerves, secus ramulos dissitæ. Flos in

spatha unicus, sessilis, bractea spathæ simili nisi latiore et 2-nervi. Capsulæ lobi spatham a latere excedentes.

Species 1, Africæ australis incola. *Baker in Journ. Linn. Soc.* xvi. 167. *Klatt in Linnæa*, xxxii. 746 (*Diasia*). *Jacq. Ic. Rar. t.* 236 (*Gladiolus*) *Red. Lil. t.* 54 *et* 163 (*Diasia*). *Andr. Bot. Rep. t.* 62 (*Gladiolus*). *Lodd. Bot. Cab. t.* 1444.

53. **Tritonia,** *Ker in Kœn. et Sims, Ann. Bot.* i. 227. (Waitzia, *Reichb. Consp.* 60.)—Perianthii tubus tenuis, rectus, nunc brevissimus nunc elongatus, rarius apice leviter incurvus; limbus concavus v. late campanulatus, subregularis v. parum obliquus, lobi lati, omnes similes v. 3 inferiores basi callo v. macula instructi, v. interdum paullo minores. Stamina basi limbi affixa, filamentis filiformibus liberis; antheræ lineares, sagittatæ, sæpius versatiles. Ovarium 3-loculare, loculis ∞-ovulatis; stylus filiformis, superne lateralis, ramis indivisis tenuibus v. sæpius apice stigmatoso leviter dilatato clavato v. retuso. Capsula membranacea, ovoidea v. oblonga, spatha sæpius brevior, loculicide 3-valvis. Semina globosa v. angulato-compressa.—Bulbi v. cormi tunicæ fibrosæ. Caulis simplex v. parum ramosus. Folia pauca, anguste linearia v. latiora ensiformiaque, sæpe falcata. Spathæ secus pedunculum seu ramos paucos dissitæ, breves, membranaceæ, sæpe 3-dentatæ. Flos intra spatham unicus, sessilis, bractea spatha paullo breviore, 2-nervi v. 2-carinata.

Species ad 24, Africæ australis incolæ. *Baker in Journ. Linn. Soc.* xvi. 161, 167 (*Tritonia et Montbretia*). *Klatt in Linnæa*, xxxii. 752, 755 (*Montbretia et Tritonia*).

Perianthii forma variat de specie in speciem, sed variationes in speciminibus siccis sæpe parum conspicuæ et in iconibus non semper accurate delineatæ. In *Tritoniis* typicis tubus brevis, limbus latus, subæqualis, lobi nunc omnes consimiles immaculati, nunc (in *T. miniata*) 3 inferiores v. (in *T. deusta*) 3 exteriores basi maculati. Ad hanc seriem pertinent species Bakeri n. 1 ad 6 et icones sequentes. *Jacq. Hort. Schœnbr. t.* 24; *Fragm. t.* 32, *f.* 2. *Red. Lil. t.* 87, 89, 335. *Andr. Bot. Rep. t.* 134 (*ic. omnes sub Ixia*). *Bot. Mag. t.* 184, 581, 609, 622.

Montbretia, *DC. in Bull. Soc. Philom. Par.* iii. (1803) 151 *bis, et in Red. Lil. t.* 53, pro genere proposita fuit ad *T. securigeram*, Ker (*Gladiolum*, Bot. Mag. t. 383), ob callos ad basin segmentorum 3 inferiorum insigniter prominentes; forma perianthii cæterum vix minus regularis quam in speciebus typicis. *T. flava*, Bot. Reg. t. 747 (*Montbretia*, Baker), ex icone perianthium *T. securigeræ* exhibit, etsi calli minus prominentes. In *T. lineata*, Ker (*Montbretia*, Baker), ex iconibus Redoutianis Lil. t. 55, et 400, perianthium vix irregulare absque callis, in icone tamen Bot. Mag. t. 487 incurvum delineatur et obliquum fere *Gladioli*, cui ab auctore refertur. In *M. laxifolia*, Baker in Trans. Linn. Soc. xxix. t. 101 A, ex Africa tropica, perianthium pariter vix irregulare, ecallosum.

Montbretia strictifolia, Klatt, *M. Pottsii*, Baker in Gard. Chron. 1877, ii. 424, affinesque nonnullæ a *Tritoniis* v. *Montbretiis* typicis differunt imprimis perianthii lobis angustioribus.

Tritonia capensis, Ker, et *Montbretia pauciflora*, Baker, nobis melius cum *Acidanthera* convenire videntur ut jam supra indicavimus. Cæteræ *Tritoniæ* longitubæ (*Montbretiæ longicolles*, Baker, n. 3 ad 6) a speciebus typicis tam *Tritoniæ* quam *Montbretiæ* recedunt perianthii tubo longissimo superne parum ampliato sæpeque incurvo, et *Tritoniam* cum *Acidanthera* connectunt; spathæ tamen omnino *Tritoniæ*. *Jacq. Ic. Rar. t.* 262, 267. *Andr. Bot. Rep. t.* 142 (*omn. sub Gladiolo*). *Bot. Mag. t.* 678, 1275.

Dichone, *Laws. ex Salisb. in Trans. Hort. Soc.* i. 320, *absque char.*, species continet 2, a Bakero pro sectione *Tritoniæ* admissas, perianthii limbo supra tubum tenuem fere rotato, lobis oblongis basi contractis subæqualibus, antheris brevibus. Characteres fere *Ixiæ*, sed stamina et stylus plus minus lateralia. *Jacq. Ic. Rar. t.* 275. *Red. Lil. t.* 127, 433. *Andr. Bot. Rep. t.* 14, 128. *Bot. Mag. t.* 599, 629 (*ic. omn. sub Ixia*). Agretta *Eckl. Verz. Pfl. Samml.* 23, *pro parte*.

Klatt, Ergänz. und Bericht. 23, *Tritoniam* restringit ad species longitubas quæ *Tritoniam* cum *Acidanthera* et *Ixia* ipsa connectunt, et *Tritoniæ* nostræ typicæ genus Tritonixiam formant, *Klatt, l. c.* 21.

54. **Sparaxis,** *Ker in Kœn. et Sims, Ann. Bot.* i. 225.—Perianthii tubus brevis, tenuis, in faucem breviter campanulatam ampliatus; lobi 6, erecto-patentes, æquales v. parum inæquales. Stamina ad basin faucis affixa, filamentis erectis superne unilateralibus; antheræ lineares, erectæ v. apice incurvæ. Ovarium 3-loculare, loculis ∞-ovulatis;

stylus filiformis, superne lateralis, ramis longiuscule filiformibus indivisis superne recurvis introrsum papillosis. Capsula membranacea, ovoidea v. oblonga, loculicide 3-valvis. Semina globosa v. angulato-compressa.—Bulbi v. cormi tunicæ fibrosæ. Caulis simplex v. parce ramosus. Folia pauca, plana, ensiformia v. late linearia, erecta v. falcata. Spathæ paucæ, dissitæ, v. interdum solitariæ, latæ, scariosæ, striatæ v. sæpius lineis brevibus brunneis notatæ, apice fimbriato-dentatæ, dentibus sæpius 1–3-subulatis. Flos intra spatham unicus, sessilis, majusculus, flavus, bractea spatha multo angustiore 2-dentata. Capsula spatha inclusa.

Species ad 5, v. ex Klattio 11, Africæ australis incolæ. *Baker in Journ. Linn. Soc.* xvi. 98. *Klatt in Linnæa*, xxxii. 747; *Ergänz. und Bericht.* 55. *Jacq. Hort. Schœnbr. t.* 17; *Ic. Rar. t.* 273, 274, 283. *Andr. Bot. Rep. t.* 48, 87. *Red. Lil. t.* 85, 109, 128, 129, 139, 362. *Bot. Mag. t.* 381, 541, 545, 779, 1482. *Bot. Reg. t.* 258. *Sweet, Brit. Fl. Gard. t.* 160, *et ser.* 2, *t.* 131, 383 (*ic. veteriores omnes sub Ixia*).

Ixia anemoniflora, Red. Lil. t. 85, non Jacq., eadem videtur ac *I. fragrans*, Jacq., sed rite a Kerio ad *Sparaxin* relata, etsi perianthium magis expansum sit. *I. anemoniflora*, Jacq. Ic. Rar. t. 273, videtur species distincta ei affinis.

55. **Synnotia**, *Sweet, Brit. Fl. Gard. t.* 150 (*sphalmate*, Synnetia *ex emend. sub num. poster.*).—Perianthium infundibuliforme, tubo tenui brevi v. elongato recto v. apice incurvo in faucem ampliato; lobi erecto-patentes, inæquales, postico majore erecto, 3 infimis minoribus reflexo-patentibus. Stamina ad basin faucis affixa, filamentis erectis unilateralibus; antheræ lineares. Ovarium 3-loculare, loculis ∞-ovulatis; stylus filiformis, superne lateralis, ramis brevibus recurvis indivisis introrsum papillosis. Capsula membranacea, ovoidea v. oblonga, loculicide 3-valvis. Semina globosa v. angulato-compressa. —Bulbi seu cormi tunicæ rigide fibrosæ. Caulis simplex v. parum ramosus. Folia pauca, plana, linearia v. ensiformia, flaccida. Spathæ secus caulem dissitæ, latiusculæ, membranaceo-scariosæ, apice laceræ v. fimbriato-dentatæ, lineis brunneis brevibus more *Sparaxeos* notatæ. Flos intra spatham unicus, majusculus, sessilis, bractea spathæ simili nisi paullo minore 2-nervi, 2-fida. Capsula spatha inclusa.

Species 3, Africæ australis incolæ. *Baker in Journ. Linn. Soc.* xvi. 169. *Klatt in Linnæa*, xxxii. 749. *Jacq. Ic. Rar. t.* 240, 258 (*Gladiolus*). *Bot. Mag. t.* 548 (*Ixia*).

Genus a Kerio in *Sparaxi* inclusum, cui valde affine nec differt nisi perianthio magis irregulari.

56. **Gladiolus**, *Linn. Gen. n.* 57.—Perianthium plus minus incurvum, tubo brevissimo v. elongato oblique infundibuliformi, fauce plus minus ampliata v. brevissima; lobi inæquales, summus sæpius maximus, erectus convexus v. incurvus, inferiores minores, erecti v. patentes, 3 sæpe maculati, omnes sæpius basi angustati interdum unguiculati. Stamina fauci affixa, sub lobo summo incurva, filamentis liberis; antheræ lineares. Ovarium 3-loculare, loculis ∞-ovulatis; stylus filiformis, cum staminibus incurvus sæpiusque superne plus minus lateralis; rami tenues, indivisi, apice stigmatoso clavato v. petaloideo-dilatato. Capsula obovoidea v. breviter oblonga, obtusa, integra v. breviter 3-dyma, membranacea v. chartacea, loculicide 3-valvis. Semina ovoidea globosa compressiuscula v. angulata, angulis haud raro in alas angustas expansis, testa crassiuscule membranacea, interdum subspongiosa.—Bulbi tunicæ membranaceæ, brunneæ, v. fibrosæ. Caules sæpe elati. Folia ensiformia v. anguste linearia. Spathæ sæpissime lanceolatæ, herbaceæ, erectæ, in spicam laxam unilateralem dispositæ. Flores in spatha solitarii, sessiles, sæpius speciosi, in spica secunda unilateraliter inclinati, bractea intra spatham ei subsimili nisi sæpius minore et 2-nervi.

Species fere 90, Europæ mediæ, regionis Mediterraneæ, Africæ tropicæ et australis et ins. Mascarensium incolæ. *Baker in Journ. Linn. Soc.* xvi. 170; *in Trans. Linn. Soc. Bot.* i. 267. *Klatt in Linnæa*, xxxii. 689; *Ergänz. und Bericht.* 3.

Genus in sectiones sequentes dividitur:—

1. *Eugladiolus.* Perianthii segmenta oblongo- v. obovato-spathulata, basi angustata v. præsertim inferiora unguiculata. *Jacq. Ic. Rar. t.* 242 *ad* 252, 254 *ad* 257. *Reichb. Iconogr. Eur. t.* 598 *ad*

600, 643; *Ic. Fl. Germ. t.* 349 *ad* 353. *Nees, Gen. Fl. Germ. Monocot.* iii. *n.* 9. *Guss. Pl. Inarim. t.* 14. *Sibth. Fl. Græc. t.* 37, 38. *Oliv. in Trans. Linn. Soc.* xxix. *t.* 100, *f.* 1. *Red. Lil. t.* 35, 36, 122, 123, 125, 136, 267, 273, 314, 377, 425. *Salisb. Parad. Lond. t.* 8. *Andr. Bot. Rep. t.* 11, 19, 27, 99, 111, 147, 188, 219, 227, 240, 589. *Bot. Mag. t.* 86, 135, 272, 538, 562, 574, 578, 582, 591, 602, 610, 625, 632, 645, 647, 648, 719, 727, 823, 874, 992, 1042, 1098, 1483, 1564, 1575, 1665, 2585, 3032, 3680, 5427, 5565, 5873, 5884, 5944, 6202. *Bot. Reg. t.* 1442. *Lodd. Bot. Cab. t.* 1756. *Sweet, Brit. Fl. Gard. ser.* 2, *t.* 140, 281. *Saund. Ref. Bot. t.* 23; et ic. numerosæ var. hortensium v. hybridarum in diariis variis hortulanorum. Huc pertinent etiam genera SYMPHYDOLON, BALLOSPORUM, OPHIOLYZA, HYPTISSA, et RANISIA, *Salisb. Gen. Pl. Fragm.* 142, 143, et SPHÆROSPORA, *Sweet, Hort. Brit.* 501.

2. *Hebea.* Perianthii segmenta rotundata rhomboidea v. obovata, interdum cuspidata, omnia v. præsertim inferiora unguiculata. Spathæ herbaceæ. Styli rami interdum brevissime 2-fidæ. Species omnes austro-africanæ. *Jacq. Ic. Rar. t.* 259, 260. *Andr. Bot. Rep. t.* 8, 122, 241. *Bot. Mag. t.* 586, 592, 688. *Bot. Reg. t.* 169. *Sweet, Brit. Fl. Gard. t.* 156. HEBEA, *Pers. Syn.* i. 44.

3. *Schweiggera.* Perianthii segmenta obovata v. oblonga, longe unguiculata. Spathæ parvæ, brunneæ, rigidulæ. Flores quam in præcedentibus minores. *Thunb. Diss. t.* 1, *f.* 4. *Jacq. Obs. t.* 78. *Lodd. Bot. Cab. t.* 1022 (*Antholyza*). Klatt, Ergänz. und Bericht. 12, *Schweiggeram* cum speciebus nonnullis *Hebeæ* ad *Antholyzam* transfert.

57. **Antholyza,** *Linn. Gen. n.* 58. (Cunonia, *Mill. Dict.* Petamenes, *Salisb. in Trans. Hort. Soc.* i. 324, *absque char.*)—Perianthii tubus e basi tenui in faucem incurvam longe tubulosam ampliatus; limbi obliqui lobi oblongi v. angusti, sæpius inæquales, summo cæteris paullo v. multo longiore et erectiore. Stamina intra faucem affixa, filamentis filiformibus longis linearibus plus minus unilateralibus; antheræ lineari-sagittatæ, dorsifixæ, sæpius versatiles. Ovarium 3-loculare, loculis ∞-ovulatis; stylus filiformis, superne lateralis, ramis filiformibus abbreviatis, apice stigmatoso obtuso v. leviter dilatato. Capsula ovoidea, obtusa, membranacea, loculicide 3-valvis. Semina haud numerosa, plus minus angulata v. compressa, angulis obtusis v. in alas angustas expansis.—Bulbi seu cormi tunicæ membranaceæ v. fibrosæ, interdum fibris longis rigidis foliorum emarcidorum coronatæ. Caules sæpe elati. Folia ensiformia v. anguste linearia. Spathæ lanceolatæ v. ovato-lanceolatæ, quam in *Gladiolo* sæpius multo breviores coloratæque, in spicam laxam v. densam unilateralem v. distichám dispositæ. Flores in spatha solitarii, sessiles, sæpius speciosi, bractea intra spatham ea sæpius minore et 2-nervi.

Species ad 14, Africæ australis et tropicæ incolæ. *Baker in Journ. Linn. Soc.* xvi. 178, *et in Trans. Linn. Soc. Bot.* i. 270. *Klatt in Linnæa,* xxxii. 729, xxxiv. 544, *et* xxxii. 726 (*Anisanthus*); *Ergänz. und Bericht.* 10.

Perianthii forma variat ut in *Babiana* fere de specie in speciem, sed genus in toto servatum sat naturale. In speciebus typicis lobus posticus elongatus incurvus, 4 inferiores multo breviores subæquales, patentes. *Red. Lil. t.* 12, 110, 387. *Andr. Bot. Rep. t.* 166 (*Gladiolus*), 32, 210. *Bot. Mag. t.* 561, 567, 1172. *Bot. Reg. t.* 1159, *et* 1838, *t.* 35 (*Tritonia*).

ANISANTHUS, *Sweet, Brit. Fl. Gard. ser.* 2, *t.* 84, est *A. caffra,* Ker, perianthii lobo postico elongato incurvo, 2 lateralibus multo brevioribus fere orbiculatis, 2 infimis minimis angustis.

In *A. saccato,* Baker (*Anisantho saccato,* Klatt), perianthii tubus ad basin faucis antice saccatus fere calcaratus.

In *A. paniculata,* Klatt, perianthii tubus quam in cæteris tenuior, et inflorescentia ab omnibus diversa. Spathæ secus ramos paniculæ insigniter distichæ.

Genus *Anisanthus* a Klattio, Ergänz. und Bericht. 10, restituitur, sed characteres nobis valde incerti videntur.

HOMOGLOSSUM, *Salisb. in Trans. Hort. Soc.* i. 325, *absque char.*; *Baker in Journ. Linn. Soc.* xvi. 161, species continet 3 ab *Antholyza* separatas ob perianthii lobos minus inæquales; posticus tamen fere semper cæteris major et in *Homoglosso lucidiore,* Baker, lobi vix magis æquales sunt quam in *Antholyza nervosa,* Thunb. Huc referuntur, *Jacq. Ic. Rar. t.* 233. *Andr. Bot. Rep. t.* 38. *Bot. Mag. t.* 450, 569. *Red. Lil. t.* 369 (*omnes sub Gladiolo*). Species nonnullæ a Klattio, Ergänz. und Bericht. 7, ad *Gladiolum* revocantur.

Ordo CLXXIV. AMARYLLIDEÆ.

Endl. Gen. 174. Lindl. Veg. Kingd. 155. Herb. 'An Appendix,' Lond. 1821, 8vo; 'Amaryllidaceæ,' Lond. 1837, 8vo. Hypoxideæ, Endl. Gen. 173; Lindl. Veg. Kingd. 154. Vellozieæ, Endl. Gen. 172.

Flores hermaphroditi, regulares v. parum irregulares. *Perianthium* supra ovarium v. ovarii rostrum corollinum, sæpius marcescens demumque deciduum, rarius in fructu persistens, tubo 0 v. plus minus evoluto; segmenta v. lobi 6, distincte 2-seriata, nunc omnia subæqualia similiaque, nunc interiora exterioribus minora v. majora v. parum dissimilia, v. limbus obliquus, lobis cujusve seriei inter se parum inæqualibus. *Stamina* 6, rarissime 3 v. ∞, segmentis lobisve opposita, tubo v. fauci v. segmentorum basibus affixa; filamenta filiformia, libera v. basi membranaceo-dilatata, membranis sæpe plus minus in cyathum connexis. *Antheræ* oblongæ lineares v. rarius ovato-globosæ, nunc erectæ basifixæ v. breviter supra basin dorsifixæ v. inter lobos basales affixæ, nunc medio dorso affixæ versatilesque, loculis 2 parallelis contiguis rimis longitudinalibus introrsum rarius lateraliter usque ad basin v. rarius apice tantum dehiscentibus. *Ovarium* inferum, usque ad apicem 3-loculare v. rarissime in rostrum tenue solidum productum, placentis axilibus, v. rarissime 1-loculare, placentis 3 parietalibus. *Stylus* filiformis v. rarius columnaris, sæpius indivisus; stigma terminale sæpe parvum subcapitatum v. non incrassatum plus minus distincte 3-sulcum, nunc in ramos 3 breves erectos v. recurvo-patentes divisum, rarius in stylo columnari rami stigmatosi 3, crassi, erecti. *Ovula* in quoque loculo ∞, 2-seriatim superposita, rarius ad 1–2 reducta, anatropa. *Fructus* capsularis v. succulentus, globosus obovoideus v. oblongus, interdum 3-dymus v. 3-lobus, loculicide 3-valvis v. a latere varie dehiscens v. indehiscens. *Semina* numerosa pauca v. ad 1–2 reducta, in placentis sessilia v. funiculis brevissimis affixa, globosa mutua pressione angulata v. plano-compressa, testa sæpius nigra appressa membranacea v. laxa crassiuscula, rarius valde carnoso- v. spongioso-incrassata. *Albumen* carnosum, solidum, rarius corneum, semen implens. *Embryo* parvus, albumine inclusus, rarius dimidium albuminis attingens.

Herbæ perennes rarius suffrutescentes v. frutices. Rhizoma nunc repens v. tuberosum v. in caudicem lignosum brevem v. ramosum productum, nunc brevissimum a basi bulbi non distinctum fibras fasciculatas emittens. Caulis nunc brevissimus, foliorum vetustiorum vaginis incrassatis v. emarcidis obtectus, quibuscum bulbum format tunicatum, et intra bulbum sæpe brevissime ramosus, nunc elongatus sparse foliatus, v. elatior simplex v. ramosus. Folia nunc e bulbo pauca, linearia loriformia v. angusta venis parallelis contiguis, v. latiora petiolata venis subdistantibus venulis transversis connexis, nunc in caudice brevi v. ad apices ramorum numerosa dense conferta v. secus caulem sparsa rarius disticha. Pedunculus seu scapus florens aphyllus semper terminalis, etsi in bulbis nonnullis ob innovationes jam evolutas lateralis appareat. Flores in pedunculo seu scapo sæpius umbellati, umbella rarius ad florem unicum reducta, pedicellati v. rarius sessiles. Bracteæ membranaceo-scariosæ v. coloratæ rarius herbaceæ, exteriores sub umbella 1–2 v. interdum ∞, latæ, involucrum formantes, interiores sub pedicellis singulis angustæ, lineares, sæpe parvæ v. interdum omnino desunt. Inflorescentia intra umbellam in vivo observata nunc centripeta nunc centrifuga dicitur, in speciminibus siccis haud tuto determinatur. In *Hypoxideis Agaveisque* inflorescentia racemosa exinvolucrata.

Species bene notæ vix 650, per regiones temperatas calidioresque utriusque orbis late dispersæ, in locis siccis apricis petrosis arenosisque frequentiores quam in montanis, in regione Mediterranea, Africa australi et America australi numerosæ, in Asia paucæ.

Ordo quoad seminum structuram et embryonis situm *Irideis* et *Liliaceis* convenit, a prioribus habitu et præsertim staminibus seriei exterioris constanter evolutis facile distinguitur, cum *Liliaceis* tamen arctius connectitur et limitibus nimis artificialibus separatur, ob ovarium constanter inferum, rarissime summo vertice intra basin perianthii prominens. Auctores igitur nonnulli ordines duos in

unum jungunt. Species tamen intermediæ inter tot et tantas utriusque ordinis perpaucæ adsunt, et magis utile videtur *Amaryllideas* pro ordine proprio servare.

FORMÆ ABNORMES.

Stamina 3 tantum, perianthii segmentis interioribus opposita in *Pauridia*, plus quam 6 in nonnullis nec in omnibus speciebus *Gethyllidis*, *Velloziæ* et *Barbaceniæ*.

Antherarum loculi extrorsum dehiscentes in *Campynemate*.

Ovarium abortu 1-loculare, 1-ovulatum in *Calostemmate*, 1-loculare, placentis 3 parietalibus i *Leontochiro*.

Styli 3 distincti in *Campynemate*, stylus stigmatibus erectis brevior in plerisque *Hypoxideis*.

CONSPECTUS GENERUM.

Tribus I. Hypoxideæ. Rhizoma tuberosum v. minimum, fibris radicalibus fasciculatis, v. cormus fibroso-tunicatus. Folia radicalia v. rarissime in caule perpauca. Flores in scapo solitarii v. laxe v. dense spicati v. racemosi, rarius subumbellati. Perianthium sæpius usque ad ovarium v. ovarii rostrum partitum persistensque haud magnum. Embryo sæpius a hilo plus minus distans.

1. ? Campynema. Perianthii tubus 0. Ovarium erostre. Styli 3, breves, distincti, crassiusculi. Capsula 3-quetra, loculicide 3-valvis. Caulis gracilis v. nanus, 1-florus v. laxe pauciflorus.—*Tasmania*.

2. ? Pauridia. Perianthii tubus brevis. Ovarium erostre. Stylus brevis, columnaris, stigmatibus 1–3 linearibus. *Stamina* 3. Caulis brevis, tenuis, laxe pauciflorus.—*Afr. austr.*

3. Hypoxis. Perianthii tubus 0. Ovarium erostre. Stylus brevis, columnaris, stigmatibus 3 erectis crassis distinctis v. in massam oblongam confertis. Capsula (an semper?) sub apice circumscisse dehiscens. Scapi graciles, 1-flori, v. elatiores floribus racemosis v. subumbellatis. —*Asia trop., Australia, Afr. trop. et austr., Amer. austr. et bor.*

4. Curculigo. Perianthii tubus 0, sed ovarium sæpe in rostrum longum tenue perianthii tubum simulans productum. Stylus brevis, columnaris, stigmatibus 3 erectis appressis. Fructus succulentus, indehiscens. Spicæ v. racemi inter folia sessiles v. longe pedunculatæ.—*Asia, Afr., Australia et Amer. trop., Afr. austr.*

Tribus II. Amarylleæ. Scapus e bulbo tunicato rarius imperfecto aphyllus. Flores ad apicem scapi solitarii v. sæpius plures umbellati, bracteis 1, 2 v. ∞ membranaceis involucrati, additis sæpe inter pedicellos bracteis nonnullis linearibus v. setaceis.

Subtribus 1. Coronatæ. *Corona ad apicem tubi perianthii indivisa v. ∞-partita. Stamina intra tubum affixa eoque v. saltem corona breviora; antheræ erectæ, basi v. juxta basin affixæ. Genera omnia gerontogea.*

5. Cryptostephanus. Perianthium tubulosum, incurvum. Corona in squamulas 12 oblongas æquales divisa.—*Afr. trop. occid.*

6. Narcissus. Perianthium hypocraterimorphum. Corona indivisa, tubulosa, campanulata, cyathiformis v. rarius ad lineam parum productam reducta.—*Eur., reg. Mediterr., Asia temp.*

7. Tapeinanthus. Perianthium infundibuliforme. Corona e squamellis 6 minimis.—*Hispan., Afr. bor. occid.*

Subtribus 2. Genuinæ. *Corona 0 v. in generibus paucis squamellæ nonnullæ juxta basin filamentorum iisque multo breviores. Filamenta fauci subæqualiter v. sæpius inæqualiter affixa, a basi filiformia v. leviter incrassata nec (excepto* Chlidantho*) membranaceo-alata.*

* *Antheræ erectæ, basi v. inter lobos basales affixæ.*

† *Genera gerontogea extratropica hemisphærii borealis. Peranthii tubus* 0. *Antheræ filamento longiores.*

8. Galanthus. Perianthii segmenta exteriora patentia, interiora multo breviora, erecta. Antheræ breviter v. vix ad medium dehiscentes.—*Eur., Asia occid.*

9. Leucoium. Perianthii segmenta æqualia. Antheræ breviter v. vix ad medium dehiscentes. —*Eur. media, reg. Mediterr.*

10. Lapiedra. Perianthii segmenta æqualia. Antheræ basi usque ad medium sagittato-2-lobæ.—*Hispan. austr.*

†† *Genera austro-Africana. Perianthii tubus 0 v. brevis. Antheræ parvæ, ovatæ, filamentis filiformibus.*

11. Hessea. Perianthii tubus 0, segmenta subæqualia, patentia. Filamenta interdum basi incrassata.—*Afr. austr.*

12. Carpolyza. Perianthii tubus brevis, segmenta subæqualia, patentia. Filamenta a basi filiformia.—*Afr. austr.*

††† *Genera gerontogea extratropica. Perianthium infundibuliforme tubo brevi v. longo lobis erecto-patentibus, rarius hypocraterimorphum. Antheræ oblongæ v. longiusculæ.*

13. Sternbergia. Scapus brevis, sæpius 1-florus. Perianthium infundibuliforme. Fructus carnosulus, vix dehiscens. Semina subglobosa, sæpe strophiolata.—*Reg. Mediterr., Eur. med. et or.*

14. Ungernia. Umbella ∞-flora. Perianthium infundibuliforme. Capsula 3-loba, 3-valvis. Semina valde compressa, in alam expansa.—*Persia.*

15. Anoiganthus. Umbella 1-∞-flora. Perianthium tubo brevi infundibuliforme. Antheræ profunde sagittato-2-lobæ. Capsula globoso-3-quetra, 3-valvis. Semina oblonga.—*Afr. austr.*

16. Gethyllis. Scapus 1-florus. Perianthium tubo longo hypocraterimorphum. Stamina (interdum plus quam 6) fauci æqualiter affixa, filamentis brevissimis.—*Afr. austr.*

17. Apodolirion. Scapus 1-florus. Perianthium tubo longo infundibuliforme. Stamina fauci inæqualiter affixa, filamentis brevissimis.—*Afr. austr.*

†††† *Genera Americana. Perianthii tubus longissimus, cylindraceus. Antheræ oblongo-lineares.*

18. Cooperia. Scapus 1-florus, bractea involucrante unica spathacea. Filamenta brevissima, non dilatata.—*Reg. Mex., Tex.*

19. Chlidanthus. Umbella pauciflora, bracteis involucrantibus 2. Filamenta inæqualia, basi membranaceo-dilatata.—*Amer. austr.*

** *Antheræ oblongæ v. lineares, dorsifixæ, versatiles.*

† *Genera Americana. Squamulæ haud raro in perianthii fauce ad basin filamentorum parvæ v. breves. Ovula in loculis ∞, rarius 2 a placenta distincta. Semina nigra.*

20. Haylockia. Scapus 1-florus, brevissimus, sub anthesi cum bractea unica spathacea hypogæus. Perianthii tubus longissimus.—*Amer. austr. extratrop.*

21. Zephyranthes. Scapus evolutus, 1-florus, bractea unica spathacea integra v. 2-fida. Perianthii tubus brevis v. longiusculus; squamellæ circa stamina parvæ v. 0.—*Amer. trop. et subtrop.*

22. Sprekelia. Scapus evolutus, 1-florus, bractea unica, spathacea. Perianthii (speciosi) tubus 0, segmentum posticum ascendens, infimum concavum, genitalia recipiens. Squamellæ inter filamenta parvæ.—*Mexico.*

23. Hippeastrum. Umbella ∞-flora, rarius ad florem unicum reducta, bracteis involucrantibus 2 distinctis. Perianthii tubus brevis v. elongatus. Corona v. squamellæ circa v. inter stamina parvæ. Ovula in loculis ∞.—*Amer. austr.*

24. Placea. Umbella ∞-flora. Perianthii tubus brevissimus. Corona circa stamina membranacea, filamentis 2–3-plo brevior, in segmenta 6 anguste petaloidea fere ad basin divisa. Cætera *Hippeastri.*—*Chile.*

25. Griffinia. Umbella ∞-flora. Perianthii tubus brevis v. 0. Corona (an semper?) 0. Stamen posticum ascendens v. deficiens, cætera declinata. Ovula in loculis 2, a basi erecta. Folia petiolata.—*Brasilia.*

†† *Genera gerontogea v. amphigea. Corona 0. Ovula in loculis 2-∞, in placenta carnosa 2-seriata, arcte sessilia v. subimmersa. Semina pauca, crassa, varie difformia.*

26. Crinum. Perianthii tubus longus, rectus v. incurvus, lobi lineares v. lanceolati. Flores speciosi, in umbella sessiles v. rarius breviter pedicellati.—*Utriusque orbis reg. trop., Amer. bor., Afr. austr.*

27. Amaryllis. Perianthii declinati tubus brevis, lobi oblongo-lanceolati. Flores magni, in umbella pedicellati.—*Afr. austr.*

28. Ammocharis. Perianthii tubus rectus, mediocris; lobi longi, angusti, apice sæpe revoluti. Ovarium sæpe breviter rostratum. Flores in umbella longiuscule pedicellati.—*Afr. austr.*

††† *Genera gerontogea. Squamulæ circa filamenta 0. Ovula in loculis ∞, 2-seriatim superposita, a placenta distincta.*

29. Lycoris. Umbella ∞-flora. Perianthium infundibuliforme, tubo plus minus elongato, lobi angusti.—*Japonia, China, Asia med.*

30. Brunsvigia. Umbella ∞-flora. Perianthii tubus subnullus, lobi angusti v. lanceolati. Filamenta a basi filiformia. Folia sæpius lata.—*Afr. austr.*

31. Nerine. Omnia *Brunsvigiæ* nisi filamenta ima basi incrassata v. infra insertionem prominenter producta. Folia sæpius loriformia.—*Afr. austr.*

32. Strumaria. Umbella ∞-flora. Perianthium subcampanulatum, tubo subnullo. Filamenta erecta, ima basi v. medio dilatata et angulis styli plus minus adnata.—*Afr. austr.*

33. Vallota. Flores in umbella ∞, magni, erecti, pedicellis brevibus. Perianthium late infundibuliforme, tubo brevi, loborum sinubus callo parvo instructis. Semina basi in alam producta. Bracteæ involucrantes sæpe 3.—*Afr. austr.*

34. Cyrtanthus. Flores in umbella ∞, rarius 1–2, plus minus recurvi. Perianthium infundibuliforme, tubo fauceque longis, lobis brevibus. Semina basi in alam producta. Bracteæ involucrantes sæpe 3.—*Afr. austr. et trop.*

†††† *Genera gerontogea. Squamulæ circa filamenta 0. Ovula in loculis pauca, in medio loculo fasciculata v. collateralia.*

35. Clivia. Flores in umbella ∞, pedicellati. Perianthium angustum v. subcampanulatum, tubo brevi v. subnullo. Ovula in loculis (an semper?) 6. Bracteæ involucrantes ∞.—*Afr. austr.*

36. Hæmanthus. Flores in umbella densa numerosi, pedicellati. Perianthii tubus brevis rarius tenuis, lobi angusti. Ovula in loculis 1–2. Bracteæ involucrantes ∞, sæpe *coloratæ*. —*Afr. austr. et trop.*

37. Buphane. Flores in umbella ∞, longe pedicellati. Perianthii tubus brevis, lobi angusti. Ovula in loculis 2. Bracteæ involucrantes 2.—*Afr. austr. et trop.*

Subtribus 3. Cyathiferæ. *Corona perianthii 0. Stamina fauci æqualiter affixa, filamentis basi membranaceo-dilatatis v. callo dentibusve lateralibus auctis, membranis in cyathum (perperam coronam dictum) connatis v. rarius distinctis v. ad annulum vix prominentem reductis. Flores in umbella ∞, pedicellati.*

Excepta. Stamina basi callo nec alis aucta in *Callipsyche*, alæ angustissimæ v. valde reductæ v. obscuræ in *Eustephio*, in speciebus nonnullis *Urceolinæ*.

* *Genera Americana. Ovula in loculis ∞, rarius 2–3 superposita. Folia sæpe lata, petiolata.*

38. Hyline. Perianthii tubus brevissimus, lobi longi angustissime lineares. Filamenta longissima, cyatho basali brevissimo. Ovula numerosa.—*Brasilia.*

39. Eucrosia. Perianthii tubus brevis, obliquus; lobi oblongi, conniventes. Filamenta declinata, longissime exserta, basi plus minus connata, introrsum callosa. Ovula numerosa.—*Andes.*

40. Callipsyche. Omnia *Eucrosiæ*, nisi filamenta basi introrsum callosa tantum, nec connata.—*Andes.*

41. Eucharis. Perianthii tubus cylindraceus, rectus v. recurvus, lobi latiusculi patentes. Cyathus stamineus petaloideus, integer v. inter filamenta lobatus v. partitus. Ovula in loculis 2–∞.—*Andes.*

42. Calliphruria. Perianthium infundibuliforme, tubo brevi fere a basi in faucem ampliato. Filamentorum membranæ basales distinctæ v. vix hinc inde connatæ, ad utrumque latus filamenti in dentem erectum productæ. Ovula in loculis 2–3, superposita.—*Andes.*

43. Eustephia. Perianthium angustum, tubo brevi, lobis longis. Filamenta ultra medium utrinque angustissime marginata, marginibus apice in setas divaricatas productis. Ovula in loculis ∞.—*Peruvia.*

44. Urceolina. Perianthium rectum v. recurvum, tubo supra ovarium contracto, fauce

ampliata tubulosa v. urceolata; lobi breves, erecti v, apice patentes. Filamentorum membranæ basales obscuræ v. distinctæ, nec in cyathum connatæ. Ovula in loculis ∞.—*Andes.*

45. PHÆDRANASSA. Perianthium angustum, lobis longis erectis v. apice breviter patentibus. Filamentorum membranæ basales sæpius annulo connexæ. Ovula in loculis ∞.—*Andes.*

46. STENOMESSON. Perianthium rectum v. recurvum, longe tubulosum; lobi breves, erecti v. patentes. Filamentorum membranæ basales in cyathum margine lobatum connatæ. Ovula in loculis ∞.—*Amer. trop.*

** *Genus gerontogeum. Ovula in loculis ∞.*

47. PANCRATIUM. Perianthium infundibuliforme, tubo sæpius elongato, fauce ampla; lobi angusti, erecto-patentes. Filamentorum membranæ basales in cyathum petaloideum margine sæpius varie lobatum connexæ.—*Reg. Mediterr., ins. Canar., Ind. or., alibi, inquilinæ.*

*** *Genera Americana. Ovula in quoque loculo 2, a basi ascendentia.*

48. HYMENOCALLIS. Perianthii tubus longus, cylindraceus; lobi lineares. Filamentorum membranæ basales in cyathum petaloideum rectum latum v. rotato-expansum connatæ.—*Amer. trop. et bor.*

49. EMSENA. Perianthii tubus brevissimus; lobi longi, lineares. Filamentorum membranæ basales in cyathum petaloideum declinatum v. recurvum late tubulosum v. campanulatum connexæ.—*Andes.*

Cfr. etiam 25, GRIFFINIAM.

**** *Genera gerontogea. Ovula in quoque loculo 2–3, in medio loculo collateralia v. conferta.*

50. VAGARIA. Perianthium infundibuliforme, tubo tenui; lobi angusti. Filamenta basi membranaceo-dilatata et utrinque dente aucta, membranis vix in cyathum connexis. Folia loriformia.—*Syria.*

51. EURYCLES.—Perianthium infundibuliforme, tubo tenui; lobi latiusculi. Filamentorum membranæ basales in cyathum brevem latum margine ad latera filamentorum utrinque dente auctum connexæ. Folia lata, petiolata.—*Australia, Archip. Malay.*

52. CALOSTEMMA. Perianthium infundibuliforme, tubo tenui; lobi latiusculi. Filamentorum membranæ basales alte in tubum margine varie dentatum connexæ. *Ovarium abortu 1-loculare, 1–2-ovulatum.* Folia nunc loriformia nunc lata petiolata.—*Australia.*

Tribus III. Alstrœmerieæ. Caulis e rhizomate fibroso v. tuberoso, v. rarius e basi bulbosa, plus minus foliatus. Flores in umbella terminali v. inflorescentia parum irregulari plures. Bracteæ variæ. Perianthium tubo 0, subinfundibuliforme v. fere cylindraceum. Ovarii loculi ∞-ovulati.

53. ? IXIOLIRION. Bulbus tunicatus. Caulis erectus tenuis. Umbella irregularis. Semina angulato-compressa.—*Asia media et occid.*

54. ALSTRŒMERIA. Bulbus 0. Caules erecti v. ascendentes. Umbella varia. Perianthii segmenta cujusve seriei inter se parum dissimilia. Semina globosa.—*Amer. austr. trop. et extratrop.*

55. BOMAREA. Bulbus 0. Fibræ radicales sæpius tuberiferæ. Caules sæpius scandentes. Umbella varia. Perianthium regulare, segmentis cujusve seriei inter se æqualibus. Semina globosa.—*Amer. austr., Mexico.*

56. LEONTOCHIR. Habitus *Alstrœmeriæ.* Umbella densa. Perianthium regulare, segmentis omnibus in unguem contractis. Ovarium *1-loculare, placentis parietalibus.* Semina subglobosa.—*Chile.*

Tribus IV. Agaveæ. Folia ad apicem rhizomatis v. caudicis plus minus evoluti dense conferta, sæpe longa, in scapo v. pedunculo rara parvaque v. sæpius 0. Scapus seu pedunculus terminalis, simplex v. apice ramosus, floribus secus rhachin ramosve racemosis v. anguste thyrsoideis. Perianthium sæpe persistens.

57. POLIANTHES. Rhizoma tuberosum. Racemus longus, simplex, floribus geminis. Perianthii tubus longiusculus sæpius incurvus, superne ampliatus; lobi erecto-patentes. Ovarium vertice intra perianthium conicum.—*Mexico.*

58. Bravoa. Caulis basi bulbosus, tunicatus. Racemus longus, simplex, floribus geminis. Perianthii tubus longus, basi incurvus, apice non ampliatus; lobi breves. Ovarium vertice intra perianthium convexum.—*Mexico.*

59. Beschorneria. Caudex brevissimus, crassus. Scapus elatus, simplex v. superne laxe paniculatus, floribus secus rhachin v. ramos breves pendulis. Perianthium angustum, tubo subnullo. Stamina perianthium non excedentia.—*Mexico.*

60. Agave. Caudex brevis crassus, v. evolutus erectus. Scapus elatus, interdum giganteus. Flores secus rhachin simplicem sparsi, v. in fasciculos v. cymas conferti thyrsum speciosum formantes. Perianthii tubus sæpius brevis. Stamina perianthio longiora. Stylus filiformis.—*America austr. et bor.*

61. Furcræa. Caudex erectus. Panicula maxima, patenter ramosa. Flores secus ramos sparsi v. 2–3-natim fasciculati. Perianthii tubus subnullus. Stamina perianthio breviora, filamentis basi strumoso-incrassatis. Stylus infra medium strumoso-incrassatus.—*Amer. calid. in orbe vetere inquilina.*

62. Doryanthes. Caulis elatus. Flores bracteis coloratis subinvoluti, fasciculis spicisve in capitulum magnum confertis v. in thyrsum longum dispositis. Perianthii tubus brevis. Stamina perianthio breviora, filamentis vix basi incrassatis.—*Australia.*

Tribus V. Vellosieæ. Caulis lignosus, sæpe ramosus, foliis ad apices ramorum confertis. Pedunculi 1-flori, intra foliorum fasciculum solitarii v. pauci. Perianthium sæpius persistens. Stamina 6–18.

63. Vellozia. Perianthii tubus supra ovarium vix ullus.—*Brasilia, Afr. trop. et austr., Madagascaria.*

64. Barbacenia. Perianthii tubus cum ovario continuus, brevis v. elongatus.—*Brasilia, Guiana, Venezuela.*

Chæradodia, *Herb. Amaryll.* 87, pro genere proposita fuit ad characterem mancum *Strumariæ chilensis*, Molina, Saggio, ed. 2, 130. Stirps ab incolis '*Thekel*' dicta, a nullo alio auctore recognita et verisimiliter descriptio plantas diversas refert. '*Tekel*' incolarum est ex C. Gayio *Libertiæ* species. Genus Herbertianum omnino delendum.

Tribus I. Hypoxideæ.

1. ? **Campynema,** *Labill. Pl. Nov. Holl.* i. 93, *t.* 121. (Campylonema, *Schult. Syst.* vii. 96, 1507.)—Perianthium tubo 0, 6-partitum; segmenta discreta, subæqualia, patentia. Stamina 6, ad basin segmentorum affixa iisque breviora, filamentis brevibus demum sæpe recurvis; antheræ oblongæ, erectæ, basi breviter 2-fidæ, loculis extrorsum dehiscentibus. Ovarium erostre, 3-loculare; styli 3, a basi distincti, crassiusculi, obtusi, vertice stigmatosi, primum erecti, demum recurvi; ovula in loculis ∞, superposita, anatropa. Capsula turbinata v. elongata, perianthio persistente coronata, plus minus 3-quetra, apice breviter v. inter angulos longitudinaliter dehiscens. Semina subglobosa, testa (in *C. lineari*) spongiosa, estrophiolata; embryo albumine carnoso inclusus.—Fibræ radicales fasciculatæ. Folia radicalia linearia. Caulis nunc tenuis, foliis perpaucis parvis, 1-florus v. flores paucos laxe racemosos ferens, nunc inter folia brevia nanus, 1-florus. Flores erecti, pedicellati. Bracteæ minimæ.

Species 2, Tasmaniæ incolæ. *Benth. Fl. Austral.* vi. 414.

Genus antheris extrorsum dehiscentibus et stylis a basi distinctis in ordine anomalum, melius tamen a F. Muellero ad *Hypoxideas* quam a Benthamio ad *Irideas* approximatum. Semina *C. linearis*, Labill., ab illis *Hypoxidis* valde diversa; in *C. pygmæa*, F. Muell., matura non vidimus.

2. ? **Pauridia,** *Harv. Gen. Pl. Fl. Cap. ed.* i. 341.—Perianthium subinfundibuliforme, tubo brevi; lobi 6, subæquales, patentes. Stamina 3, ad basin loborum interiorum affixa, filamentis brevibus; antheræ lineares, erectæ, basi breviter 2-lobæ. Ovarium 3-loculare; stylus brevis, columnaris; stigmata nunc 3 linearia erecta, conniventia, undique papillosa, æqualia v. inæqualia, nunc unum solum erectum perfectum, 2 minima sterilia patentia, v. interdum stylo abortivo flos ♂ evadit; ovula in quoque loculo ∞. Capsula oblonga, pericarpio membranaceo, sæpe incurva v. obliqua et abortu 1-locularis, rarius recta et

perfecte 3-locularis. Semina ∞, parva, globosa.—Herba glabra, nana, gracilis, *Hypoxidi minutæ*, Thunb., similis. Cormi tunicæ fibroso-reticulatæ. Folia anguste linearia. Pedunculi in caule brevi pauci, 1-flori. Flores parvi.

Species 1, Africæ australis incola. *Baker in Journ. Linn. Soc.* xvii. 125. *Thunb. Diss. Ixia, n.* 2, *t.* 1 (*iconem non vidimus*).

Stigmata ex Harveio 3 erecta perfecta, 3 minima sterilia, quod tamen nobis non occurrit, in floribus pluribus examinatis semper in toto 3 invenimus perfecta v. sterilia.

3. **Hypoxis,** *Linn. Gen. n.* 417.—Perianthium tubo 0, 6-partitum; segmenta subæqualia, patentia. Stamina 6, ad basin segmentorum affixa iisque breviora, filamentis brevibus; antheræ lineares v. ovatæ, erectæ, juxta basin integram v. distincte 2-lobam dorsifixæ. Ovarium erostre, 3-loculare; stylus brevis, columnaris, stigmatibus 3 erectis oblongis crassis inter se distinctis v. in massam oblongam confertis; ovula in loculis ∞, 2-seriata. Capsula globosa v. oblonga, pericarpio membranaceo v. herbaceo, perianthio persistente diu coronata, demum (an semper?) sub apice circumscisse dehiscens. Semina parva, subglobosa, testa crustacea sæpius nigra, nitida v. verruculosa, hilo laterali plus minus rostello (strophiolo?) appendiculato; embryo albumine laxe carnoso interdum fere farinaceo inclusus.—Rhizoma parvum tuberosum, v. cormus tunicis membranaceis v. fibrosis vestitus. Folia radicalia, nunc linearia v. fere subulata lævia, nunc latiuscula brevia v. elongata sæpeque prominenter venosa. Scapi inter folia nunc graciles 1-flori, nunc elatiores, floribus pluribus subumbellatis v. racemosus. Bracteæ dum adsint, parvæ, lineares.

Species enumeratæ 51, Asiæ tropicæ, Australiæ, ins. Mascarensium, Africæ tropicæ et australis, et Americæ tropicæ et borealis incolæ. *Baker in Journ. Linn. Soc.* xvii. 98; *in Trans. Linn. Soc. Bot.* i. 265.

Genus a Bakero in sectiones 2 sequentes dividitur:—

1. *Ianthe.* Planta glaberrima. Pedunculi seu scapi 1-flori v. in sola *H. aquatica*, Linn. f., apice umbelliferi. Stigmata sæpissime discreta. *Jacq. Fragm. t.* 7, *f.* 4; *Ic. Rar. t.* 368, 369. *Red. Lil. t.* 169. *Hook. f. Fl. Tasm. t.* 130. *Andr. Bot. Rep. t.* 101, 171, 195, 236. *Bot. Mag. t.* 662, 709, 917, 1010, 1223. *Lodd. Bot. Cab. t.* 802, 1074. *Fl. des Serres, t.* 1027. Ianthe, *Salisb. Gen. Pl. Fragm.* 44. Spiloxene, *Salisb. l. c.*, est *H. stellata*, Linn., cui pericarpium lateraliter rumpens dicitur. Capsulæ dehiscentia rarius e speciminibus siccis probanda.

2. *Euhypoxis.* Planta plus minus pilosa villosa v. tomentosa. Pedunculi seu scapi sæpius 2-∞-flori. Stigmata sæpissime, nec semper, concreta. *Royle, Ill. Pl. Himal. t.* 91. *Labill. Pl. Nov. Holl. t.* 108. *Seub. in Mart. Fl. Bras.* iii. i. *t.* 7. *Sm. Spicil. t.* 16. *Jacq. Ic. Rar. t.* 370 *ad* 372. *Red. Lil. t.* 170, 350. *Bot. Mag. t.* 710, 711, 3696, 4817, 5690, 6035. *Bot. Reg. t.* 159, 663. *Lodd. Bot. Cab. t.* 710, 970. *Lemaire, Jard. Fleur. t.* 303.

Niobea, *Willd. Rel.*; *Schult. Syst.* vii. 762, species 2 *Hypoxidis* includit, charactere nullo distincto a cæteris separatas.

4. **Curculigo,** *Gærtn. Fruct.* i. 63, *t.* 16. (Fabricia, *Thunb. in Fabric. It. Norv.* 29, *ex Endl. Gen.* 173. Empodium, *Salisb. Gen. Pl. Fragm.* 43. Forbesia, *Eckl. Verz. Pfl. Samml.* 4.)—Perianthium, supra ovarium v. ovarii rostrum tubiforme (falso tubum perianthii dictum), 6-partitum; segmenta subæqualia, patentia. Stamina 6, ad basin segmentorum affixa, filamentis brevibus; antheræ lineares, basi v. inter lobos basales affixæ, erectæ, perianthio breviores. Ovarium 3-loculare, sæpe in rostrum interdum longum productum; stylus brevis, columnaris, stigmatibus 3 oblongis erectis appressis; ovula in quoque loculo 2-∞, funiculo interdum longiusculo suspensa, anatropa. Fructus plus minus succulentus, indehiscens. Semina subglobosa, testa nigra crustacea, ad hilum sæpius appendice rostelliformi (strophiola?) instructa; embryo parvus, albumine carnoso molli v. subfriabili inclusus.—Rhizoma breve, nunc crassum plus minus tuberosum, nunc cormum formans tunica reticulato-fibrosa obtectum. Folia radicalia sæpius longe lanceolata, plicato-venosa, nunc parvula linearia, nunc maxima pluripedalia. Flores spicati v. racemosi; spicæ nunc inter folia sessiles paucifloræ, nunc longe pedunculatæ, densæ, recurvæ. Bracteæ lineares, laxæ v. primum imbricatæ. Inflorescentia tota haud raro villosa.

Species ad 12, Asiæ tropicæ, Australiæ, Africæ tropicæ et australis, et Americæ tropicæ incolæ. *Baker in Journ. Linn. Soc.* xvii. 119 (*Mollineria*) *et* 122; *in Trans. Linn. Soc. Bot.* i. 266.

Genus *Hypoxidi* valde affine differt fructu succulento indehiscente et quoad species plerasque ovario apice in rostrum interdum longum tenueque tubum perianthii simulans producto, hoc rostrum tamen semper intus solidum est, summo vertice stylum in centro perianthii ferens. In sectiones sequentes dividitur:—

1. *Molineria.* Ovarium more *Hypoxidis* erostre, v. (e.g. in *C. gracilis*, Wall. varietate) in rostrum ovario ipso brevius productum. *Wight, Ic. t.* 2044 *ad* 2046 (*Hypoxis*). *Bot. Reg. t.* 770. *Regel, Gartenfl. t.* 771. Molineria, *Colla, Hort. Ripul. App.* ii. *in Mem. Acad. Turin.* xxxi. 333, *t.* 18.

2. *Empodium.* Ovarii rostrum nunc ovario ipso paullo longius (e. g. in *C. latifolia*) nunc longissimum fere filiforme. *Kotschy, Pl. Tinn. t.* 22. *Roxb. Corom. Pl. t.* 13. *Wight, Ic. t.* 2042, 2043. *Labill. Sert. austr. Caled. t.* 24. *Jacq. Hort. Schœnbr. t.* 80 (*Gethyllis*); *Ic. Rar. t.* 367 (*Hypoxis*). *Red. Lil. t.* 260 (*Hypoxis*). *Bot. Mag. t.* 1076, 2034. *Bot. Reg. t.* 345, 754. *Lodd. Bot. Cab. t.* 443.

C. seychellensis, Baker, ab omnibus cæteris differt foliis maximis, more *Carludovicæ* 2-fidis, petiolo spinoso-serrato. Ovarium pedicellatum, angustum, loculis 2–3-ovulatis in rostrum pluripollicare productum.

Tribus II. Amarylleæ.

5. **Cryptostephanus,** *Baker in Trim. Journ. Bot.* 1878, 193, *t.* 197.—Perianthium tubulosum, incurvum, superne parum ampliatum; lobi breves, subæquales, subpatentes; corona ad apicem tubi e squamis 12 anguste oblongis erectis æqualibus. Stamina in medio tubo æqualiter affixa, filamentis brevissimis; antheræ tubo inclusæ, erectæ, oblongæ, in cylindrum conniventes, prope basin dorsifixæ. Ovarium 3-loculare; stylus columnaris, antheras vix attingens, vertice stigmatoso parum dilatato; ovula in loculis ∞, 1–2-seriatim superposita. Bacca, a nobis non visa, ex Bakero globosa, coccinea, seminibus in loculis 1–2 turgidis.—Caulis in rhizomate brevissimo basi subbulbosus, vaginarum basibus tunicatus. Folia loriformia, coætanea. Flores in umbella densa numerosi, parvuli, breviter pedicellati, purpurascentes. Bracteæ breves, angustæ, nonnullæ exteriores involucrantes paullo latiores longioresque.

Species 1, in Africa Angolensi a Welwitschio lecta. Coronæ squamellæ nobis minime staminodia videntur, etsi nonnullæ apicem versus papillis substipitatis instructæ essent, et forte interdum pollinem colligunt nec emittunt.

6. **Narcissus,** *Linn. Gen. n.* 403. (Narcisseæ, *Herb. Amaryll.* 292 *ad* 329, *Kunth, Enum. Pl.* v. 704 *ad* 758.)—Perianthium hypocrateriforme, tubo cylindraceo in faucem vix ampliato v. rarius anguste campanulato; lobi subæquales, ovati v. rarius angusti, patentes v. reflexi; corona ad apicem tubi erecta, nunc magna tubulosa v. campanulata, nunc brevior late cyathiformis v. interdum ad lineam parum prominentem reducta, semper indivisa, margine integerrima denticulata v. rarius fimbriata. Stamina 6, intra tubum affixa eoque sæpissime inclusa, nunc omnia juxta faucem inclusa v. 3 v. omnia demissiora, filamentis brevissimis, nunc omnia intra medium tubi affixa, filamentis longis, tubo nec corona longiora; antheræ oblongæ v. lineares, basi sæpius plus minus 2-lobæ, medio dorso v. juxta basin affixæ. Ovarium 3-loculare; stylus filiformis, stigmate parvulo 3-lobo; ovula in loculis ∞, interdum numerosa, placentis axilibus 2-seriatim affixa. Capsula 3-locularis, pericarpio membranaceo, breviter v. fere ad basin loculicide 3-valvis. Semina subglobosa v. angulata, testa nigra.—Bulbus tunicatus. Folia linearia v. loriformia coætanea v. serotina. Flores sæpius in umbella pauci, interdum solitarii, nunc plures ob pedicellos inæquales subracemosi apparent. Bractea involucrans tam in polyanthis quam in monanthis unica, spathacea, basi plus minus tubulosa, membranacea, interiores haud raro adsunt anguste lineares v. setaceæ.

Species ad 20, Europæ mediæ, et regionis Mediterraneæ imprimis occidentalis incolæ, una specie per Asiam mediam usque ad Chinam et Japoniam extensa. *Burbidge, Narcissus, Lond.* 1875, *cum tabb.* 48. *Reichb. Ic. Fl. Germ. t.* 364 *ad* 370. *Nees, Gen. Fl. Germ. Monocot.* iii. *n.* 4. *Jord. et Fourn. Ic. Pl. Eur. t.* 176 *ad* 195 (*Hermione*). *Lois. Fl. Gall. t.* 7. *Graells, Ramill. Pl. Esp. t.* 5 *ad* 8.

Schousb. Jagttag. Vextr. Marok, t. 2. *Desf. Fl. Atl. t.* 82. *Dur. Expl. Alg. t.* 47. *Ten. Fl. Nap. t.* 26, 27. *Guss. Pl. Inarim. t.* 15. *Moggr. Fl. Ment. t.* 22, 23, 41, 70, 71, 90. *Sibth. Fl. Gr. t.* 308. Icones etiam numerosæ ad specimina culta delineatæ in Red. Lil., Bot. Mag. diariisque variis hortulanorum.

Salisbury in Trans. Hort. Soc. i. 343 et seq., species 36 distribuit in genera 7: AJAX, CORBULARIA, QUELTIA, GANYMEDES, PHILOGYNE, HERMIONE, et NARCISSUS. Haworth in Monogr. Narciss. 1831, cum Sweet, Brit. Fl. Gard. ser. 2, i. edita, species hortenses 146 admisit, et generibus Salisburyanis addidit 9: OILEUS, ASSARACUS, ILLUS, DIOMEDES, TROS, SCHIZANTHES, JONQUILLA, CHLORASTER, et HELENA. Herbert, Amaryll. 292, genera hæc ad 6 reduxit, inter quæ *Corbularia* (*N. Bulbocodium*, Linn.) et *Ajax* (*N. pseudonarcissus*, Linn.) distinctiora sunt corona maxima et staminibus longis, in *Corbularia* incurvis, in *Ajace* rectis. Parlatore, Fl. Ital. iii. 106 et seq. species 37 Italianas fusius descripsit et genera *Ajax* et *Queltia* (*N. odorus*, Linn., et *N. incomparabilis*, Curt.) admisit, speciebus cæteris Italianis ad *Narcissum* restitutis. J. Gay in Ann. Sc. Nat. ser. 4, x. 75 præter *Ajacem*, admisit etiam *Corbulariam* et *Ganymedem* (*N. triandrum*, Linn.), *Queltiam* tamen cum cæteris speciebus ad *Narcissum* reduxit, et (p. 95) genus novum proposuit AURELIAM, ad *N. Broussonetii*, speciem a *N. serotina*, Linn., parum distinctam corona ad lineam vix prominentem reducta. Salisbury tandem in opere posthumo Genera Plantarum Fragm. 99 ad 102, nomina generica nova addidit 9: CYDENIS, PANZA, PATROCLES, CHIONE, PLATEANA, VENIERA, TITYRUS, PRASITELES, et ARGENOPE.

Baker in revisione optima in Gard. Chron. 1869, in opere citato Burbidgei repetita cum emendationibus, genus naturalissimum *Narcissum* in integrum restoravit, et species auctorum ad 21 reduxit, in series 3 imprimis ad coronæ rationem cum limbo perianthii distributas. Species plures tamen valde confusæ remanent, ob formas numerosas hybridas v. aliter e cultura oriundas.

7. **Tapeinanthus**, *Herb. Amaryll.* 190. (Tapeinægle, *Herb. in Bot. Reg.* 1847, *t.* 22, *f.* 4. Carregnoa, *Boiss. Voy. Hisp.* 605. Gymnoterpe, *Salisb. Gen. Pl. Fragm.* 108.)—Perianthium infundibuliforme, tubo brevissimo; segmenta anguste oblonga, erecto-patentia, subæqualia; corona ad os tubi e squamellis 6 minimis integris v. 2-fidis interdum fere obsoletis. Stamina 6, tubo intra coronam affixa, 3 cæteris paullo demissiora, filamentis brevibus; antheræ oblongæ, curvulæ, medio dorso affixæ. Ovarium 3-loculare; stylus filiformis, stigmate parvo; ovula in loculis ∞, 2-seriata. Capsula oblonga (loculicide 3-valvis ?). Semina pauca, parva, ellipsoidea, nigra, lucida.—Bulbus parvus, tunicatus. Folium perfectum ex J. Gayo unicum, serotinum, filiforme, basi vagina parva stipatum. Scapus tenuis (3–4-pollicaris). Flores 1–2, intra bracteam involucrantem basi tubulosam pedicellati, flavi. Bractea interior angustissima.

Species 1, Hispaniæ australis et agri Tingitani incola, *J. Gay in Ann. Sc. Nat. ser.* 4, x. 98 (*Caregnoa*). *Cav. Ic. t.* 207 (*Pancratium*). Specimina nostra, prope Cadix mense Octobri lecta, foliis carent.

Nomen *Tapeinanthus* a Boissiero in DC. Prod. xii. 436 generi Labiatarum impositum, et a nobis incaute supra ii. 1207 admissum, mutandum erit, nam genus Herbertianum jure prioritatis gaudet.

8. **Galanthus**, *Linn. Gen. n.* 401.—Perianthii tubus 0; segmenta ima basi in annulum epigynum connata, cæterum libera, 3 exteriora ovali-oblonga, patentia, 3 interiora multo breviora, obovata, emarginata v. 2-loba, erecta. Stamina 6, foveolis annuli perianthii affixa, filamentis brevibus; antheræ elongatæ, erectæ, apiculatæ, loculis superne v. usque ad medium 2-valvatim dehiscentibus, valva interiore minore. Ovarium globosum v. obovoideum, 3-loculare; stylus in centro annuli perianthii ab eo distinctus, subulatus, stigmate parvo; ovula in quoque loculo ∞, ascendentia. Capsula dum scapo adhæret carnosa, apice perianthio delapso truncata v. annulo diu persistente coronata, maturescens sæpius scapo recurvo telluri incumbens, demum a planta liberata apice plus minus loculicide 3-valvis, v. seminibus perfectis integra remanet putrescitque. Semina ellipsoidea, testa sæpius pallida tenui, strophiolo prominente instructa.—Bulbus tunicatus. Folia pauca, linearia v. lanceolata, margine interdum plicata. Scapus solidus. Flos intra bracteam spathaceam erectam angustam unicus, breviter pedicellatus, candidus, pendulus.

Species 3, Europæ et Asiæ occidentalis incolæ. *Kunth, Enum. Pl.* v. 469. *Baker in Trim. Journ. Bot.* 1878, 166. *Reichb. Ic. Fl. Germ. t.* 363. *Nees, Gen. Fl. Germ. Monocot.* iii. *n.* 7. *Jacq. Fl. Austr. t.* 313. *Red. Lil. t.* 200. *Bot. Mag. t.* 2162, 6166. *Bot. Reg. t.* 545. Icones ∞ varietatum cultarum in diariis plurimis hortulanorum inveniuntur. Capsulæ maturescentiam descripsimus ex Jacq. Fl. Austr. iv. 7 et ex observationibus fusioribus in J. Gay mss.

9. **Leucoium,** *Linn. Gen. n.* 402. (Nivaria, *Mœnch, Meth.* 279.)—Perianthium late campanulatum, tubo 0; segmenta subæqualia, ovata v. oblonga, ima basi in annulum epigynum connata, cæterum libera. Stamina annulo basali perianthii affixa, filamentis brevibus; antheræ oblongo-lineares, erectæ, basifixæ, loculis superne rima brevi rarius infra medium antheræ continuata dehiscentibus. Ovarium ovoideo-oblongum v. subglobosum, 3-loculare; stylus erectus, superne v. jam infra medium incrassatus 3-queterque, v. totus tenuis, stigmate parvo; ovula in loculis ∞. Capsula obovoidea pyriformis v. subglobosa, loculicide 3-valvis, valvis tamen interdum apice solo v. tardius irregulariterque solvendis. Semina globosa, testa nunc tenui appressa, nunc laxa crustacea, strophiolata v. nuda.—Bulbus tunicatus. Folia pauca, nunc angustissime linearia, nunc plana loriformia. Scapus 'fistulosus.' Flores in umbella pauci v. ad unum reducti, sæpius penduli. Bractea involucrans unica, spathacea, basi subtubulosa.

Species ad 9, Europæ mediæ et regionis Mediterraneæ fere totius incolæ. *Kunth, Enum. Pl.* v. 471 *ad* 477 (*Leucoium, Erinosma et Acis*). *Baker in Trim. Journ. Bot.* 1878, 166.

Genus a nonnullis in tria dividitur, quæ tamen cum Bakero potius pro sectionibus habemus:—

1. *Erinosma.* Scapus 1-florus v. rarissime 2-florus. Stylus superne 3-gono-dilatatus. Capsula pyriformis, apice breviter dehiscens. Semina ovoidea, sæpe strophiolata, pallida v. fusca, testa tenui solubili. (*L. vernum* affinesque). *Reichb. Ic. Fl. Germ. t.* 362. *Jacq. Fl. Austr. t.* 312. *Bot. Mag. t.* 46, 1993. ERINOSMA, *Herb. Amaryll.* 330.

2. *Euleucoium.* Flores in umbella 2–6, inæqualiter pedicellati. Stylus et capsula *Erinosmatis.* Semina majora, nigra, testa laxa crustacea. (*L. æstivum* affinesque). *Reichb. Ic. Fl. Germ. t.* 362. *Nees, Gen. Fl. Germ. Monocot.* iii. *n.* 6. *Jacq. Fl. Austr. t.* 203. *Red. Lil. t.* 135. *Salisb. Parad. Lond. t.* 74. *Bot. Mag. t.* 1210. *Lodd. Bot. Cab. t.* 1478.

3. *Acis.* Plantæ graciles, floribus minoribus in umbella pluribus rarius solitariis. Stylus tenuis. Capsula subglobosa, usque ad basin 3-valvis. (*L. autumnalis* affinesque). *Lois. Fl. Gall. t.* 8. *Moggr. Fl. Ment. t.* 21. *Reichb. Iconogr. Eur. t.* 703, 704; *Ic. Fl. Germ. t.* 362. *Red. Lil. t.* 150, 217. *Salisb. Parad. Lond. t.* 21. *Bot. Mag. t.* 960. *Bot. Reg. t.* 544. *Sweet, Brit. Fl. Gard. t.* 297. ACIS, *Salisb. Parad. Lond. sub t.* 74. *Jord. et Fourr. Ic. Pl. Eur. t.* 64. RUMINIA, *Parlat. Due Nuov. Gen. Monocot.* 3, *ex ejusd. Fl. Ital.* iii. 84. *Jord. et Fourr. Ic. Pl. Eur. t.* 65.

10. **Lapiedra,** *Lag. Nov. Gen. et Sp. in Elench. Hort. Matr.* 14.—Perianthii tubus 0; segmenta subæqualia, patentia, ima basi in annulum epigynum brevissimum connata. Stamina annulo basali perianthii affixa, lobis breviora, filamentis filiformibus; antheræ longæ, erectæ, ad medium sagittato-bilobæ, inter lobos affixæ, loculis 2-valvatim dehiscentibus. Ovarium 3-loculare; stylus filiformis, stigmate parvo; ovula in loculis ∞. Capsula depresso-globosa, sub-3-dyma, apice loculicide 3-valvis. Semina in quoque loculo 1–2, majuscula, ovoidea, testa crassiuscula.—Bulbus tunicatus. Folia serotina, loriformia. Flores in umbella plures, pedicellati, albi, segmentis linea viridi percursis. Bracteæ involucrantes 2, angustæ, membranaceo-scariosæ; interiores desunt.

Species 1, Hispaniæ australis incola, *Kunth, Enum Pl.* v. 694. *Boiss. Voy. Hisp.* 604, *t.* 171.

11. **Hessea,** *Herb. Amaryll.* 289, *t.* 29, non Berg. (Periphanes, *Salisb. Gen. Pl. Fragm.* 118.)—Perianthii tubus 0; segmenta subæqualia, stellato-patentia. Stamina ima basi segmentorum affixa, filamentis filiformibus basi sæpe incrassatis v. dilatatis interdum brevissime connatis; antheræ parvæ, ovato-globosæ, basifixæ, loculis lateralibus parallelis. Ovarium 3-loculare; stylus columnaris, infra medium v. ima basi præsertim ineunte anthesi incrassatus, flore aperto sæpe æqualis; ovula in loculis pauca. Capsula parva, globosa, sub-3-dyma, loculicide 3-valvis. Semina in loculis 2–3, subglobosa.—Bulbus tunicatus. Folia linearia v. subulata, serotina v. coætanea. Scapus 'solidus.' Umbella multiflora, pedicellis evolutis sæpius subæqualibus patentissimis. Bracteæ involucrantes 2, subæquales.

Species ad 5, Africæ australis incolæ. *Kunth, Enum. Pl.* v. 625 (*Imhofia*) *et* 630 (*Hessea*). *Jacq. Hort. Schœnbr. t.* 71, 72 (*Amaryllis*). *Lhér. Sert. Angl. t.* 17 (*Amaryllis*). *Bot. Mag. t.* 1363 (*Strumaria*).

IMHOFIA, *Herb. App.* 18; *Amaryll.* 290, *t.* 29, quam in *Hessea* includimus, species continet 3 v. 4,

stylo infra medium magis intumescente. In *H. filifolia* (*I. filifolia*, Herb.), Ait. Hort. Kew. ed. 1, t. 5, Jacq. Ic. Rar. t. 361, Bot. Reg. t. 440, tumor latissimus supra basin styli; *H. gemmata* (*I. gemmata*, Herb.), Bot. Mag. t. 1620, quæ genus GEMMARIA, *Salisb. Gen. Pl. Fragm.* 127, ex icone ab *H. filifolia* differre videtur foliis latis; in *H. Burchelliana* (*I. Burchelliana*, Herb.) stylus ima basi tantum, præsertim ineunte anthesi, incrassatus; in specie forte adhuc inedita (*Zeyher, n.* 1661), filamenta ima basi brevissime connata, et perianthii segmenta vix non in tubum brevissimum connata.

12. **Carpolyza,** *Salisb. Parad. Lond. t.* 63. (Hessea, *Berg. ex Schlecht. Linnœa*, i. 252.) —Perianthii tubus brevis, lobi subæquales, patentes. Stamina ad basin loborum affixa iisque breviora, filamentis filiformibus liberis; antheræ parvæ, ovoideæ, basifixæ, erectæ, loculis lateralibus parallelis. Ovarium 3-loculare; stylus columnaris, in longitudinem leviter 3-sulcus, vix v. parum incrassatus, stigmate parvo patenter 3-lobo; ovula in loculis pauca. Capsula parva, depresso-globosa, 3-dyma, loculicide 3-valvis. Semina in loculis sæpius 2–3, angulato-globosa.—Bulbus parvus, tunicatus. Folia filiformia, coætanea v. serotina. Scapus tenuis, sæpe filiformis, infra medium haud raro spiraliter tortus. Flores in umbella 2–5 v. interdum ad unum reducti, pedicellis filiformibus. Bracteæ involucrantes 2, lineares.

Species 1, Africæ australis incola. *Herb. Amaryll.* 292, *t.* 29. *Kunth, Enum. Pl. v.* 629. *Lhér. Sert. Angl. t.* 13 (*Amaryllis*). *Jacq. Ic. Rar. t.* 363 (*Crinum*). *Bot. Mag. t.* 1383 (*Strumaria*). *Andr. Bot. Rep. t.* 92 (*Crinum*).

Genus, cum *Hessea*, interdum *Strumariæ* refertur, sed antherarum forma facillime distinguitur.

13. **Sternbergia,** *Waldst. et Kit. Pl. Rar. Hung.* ii. 172, *t.* 159.—Perianthium infundibuliforme, rectum, tubo brevi v. longiusculo; lobi lineares v. lanceolati, æquales, erectopatentes. Stamina fauci v. basi loborum æqualiter affixa, perianthio breviora, filamentis filiformibus liberis; antheræ oblongæ, erectæ, prope basin dorsifixæ, loculorum valvis latiusculis. Ovarium 3-loculare; stylus filiformis, stigmate parvo v. in lobos 3 breves obtusos patentes diviso; ovula in quoque loculo ∞, 2-seriata. Fructus carnosulus, ovoideus v. oblongus, vix dehiscens. Semina subglobosa, strophiolo fungoso semicincta v. nuda, testa tenuiter crustacea nigra.—Bulbus tunicatus. Folia serotina v. coætanea. Scapus brevis, nunc brevissimus, 'solidus.' Flos sæpius unicus. Bractea membranacea hyalina, basi tubulosa, ovarium involvens; nunc rarius flores 2 sessiles intra bracteas 2 involucrantes angustas.

Species editæ ad 12, Europæ orientalis et regionis Mediterraneæ incolæ, a Bakero ad 5 reductæ. *Herb. Amaryll.* 186. *Kunth, Enum. Pl.* v. 698. *Baker in Trim. Journ. Bot.* 1878, 166. *Reichb. Ic. Fl. Germ. t.* 372, 373. *Nees, Gen. Fl. Germ. Monocot.* iii. *n.* 5. *Sibth. Fl. Græc. t.* 310, 311. *Red. Lil. t.* 148. *Bot. Mag. t.* 290 (*Amaryllis*). *Bot. Reg. t.* 2008. *Regel, Gartenfl. t.* 576.

Baker species 5 priores Kunthii ad typicam *S. colchiciifloram*, Waldst. et Kit., reducit, foliis serotinis, tubo perianthii tenui longiusculo, et cæteras pro sectione *Oporantho* distinxit, foliis coætaneis perianthii tubo brevi v. brevissimo in faucem ampliato; in his etiam strophiolum *S. colchiciifloræ* deesse videtur, et stigma vix lobatum. OPORANTHUS, *Herb, App.* 38; *Amaryll.* 188.

14. **Ungernia,** *Bunge in Bull. Soc. Imp. Nat. Mosc.* 1875, ii. 271.—Perianthium infundibuliforme, rectum, tubo superne parum ampliato; limbus anguste campanulatus, lobis subæqualibus erecto-patentibus. Stamina tubo parum inæqualiter affixa, perianthio breviora, filamentis filiformibus liberis; antheræ oblongæ, erectæ, dorsifixæ, loculorum valvis latiusculis. Ovarium 3-loculare; stylus filiformis, stigmate minuto; ovula in loculis ∞. Capsula subgloboso-3-dyma, fere in lobos 3 globosos divisa, pericarpio membranaceo loculicide 3-valvi. Semina ∞, valde compressa, in speciminibus nostris immatura, ex Bungeo obovato-suborbiculata, testa fragili atra in alam expansa.—Bulbus magnus, tunicatus. Folia ignota. Scapus solidus. Flores in umbella plures, longiuscule pedicellati, 'pallide miniati.' Bracteæ 2 involucrantes latiusculæ, interiores paucæ, lineari-setaceæ.

Species 1, Persica. Florum structura fere *Sternbergiæ*; differt imprimis statura, umbella ∞-flora, et seminibus.

15. **Anoiganthus,** *Baker in Trim. Journ. Bot.* 1878, 76.—Perianthium infundibuliforme, rectum, tubo brevi; lobi angusti v. lanceolati, æquales, erecto-patentes, tubo longiores. Stamina fauci affixa, alterna lobis interioribus altius adnata, perianthio breviora, filamentis antheris sæpius brevioribus; antheræ longiusculæ, erectæ, profunde sagittato-2-lobæ, inter lobos affixæ. Ovarium 3-loculare; stylus filiformis, stigmatibus recurvis tenuibus v. membranaceo-dilatatis introrsum papillosis; ovula in loculis ∞, 2-seriata. Capsula globoso-triquetra v. oblonga, pericarpio membranaceo loculicide 3-valvi. Semina ∞, oblonga, basi attenuata, perfecte matura tamen non visa.—Bulbus tunicatus. Folia serotina linearia v. coætanea loriformiaque. Flores flavi, in umbella ∞ v. 1-2, pedicellati. Bracteæ involucrantes 2, lanceolatæ v. angustæ; interiores dum adsint linearisetaceæ.

Species 2, Africæ australis incolæ. *Harv. Thes. Cap. t.* 139 (*Cyrtanthus*). Genus potius *Sternbergiæ* quam *Cyrtantho* affine videtur.

16. **Gethyllis,** *Linn. Gen. n.* 590. (Abapus, *Adans. Fam.* ii. 57, *char. falso.* Papiria, *Thunb. in Act. Lund.* i. 111, *ex ejusd. Nov. Gen. Pl.* i. 14.)—Perianthium hypocraterimorphum, tubo longo gracili apice haud ampliato; lobi subæquales, lineares v. lanceolati, patentes. Stamina 6 v. ∞ (usque ad 18), fauci æqualiter affixa, filamentis brevissimis erectis; antheræ lineares, basi v. inter lobos basales affixæ, erectæ, mox recurvæ v. tortæ. Ovarium 3-loculare; stylus elongatus, filiformis, stigmatibus brevissimis obtusis; ovula in loculis ∞, distincta, 2-seriata. Fructus succulentus, oblongus v. clavato-cylindraceus. Semina a nobis non visa, ex R. Br. globosa, in pulpa gelatinosa nidulantia, testa laxa hyalina, integumento interiore albumini arcte adhærente.—Bulbus tunicatus. Folia serotina, linearia, interdum filiformia et spiraliter convoluta. Scapus brevissimus 'solidus.' Flos solitarius. Bractea membranaceo-hyalina, interdum 2-fida.

Species 4 v. 5, Africæ australis incolæ. *Kunth, Enum. Pl.* v. 694. *Baker in Trim. Journ. Bot.* 1878, 166. *Jacq. Hort. Schœnbr. t.* 79. *Bot. Mag. t.* 1088. *Bot. Reg. t.* 1016. Excludendæ tamen inter species a Kunthio enumeratas *G. lanceolata,* Linn. f., quæ *Apodolirii* species, et *G. acaulis,* Blanco, verisimiliter ad *Curculiginem* referenda.

Stylus ex Ker in Bot. Mag. t. 1088, inferne cum tubo perianthii consolidatus, in speciminibus tamen siccis a nobis examinatis semper intra tubum liberum vidimus. In plerisque speciebus stylus vix antheras superat; Bolus in Journ. Linn. Soc. xviii. 396, sectionem *Clinostylem* proposuit ad speciem novam styli parte exserta 6–8 lin. longa declinataque, quod etiam observamus in speciminibus nonnullis Burchellianis *G. afræ,* Linn. f. Stylus verisimiliter ineunte anthesi brevis demum elongatur, v. in diversis floribus ejusdem speciei longitudine variat.

17. **Apodolirion,** *Baker in Trim. Journ. Bot.* 1878, 74; *et in Hook. Ic. Pl. t.* 1388.—Perianthium infundibuliforme, erectum, tubo longo gracili in faucem angustam ampliato; lobi erecto-patentes, subæquales, anguste lanceolati v. oblongi. Stamina fauci affixa, 3 lobis interioribus opposita altius adnata, filamentis brevissimis filiformibus; antheræ lineares, basi v. inter lobos basales affixæ, erectæ v. apice rarius recurvæ. Ovarium 3-loculare; stylus filiformis, stigmate capitato vix lobato; ovula in loculis ∞, 2-seriata. Fructus junior anguste oblongus, maturum non vidimus.—Bulbus tunicatus. Folia serotina v. coætanea, linearia v. anguste loriformia. Scapi in eodem bulbo interdum 2, breves nunc brevissimi. Flos unicus. Bractea angusta, membranaceo-hyalina.

Species 4, Africæ australis incolæ. Præter illas a Bakero l. c. enumeratas huc pertinet etiam *Gethyllis lanceolata,* Linn. f.

18. **Cooperia,** *Herb. in Bot. Reg. t.* 1835.—Perianthium hypocraterimorphum v. infundibuliforme, tubo longo nunc longissimo cylindraceo v. apice in faucem dilatato; lobi subæquales, ovati, patentes. Stamina fauci affixa, filamentis brevissimis liberis; antheræ lineares, erectæ, conniventes, juxta basin dorsifixæ. Ovarium 3-loculare; stylus filiformis, tubo perianthii brevior v. parum exsertus, stigmate parvulo 3-dymo v. breviter 3-lobo; ovula in loculis ∞, 2-seriata. Capsula subglobosa v. depressa, demum 3-dyma v. late

3-loba, loculicide 3-valvis. Semina numerosa, horizontalia, densissime superposita, oblonga v. cuneata, plus minus compressa, testa nigra crassiuscule membranacea.—Bulbus tunicatus. Folia pauca, anguste linearia v. loriformia. Pedunculi seu scapi longi, basi spatha hyalina intra folia occulta stipati. Flos ad apicem scapi intra bracteam spathaceam integram v. 2-fidam sessilis v. breviter pedicellatus.

Species 2, regionis Mexicano-Texanæ incolæ. *Herb. Amaryll.* 178, *t.* 24, 42. *Kunth, Enum. Pl.* v. 478. *Baker in Trim. Journ. Bot.* 1878, 166.

In specie typica *C. Drummondii*, Herb., Bot. Mag. t. 3482, flos intra bracteam sessilis, tubo perianthii longissimo usque ad limbum subæquali. SCEPTRANTHUS, *Grah. in Edinb. N. Philos. Journ.* xx. 413, est *C. pedunculata*, Herb., Bot. Mag. t. 3727 ; Sweet, Brit. Fl. Gard. ser. 2, t. 328 (*Zephyranthes*) flore intra bracteam sessili, perianthii tubo quam in præcedente multo breviore apice in faucem dilatato, et genus cum *Zephyranthe* connectit, etsi antheræ potius *Cooperiæ*.

19. **Chlidanthus**, *Herb. Append.* 46 ; *Amaryll.* 190, *t.* 27. (Coleophyllum, *Klotzsch in Allgem. Gartenzeit.* 1840, 185.)—Perianthium infundibuliforme, tubo longo cylindraceo vix in faucem ampliato ; lobi subæquales, superne recurvo-patentes. Stamina fauci affixa, erecta, lobis multo breviora, filamentis basi membranaceo-dilatatis alternis brevioribus ; antheræ oblongo-lineares, erectæ, dorso prope basin affixæ. Ovarium 3-loculare ; stylus filiformis, elongatus, stigmatibus breviter linearibus recurvis ; ovula in loculis ∞, 2-seriata. Capsula oblonga, demum loculicide 3-valvis. Semina numerosa, plano-compressa, dense superposita, testa nigra.—Bulbus tunicatus. Folia longa, linearia v. loriformia. Scapus 'solidus.' Flores in umbella pauci, subsessiles v. breviter pedunculati. Bracteæ involucrantes 2, longe acuminatæ, interiores non vidimus. Perianthium flavum, tubo pluripollicari.

Species v. varietates 2 v. 3, Americæ australis incolæ, imprimis ad specimina hortensia descriptæ, patria ab auctoribus varie dicta Buenos Ayres, Chili, Lima v. Mexico. Specimina sylvestria sola Matthewsiana vidimus e Chachapoyas Peruviæ, n. 3180. *Kunth, Enum. Pl.* v. 653. *Lindl. Collect. Bot. t.* 34. *Bot. Reg. t.* 640.

20. **Haylockia**, *Herb. in Bot. Reg. t.* 1371.—Perianthium infundibuliforme, tubo longo tenui ; lobi obovati, subæquales, erecto-patentes. Stamina fauci affixa, lobis breviora, subæqualia, 3 tamen lobis interioribus paullo altius adnata, filamentis breviter filiformibus ; antheræ lineares, medio dorso affixæ, versatiles. Ovarium 3-loculare ; stylus filiformis, tubo perianthii inclusus, stigmatibus breviter linearibus ; ovula in loculis ∞, 2-seriata. Capsula brevis, 3-dyma, loculicide 3-valvis. Semina 'complanata, dorso rotundata, testa nigra.'—Bulbus tunicatus. Folia serotina, anguste linearia. Scapus per anthesin brevissimus, hypogæus, fructifer paullo elongatus. Flos intra bracteam spathaceam unicus, sessilis, pallide sulphureus.

Species 1, Americæ australis extratropicæ incola. *Kunth, Enum. Pl.* v. 480.

21. **Zephyranthes**, *Herb. App.* 36 ; *Amaryll.* 170, *t.* 24, 29, 35.—Perianthium infundibuliforme, rectum v. leviter declinatum, tubo nunc brevissimo nunc plus minus elongato, superne in faucem ampliato ; lobi æquales v. parum inæquales, basi angustati et interdum fere ad basin tubi solvendi, superne erecto-patentes. Stamina fauci affixa, æqualia v. 3 paullo breviora, erecta v. parum declinata ; antheræ lineares, longæ v. breves, dorsifixæ. Ovarium 3-loculare ; stylus filiformis, interdum elongatus, superne sæpius declinatus, stigmate plus minus 3-fido ; ovula in loculis ∞, 2-seriata.—Capsula subglobosa v. depressa, demum 3-dyma v. 3-loba, loculicide 3-valvis. Semina oblonga, angulato-compressa v. plana, testa nigra.—Bulbus tunicatus. Folia pauca, linearia v. loriformia, coætanea v. serotina. Scapus elongatus, 'fistulosus.' Flos intra bracteam spathaceam integram v. apice 2-fidam basi tubulosam semper solitarius, pedicellatus v. rarius sessilis, erectus v. parum declinatus, roseus albus purpurascens v. flavescens, in eadem specie interdum versicolor.

Species fere 30, Americæ calidioris incolæ, a Bonaria usque ad Texam et Mexicum extensæ, addita una ex Africa tropica occidentali. *Kunth, Enum. Pl.* v. 480. *Baker in Trim. Journ. Bot.* 1878, 166. *S. Wats. in Proc. Amer. Acad.* xiv. 300. *Philippi in Linnæa*, xxix. 65. *Red. Lil. t.* 31. *Bot. Mag. t.* 239, 1586, 2464, 2485, 2537, 2583, 2593, 2594, 2607, 3596. *Bot. Reg. t.* 724, 821, 902, 1345, 1361, 1746, 1967; 1845, *t.* 54. *Sweet, Brit. Fl. Gard. ser.* 2, *t.* 14, 70. *Lodd. Bot. Cab. t.* 1419, 1677, 1761, 1771, 1899. *Saund. Ref. Bot. t.* 356 (ic. veteriores pleræque sub *Amaryllide*, recentiores nonnullæ sub *Habrantho*). Arviela, *Salisb. Gen. Pl. Fragm.* 135.

Genus *Hippeastro* valde affine, quoad characteres florales vix limitibus certis definiendum. In speciebus typicis perianthium erectum nec declinatum, et squamellæ ad basin filamentorum desunt, in aliis tamen hi characteres variant, et distinctio nobis melius in inflorescentia petenda. Scapus in *Zephyranthe* semper 1-florus, bractea involucrante unica basi tubulosa, nec unquam bracteas interiores lineares v. setaceas deteximus, dum in *Hippeastris* paucis 1-floris, bracteæ involucrantes semper 2 distinctæ, sæpeque adest bractea interior setacea, umbellam ad florem unicum reductam indicantes.

Z. sessilis, Herb., ab omnibus differt flore intra bracteam spathaceam sessili.

Argyropsis, *Ræm. Ensat.* 125, est *Z. candida*, Herb., cui stigmata seu stigmatis lobi brevissimi obtusissimi, quod etiam in *Z. Lindleyana*, Herb., observatur.

Habranthus, *Herb. in Bot. Reg. t.* 1345 genus propositum fuit ad *Z. Andersonianam*, quæ a *Zephyranthis* typicis non differt nisi staminibus inæqualibus distincte declinatis, sed in formis pluribus pro varietatibus descriptis v. depictis stamina omnino ad normam recta sunt. Herbert postea, Amaryll. 156, species plures addidit *Habrantho*, floribus umbellatis, quas Baker rite ad *Hippeastrum* refert. Herbert *Habranthum* tam a *Zephyranthe* quam a *Hippeastro* distinxit squamellis perianthii ad basin filamentorum in membranam connexis. Hæ squamellæ tamen in diversis speciebus sæpius diversæ sunt, nec semper in *Zephyranthis* typicis omnino desunt, in speciebus perplurimis non descriptæ et in speciminibus siccis difficillime observantur, nec bene pro characteribus genericis utendæ.

Pyrolirion, *Herb. App.* 37; *Amaryll.* 183, *t.* 23, 29, genus imprimis ad *Amaryllidem auream* Ruiz et Pav. Fl. Per. et Chil. iii. 56, *t.* 286 conditum, nobis videtur *Zephyranthis* species *Z. carinatæ*, Herb. affinis, stigmatibus apice paullo magis incrassatis. Huic addit Baker speciem Bolivianam, *Mandon*, n. 1194, stigmatibus seu ramis styli multo longioribus, apice breviter tantum incrassatis papillosisque.

22. **Sprekelia,** *Heist. Beschr. von Brunsvigia*, 19.—Perianthium valde declinatum, tubo nullo; segmenta parum inæqualia, fere in ungues contracta, a basi distincta, posticum ascendens, infimum concavum, genitalia recipiens. Stamina basi segmentorum affixa, in infimum declinata, eoque parum breviora, basi squamellis parvis interstincta, filamentis filiformibus; antheræ oblongo-lineares, medio dorso affixæ, demum recurvæ. Ovarium 3-loculare; stylus elongatus, stigmatibus linearibus recurvis; ovula in loculis ∞, 2-seriata. Capsula globoso-3-quetra, loculicide 3-valvis. Semina plano-compressa, ovata v. orbiculata, testa nigra.—Bulbus tunicatus. Folia serotina, loriformi-linearia. Scapus 'fistulosus.' Flos intra bracteam spathaceam basi tubulosam apice 2-fidam solitarius, pedicellatus, magnus, speciosus. Bracteæ interiores 0.

Species 1, Mexicana. *Kunth, Enum. Pl.* v. 507. *Red. Lil. t.* 5. *Bot. Mag. t.* 47 (*Amaryllis*). *Bot. Reg.* 1841, *t.* 16. *Sweet, Brit. Fl. Gard. ser.* 2, *t.* 144.

Genus *Zephyranthi* imprimis *Z. carinatæ* et *Z. concolori* affine, differt flore magno declinato tubo obsoleto, etc. *S. Cybister*, Herb., cum Lindleyo ad *Hippeastrum* referrimus, nec longe ab *H. Reginæ*, Herb., differt.

23. **Hippeastrum,** *Herb. App.* 31; *Amaryll.* 135.—Perianthium infundibuliforme, plus minus declinatum, tubo nunc brevissimo nunc plus minus elongato, superne in faucem ampliato, lobi parum inæquales, basi angustati et interdum fere ad basin tubi solvendi, superne erecto-patentes; squamellæ ad faucem inter v. circa basin filamentorum sæpe adsunt. Stamina fauci inæqualiter affixa, declinata v. ascendentia, perianthio sæpius breviora, filamentis liberis elongatis; antheræ oblongæ v. oblongo-lineares, dorsifixæ, versatiles, demum haud raro curvæ. Ovarium 3-loculare; stylus filiformis, elongatus, stigmatibus nunc linearibus recurvo-patentibus nunc brevissimis obtusis; ovula in loculis

∞, 2-seriata. Capsula globosa v. ovoidea, 3-sulca v. 3-dyma, loculicide 3-valvis. Semina (ubi nota) plano-compressa, testa nigra.—Bulbus tunicatus. Folia loriformia, latiuscula v. anguste linearia. Scapus 'fistulosus.' Flores in umbella 2-∞, rarissime ad unum reducti, pedicellati, sæpius magni. Bracteæ involucrantes semper 2, distinctæ; interiores lineares v. filiformes sæpissime adsunt 1-∞.

Species ultra 50, Americæ tropicæ v. australis extratropicæ incolæ. *Kunth, Enum. Pl.* v. 514. *Baker in Trim. Journ. Bot.* 1878, 79 (excl. sect. *Zephyritis*).

Genus Americanum, primo aspectu *Amaryllidem* (Africanam) refert, sub quo genere icones pleræque infra citatæ quærendæ sunt, ovulis tamen seminibusque facile distinguendum, et squamellæ ad basin staminum in planta Africana omnino deesse videntur. In sectiones sequentes non semper accurate limitatas dividitur:—

1. *Habranthus.* Folia angusta. Flores in umbella sæpius pauci, rarius ad unum reducti, bracteis involucrantibus tamen semper 2. Flores mediocres, latiuscule infundibuliformes, parum declinati. Species pleræque extratropicæ. *Bot. Mag. t.* 1125, 2597, 2639, 3961. *Bot. Reg. t.* 849, 1148, 1396, 1417, 1638; 1842, *t.* 35. *Sweet, Brit. Fl. Gard. ser.* 2, *t.* 107, 213. *Lodd. Bot. Cab. t.* 1760. *Saund. Ref. Bot. t.* 332 (*Phycella*). HABRANTHUS, *Herb. Amaryll.* 156, quoad species umbellifloras. MYOSTEMMA, *Salisb. Gen. Pl. Fragm.* 135.

RHODOPHIALA, *Presl, Bot. Bemerk.* 115, genus evidenter ad specimina Cumingiana e Valparaiso n. 395 definitum, est *Hippeastri* (*Habranthi*) *advenæ* var. RHODOPHIALA, Philippi, a Bakero pro sectione admissa, a cæteris *Habranthis* vix distinguenda floribus adhuc paucioribus, stigmatibus brevissimis. In *R. uniflora*, Phil., et *R. modesta*, Phil., flos sæpius unicus, sed bracteæ 2 involucrantes et interiores setaceæ omnino *Hippeastri* nec *Zephyranthis*. RHODOLIRION, *Philippi in Linnæa* xxix. 65, ab auctore a *Rhodophiala* distinguitur tubo perianthii longiusculo. *Rhodolirion montanum*, Phil., tamen omnino eadem species videtur ac *Rhodophiala uniflora*, Phil. *Chlidanthus Cumingii*, Presl, Bot. Bemerk. 115, si rite ad eam referrimus specimina Cumingiana n. 865, est *Hippeastrum* (*Habranthus*) *Bagnoldi*, Baker, male descriptum.

2. *Phycella*, a *Habrantho* parum differt perianthio angustius infundibuliformi, fauce longa angusta, superne parum ampliata, lobis brevibus erecto-patentibus. Species 2, Chilenses. *Bot. Mag. t.* 2399. *Bot. Reg. t.* 809, 1943. *Lodd. Bot. Cab. t.* 1746. PHYCELLA, *Lindl. Bot. Reg. sub t.* 928 *et t.* 1341.

Philippi species plures novas descripsit sub *Habrantho*, *Rhodophiala* et *Phycella*, in Linnæa xxix. 66; Descr. Nuev. Pl. ii. (1873), 66.

3. *Euhippeastrum.* Folia sæpius lata. Umbellæ ∞-floræ. Flores sæpius magni, valde declinati, perianthio late infundibuliformi tubo brevi. Species tropicæ, *Karst. Fl. Colomb. t.* 102. *Lhér. Sert. Angl. t.* 14, 15. *Jacq. Hort. Schœnbr. t.* 63. *Lindl. Collect. Bot. t.* 12. *Red. Lil. t.* 9, 10, 32, 424. *Andr. Bot. Rep. t.* 179, 358. *Bot. Mag. t.* 129, 305, 453, 657, 1943, 2113, 2273, 2278, 2475, 2983, 3311, 3528, 3549, 5645, 5883. *Bot. Reg. t.* 23, 38, 164, 199, 226, 234, 444, 534, 719, 988, 1038, 1188. *Lodd. Bot. Cab. t.* 484, 864, 1082, 1204, 1449. *Regel, Gartenfl. t.* 809. *Saund. Ref. Bot. t.* 358; cum ic. numerosis in variis diariis hortulanorum imprimis varietatum cultarum. LEOPOLDIA, Herb., genus in Bot. Mag. sub t. 2113, et in Trans. Hort. Soc. iv. 181 dubie propositum. LAIS, ASCHAMIA, OMPHALISSA et CHONAIS, *Salisb. Gen. Pl. Fragm.* 134, 135. Huc etiam pertinere videtur, *Sprekelia Cybister*, Herb. in Bot. Reg. 1840, t. 33; Bot. Mag. t. 3872, etsi differat staminibus elongatis.

4. *Macropodastrum*, Baker. Omnia *Euhippeastri*, nisi perianthii tubus valde elongatus fere *Crini*, sed characteres essentiales omnino *Hippeastri*. *Lindl. Collect. Bot. t.* 11. *Bot. Mag. t.* 2573, 3542, 3771. *Bot. Reg. t.* 876. *Lodd. Bot. Cab. t.* 1200. Stigmata in *H. solandriflоro*, Herb., brevissima, in *H. ambiguo*, Herb., longa recurva. Species prior tropica, illa extratropica.

24. **Placea**, *Miers in Bot. Reg.* 1841, *t.* 50.—Perianthium subinfundibuliforme, parum declinatum, tubo brevissimo v. ad annulum reducto; lobi subæquales, superne patentes v. demum recurvi; corona ad basin loborum circa filamenta iisque 2-3-plo brevior, membranacea, erecta, in lobos 6 angustos emarginatos fere ad basin divisa. Stamina intra coronam affixa, perianthio breviora, declinata, filamentis filiformibus liberis; antheræ oblongæ, medio dorso affixæ, versatiles, non curvæ. Ovarium 3-loculare; stylus declinatus, stigmatibus brevissimis obtusis; ovula in loculis ∞, 2-seriata. Capsula . . .—Bulbus tunicatus. Folia linearia, carinata. Scapus 'fistulosus.' Flores in umbella plures, pedicellati. Bracteæ involucrantes 2, anguste lanceolatæ, interiores ∞, anguste lineares.

Species 3? Chilenses. *Kunth, Enum. Pl.* v. 503. *Baker in Trim. Journ. Bot.* 1878, 169. *Philippi in Linnæa*, xxix. 67; *Descr. Nuev. Pl.* ii. (1873), 65. Genus *Hippeastro* valde affine, differt corona perfectius evoluta.

25. **Griffinia,** *Ker in Bot. Reg. sub t.* 444, *et t.* 511.—Perianthium infundibuliforme, declinatum, tubo brevissimo v. 0; segmenta basi longe angustata, parum inæqualia, superne v. demum fere a basi patentia. Stamina ad basin segmentorum affixa iisque non longiora, filamentis filiformibus, uno sæpius assurgente v. interdum deficiente, cæteris 5 v. rarius omnibus declinatis; antheræ oblongæ, medio dorso affixæ, demum sæpe curvæ. Ovarium 3-loculare; stylus elongatus, declinatus, stigmate nunc vix incrassato indiviso, nunc distincte 3-fido; ovula in loculis 2, collateralia, a basi ascendentia. Capsula ovoidea v. subglobosa, loculicide 3-valvis. Semina in loculis sæpe abortu solitaria, erecta, ovoidea, crassa, testa nitida nigra v. pallida.—Bulbus tunicatus. Folia sæpius lata, in petiolum interdum longum contracta, venis numerosis venulis transversis connexis, rarius angustiora et vix v. non petiolata. Scapus 'solidus.' Flores in umbella sat numerosi, plus minus pedicellati. Bracteæ involucrantes 2, scariosæ, interiores lineares plures.

Species 7 v. 8, omnes Brasilianæ. *Kunth, Enum. Pl.* v. 542. *Baker in Trim. Journ. Bot.* 1878, 167. *Vell. Fl. Flum. Ic.* iii. *t.* 117 (*Amaryllis*). *Bot. Mag. t.* 5786, 6367. *Bot. Reg. t.* 163 (*Amaryllis*). *Fl. des Serres, t.* 1667.

In *G. Liboniana*, Lem. Jard. Fleur. t. 290, folia basi contracta at non petiolata; stamina declinata 5, sexto (an semper?) deficiente; in *G. Blumenavia*, Carr. Rev. Hortic. 1867, 32, cum ic. (Bot. Mag. t. 5666) folia vix petiolata; stamina 6 omnia declinata.

√ 26. **Crinum,** *Linn. Gen. n.* 405.—Perianthium infundibuliforme v. fere hypocraterimorphum, tubo longo recto v. incurvo cylindraceo v. apice in faucem ampliato; lobi lineares lanceolati v. anguste oblongi, recurvi patentes v. conniventes. Stamina fauci affixa, lobis sæpius parum breviora v. longiora, filamentis distinctis filiformibus declinatis v. divergentibus; antheræ lineares v. oblongo-lineares, medio dorso affixæ, demum sæpius curvæ. Ovarium 3-loculare; stylus filiformis, stigmate minimo subcapitato; ovula in loculis pauca v. sat numerosa, rarius 2 tantum, cum placenta axili crassiuscula continua, adnata, sæpe parum prominula. Capsula irregulariter subglobosa, pericarpio membranaceo v. coriaceo, demum irregulariter rupta. Semina pauca, crassa, irregulariter compresso-globosa, testa crassa; albumen crassissime carnosum, embryone tamen normali.—Bulbus tunicatus, sæpius magnus, apice haud raro in collum productus. Scapus 'solidus.' Folia sæpius numerosa, longa, angusta v. latiuscula. Flores in umbella ∞, magni, sessiles v. breviter pedicellati. Bracteæ involucrantes 2, membranaceæ, latæ v. angustæ, interiores ∞, lineares, interdum perpaucæ.

Species enumeratæ ultra 60, per regiones tropicas et subtropicas utriusque orbis præsertim in arenosis maritimis late dispersæ, usque ad Americam borealem, Africam australem et Australiam extensæ, plures tamen nonnisi in hortis notæ verisimiliter reducendæ. *Kunth, Enum. Pl.* v. 547. *Baker in Trim. Journ. Bot.* 1878, 168, 195, *et in Gard. Chron.* 1881, i. *et* ii.

Genus a Bakero in sectiones sequentes dividitur:—

1. *Stenaster.* Perianthium sæpius erectum, tubo recto æqualiter cylindraceo; lobi lineares, patentes v. reflexi. Filamenta æqualiter divergentia. *Wight, Ic. t.* 2021, 2022. *Kotschy, Pl. Tinn. t.* 21. *Jacq. Hort. Schœnbr. t.* 495. *Red. Lil. t.* 408. *Bot. Mag. t.* 1073, 1605, 2208, 2231, 2301, 2684, 2908. *Bot. Reg. t.* 52, 171, 179, 1049. *Lodd. Bot. Cab. t.* 346, 362, 650.

2. *Platyaster.* Perianthii tubus rectus v. leviter incurvus; lobi lanceolati, patentes v. ascendentes. Filamenta æqualiter divergentia. Sectio vix a *Stenastere* distincta. *Jacq. Hort. Schœnbr. t.* 202, 494. *Red. Lil. t.* 27. *Hook. Exot. Fl. t.* 200. *Bot. Mag. t.* 1034, 1232, 2355, 2397, 2522, 2531, 2592, 2635, 2636, 6525, 6570. *Bot. Reg. t.* 679. *Lodd. Bot. Cab. t.* 31.

3. *Codonocrinum.* Perianthii tubus curvus, superne sæpius in faucem ampliatus, lobi declinati, oblongo-lanceolati, usque ad medium v. altius conniventes. Stamina cum stylo declinata. *Wight, Ic. t.* 2019, 2020. *Wall. Pl. As. Rar. t.* 145. *Jacq. Ic. Rar. t.* 362; *Hort. Schœnbr. t.* 429. *Red. Lil. t.* 62, 181, 347. *Salisb. Parad. Lond. t.* 52. *Andr. Bot. Rep. t.* 169, 390, 478. *Bot. Mag. t.* 661, 915, 923, 1171, 1178, 1253, 2121, 2133, 2180, 2217, 2292, 2463, 2466, 6113, 6381, 6483,

6512, 6545. *Bot. Reg. t.* 303, 426, 546, 579, 615, 623, 1297; 1844, *t.* 9. *Lodd. Bot. Cab. t.* 669 (*ic. vet. plures sub Amaryllide*). TÆNAIS *et* ERIGONE, *Salisb. Gen. Pl. Fragm.* 115.

C. brachynema, Herb., Bot. Mag. t. 5937, ab omnibus differt filamentis erectis anthera brevioribus. Semina specierum perpaucarum vidimus, plurima a *Herb. Amaryll. t.* 44, delineata. Confer etiam *A. Braun in Verh. K. Akad. Wiss. Berlin*, 1859, 168, *et in Ann. Sc. Nat. ser.* 4, xiv. 5.

27. **Amaryllis**, *Linn. Gen. n.* 406, *pro parte.* (Callicore, *Link, Handb.* i. 193, *pro parte.* Belladonna, *Sweet, Hort. Brit.* 506.)—Perianthium infundibuliforme, declinatum, leviter incurvum, tubo brevi; lobi longi, oblongo-lanceolati, infra medium v. altius conniventes, apice patentes. Stamina fauci affixa, lobis sæpius parum breviora, filamentis distinctis filiformibus declinatis; antheræ lineares, medio dorso affixæ, demum curvæ. Ovarium 3-loculare; stylus filiformis, stigmate minimo subcapitato; ovula in loculis ∞, cum placenta axili crassiuscula continua, adnata. Capsula irregulariter subglobosa, pericarpio demum irregulariter rupto. Semina pauca, crassa, irregulariter compresso-globosa; albumen crassissime carnosum.—Bulbus tunicatus. Folia coætanea v. serotina, loriformia v. latiuscula. Scapus 'solidus.' Flores in umbella ∞, magni, pedicellati. Bracteæ involucrantes 2, membranaceæ, latiusculæ, interiores paucæ, lineares.

Species 1, Africæ australis incola. *Kunth, Enum. Pl.* i. 600. *Red. Lil. t.* 180, 479. *Bot. Mag. t.* 733, 1450. *Bot. Reg. t.* 714.

Genus apud auctores veteres species fere omnes inclusit e tribu *Amaryllearum* perianthio obliquo v. declinato, hodie ad *A. Belladonnam*, Linn., limitatum, cum *Crino* solo convenit ovario seminibusque, et ab hujus sectione *Codonocrino* parum distinguitur, imprimis perianthii tubo brevi.

28. **Ammocharis**, *Herb. App.* 17; *Amaryll.* 241, *t.* 33. (Palinetes, *Salisb. Gen. Pl. Fragm.* 116.)—Perianthium infundibuliforme, rectum, tubo cylindraceo; lobi longi, angusti, subæquales, erecto-patentes, demum sæpius apice revoluti. Stamina fauci affixa, lobis subæqualia, filamentis filiformibus rectis; antheræ oblongo-lineares, medio dorso affixæ, sæpius curvæ. Ovarium 3-loculare, superne haud raro in rostrum breve productum; stylus filiformis, elongatus, stigmate parvo capitato; ovula in loculis ∞, globosa, placentæ crassiusculæ adnatæ 2-seriatim affixa, arcte sessilia v. semi-immersa. Capsula (a nobis non visa) 'anguste turbinata apice abrupte contracta. Semina pauca, carnosa, inæqualiter tuberoso-laxata.'—Bulbus tunicatus. Folia falcato-ligulata. Scapus 'solidus.' Flores in umbella ∞, longiuscule pedicellati. Bracteæ involucrantes 2, latæ, membranaceæ, interiores lineari-setaceæ.

Species nobis notæ 2 (*A. falcata* et *A. coranica*, Herb.), Africæ australis incolæ. *Kunth, Enum. Pl.* v. 611. *Jacq. Hort. Vind.* iii. *t.* 60 (*Crinum*). *Bot. Mag. t.* 1443 (*Brunsvigia*). *Bot. Reg. t.* 139 *et* 1219 (*Amaryllis*).

Genus potius *Crino* quam *Brunsvigiæ* affine, *A. Slateriana*, Kunth, est tamen vera *Brunsvigiæ* species.

29. **Lycoris**, *Herb. App.* 20; *Amaryll.* 229.—Perianthium infundibuliforme, tubo cylindraceo plus minus evoluto; lobi longi, angusti, subæquales. Stamina fauci affixa, lobis breviora æqualia v. multo longiora, rectiuscula v. declinata; antheræ oblongæ, medio dorso affixæ, non curvæ. Ovarium 3-loculare; stylus filiformis, stigmate non v. vix incrassato; ovula in loculis ∞, 2-seriata. Capsula ovoidea v. subglobosa, basi obtusa, apice interdum breviter contracta, matura nobis deest. Semina . . .—Bulbus tunicatus. Folia loriformia v. linearia, brevia v. elongata, serotina. Scapus 'solidus.' Flores in umbella ∞, pedicellati. Bracteæ involucrantes 2, angustæ v. lanceolatæ.

Species 3, Japoniæ, Chinæ et Asiæ mediæ incolæ. *Kunth, Enum. Pl.* v. 544. *Lhér. Sert. Angl. t.* 15 *bis. Jacq. Hort. Schœnbr. t.* 73. *Red. Lil. t.* 61. *Andr. Bot. Rep. t.* 95. *Bot. Mag. t.* 409. *Bot. Reg. t.* 596, 611 (*ic. vet. plures sub Amaryllide*).

Genus *Brunsvigiæ* et *Nerini* affine, differt imprimis tubo perianthii bene evoluto. Stamina in *L. radiata*, Herb. (OREXIS, *Salisb. Gen. Pl. Fragm.* 117), perianthio duplo longiora, in *L. aurea*, Herb., perianthium parum excedunt, in *L. Severzovii*, Regel, Gartenfl. 1877, 259, t. 914, distincte

breviora. *Nerine japonica*, Miq. in Ann. Mus. Lugd. Bat. ii. 139, est *L. radiata*, Herb. *L. radiata*, Miq. l. c., tamen ex descr. videtur *L. Severzovii*, Reg. Specimina japonica ab Oldhamio lecta omnino cum Regelianis ex Asia centrali conveniunt.

30. **Brunsvigia,** *Heist. Beschr. v. Brunsv.*, *Braunschweig*, 1755, *cum tabb.* 3.—Perianthii recti v. incurvi segmenta angusta v. lanceolata, a basi erectiuscula patentia v. recurva, ima basi vix in annulum seu tubum brevissimum connata. Stamina prope basin segmentorum affixa, iisque sæpius æquilonga, recta v. sæpius declinata, filamentis filiformibus ima basi vix incrassatis; antheræ oblongæ, medio dorso affixæ, non curvæ, interdum dimorphæ, nonnullæ cæteris duplo fere majores. Ovarium 3-loculare; stylus filiformis, stigmate parum dilatato rarius patenter 3-lobo; ovula in loculis ∞, 2-seriata. Capsula obovoidea v. turbinata, sæpe magna, costis prominentibus 3-quetra, basi contracta. Semina in loculis ∞, oblonga, funiculis longis lineari-appendiculatis affixa, testa crassiuscula.—Bulbus magnus, tunicatus. Folia serotina, lata, sæpe humi appressa, interdum scabra. Scapus solidus. Flores in umbella ∞, pedicellis validis, speciosi. Bracteæ involucrantes 2, latæ v. lanceolatæ, interiores ∞ filiformes.

Species 7 v. 8, Africæ australis incolæ. *Kunth, Enum.* v. 605. *Herb. Amaryll.* 280, *t.* 22, 32. *Jacq. Hort. Schœnbr. t.* 68, 70, 74. *Red. Lil. t.* 370 *ad* 372. *Bot. Mag. t.* 1619, 2578. *Bot. Reg. t.* 192, 193, 954, 1335; 1842, *t.* 11. *Saund. Ref. Bot. t.* 330; (*ic. veter. pleræque sub Amaryllide*).

31. **Nerine,** *Herb. in Bot. Mag. t.* 2124; *App.* 18; *Amaryll.* 283. (Loxanthes, *Salisb. Gen. Pl. Fragm.* 117.)—Perianthii segmenta angusta, a basi erectiuscula patentia v. revoluta, ima basi vix in annulum v. tubum brevissimum connata. Stamina prope basin segmentorum affixa iisque sæpe æquilonga, recta v. declinata, filamentis filiformibus ima basi incrassatis v. infra insertionem continuis; antheræ oblongæ, medio dorso affixæ, non curvæ, interdum dimorphæ, nonnullæ cæteris multo majores. Ovarium 3-loculare; stylus filiformis, stigmate parvo sub-3-dymo v. breviter 3-lobo; ovula in loculis ∞, distincta, 2-seriata. Capsula subglobosa v. depressa, nunc 3-dyma v. 3-loba. Semina in loculis pauca, interdum solitaria, angulata 'viridula,' testa crassiuscula.—Bulbus tunicatus. Folia loriformia, interdum latiuscula, coætanea v. serotina. Scapus validus, 'solidus.' Flores in umbella ∞, pedicellati, speciosi, erecti v. parum declinati.

Species ad 9, Africæ australis incolæ. *Kunth, Enum. Pl.* v. 615, quas in series 2 distribuit: 1. *Regulares* (GALATEA, *Herb. in Bot. Mag. sub t.* 2113), staminibus fere erectis. *Jacq. Hort. Schœnbr. t.* 64 *ad* 66. *Red. Lil. t.* 33, 274. *Andr. Bot. Rep. t.* 163. *Bot. Mag. t.* 294, 725, 1089, 1090. 2. *Distortæ*, staminibus plus minus declinatis. *Jacq. Hort. Schœnbr. t.* 67, 69; *Hort. Vind.* iii. *t.* 13. *Red. Lil. t.* 115, 450. *Bot. Mag. t.* 369, 726, 2407, 5901, 6547. *Bot. Reg. t.* 172, 497. *Saund. Ref. Bot. t.* 329 (*ic. vet. plures sub Amaryllide*).

N. japonica, Miq., ad *Lycorem* referenda est.

32. **Strumaria,** *Jacq. Ic. Rar. t.* 356 *ad* 360. (Eudolon, Stylago, Pugionella *et* Hymenetron, *Salisb. Gen. Pl. Fragm.* 127, 128.)—Perianthium campanulatum, tubo subnullo; segmenta æqualia, erecto-patentia. Stamina ima basi segmentorum affixa iisque sæpius sublongiora, filamentis erectis infra medium membranaceo-dilatatis et cum angulis styli plus minus connatis; antheræ oblongæ, medio dorso affixæ, rectæ. Ovarium 3-loculare; stylus infra medium v. altius latiuscule 3-angulatus v. fere 3-alatus; ovula in loculis ∞, sæpius pauca, 2-seriata. Capsula subglobosa, 3-dyma. Semina in quoque loculo sæpius 2 v. 3, angulato-globosa.—Bulbus tunicatus, crassiusculus. Folia loriformia. Scapus 'solidus.' Flores in umbella ∞, pedicellis filiformibus subæqualibus parum patentibus. Bracteæ involucrantes 2, lanceolatæ, interiores minores, paucæ.

Species editæ 6, Africæ australis incolæ. *Herb. Amaryll.* 287, *t.* 29, 39. *Kunth, Enum. Pl.* v. 622.

Specierum 2 tantum specimina nobis adsunt, cæteræ, ex iconibus solis notæ, non semper bene distinctæ videntur, etsi a Salisburyo pro generibus propriis habentur.

33. **Vallota,** *Herb. App.* 29; *Amaryll.* 133, 414.—Perianthium infundibuliforme, rectum, erectum, tubo brevi, fauce ampliata; lobi oblongo-ovati, basi callo parvo connexi. Stamina basi loborum affixa iisque breviora, erecta, æqualia, filamentis filiformibus in fauce decurrentibus; antheræ oblongæ, medio dorso affixæ, non curvæ. Ovarium 3-loculare; stylus filiformis, subdeclinatus, stigmate parvo; ovula in loculis numerosa, oblonga, 2-seriata. Capsula (ex Herb. Amaryll. 414) oblongo-ovata, a basi dehiscens. Semina majora fere semipollicaria, nucleo ad apicem compresso oblique transverso, basi in alam longam foliaceam contracta; inferiora cujusve loculi minora rectiora.—Bulbus tunicatus. Scapus robustus, 'fistulosus.' Flores magni, in umbella ∞, sessiles v. breviter pedicellati. Bracteæ involucrantes 2–3, membranaceæ, latiusculæ, interiores ∞, angustiores v. lineares.

Species 1, Africæ australis incola. *Kunth, Enum. Pl.* v. 531. *Jacq. Hort. Schœnbr. t.* 62. *Bot. Mag. t.* 1430. *Bot. Reg. t.* 552.

34. **Cyrtanthus,** *Ait. Hort. Kew. ed.* 1, i. 414. (Timmia, *Gmel. Syst. Veg.* i. 538. Gastronema, *Herb. App.* 30, *et in Bot. Mag. t.* 2291. Cyphonema, *Herb. in Bot. Mag. Adnot. sub t.* 3710 *et* 3747. Monella, *Herb. App.* 29. Eusipho, *Salisb. Gen. Pl. Fragm.* 139.)—Perianthium anguste infundibuliforme, basi v. superne recurvum, tubo longo v. abbreviato, fauce longa ampla; lobi multo breviores, erecto-patentes. Stamina fauci altius v. profundius affixa, recta v. declinata, perianthio breviora, filamentis brevibus v. longiusculis; antheræ oblongæ, medio dorso affixæ, non curvæ. Ovarium 3-loculare; stylus filiformis, stigmate in *C. obliquo* parvo indiviso, in plerisque 3-fido lobis angustis interdum longiusculis; ovula in loculis ∞, oblonga, 2-seriata. Capsula nunc basi v. a latere varie rupta, nunc perfecte loculicide 3-valvis. Semina compressa, basi in alam producta.—Bulbus tunicatus. Folia elongata, angusta, interdum flexuosa. Scapus 'fistulosus.' Flores in umbella plures v. rarius ad unum reducti, pedicellati v. subsessiles, nunc a basi recurva penduli, nunc leviter tantum recurvo-declinati. Bracteæ involucrantes 2 v. paucæ, membranaceæ, interiores ∞, multo angustiores v. filiformes.

Species ad 15, Africæ australis incolæ, cum una ex Africa tropica. *Herb. Amaryll.* 128. *Kunth, Enum. Pl.* v. 533. *Jacq. Hort. Schœnbr. t.* 75, 76. *Lhér. Sert. Angl. t.* 16. *Red. Lil. t.* 182, 381, 388. *Andr. Bot. Rep. t.* 265. *Bot. Mag. t.* 271, 1133, 2291, 2471, 2534, 5218, 5374. *Bot. Reg. t.* 162, 167, 168, 503, 1462. *Lodd. Bot. Cab. t.* 368, 947, 1945. *Reg. Gartenfl. t.* 960. *Saund. Ref. Bot. t.* 355.

Gastronema, Herb., sectionem format, perianthii tubo latiore, rite a Kunthio ad *Cyrtanthum* reductam. *C. breviflorus*, Harv., est *Anoiganthus*, Bak.

35. **Clivia,** *Lindl. Bot. Reg. t.* 1182. (Imantophyllum, *errore* Imatophyllum, *Hook. Bot. Mag. t.* 2856. Himantophyllum, *Spreng. Gen. Pl.* 276.)—Perianthium tubuloso-infundibulare v. fere campanulatum, erectum v. recurvum, segmentis distinctis v. præsertim ineunte anthesi basi in tubum brevem cohærentibus. Stamina supra basin segmentorum affixa, perianthium sæpius superantia, filamentis filiformibus; antheræ oblongæ, medio dorso affixæ, non curvæ. Ovarium 3-loculare; stylus elongatus, stigmate breviter 3-partito v. parvo; ovula in quoque loculo pauca (semper 6 vidimus) in medio loculo conferta, oblonga. Bacca (*ex Hook.*) globosa, indehiscens. Semina pauca, oblongo-sub-3-quetra, testa laxa pulposa, integumento interiore appresso.—Bulbus imperfectus, foliorum vaginis crassis laxe involutus. Scapus compressus, solidus. Flores in umbella sat numerosi, pedicellati. Bracteæ involucrantes plures, lanceolatæ, interiores lineari-setaceæ.

Species 3, Africæ australis incolæ. *Kunth, Enum.* v. 584. *Lodd. Bot. Cab. t.* 1906. *Regel, Gartenfl. t.* 434. *Fl. des Serres, t.* 1877 (*Imantophyllum*).

In specie typica, *C. nobili*, Lindl. l.c. (*Imatophyllo Aitoni*, Hook. Bot. Mag. t. 2856), et in *C. Gardeni*, Hook. Bot. Mag. t. 4895, perianthium fere tubulosum, recurvum v. pendulum. *C. miniata* Hortul. differt perianthio latiore subpatente erecto v. parum declinato staminibus divergentibus et a Lindleyo, Gard. Chron. 1854, 119, dubie ad *Vallotam* refertur, demum a Hookero, Bot. Mag. t. 4783, pro genere proprio IMANTOPHYLLO, a *Clivia* distincto habetur, sed characteres essentiales nobis cum *Clivia* bene convenire videntur. Genus quoad perianthium *Cyrtantho* valde affine, involucrum fere *Hæmanthi*.

36. **Hæmanthus,** *Linn. Gen. n.* 400.—Perianthium rectum, erectum, tubo cylindraceo nunc brevissimo, nunc tenui sed brevi; lobi longiores, angusti, æquales. Stamina fauci æqualiter affixa, lobis sæpe longiora, filamentis filiformibus; antheræ parvæ, oblongæ, medio dorso affixæ, non curvæ. Ovarium 3-loculare v. jam sub anthesi abortu 1-loculare; stylus filiformis, stigmate parvo v. breviter 3-fido; ovula in loculis solitaria v. 2 collateralia, majuscula, pendula. Bacca globosa v. oblonga. Semina sæpe abortu solitaria, loculum v. baccam totam replentia, testa membranacea.—Bulbus tunicatus. Folia 2 v. pauca in seriebus infra distinctis diversa. Scapus solidus, sæpe compressus. Flores in umbella densa fere capituliformi numerosi, pedicellis tenuibus sæpius brevibus. Bracteæ involucrantes ∞, sæpe numerosæ coloratæ umbellam fere obtegentes, nunc pauciores tenuiores laxiores; interiores angustæ v. lineares.

Species ad 30, quarum 5 Africæ tropicæ, cæteræ Africæ australis incolæ. *Kunth, Enum. Pl.* v. 586. *Baker in Gard. Chron.* 1877, *et in Trim. Journ. Bot.* 1878, 166. *Gærtn. Fruct. t.* 11. *Jacq. Hort. Schœnbr. t.* 56 *ad* 61 *et* 407 *ad* 413. *Red. Lil. t.* 39, 204, 320, 398. *Andr. Bot. Rep. t.* 318. *Bot. Mag. t.* 961, 1075, 1239, 1315, 1523, 1618, 1705, 1995, 3373, 3870, 4745, 5314, 5378, 5532, 5881, 5903, 6364. *Bot. Reg. t.* 382, 509, 984. *Lodd. Bot. Cab. t.* 240, 602, 702, 912, 1948.

Genus a Herbertio in series 3, ad foliorum indolem, divisum, a Salisburyo in genera 5, characteribus male definitis, nec facile in speciminibus siccis observandis. Species tamen plurimæ in series 2 sequentes facile distribuendæ:—1. Folia in bulbo plura, sæpe undulata, basi in vaginas semet involventes contracta, scapo laterali. Huc pertinent GYAXIS (*H. puniceus*, Linn.) et NERISSA (*H. multiflorus*, Linn.) *Salisb. Gen. Pl. Fragm.* 131, speciesque paucæ affines. 2. Folia in bulbo 2, lata, sessilia, plana, haud raro ante anthesin evanida, scapo inter folia evoluto. Huc pertinent species numerosæ, genera HÆMANTHUS et MENICHO, Salisb. l. c. 130 formantes. DIACLES, *Salisb. l. c.* 130, est *H. virescens*, Herb., cui folia ad basin scapi 3–4, pubescentia v. ciliata.

37. **Buphane** (*prius* Boophane), *Herb. App.* 18; *in Bot. Mag. sub t.* 2578; *Amaryll.* 239, *t.* 22, 36, *f.* 7, 8.—Perianthium rectum, infundibuliforme v. hypocraterimorphum, tubo brevi; lobi æquales, lineares, erecto-patentes v. reflexo-patentissimi. Stamina fauci affixa, lobis longiora v. vix breviora, filamentis filiformibus; antheræ oblongæ, medio dorso affixæ. Ovarium 3-loculare; stylus filiformis, stigmate parvo; ovula in loculis 2, collateralia (ex Kunth 2-4). Capsula obovoideo-3-quetra v. subglobosa, pericarpio membranaceo loculicide 3-valvi. Semina adhuc immatura globosa, lævia, in capsula sæpe abortu solitaria v. perpauca, matura ex Kunthio bulbiformia.—Bulbus tunicatus, sæpius magnus. Folia serotina, loriformia. Scapus 'solidus.' Flores in umbella numerosi, longe pedicellati. Bracteæ involucrantes 2, latæ, interiores paucæ, breves, setaceæ.

Species bene notæ 2, Africæ tropicæ et australis incolæ, inter se pluribus notis dissimiles. In *B. toxicaria*, Herb.; Jacq. Fragm. t. 39 et 41 (*Hæmanthus*); Bot. Mag. t. 1217 (*Hæmanthus*); Bot. Reg. t. 567 (*Brunsvigia*), perianthium fere *Brunsvigiæ* sed tubus angustus distinctior, et ovula semper in quoque loculo 2 tantum nec ∞ vidimus. In *B. ciliari*, Herb.; Jacq. Fragm. t. 40, 41 (*Hæmanthus*); Bot. Reg. t. 1153 (*Brunsvigia*), quæ genus CROSSYNE, *Salisb. Gen. Pl. Fragm.* 116, perianthii tubus campanulatus fere globosus, lobi reflexo-patentissimi; ovula pariter in quoque loculo 2 invenimus. *B. angolensis*, Baker in Trim. Journ. Bot. 1878, 197, perianthii tubo longissimo aliisque characteribus ad *Crinum* referenda est.

38. **Hyline,** *Herb. in Bot. Mag. sub t.* 3779.—Perianthii tubus vix ullus v. ad annulum reductus; lobi longissimi, lineares. Stamina ad basin loborum affixa, filamentis longissimis filiformibus basi membrana brevissima connatis; antheræ lineares, medio dorso affixæ. Ovarium oblongum, 3-loculare; stylus filiformis (stigmate parvo?); ovula in loculis ∞, funiculis distinctis 2-seriatim ascendentia. Fructus junior obovoideus, maturus ignotus.—Folia longe lanceolata, basi contracta. Flores in umbella ∞, pedicellati. Bracteæ involucrantes 2, scariosæ, basi latiusculæ, interiores paucæ, lineares.

Species 1, Brasiliensis, e specimine unico Gardneriano floribus jam marcescentibus nota. *Kunth, Enum. Pl.* v. 584.

39. **Eucrosia,** *Ker in Bot. Reg. t.* 207.—Perianthium tubo brevissimo obliquum v. leviter curvum; lobi oblongi conniventes. Stamina ad apicem tubi æqualiter affixa, declinata, longissime exserta, filamentis ima basi plus minus connatis, intus ad insertionem

callis prominulis auctis ; antheræ oblongæ, medio dorso affixæ, non curvæ. Ovarium 3-loculare ; stylus filiformis, stigmate parvo ; ovula in loculis numerosissima, 2-seriata. Capsula (immatura) globoso-3-quetra v. 3-dyma. Semina numerosa, oblonga, angulato-compressa.—Bulbus tunicatus. Scapus ab aliis solidus dicitur, ab aliis fistulosus. Folia latiuscula, petiolata. Flores in umbella ∞, pedicellati, declinati. Bracteæ sæpius omnes lineares, 2 involucrantes basi plus minus dilatatæ.

Species 1, Andium Ecuadorensium incola. *Kunth, Enum. Pl.* v. 504. *Hook. Exot. Fl. t.* 209. *Bot. Mag. t.* 2490.

40. **Callipsyche,** *Herb. in Bot. Reg.* 1842, *Misc.* 49 ; 1845, *t.* 45.—Perianthium tubo brevi cylindraceo obliquum ; lobi oblongi, conniventes v. demum subpatentes. Stamina ad apicem tubi æqualiter affixa, e perianthio longissime exserta, declinata, filamentis distinctis basi intus callis oblongis prominulis auctis ; antheræ oblongæ, medio dorso affixæ, non curvæ. Ovarium 3-loculare ; stylus filiformis, stigmate parvo v. subcapitato ; ovula in loculis numerosissima, 2-seriata. Capsula (immatura) 3-quetra v. a latere 3-loba. Semina ∞, oblonga, angulato-compressa.—Bulbus tunicatus. Folia 2, petiolata, oblonga v. latiuscula. Scapus 'fistulosus.' Flores in umbella ∞, interdum numerosi, pedicellis declinatis haud longis. Bracteæ omnes lineares, involucrantes 2–3 latiores, interiores plurimæ.

Species 3, Andium Ecuadorensium et Peruviæ incolæ. *Kunth, Enum. Pl.* v. 506. *Baker in Saund. Ref. Bot. t.* 167, 168. Genus vix ac ne vix ab *Eucrosia* differt filamentis a basi liberis.

41. **Eucharis,** *Planch. in Fl. des Serres, t.* 788.—Perianthii tubus cylindraceus, rectus v. recurvus, apice breviter in faucem ampliatus ; lobi subæquales, latiusculi, patentes. Stamina fauci æqualiter affixa, lobis breviora, filamentis basi in membranam petaloideam dilatatis, membranis nunc in cyathum margine dentatum v. truncatum connatis, nunc distinctis v. multo reductis ; antheræ lineares, medio dorso v. prope basin 2-lobam affixæ. Ovarium 3-loculare, loculo uno tamen interdum jam sub anthesi abortiente ; stylus filiformis, stigmate breviter obtuseque 3-lobo ; ovula in loculis 2–∞, 2-seriatim superposita. Fructus ovoideus depresso-globosus v. 3-dymus, pericarpio tenui demum rupto. Semina (immatura) majuscula, abortu pauca v. solitaria.—Bulbus tunicatus. Folia petiolata, lata, venis dissitis venulis transversis tenuissimis connexis. Flores in umbella plures, candidi, speciosi. Bracteæ ∞, angustæ, quarum 2–3 exteriores involucrantes latiores.

Species 3, Andium Colombiæ incolæ. *Bot. Mag. t.* 4971. *Fl. des Serres, t.* 957, 1216. *Reg. Gartenfl. t.* 254.

Genus *Calliphruriæ* valde affine et species inter se characteribus diversis separandæ. In *E. grandiflora*, Planch. (*E. amazonica*, Lindl.), cyathus stamineus perfectus, amplus, margine inter filamenta undulatus v. 2-lobus ; ovarii loculi multiovulati. In *E. candida*, Planch., membranæ stamineæ latæ contiguæ sed vix nisi ima basi connatæ, ad latera filamentorum utrinque dentatæ ; ovarii loculi 2-ovulati. In *E. subedentula* (*Calliphruria subedentula*, Baker in Bot. Mag. t. 6289) membranæ stamineæ multo minores, sæpe edentulæ, basi tamen plus minus in cyathum connatæ ; ovarii loculi (in fl. examinatis) 6-ovulati.

42. **Calliphruria,** *Herb. in Bot. Reg.* 1844, *Misc.* 87.—Perianthium infundibuliforme, tubo fere a basi in faucem gradatim ampliato ; lobi subæquales, lanceolati. Stamina fauci æqualiter affixa, lobis breviora, filamentis basi in membranam petaloideam dilatatis, membranis distinctis v. hinc inde connatis ad utrumque latus filamenti in lobum seu dentem erectum productis ; antheræ lineares, medio dorso affixæ. Ovarium 3-loculare, loculo uno interdum jam sub anthesi abortiente ; stylus filiformis, stigmate breviter obtuseque 3-lobo ; ovula in loculis 2, rarius 3, in medio loculo superposita. Fructus parvus, subglobosus, pericarpio tenui demum rupto. Semina in toto fructu sæpius solitaria v. gemina, majuscula, atra, crassiuscula.—Bulbus tunicatus. Folia petiolata, late oblonga, venis subdissitis venulis transversis connexis. Flores in umbella plures, albi, tenuiter pedicellati. Bracteæ ∞, omnes angustæ, 2–3 exteriores involucrantes latiores.

Species 2 v. 3, Andium Colombiæ incolæ : *C. Hartwegiana*, Herb. ; Kunth, Enum. v. 692 ; Bot. Mag. t. 6259, cum altera adhuc inedita parum distincta. *C. subedentulam*, Baker, ad *Eucharidem* referrimus.

43. **Eustephia**, *Cav. Ic.* iii. 20, *t.* 238.—Perianthium anguste infundibuliforme, fere cylindraceum, tubo brevi; lobi longi, erecti. Stamina tubo æqualiter affixa, perianthio subæquilonga, filamentis distinctis ad duo tertias utrinque angustissime alatis, alis apice in setas divaricatas productis, filamento supra setas filiformi; antheræ oblongæ, medio dorso affixæ. Ovarium 3-loculare; stylus filiformis, stigmate parvo capitato; ovula in loculis ∞, 2-seriata. Fructus ...—Bulbus tunicatus. Scapus leviter compressus. Flores in umbella plures, pedicellati, demum recurvi v. penduli. Bracteæ involucrantes 2, anguste lanceolatæ, interiores lineari-setaceæ. Perianthium coccineum, apice virescens. Filamentorum alæ infra setas parum prominulæ.

Species 1, a Cavanillesio aliisque ad specimina hortensia descripta, adest tamen in herb. Hook. specimen unum in Peruvia a Macleano lectum verisimiliter indigenum. *Kunth, Enum. Pl.* v. 514. *Baker in Trim. Journ. Bot.* 1878, 41. Genus primum a Herbertio in dubium revocatum, serius tamen, in Bot. Mag. sub t. 3865, recognovit et characteres rite indicavit.

44. **Urceolina**, *Reichb. Comp.* 61. (Urceolaria, *Herb. App.* 28; *Amaryll.* 193. Collania, *Schult. Syst.* vii. 53, 893.)—Perianthium rectum, demum recurvum v. pendulum, tubo supra ovarium contracto, dein in faucem v. limbum oblongo-tubulosum v. urceolatum ampliato; lobi subæquales, conniventes v. connati, apice solo breviter patentes. Stamina fauci æqualiter affixa, perianthium sæpius excedentia, filamentis rectis ima basi plus minus membranaceo-dilatatis, membranis distinctis v. vix in annulum seu lineam parum prominulam conjunctis; antheræ oblongæ, infra medium dorsifixæ, non curvæ. Ovarium 3-loculare; stylus filiformis, elongatus, stigmate parvo; ovula in loculis ∞, 2-seriata. Capsula ovoideo-globosa v. subpyramidata, 3-dyma v. sub-3-loba. Semina parva, oblonga v. subglobosa.—Bulbus tunicatus. Scapus 'solidus.' Folia plana, ovata oblonga v. angusta, in petiolum contracta. *Flores in umbella* ∞, *longiuscule pedicellati.* Bracteæ involucrantes 2, scariosæ, interiores *lineares* paucæ.

Species 3, Andium Americæ australis incolæ. In specie typica, *U. pendula*, Herb.; Kunth, Enum. Pl. v. 644 (*Collania*); *Bot. Mag. t.* 5464; Ruiz et Pav. Fl. Per. et Chil. t. 287 (*Crinum*), perianthium citrinum, limbo latiusculo urceolato apice virescente, membranæ basales filamentorum tenuissimæ perfecte v. imperfecte in lineam transversam connexæ. In *U. latifolia* (Leperiza, *Herb. App.* 41; *Amaryll.* 195; *Kunth, Enum. Pl.* v. 643; *Bot. Mag. t.* 4952); *Ruiz et Pav. Fl. Per. et Chil. t.* 284, *f. b.* (*Pancratium*), perianthium omnino *U. pendulæ*, nisi paullo angustius, et linea transversa inter filamenta (ex icone) magis conspicua, specimina tamen nobis desunt. *U. miniata* (Pentlandia, *Herb. in Bot. Reg.* 1839, *t.* 68, *Kunth, Enum. Pl.* v. 635; Sphærotele, *Link, Kl. et Otto, Ic. Pl. Sel. t.* 38, *non Presl*) differt foliis angustioribus (latiora tamen vidimus quam in icone delineata semperque petiolata), perianthio miniato lobis brevibus solutis et filamentis basi angustius dilatatis, membranæ haud raro in tubo breviter transversæ, non tamen in annulum connatæ et in floribus diversis plus minus extensæ. *Stenomesson croceum*, Hook. Bot. Mag. t. 3615, excl. syn. est ex W. Herb. verisimiliter eadem species ac *U. miniata*, quoad analysem imperfecte delineata. Species hæ omnes nobis congeneres videntur et *Stenomesso* valde affines, differunt filamentorum membranis basalibus obscuris nec in cyathum perfectum connatis. *Leperiza eucrosioides*, Baker, ad *Phædranassam* referenda videtur.

45. **Phædranassa**, *Herb. in Bot. Reg.* 1845, *Misc.* 16, *t.* 17.—Perianthium anguste infundibuliforme v. fere cylindraceum, tubo sæpius brevi superne leviter ampliato; lobi longi, subæquales, angusti, conniventes, apice breviter patentes. Stamina fauci æqualiter affixa, erecta, perianthium sæpius breviter superantia, filamentis basin versus plus minus membranaceo-dilatatis, sæpiusque ima basi annulo parum prominulo connexis; antheræ oblongæ, medio dorso affixæ, non curvæ. Ovarium 3-loculare; stylus filiformis, stigmate parvo v. brevissime 3-fido; ovula in loculis numerosa, 2-seriata. Capsula subglobosa v. 3-dyma, loculicide 3-valvis. Semina oblonga, angulato-compressa, testa nigra.—Bulbus tunicatus. Scapus 'fistulosus.' Folia petiolata, angusta v. latiuscule oblonga. Flores in umbella ∞, speciosi, reflexi. Bracteæ involucrantes 2 v. rarius 3, anguste lanceolatæ, interiores lineares v. 1-2 lineari-lanceolatæ. Perianthium rubro-virens v. bicolor.

Species ad 4, Andium Americæ australis incolæ, Kunth, Enum. Pl. v. 500, species 3 descripsit quas Baker in Trim. Journ. Bot. 1878, 167, ad unius varietates reduxit, et in Saund. Ref. Bot. t. 46 duas novas addidit. Ad *Phædranassam* etiam referenda videtur *Leperiza eucrosioides*, Baker in Gard. Chron. 1878, ii. 170.

46. **Stenomesson,** *Herb. App.* 40; *Amaryll.* 198.—Perianthii tubus elongatus, subcylindraceus, supra basin v. medium versus sæpe parum contractus, superne longe v. breviter ampliatus; lobi subæquales, erecti v. plus minus patentes. Stamina fauci æqualiter affixa, erecta, filamentis basi membranaceo-dilatatis, membranis in cyathum petaloideum connexis, cyatho inter filamenta acuto sinuato v. truncato v. in dentes 1–2 producto; antheræ oblongæ, medio dorso v. prope basin affixæ, non curvæ. Ovarium 3-loculare; stylus filiformis, stigmate obtuso capitato v. vix brevissime 3-lobo; ovula in loculis ∞, 2-seriata. Capsula subglobosa v. 3-dyma, loculicide 3-valvis. Semina ubi nota compresso-plana, testa nigra.—Bulbus tunicatus. Scapus ex Kunthio solidus, ex Bakero in *S. incarnato* fistulosus. Folia coætanea, linearia v. latiuscule loriformia. Flores in umbella plures, rarissime ad unum reducti, sæpius pedicellis recurvis penduli. Bracteæ involucrantes 2, latæ v. angustæ, interiores lineares v. interdum una alterave latior. Perianthia rubra aurea v. fulva, speciosa.

Species 19 enumerat Baker, in Ref. Bot. sub t. 308, Americæ tropicæ incolas, in sectiones 2 sequentes distribuendas, quæ tamen inter se parum distinctæ etsi sæpius pro generibus propriis habentur:—

1. *Stenomesson.* Perianthium fere tubulosum, medio angustius, fauce longa latiuscule cylindracea. *Ruiz et Pav. Fl. Per. et Chil. t.* 284, *f.* a, *t.* 285 (*Pancratium*). *Red. Lil. t.* 187 (*Pancratium*). *Bot. Mag. t.* 2640, 2641, 3803. *Bot. Reg.* 1843, *t.* 2; 1844, *t.* 42. *Baker in Saund. Ref. Bot. t.* 22, 308. CHRYSIPHIALA, *Ker in Bot. Reg. t.* 778; *Hook. Exot. Fl. t.* 132. SPHÆROTHELE, *Presl, Rel. Hænk.* 119, *t.* 16, *f.* 2. NEÆRA, *Salisb. Gen. Fl. Fragm.* 109.

2. *Coburgia.* Perianthium quam in speciebus typicis longius, superne gradatim ampliatum, interdum fere anguste infundibuliforme. COBURGIA, *Sweet, Brit. Fl. Gard. ser.* 2, *t.* 17. *Bot. Mag. t.* 3221, 3865, 3867. *Bot. Reg. t.* 1497; 1842, *Misc.* 52; *Saund. Ref. Bot. t.* 309. CARPODETES, *Herb. App.* 41; *Amaryll.* 195.

CLINANTHUS, *Herb. App.* 40; *Amaryll.* 192, nomen ab auctore in *Bot. Reg.* 1839, *Misc.* 87 in GLITANTHUM mutatum, est *Coburgia humilis*, Herb. in Bot. Reg. 1842, *t.* 46, species scapo unifloro insignis.

CALLITHAUMA, *Herb. Amaryll.* 225, *et in Bot. Mag. t.* 3866, est *S. viridiflorum* (*Pancratium viridiflorum*, Ruiz et Pav. Fl. Per. et Chil. iii. 55), species a sectione *Coburgia* parum distincta, cyatho stamineo inter filamenta more *Hymenocallidis* (*Ismene*) in lobos petaloideos producto, hisque lobis interdum basi pone filamenta breviter connatis, staminibus specie intra cyathum affixis.

Genus *Chrysiphiala*, Ker, quale ab auctore propositum, includit *Stenomesson*, *Carpodetem* et *Leperizam*, Herb.

47. **Pancratium,** *Linn. Gen. n.* 404.—Perianthium infundibuliforme, tubo mediocri v. sæpius elongato superne in faucem ampliato; lobi angusti, erecto-patentes, subæquales. Stamina fauci æqualiter affixa, perianthio breviora, filamentis filiformibus basi membrana petaloidea cyathiformi v. patente connexis, cyatho (falso corona dicto) margine inter filamenta sæpius in dentes v. lobos 2 producto; antheræ oblongæ v. breviter lineares, medio dorso affixæ, curvæ. Ovarium 3-loculare; stylus elongatus, filiformis, stigmate parvo capitato; ovula in loculis numerosa, oblonga, 2-seriata. Capsula sæpe magna, subgloboso-3-quetra, loculicide 3-valvis. Semina ∞, mutua pressione angulata, testa crassiuscula laxa atra.—Bulbus tunicatus. Folia linearia v. loriformia. Scapus 'solidus' v. 'superne cavus.' Flores in umbella ∞, rarius ad 1 v. 2 reducti, magni, albi, sessiles v. distincte pedicellati. Bracteæ involucrantes 2, membranaceo-scariosæ, interiores lineares paucæ breves.

Species ad 12, regionis Mediterraneæ, ins. Canariensium et Indiæ orientalis incolæ. *Kunth, Enum. Pl.* v. 657. *Baker in Trim. Journ. Bot.* 1878, 168. *Cav. Ic. t.* 56. *Salisb. in Trans. Linn. Soc.* ii. *t.* 9; *Parad. Lond. t.* 86. *Reichb. Ic. Fl. Germ. t.* 371. *Nees, Gen. Fl. Germ. Monocot.* iii. *n.* 3. *Sibth. Fl. Græc. t.* 309. *Wight, Ic. t.* 2023. *Red. Lil. t.* 8, 153, 156. *Bot. Mag. t.* 718, 2538. *Bot. Reg. t.* 161, 174, 413, 479, 927.

P. carolinianum, Linn., quoad plantam Catesbæi, Nat. Hist. Carol. i. App. t. 5, est *P. maritimum*, ex Catesbæo et ex Chapmannio, Fl. S. U. S. 467, in uliginosis Carolinæ et Floridæ crescens. Specimina Americana tamen in herbariis nostris desunt, et quæ sub *P. caroliniano* missa sæpeque citata et a Kerio ad specimen in herb. Banks. delineata, semper ad *Hymenocallidem rotatam*, Herb., pertinent.

ALMYRA, *Salisb. in Trans. Hort. Soc.* i. 336 (HALMYRA, *Parlat. Nuov. Gen. Monocot.* 28; *Fl. Ital.* iii. 102), est *P. illyricum*, Linn. BOLLÆA, *Parlat. in Bull. Soc. Bot. Fr.* v. 509, est *P. canariense*, Ker. TIARANTHUS, genus a Herb. Amaryll. 202, 206 dubie propositum, includit *P. malabathricum*, Herb., *P. zeylanicum*, Linn., speciesque alias Asiaticas paucas. Hæ omnes characteribus potius specificis quam genericis a *Pancratiis* typicis separantur.

48. **Hymenocallis**, *Salisb. in Trans. Hort. Soc.* i. 338.—Perianthium subhypocraterimorphum tubo longo apice vix v. non ampliato; lobi lineares, sæpe longi, demum patentes. Stamina apice tubi æqualiter affixa, filamentis filiformibus basi v. alte membrana petaloidea late cupulata cyathiformi v. expansa connexis; antheræ lineares, dorsifixæ, sæpius curvulæ. Ovarium 3-loculare, loculis tamen 1–2 sæpe jam sub anthesi abortu vacuis; stylus filiformis, stigmate parvo; ovula in loculis (an semper?) 1–2, a basi ascendentia. Capsula ovoidea v. globosa, carnosula, demum a latere fissa. Semen sæpe unicum perfectum, magnum, viride, testa crassissima spongiosa.—Bulbus tunicatus. Scapus 'solidus.' Folia loriformia v. latiuscula et in petiolum contracta. Flores in umbella ∞ v. rarius 1–2, sessiles v. brevissime pedicellati. Bracteæ involucrantes 2, membranaceæ, fere scariosæ, interiores plures lineares. Cyathus stamineus inter filamenta truncatus denticulatus v. undulatus, interdum petaloideo-productus, rarius more *Pancratii* 1–2 lobus.

Species descriptæ fere 30, sed ad dimidium saltem reducendæ, omnes Americanæ, tropicæ v. boreales. *Kunth, Enum. Pl.* v. 664. *Salisb. in Trans. Linn. Soc.* ii. *t.* 10 *ad* 13. *Ker in Journ. Sc. and Art, R. Inst.* iii. *t.* 3. *Willd. Hort. Berol. t.* 73. *Jacq. Hort. Vind.* iii. *t.* 11, 75. *Red. Lil. t.* 154, 155, 358, 412 *ad* 414. *Andr. Bot. Rep. t.* 556. *Bot. Mag. t.* 825 *ad* 827, 1082, 1453, 1467, 1879, 1941, 2621, 6562. *Bot. Reg. t.* 43, 221, 265, 940, 1641. *Lodd. Bot. Cab. t.* 19, 274, 286, 510, 558, 809, 834. *Knowles et Westc. Fl. Cab.* ii. 51 *cum ic.* (*Ismene*). *Saund. Ref. Bot. t.* 357 (*icones veteres plurimæ nonnullæque recentiores sub Pancratio*).

ISMENE, *Salisb. in Trans. Hort. Soc.* i. 342, *Kunth, Enum. Pl.* v. 681, a *Hymenocallide* nequaquam differt nisi cyatho stamineo petaloideo sæpius multo majore, filamentorum parte libera breviore interdum intra cyathum recurvo. Huc referrimus icones sequentes, quarum plura sub *Pancratio*; *Jacq. Fragm. t.* 138. *Red. Lil. t.* 353. *Ruiz et Pav. Fl. Per. et Chil. t.* 283, *f.* a. *Bot. Mag. t.* 1224, 1561, 2685, 3675. *Bot. Reg. t.* 215, 600, 1665; 1841, *t.* 12. *Lodd. Bot. Cab. t.* 1266. *H. macrostephana*, Baker in Bot. Mag. t. 6436, omnino medium tenet inter *Hymenocallides* typicas et *Ismenem*.

CHORETIS, *Herb. Amar.* 219, *f.* 35, *f.* 1, *t.* 41, *f.* 32 *ad* 36; *Kunth, Enum. Pl.* v. 680; *Knowles et Westc. Fl. Cab.* ii. 101, *cum ic.*, est *H. glauca*, Baker, species Mexicano-Texana, ab auctoribus distincta imprimis antheris altius nec medio dorso affixis, character tamen vix constans videtur. Semina omnino *Hymenocallidis*, cyathus stamineus inter formas typicas et *Ismenem* intermedius.

De seminis structura confer *Baill. in Bull. Soc. Bot. Fr.* iv. 1020. *A. Braun in Ann. Sc. Nat. ser.* 4, xiv. 10.

49. **Elisena**, *Herb. Amaryll.* 201, *et in Bot. Reg.* 1838, *Misc.* 45. (Liriope, *Herb. App.* 41, *non Lour.* Liriopsis, *Reichb. Consp.* 62.)—Perianthii tubus brevissimus, lobi longi, lineares, patentes. Stamina fauci æqualiter affixa, lobis æquilonga v. longiora, filamentis basi in membranas petaloideas in cyathum connexas dilatatis, cyatho late tubuloso v. campanulato cum filamentis declinato v. recurvo, margine inter filamenta sæpius in lobos 2 recurvos interdum fere obsoletos producto; antheræ lineares, medio dorso affixæ, curvæ. Ovarium 3-loculare; stylus filiformis, stigmate parvo; ovula in quoque loculo 2, a basi ascendentia. Fructus immaturus *Hymenocallidis*, maturus ignotus.—Bulbus magnus, tunicatus. Scapus 'anceps, solidus.' Folia erecta, arcuato-lorata. Flores in umbella pauci, magni, brevissime pedicellati. Bracteæ involucrantes sæpius 3, lanceolatæ, scariosæ, interiores paucæ angustiores.

Species editæ 3, inter se evidenter parum distinctæ, Andium Peruviæ incolæ, et frequenter in hortis ad Limam cultæ ex Ruizio et Pav., qui specimina sylvestria non viderunt. *Kunth, Enum. Pl.* v. 656. *Ruiz et Pav. Fl. Per. et Chil.* iii. *t.* 283, *f. b* (*Pancratium*). *Bot. Mag. t.* 3873. *Saund. Ref. Bot. t.* 264.

50. **Vagaria,** *Herb. Amaryll.* 226. (Vaginaria, *Kunth, Enum.* v. 693.)—Perianthium anguste infundibuliforme, tubo tenui superne in faucem ampliato; lobi angusti, erecto-patentes. Stamina fauci æqualiter affixa, perianthio paullo breviora, filamentis basi leviter membranaceo-dilatatis et utrinque dente acuto v. setaceo-acuminato instructis in tubum decurrentibus; antheræ oblongæ, medio dorso affixæ. Ovarium ovoideo-globosum, 3-loculare; stylus filiformis, stigmate parvo; ovula in quoque loculo 2–3, in medio loculo conferta, obovoidea, distincta. Capsula membranacea, subvalvatim dehiscens. Semina pauca, angulata, testa nigra.—Bulbus magnus, tunicatus. Folia loriformia, subserotina. Flores in umbella plures, breviter pedicellati, albi, quam in *Pancratiis* multo minores. Bracteæ involucrantes sæpius 2, lanceolatæ, interiores lineares, paucæ.

Species 1, Syriaca. *Red. Lil. t.* 471 (*Pancratium*).

51. **Eurycles,** *Salisb. in Trans. Hort. Soc.* i. 337. (Proiphys, *Herb. Append.* 42.)—Perianthium infundibuliforme, tubo erecto tenui haud longo; lobi subæquales, latiusculi, erecto-patentes. Stamina fauci æqualiter affixa, perianthio breviora, filamentis basi membrana petaloidea cyathiformi connatis, cyatho late margine ad latera filamentorum utrinque dente v. lobo brevi aucto, interdumque inter filamenta fere ad basin fisso; antheræ oblongæ, sagittatæ, dorso juxta basin loborum affixæ. Ovarium 3-loculare; stylus filiformis, stigmate parvo; ovula in loculis 2, in medio loculo subcollateralia. Capsula globosa, leviter succulenta. Semina sæpe abortu solitaria.—Bulbus tunicatus. Folia petiolata, orbiculato-cordata v. late ovali-oblonga, venis subdistantibus venulis transversis connexis. Flores in umbella plures, interdum numerosi, albi, speciosi, etsi quam in *Pancratio* minores, plus minus pedicellati. Bracteæ involucrantes sæpius 2 v. 3, lanceolatæ, interiores lineares, paucæ v. numerosæ.

Species 2, Australiæ borealis, quarum una etiam per Archipelagum Malayanum dispersa. *Herb. Amaryll.* 227. *Kunth, Enum. Pl.* v. 689. *Benth. Fl. Austral.* vi. 455. *Salisb. Parad. Lond. t.* 84. *Red. Lil. t.* 384. *Bot. Mag. t.* 1419, 3399. *Bot. Reg. t.* 715, 1506 (*ic. veter. sub Pancratio*).

52. **Calostemma,** *R. Br. Prod.* 297.—Perianthium infundibuliforme, tubo erecto tenui haud longo; lobi subæquales, latiusculi, suberecti v. stellato-patentes. Stamina fauci æqualiter affixa, perianthium interdum excedentia; filamentis infra medium membrana tubuloso-cyathiformi connexis, cyatho margine inter filamenta truncato denticulato breviter diviso v. 1–2-lobo; antheræ oblongæ, medio dorso affixæ. Ovarium jam sub anthesi abortu 1-loculare; stylus filiformis, stigmate parvo; ovula 2 v. 3, in medio loculo parieti affixa (axi ob loculos abortientes parieti adnato). Fructus oblique globosus, succulentus. Semen sæpius unicum, subglobosum, testa carnosula.—Bulbus tunicatus. Folia nunc angusta v. loriformia venis approximatis, nunc more *Euryclis* lata petiolata venis dissitis venulis transversis connexis. Flores in umbella plures, plus minus pedicellati, purpurascentes albi v. flavi, quam in *Eurycle* paullo minores. Bracteæ involucrantes 2–3, lanceolatæ, interiores lineares paucæ.

Species 3, Australianæ, quarum 2 genuinæ extratropicæ, tertia (*C. album*, Br.). foliis *Euryclis*, in regione tropica obvia. *Benth. Fl. Austral.* vi. 456. *Bot. Mag. t.* 2100, 2101. *Bot. Reg. t.* 421, 422; 1840, *t.* 19, 26.

TRIBUS III. ALSTRŒMERIEÆ.

53. ? **Ixiolirion,** *Herb. App.* 37; *Amaryll.* 125, *t.* 19, 20. (Kolpakowskia, *Regel, Gartenfl.* xxvii. 294, *t.* 953.)—Perianthium subinfundibuliforme, tubo 0; segmenta angusta, superne parum latiora, erecto-patentia, basi sæpe cohærentia, demum fere semper solvenda. Stamina basi segmentorum affixa iisque paullo breviora, filamentis filiformibus;

antheræ oblongæ, erectæ, basifixæ, rectæ v. apice recurvæ. Ovarium oblongum, 3-loculare; stylus filiformis, elongatus, apice 3-fidus, ramis linearibus recurvis apice introrsum stigmatosis; ovula in loculis ∞, sæpius numerosa, 2-seriata. Capsula oblonga, apice truncata, pericarpio membranaceo, loculicide 3-valvis. Semina oblonga, angulato-compressa, testa nigra; embryo interdum albumine vix brevior.—Bulbus tunicatus. Caulis erectus, simplex v. rarius subramosus. Folia linearia, radicalia et secus caulem sparsa. Umbella terminalis, irregularis, sæpe prolifera, nunc ad florem unicum reducta, additis interdum umbellis 2–3-floris v. pedunculis 1-floris ad axillas foliorum. Bracteæ variæ, sæpe basi scariosæ, longe acuminatæ.

Species v. potius varietates insignes 2, Asiæ mediæ et occidentalis incolæ. *Kunth, Enum. Pl.* v. 816. *Labill. Pl. Syr. Dec.* ii. *t.* 1 (*Amaryllis*). *Red. Lil. t.* 241 (*Amaryllis*). *Bot. Reg.* 1844, *t.* 66. *Regel, Gartenfl.* xxix. 193 *et t.* 775, 910, 1014. *Fl. des Serres, t.* 2270.

Genus anomalum, perianthio et bulbo potius *Euamaryllearum*, caulis foliatus et inflorescentia laxa *Alstrœmeriearum*, a quibus patria longe distat.

54. **Alstrœmeria**, *Linn. Gen. n.* 432 *pro parte.*—Perianthium infundibuliforme, plus minus irregulare, deciduum, tubo 0; segmenta angusta v. basi longe contracta, uno cujusve seriei duobus cæteris dissimile, annulo epigyno parum prominulo sublobato affixa. Stamina ad basin segmentorum annulo glanduloso affixa, filamentis filiformibus; antheræ ovoideæ v. oblongæ, basi intrusa affixæ, apertæ subteretes fere undique polliniferæ. Ovarium 3-loculare; stylus filiformis, basi interdum incrassato-3-queter, apice in ramos 3 breviter filiformes introrsum stigmatosos divisus; ovula in loculis numerosa. Capsula obovoidea v. subglobosa, annulo perianthii persistente coronata, truncata, styli basi parum accreta pyramidato-acuminata (falso operculata dicta), a basi ad apicem loculicide 3-valvis. Semina ∞, globosa, testa sæpius rugulosa albumini arcte adnata.—Rhizoma fasciculato-fibriferum (nunquam tuberosum?). Caulis erectus v. ascendens, elatiusculus v. nanus, simplex, foliatus. Folia alterna, conferta v. sparsa, angusta v. latiuscula, sessilia v. petiolata, rigidula v. membranacea, sæpe torsione petioli resupinata. Umbella terminalis, nunc densiflora, nunc laxa irregulariter composita v. ad racemum irregularem reducta. Flores pedicellati, speciosi. Bracteæ sub quoque pedicello foliaceæ, foliis caulinis tamen sæpius multo minores.

Species descriptæ ultra 50, verisimiliter tamen fere ad 30 reducendæ, Americæ australis tropicæ et extratropicæ incolæ. *Kunth, Enum. Pl.* v. 758. *Herb. Amaryll.* 88. *Schenk in Mart. Fl. Bras.* iii. i. 171, *t.* 21, 22. *Philippi in Linnæa*, xxix. 67; xxxiii. 260; *Descr. Nuev. Pl.* ii. (1873) 70; *Sert. Mendoc.* 43. *Baker in Trim. Journ. Bot.* 1877, 259. *Ruiz et Pav. Fl. Per. et Chil. t.* 288, 289. *Presl, Rel. Hænk. t.* 22. *Jacq. Hort. Schœnbr. t.* 465; *Hort. Vind. t.* 50. *Red. Lil. t.* 46. *Hook. Exot. Fl. t.* 64, 65, 181. *Bot. Mag. t.* 139, 2353, 2421, 3033, 3040, 3105, 3350, 3944, 3958. *Bot. Reg. t.* 731, 1008, 1410, 1540, 1843; 1839, *t.* 13; 1843, *t.* 58. *Lodd. Bot. Cab. t.* 1054, 1147, 1272, 1295, 1497. *Sweet, Brit. Fl. Gard. t.* 267, *et ser.* 2, *t.* 15, 159, 205, 277.

55. **Bomarea**, *Mirb. in Nouv. Dict. Hist. Nat. ed.* 1 (1803–4)? *ed.* 2, iv. 118. (Vandesia, *Salisb. in Trans. Hort. Soc.* i. 332, *absque char.* Vandesia *et* Danbya, *Salisb. Gen. Pl. Fragm.* 57.)—Perianthium tubuloso-clavatum v. infundibuliforme, regulare v. vix irregulare, tubo 0; segmenta cujusque seriei æqualia, erecta conniventia v. apice patula, seriei interioris exterioribus majora minora v. forma diversa. Stamina ima basi segmentorum affixa iisque breviora, filamentis filiformibus; antheræ oblongæ, erectæ, basi intrusa affixæ. Ovarium 3-loculare; stylus a basi filiformis, apice in ramos 3 filiformes introrsum stigmatosos divisus; ovula in loculis ∞. Capsula (in speciebus perpaucis nota) turbinata v. subglobosa, 3-quetra v. obtuse 6-costata, vertice truncata. Semina subglobosa, testa (an semper?) pulposa.—Rhizoma v. radices plus minus (an semper?) tuberiferæ. Caules in speciebus normalibus scandentes v. volubiles, in paucis suberecti, simplices, foliati. Folia conferta v. sparsa et inflorescentia umbellata v. laxa omnino *Alstrœmeriæ*. Perianthii segmenta variant omnia oblonga, v. interiora spathulata obovato-oblonga v. in stipitem contracta, quam exteriora sæpe teneriora et haud raro maculata.

Species ultra 50, Americæ australis imprimis Andinæ et Mexici incolæ. *Kunth, Enum. Pl.* v. 787. *Herb. Amaryll.* 109. *Schenk in Mart. Fl. Bras.* iii. i. 167. *Baker in Trim. Journ. Bot.* 1882, 201. *Ruiz et Pav. Fl. Per. et Chil.* t. 287, *f.* a, *t.* 290, 291, *f.* a, *t.* 292 *ad* 296. *Cav. Ic.* t. 76. *Pœpp. et Endl. Nov. Gen. et Sp.* t. 160. *Hook. Bot. Misc.* ii. *t.* 95. *Link et Otto, Ic. Pl. Rar.* t. 29. *Wawra in Pr. Maxim. Reise, Bot.* t. 29. *Bot. Mag.* t. 1613, 2848, 3050, 3344, 3863, 3871, 5442, 5531, 5927, 6444. *Lodd. Bot. Cab.* t. 1851. *Sweet, Brit. Fl. Gard.* 228, *et ser.* 2, *t.* 77, 269. *Regel, Gartenfl.* t. 83. *Fl. des Serres,* t. 2176, 2316; (*ic. veter. sub Alstrœmeria*).

Collania, *Herb. Amaryll.* 103, *t.* 8 *ad* 11. *Bot. Mag.* t. 4247. *Bot. Reg.* 1847, *t.* 34, *non Schult.* (Wichuræa, *Rœm. Syn. Amaryll.* 277; *Kunth, Enum. Pl.* v. 781) et Sphærine, *Herb. Amaryll.* 106, *t.* 12, 13, 16, 18; *Kunth, Enum. Pl.* v. 784, a *Bomarea* non differre videntur nisi caule breviore erectiore fere *Alstrœmeriæ*. Capsulæ dehiscentia in genere variare videtur sed sæpissime ignota.

56. **Leontochir,** *Philippi, Descr. Nuev. Pl.* ii. (1873) 68.—Perianthii tubus 0; segmenta discreta, erecta, omnia spathulata, in unguem contracta, basi cum glandula epigyna continua, interiora vix exterioribus angustiora. Stamina glandulis basalibus segmentorum affixa, perianthio breviora, filamentis subulatis; antheræ oblongæ, basi intrusa affixæ, erectæ. Ovarium turbinato-3-quetrum, 1-loculare, placentis 3 parietalibus; stylus brevis, columnaris, stigmate parvo; ovula in quaque placenta ∞, 2-seriata. Capsula 3-quetra, sub apice conico reliquiis glandulæ hypogynæ sub segmenta persistentis annulata, angulis valde prominentibus, apice 3-valvatim dehiscens, valvis medio placentiferis. Stamina subglobosa; embryo in albumine duriusculo brevis.—Herba foliosa, habitu *Alstrœmeriæ*, fibris radicalibus (ex Philippio) tuberiferis. Folia crebra, lanceolata. Umbella terminalis, fere in capitulum condensata, recurva, floribus numerosissimis breviter pedicellatis Bracteæ parvæ.

Species 1, Chilensis. *Hook. Ic. Pl.* t. 1389.

Tribus IV. Agaveæ.

57. **Polianthes,** *Linn. Gen. n.* 426 (*errore* Polyanthus, *Hort. Cliff. et auct. plur.*).—Perianthium infundibuliforme, tubo longiusculo sæpius incurvo superne ampliato; lobi erecto-patentes, interiores exterioribus paullo breviores. Stamina fauci æqualiter affixa, lobis multo breviora, filamentis filiformibus liberis; antheræ lineares, medio dorso affixæ. Ovarium 3-loculare, vertice conico intra perianthium breviter protruso; stylus filiformis, stigmatibus 3 ovatis v. oblongis patentibus; ovula in loculis ∞. Fructus immaturus ovoideus, perianthio persistente coronatus, pericarpio membranaceo. Semina ∞, lata, compressiuscula, testa laxa, matura tamen non vidimus nec ab auctoribus recentioribus descripta.—Caulis e rhizomate breviter tuberoso erectus, simplex. Folia radicalia v. in parte inferiore caulis lato-linearia. Racemus terminalis, longus, simplex, candidus. Flores secus rhachin gemini, speciosi, odoratissimi. Bractea sub quoque pari spathacea, membranacea, perianthio brevior.

Species 1, Mexicana, jam diu in hortis Americanis Asiaticis Europæisque culta. *Salisb. in Trans. Hort. Soc.* i. 41, *t.* 2. *Red. Lil.* t. 147. *Bot. Mag.* t. 1817. *Bot. Reg.* t. 63. *Link et Otto, Ic. Pl. Sel.* t. 24.

Nomen Linnæanum (semel tantum lapsu *Polyanthus* scripsit) evidenter a πολιὸς, candidus, et ἄνθος, flos, derivatur, nec a πόλις urbs, nec a πολύς, numerosus, ut velint nonnulli.

58. **Bravoa,** *Llav. et Lex. Descr. Pl. Nov.* 1, 6. (Cætocapnia, *Link et Otto, Ic. Pl. Rar.* 35, *t.* 18.)—Perianthium tubuloso-cylindraceum, persistens, infra medium incurvum, apice non ampliatum; lobi breves, ovati, subæquales. Stamina prope basin perianthii æqualiter affixa, eique subæquilonga, filamentis filiformibus; antheræ lineares, medio dorso affixæ. Ovarium ovoideum, vertice intra perianthium convexum; stylus filiformis, stigmate parvo; ovula in loculis ∞, 2-seriata. Capsula globoso-3-quetra, demum loculicide dehiscens (maturam non vidimus). Semina oblonga, compressa; 'testa membranacea nigra albumini adhærens.'—Fibræ radicales tuberiferæ. Caulis basi bulbosus, tunicatus,

erectus, simplex. Folia radicalia pauca, ligulata, longe lanceolata v. linearia, caulina rara, multo minora. Flores secus rhachin racemi longi, gemini, paribus valde dissitis bractea scariosa stipatis.

Species 2 v. 3, Mexicanæ. *Kunth, Enum. Pl.* v. 848. *Hemsl. Diagn. Pl. Mex.* 54. *Bot. Mag.* *t.* 4741. *Fl. des Serres, t.* 520.

59. **Beschorneria,** *Kunth, Enum. Pl.* v. 844.—Perianthium angustum, tubo vix ullo; segmenta fere ad basin soluta, angusta, erecta, conniventia. Stamina basi segmentorum affixa, iisque subæquilonga, filamentis a basi subulatis; antheræ lineari-oblongæ, dorsifixæ. Ovarium oblongum, 3-loculare, sæpius in rostrum breve sub stylo parum ampliatum productum; stylus subulatus, vix basi crassior, stigmate parvo ciliolato; ovula in loculis ∞, 2-seriata. Capsula ovoidea, obtuse 3-quetra, loculicide dehiscens. Semina numerosa, plano-compressa.—Rhizoma v. caudex brevissimus, crassum. Folia subradicalia, conferta, linearia v. lanceolata, spinuloso-denticulata v. integerrima. Scapus elatus, simplex v. superne laxe paniculatus. Flores secus rhachin v. ramos breves paucifloros penduli, breviter pedicellati, speciosi, virides v. rubescentes. Bracteæ sub florum fasciculis membranaceo-scariosæ, latæ, sæpe coloratæ; bracteolæ sub pedicellis parvæ.

Species 3, Mexicanæ. Bot. Mag. t. 4642, 5203, 6091. *Regel, Gartenfl. t.* 851.

60. **Agave,** *Linn. Gen. n.* 431.—Perianthium subinfundibuliforme, tubo brevi nunc brevissimo rarius longiusculo cum ovarii rostro continuo, *in faucem brevem* v. oblongam ampliato; lobi lineares, erecti v. sub anthesi patentes. Stamina fauci ad basin loborum affixa iisque longiora, filamentis filiformibus v. basi membranaceo-complanatis; antheræ lineares, majusculæ, medio dorso affixæ. Ovarium globosum ovoideum v. oblongum, sæpe carnosum, plus minus in rostrum contractum, infra rostrum 3-loculare; stylus ad apicem rostri (specie in medio tubo perianthii) a basi brevissime conica filiformis, stigmate parum incrassato capitato 3-dymo v. breviter 3-lobo; ovula in loculis numerosissima, 2-seriata. Capsula globosa ovoidea v. oblongo-cylindracea, sæpe 3-sulcata, coriacea, perianthio persistente diu coronata demum denudata, ab apice loculicide dehiscens. Semina numerosa, plano-compressa, oblique cuneata, dense superposita, testa nigra appressa. —Rhizoma breve v. in caudicem erectum lignosum productum. Folia radicalia v. ad apicem caudicis conferta, nunc crassa rigida fibroso-carnosa v. coriacea margine spinoso-serrata v. filamentosa, nunc tenuiora angustiora integerrima. Scapus terminalis, elatus, interdum giganteus. Flores nunc in spica laxa v. densa sparsi, ad quamquam bracteam solitarii v. gemini, nunc ad bracteas fasciculati v. in cymulas ∞-floras ad bracteas pedunculatas conferti, thyrsum magnum speciosum formantes. Capsulæ erectæ.

Species imprimis a hortulanis editæ ultra 120, perplurimæ tamen ad folia sola descriptæ et verisimiliter vix 50 bene distinctæ, per Americam australem, Mexicum et Americæ borealis civitates australes dispersæ, quarum una in variis regionibus orbis veteris inquilina. *Kunth, Enum. Pl.* v. 818. *Baker in Gard. Chron.* 1877. *Jacobi, Vers. Syst. Ordn. Agav. in Hamb. Gart. Zeit.* 1864 *ad* 1866, *et Nachtr. in Abhandl. Schles. Gesellsch.* 1868–69.

Genus ad inflorescentiam in sectiones sequentes bene dividitur:—

1. *Euagave.* Florum cymæ pedunculatæ, thyrsum pyramidatum formantes. *Zucc. in Nov. Act. Nat. Cur.* xvi. 662, *t.* 49 *ad* 51. *Andr. Bot. Rep. t.* 433. *Reichb. Ic. Fl. Germ. t.* 374. *Wight, Ic. t.* 2024. *Bot. Mag. t.* 1522, 5097, 5493, 5893, 6589. *Saund. Ref. Bot. t.* 306, 307, 328. *Todaro, Hort. Bot. Panorm. t.* 15.

2. *Littæa.* Flores in fasciculis per 2–∞ sessiles v. subsessiles, spicam longam densam formantes. *Red. Lil. t.* 328, 329. *Bot. Mag. t.* 4934, 4950, 5006, 5333, 5641, 5660, 5716, 6248, 6292. *Bot. Reg. t.* 1145. *Saund. Ref. Bot. t.* 163, 164, 215, 327. *Todaro, Hort. Bot. Panorm. t.* 8, 19, 24. Bonapartea, *Willd. Enum. Hort. Berol. Suppl.* 18, *non Ruiz et Pav.* Littæa, *Brignoli in Biblioteca Ital.* i. 100, *ex Henck. Donnersm. in Flora,* 1820, 45.

3. *Manfreda.* Flores sub quaque bractea solitarii, secus rhachin spicæ elongatæ dissiti. *Jacq. Ic. Rar. t.* 378. *Red. Lil. t.* 485. *Mart. Ausw. Merkw. Pfl. t.* 13 (*Polianthes*). *Bot. Mag. t.* 1157, 5122, 5940. *Bot. Reg.* 1839, *t.* 55. *Saund. Ref. Bot. t.* 326. Manfreda, *Salisb. Gen. Pl. Fragm.* 78.

61. **Furcræa,** *Vent. in Bull. Soc. Philom. Par.* i. 65. (Fourcroya, *Schult. Syst.* vii. 42, 730. Funium, *Willem. Herb. Maurit.* 26.)—Perianthium tubo vix ullo fere ad basin partitum, segmentis æqualibus ovali-oblongis patentibus. Stamina basi segmentorum affixa iisque breviora, erecta, filamentis infra medium strumoso-dilatatis incrassatis superne breviter subulatis; antheræ lineari-oblongæ, dorsifixæ, basi breviter 2-lobæ. Ovarium oblongum, 3-loculare, superne sæpe in rostrum breve contractum; stylus columnaris, infra medium strumoso-incrassatus, angulis 3 valde prominentibus, stigmate parvo vix 3-lobo ciliolato; ovula in loculis ∞, 2-seriata. Capsula oblonga v. ovoidea, 3-quetra, loculicide 3-valvis. Semina numerosa, plano-compressa.—Caudex erectus, simplex, interdum altissimus, foliis delapsis cicatrisatus. Folia ad apicem caudicis dense conferta, longa, sæpius deflexa, margine spinoso-dentata v. integerrima. Panicula terminalis, maxima, pyramidata, ramis primariis patentibus. Flores secus ramos ad axillas bractearum breviter pedicellati, solitarii v. 2–3-natim fasciculati, bracteolis parvis stipati, et haud raro flos cum bracteolis in bulbillam irregulariter tunicatam mutatus.

Species a hortulanis enumerantur ad 15, plures tamen foliis solis adhuc notis valde dubiæ remanent, omnes verisimiliter ex America calidiore oriundæ, etsi hodie per regiones tropicas orbis veteris inquilinæ. *Kunth, Enum. Pl.* v. 839. *Jacobi in Hamb. Bot. Zeit.* 1866, 1867. *Baker in Gard. Chron.* 1879, i. 623, 656. *Jacq. Ic. Rar. t.* 379 (*Agave*). *DC. Pl. Grass. t.* 126. *Zucc. in Nov. Act. Nat. Cur.* xvi. 664, *t.* 48. *Wight, Ic. t.* 2025. *Bot. Mag. t.* 2250, 5163, 5519, 6148, 6160, 6543. *Todaro, Hort. Bot. Panorm. t.* 4.

62. **Doryanthes,** *Corr. in Trans. Linn. Soc.* vi. 211, *t.* 23, 24.—Perianthii tubus brevis, lobi subæquales, fere a basi patentes. Stamina basi loborum affixa iisque breviora, filamentis lineari-subulatis basi leviter incrassatis; antheræ oblongo-lineares v. elongatæ, erectæ, basi intrusa affixæ. Ovarium 3-loculare; stylus elongatus, 3-sulcus, stigmate vix incrassato 3-quetro; ovula in loculis ∞, 2-seriata. Capsula oblonga v. clavata, pericarpio coriaceo v. sublignoso, loculicide dehiscens. Semina in loculis numerosa, plano-compressa, crassiuscula, subreniformia.—Fibræ radicales fasciculatæ. Caulis elatus (8–25-pedalis). Folia inferiora numerosa, longissima, ensiformia, caulina minora sparsa. Flores speciosi, punicei, in spicas breves conferti, singuli bractea magna concava colorata fere involuti, spicis nunc in capitulum magnum terminale confertis, nunc secus pedunculum in thyrsum longum dispositis. Inflorescentia tota pulcherrime colorata.

Species 2, Australianæ. *Benth. Fl. Austral.* vi. 452. *Bauer, Ill. Pl. Nov. Holl. t.* 12 *ad* 14. *Bot. Mag. t.* 1685. *Gard. Chron.* 1874, i. 181, *t.* 44, 45, *ic. in Fl. des Serres, t.* 2097–8, *iteratæ coloratæque.*

Tribus V. Vellozieæ.

63. **Vellozia,** *Vand. Fl. Lusit. et Bras. Specim.* 32, *t.* 2, *f.* 12. (Xerophyta, *Juss. Gen.* 50.)—Perianthium campanulatum v. infundibuliforme, tubo subnullo; segmenta æqualia, erecto-patentia, ovata oblonga v. basi longe angustata, sed inter se distincta. Stamina 6, v. interdum ∞ in phalanges 6 2–6-andras basi connata, filamentis cæterum filiformibus, basi sæpe squamula lacera stipatis; antheræ lineares, basifixæ, loculis a latere dehiscentibus. Ovarium 3-loculare; stylus filiformis, stigmate terminali capitato 3-dymo v. in lobos 3 crassiusculos patentes diviso; ovula in loculis numerosissima, placentis axilibus affixa. Capsula coriacea v. dura, globosa oblonga v. 3-quetra, vertice plana v. concava et cicatrice perianthii annulari v. 6-dentata coronata, lævis tuberculata v. echinata, vertice irregulariter v. plus minus in valvas 3 loculicide dehiscens. Semina in speciebus perpaucis nota, numerosa, angulata v. plano-compressa, testa nigra; embryo parvus nunc minimus, albumine carnoso duriusculo inclusus, ab hilo parum distans.—Caulis fibroso-lignosus, erectus, plerumque dichotome ramosus, interdum arborescens, foliorum delapsorum vaginis imbricatis v. squarrosis dense obtectus. Folia ad apices ramorum conferta, nunc brevia angusta strictaque, nunc elongata, anguste v. late linearia, rigida, sæpe pungentia. Pedunculi terminales, 1-flori, intra foliorum fasciculum solitarii v. 2–3-ni. Flores albi sulphurei violacei v. cærulei, sæpe speciosi.

Species ad 50, Africæ tropicæ et australis, Madagascariæ et Brasiliæ incolæ. *Mart. Nov. Gen. et Sp.* i. 13, *t.* 6 *ad* 9. *Seub. in Mart. Fl. Bras.* iii. i. 73. *Walp. Ann.* i. 845.

Genus in sectiones 2 dividitur numero staminum nec habitu distinctas.

1. *Xerophyta.* Antheræ 6. Huc pertinent species Africanæ omnes cum nonnullis e Brasilianis. Inter Africanas aliæ habitum frutescentem v. arborescentem specierum Brasilianarum præbent, aliæ humiles sunt pedunculis floribusque tenuioribus. *Baker in Trans. Linn. Soc. Bot.* i. 264, *t.* 36. *Mart. Nov. Gen. et Sp. t.* 6, 9. *Pohl, Ic. et Descr. Pl. Bras. t.* 94. *Bot. Mag. t.* 5803. Huc etiam pertinet *Barbacenia squamata,* Paxt. Mag. xi. 75, cum ic., Bot. Mag. t. 4136.

2. *Euvellosia.* Phalanges 6, antheris in quaque phalange 2 ad 6. Species omnes Brasilianæ. *Mart. Nov. Gen. et Sp. t.* 7, 8. *Pohl, Ic. et Descr. Pl. Bras. t.* 93, 95 *ad* 100. *Seub. in Mart. Fl. Bras.* iii. i. *t.* 8 *ad* 10. *Mikan, Del. Fl. et Faun. Bras. t.* 7. *Bot. Mag. t.* 5514.

64. **Barbacenia,** *Vand. Fl. Lusit. et Bras. Specim.* 21, *t.* 1, *f.* 9.—Perianthium infundibuliforme, tubo supra ovarium plus minus evoluto; lobi subæquales, erecto-patentes. Stamina 6 v. 18, filamentis brevibus in speciebus 6-andris utrinque basi v. interdum ultra antheras appendiculatis v. auriculatis, in 18-andris plus minus distincte in phalanges 6 dispositis; antheræ lineares, basifixæ v. adnatæ, loculis introrsum v. a latere dehiscentibus. Ovarium 3-loculare; stylus filiformis, stigmate nunc oblongo v. subgloboso 3-dymo, nunc in lobos 3 breves obtusos diviso; ovula in loculis ∞, placentæ stipitatæ peltatæ affixa, placenta in *B. purpurea* cum stipite 2-partita, in *B. flava* aliisque indivisa. Capsula oblonga obovoidea v. rarius globosa, glanduloso-verrucosa v. rarius lævis, vertice v. rimis lateralibus dehiscens. Semina (in *B. purpurea* sola nota) numerosa, parva, angulata, angulis interdum marginatis v. anguste alatis; embryonem in albumine fere granuloso prope hilum omnino inclusum vidimus (nec externum ut a Le Maoutio et Decaisneo delineatur).—Caules lignosi, ramosi, et folia omnino *Vellozíæ.* Pedunculi intra folia longi, solitarii v. plures (usque ad 6), 1-flori, flore sæpe elongato.

Species descriptæ 18, Brasiliæ, Guianæ et Venezuelæ incolæ. *Mart. Nov. Gen. et Sp.* i. 17. *t.* 10 *ad* 14. *Seub. in Mart. Fl. Bras.* iii. i. 67, *t.* 8. *Walp. Ann.* i. 845, vi. 97. *Bot. Mag. t.* 2777. *Lemaire, Jard. Fleur. t.* 82, 198, 390. *Fl. des Serres, t.* 348.

Radia, *A. Rich. in Kunth, Syn. Pl. Æquin.* i. 300, prius ab auctore in Bull. Soc. Philom. Par. 1822, 79, sub nomine Campderiæ edita, est *Vellozia tubiflora,* H. B. et K. Nov. Gen. et Sp. vii. 155, quam ob tubum perianthii longissimum ad *Barbaceniam* referrimus, etsi stamina ut in *Euvelloziis* ∞, in speciminibus nostris 18. Hæc species a Spruceo lecta fuit sub n. 3606 in iisdem rupibus graniticis Orinoci a Humboldtio indicatis. *Barbacenia Alexandrinæ,* Schomb. Tract. Braunschw. 1845, cum ic., e monte Roraima eadem videtur species et nomen Schomburgkii retinendum.

Ordo CLXXV. TACCACEÆ.

Endl. Gen. 159. Lindl. Veg. Kingd. 149.

Flores regulares, hermaphroditi. *Perianthium* corollinum v. subherbaceum, supra ovarium late urceolatum v. globoso-campanulatum, tubo brevi, lato, ad os sæpe constricto; lobi 6, 2-seriati, subæquales v. interiores exterioribus latiores, omnes in globum conniventes v. exteriores v. omnes patentissimi. *Stamina* 6, tubo v. basi loborum affixa, perianthio inclusa; filamenta brevissima, basi dilatata v. utrinque processu carnosulo aucta, superne in cucullam inflexam introrsum 2-costatam v. 2-cornutam dilatata. *Antheræ* intra cucullam sessiles, ovatæ v. oblongæ, loculis 2 parallelis longitudinaliter dehiscentibus. *Ovarium* inferum, globosum turbinatum v. 3-quetrum, 1-loculare, placentis 3 parietalibus. *Stylus* brevis, columnaris, sæpius 3-queter, perianthio inclusus; stigmata 3, lata, sæpe petaloidea, 2-fida, supra stylum reflexa, umbraculum simulantia. *Ovula* in quaque placenta ∞, anatropa v. fere amphitropa. Fructus globosus ovoideus turbinatus v. elongatus, sæpe 3-queter v. 6-costatus, baccatus indehiscensque v. rarius demum

3-valvis. *Semina* ∞, ovoidea, compressiuscula, longitudinaliter costis ∞ striata, testa appressa. *Albumen* solidum cartilagineum v. demum fere granulosum. *Embryo* minutus, albumine inclusus, subbasalis v. lateralis, hilo propinquus v. plus minus distans.

Herbæ perennes, rhizomate tubereso v. repente. Folia radicalia magna, petiolata, nunc indivisa integerrimaque, nunc varie lobata v. dissecta. Flores ad apicem scapi aphylli erecti, dense umbellati. Bracteæ exteriores nonnullæ (sæpius 4) latiusculæ, herbaceæ v. coloratæ, involucrum formantes, interiores sub pedicellis plures, longe filiformes, umbellam superantes pendulique (falso interdum pedicelli steriles dictæ). Perianthia sæpe brunnea lurida v. superne viridia, siccitate semper nigricantia.

Ordo parvus v. genus anomalum *Amaryllideis* arcte affine. Inflorescentia *Euamaryllearum* umbellatarum, semina et characteres plerique essentiales eadem, differunt foliis, perianthii forma, staminibus iis *Burmanniacearum* subsimilibus; ovarium etiam 1-loculare placentis parietalibus in *Amaryllideis* rarissimum est (in *Leontochiro* solo observatum).

Species ad 10, regionum tropicarum utriusque orbis incolæ.

CONSPECTUS GENERUM.

1. TACCA. Bacca indehiscens.—*Utriusque orbis reg. trop.*
2. SCHIZOCAPSA. Capsula 3-valvis.—*China.*

1. **Tacca**, *Forst. Char. Gen.* 69, *t.* 35 (Ataccia, *Presl, Rel. Hænk.* 149, *in adnot. char. imperfecto*).—Character ordinis. Bacca (an semper ?) indehiscens.

Species ad 9, quarum 3 Americæ tropicæ, cæteræ regionum tropicarum orbis veteris incolæ. *Kunth, Enum. Pl.* v. 458 *et* 464 (*Tacca et Ataccia*). *Seem. Fl. Vit.* 101. *Gærtn. Fruct.* i. 43, *t.* 14.

Characteres quibus Presl genera duo distinxit variant de specie in speciem. In *T. pinnatifida*, Forst.; Lodd. Bot. Cab. t. 692, Regel, Gartenfl. t. 582, et in *T. artocarpifolia*, Seem.; Bot. Mag. t. 6124, folia, petiolo communi v. rhachi haud raro 3-fido v. varie diviso, semel v. bis pinnatisecta, segmentis valde inæqualibus, perianthii segmenta parum inæqualia in globum conniventia, bacca globosa apice contracta. In *T. palmata*, Bl. (*T. montana*, Rumph, Herb. Amb. v. 329, t. 115), folia simpliciter palmatifida v. fere pedatifida, perianthii segmenta parum inæqualia conniventia, bacca globosa. In *T. Parkeri*, Seem., et *T. lanceolata*, Spruce, ex America tropica, folia indivisa, perianthii segmenta parum inæqualia, ut videtur conniventia, bacca globosa. In *T. Sprucei*, Benth., e Barra do Rio Negro Americæ tropicæ, folium in specimine unico simpliciter pinnatifidum lobis 5 semipedalibus; perianthii segmenta exteriora acuminata, interiora breviora latiora; bacca immatura globosa. In speciebus integrifoliis Asiaticis, *Roxb. Corom. Pl. t.* 257, *Bot. Mag. t.* 1488 *et* 4589 (*Ataccia*) perianthii segmenta patentia, interiora exterioribus plus minus dissimilia, fructus (bene maturus nobis deest) sæpius insigniter 3–6-costatus, nunc breviter lateque turbinatus et in uno specimine subsiccus videtur, nunc longe turbinatus 1½-pollicaris, in specie unica Burmanica oblongus et vix costatus.

2. **Schizocapsa**, *Hance in Trim. Journ. Bot.* 1881, 292.—Characteres omnes *Taccæ* specierum foliis indivisis, excepto fructu, qui (ex Hanceo) capsula 3-gona, vertice complanata, secus angulos in valvas 3 spongiosas mox recurvas medio seminiferas usque ad basin dehiscens.

Species unica, Chinensis, a nobis non visa.

ORDO CLXXVI. DIOSCOREACEÆ.

Endl. Gen. 157. Lindl. Veg. Kingd. 213.

Flores in generibus normalibus unisexuales, dioici v. in racemis diversis monoici, in abnormibus hermaphroditi, in omnibus regulares, perianthio supero 2-seriatim 6-mero. Fl. ♂: *Perianthium* sæpius campanulatum v. explanatum, alte 6-fidum, lobis 2-seriatis, parum inæqualibus, variat angustum lobis longis erectis, v. oblongo-tubulosum v. fere urceolatum, ore constricto introrsum sæpe denticulis 6 reflexis instructo, lobis brevibus

patentibus. *Stamina* fundo perianthii affixa, nunc 6 omnia perfecta, v. alterna (lobis interioribus opposita) ad staminodia varie reducta, nunc 3, alternis omnino deficientibus; filamenta nunc brevissima nunc perianthio vix breviora, libera v. in centro floris in columnam brevissimam connata, apice recurva v. incurva. *Antheræ* parvæ, nunc subglobosæ loculis distinctis at contiguis parallelis, nunc didymæ loculis ad connectivi apices filiformes (ramos filamenti) separatis. *Ovarii* rudimentum nunc crassum columnare apice 3-fidum, nunc parvum depressum pulvinatum, v. sæpe omnino deficiens. Fl. ♀: *Perianthium* 6-fidum v. 6-partitum, quam in mare sæpius minus, persistens. *Staminodia* parva, 3–6 sæpius adsunt. *Ovarium* inferum, lineare v. oblongum, 3-quetrum, 3-loculare. *Styli* 3, brevissimi, distincti v. in columnam brevem coaliti, stigmatibus 3 terminalibus integris v. 2-fidis supra stylum recurvis. *Ovula* in quoque loculo 2, superposita, angulo centrali sub apice lateraliter affixa, pendula, anatropa v. fere amphitropa. *Fructus* capsularis, 3-valvis, v. baccatus indehiscens. *Semina* plano-compressa v. globosa, testa appressa. *Albumen* carnosum fere cartilagineum. *Embryo* albumine inclusus, parvus, ab hilo parum remotus. Flores ☿ generum abnormium in diversis generibus diversi.

Rhizoma in generibus normalibus tuberosum, carnosum crassum nunc maximum, hypogæum v. demum epigæum et fere lignosum. Caules tenues, volubiles, alte scandentes, v. rarius abbreviati flexuoso-procumbentes. Folia alterna v. interdum fere omnia opposita, petiolata, sæpe cordata digitato-3-∞-nervia et reticulato-venulosa, integra basi lobata v. in segmenta 3–∞ petiolulata digitatim divisa, petiolo ima basi sæpissime torto interdumque articulato, nunquam cirrifero. Flores parvi, spicati v. racemosi, sessiles v. varie pedicellati, bracteis parvis sæpe minutis v. 0. Racemi ♂ nunc simplices abbreviati v. longissimi, nunc paniculato-ramosi, ♀ simplices, elongati v. abbreviati, rarius ad flores 1–2 reducti. Habitus et inflorescentia generum abnormium valde varia.

Species ultra 160, per regiones calidiores utriusque orbis late dispersæ, plures etiam in America boreali et australi extratropica et in Africa australi, 2 solæ in Europa obviæ.

Ordo quoad genera normalia facile distinctus, *Smilaceis* pluribus notis accedens, sed ovario infero ovulis anatropis embryone etc. bene separatus. Genera abnormia huc addantur ob characteres potius *Dioscoreaceis* quam ullum alium ordinem referentes.

CONSPECTUS GENERUM.

* *Genera normalia, floribus unisexualibus dioicis v. rarius monoicis. Fl. ♂ in omnibus consimiles, 3–6-andri.*

√1. Dioscorea. Capsula a latere 3-loba, lobis complanatis fere alæformibus. Semina complanata, deorsum v. circumcirca alata, rarius exalata.—*Area tota ordinis.*

2. Testudinaria. Capsula *Dioscoreæ*. Semina sursum alata, samaroidea. Rhizoma epigæum maximum, lignosum.—*Afr. austr.*

3. Rajania. Capsula abortu monocarpica, complanata, sursum alata, samaroidea.—*Ind. occid.*

4. Tamus. Bacca globosa, indehiscens. Semen globosum, exalatum, embryone minimo.—*Eur., Asia temp., Afr. bor., ins. Canar.*

** *Genera abnormia, floribus hermaphroditis 6-meris 6-andris.*

5. Stenomeris. Caulis volubilis. Paniculæ axillares, breves, laxæ. Perianthii lobi setaceo-acuminati. Ovarium 3-loculare, loculis multiovulatis.—*Ins. Philippin.*

6. Trichopus. Caulis brevis, simplex, apice folium unicum et pedicellorum fasciculum ferens. Ovarium 3-loculare, loculis 2-ovulatis. Capsula indehiscens.—*Ind. or.*

7. Oncus. Caulis alte scandens. Spica longa, laxa, subterminalis. Bacca oblonga, 3-locularis, polysperma.—*Cochinchina.*

8. Petermannia. Caulis alte scandens. Racemi v. cymulæ axillares, pauciflori. Ovarium 1-loculare, placentis 3 parietalibus ∞-ovulatis.—*Australia.*

1. **Dioscorea,** *Linn. Gen. n.* 1122.—Flores unisexuales, dioici v. in distinctis racemis ejusdem rami monoici. Fl. ♂: Perianthium formas omnes in charactere ordinis enumeratas præbet. Stamina nunc 6 in centro floris conferta v. in columnam brevem

connata v. circa ovarii rudimentum distincta omniaque perfecta, nunc 3 perfecta cum staminodiis 3 alternantia, v. 3 absque staminodiis; antheræ parvæ, loculis contiguis v. ad apices connectivi filiformis separatæ. Ovarii rudimentum crassum carnosum v. 0. Fl. ♀: Perianthii segmenta 6, parva, distincta. Staminodia 3–6, minima, v. 0. Ovarium 3-quetrum, 3-loculare; styli 3, brevissimi, stigmatibus terminalibus integris v. 2-fidis supra stylum reflexis; ovula in loculis 2, superposita, sub apice lateraliter affixa. Capsula 3-quetra, angulis v. lobis valde prominentibus a latere complanatis fere alæformibus, loculicide dehiscens, costa marginali loborum a valvis sæpius dehiscentia solvenda. Semina valde compressa, nunc deorsum alata samaroidea, nunc circumcirca ala membranacea cincta, v. omnino exalata, nucleo irregulariter suborbiculato v. fere reniformi; albumen valde compressum, carnosum v. fere cartilagineum, in laminas 2 margine solo connatas divisum; embryo inter laminas brevis, ab hilo parum distans, oblongus, cotyledone suborbiculata terminatus.—Caules e tubere interdum magno hypogæo v. epigæo tenuiter volubiles, alte scandentes v. rarius humiles flexuoso-procumbentes. Folia alterna v. interdum opposita sicut inflorescentia variationes in charactere ordinali descriptas præbent.

Species ex speciminibus in herbariis servatis ad 150, per totam aream ordinis dispersæ, plures tamen masculis solis notis adhuc incertæ. *Kunth, Enum. Pl.* v. 325 *ad* 440. *Walp. Ann.* iii. 647; vi. 147. *Philippi in Linnæa*, xxix. 64; xxxiii. 254. *Linn. Hort. Cliff. t.* 28. *Jacq. Ic. Rar. t.* 626, 627. *Salisb. Parad. Lond. t.* 17. *Wight, Ic. t.* 810 *ad* 815, 878, 2060. *Griseb. in Mart. Fl. Bras.* iii. i. 25, *t.* 6. *Wawra in Pr. Maxim. Reise, t.* 88. *Bot. Mag. t.* 2825, 6409. De embryone cfr. *Beccari in Nuov. Giorn. Bot. Ital.* ii. 149, *t.* 4, et *Solms Laub. in Bot. Zeit.* 1878, 81, *t.* 4.

Genus quoad specierum ordinationem adhuc valde confusum, speciminibus masculis cum fœmineis male comparatis, et monographo perito sedulo commendatur. Kunth aliique ad seminum indolem genera sequentia proposuerunt, quæ tamen ad specimina mascula sola nequaquam distinguenda, et sectiones parum naturales formant:—

1. Borderea, *Miègev. in Bull. Soc. Bot. Fr.* xiii. 374, est *D. pyrenaica*, Bub.; Gren. in Bull. Soc. Bot. Fr. xiii. 380, t. 1, species nana, patria ab omnibus longe distans, 6-andra, filamentis brevissimis, capsula normali sed seminibus omnino exalatis.

2. Epipetrum, *Philippi in Linnæa* xxxiii. 253, est *D. humilis*, Bert. ex Colla, Pl. Chil. Rar. in Mem. Acad. Torin. xxxix. 12, t. 51, f. 2 (*D. pusilla*, Hook. Ic. Pl. t. 678) species Chilensis, nana, *D. pyrenaicæ* subsimilis, et flores ♂ pariter 6-andri, ♀ tamen sæpius ad axillas solitarii, pedunculo tenui spiraliter torto post anthesin intra terram penetrante, capsula matura sepulta; capsulæ lobi minus compressæ et vix alæformes. Semina ut in *D. pyrenaica* exalata, sed minus compressa. In uno specimine capsulæ adsunt fere maturæ ad axillas foliorum breviter tantum pedicellatæ, nec hypogææ.

3. Helmia, *Kunth, Enum. Pl.* v. 414 (Hamatris, *Salisb. Gen. Pl. Fragm.* 11) ab auctore distinguitur seminibus samaroideis deorsum in alam productis, character constans quoad species Asiaticas, etsi nec cum habitu nec floribus masculis consociatus. In *D. triphylla*, Linn., et *D. pentaphylla*, Linn., stamina alterna ad staminodia sterilia reducta, in plerisque speciebus stamina perfecta 6; in *D. dæmona*, Roxb., a qua *D.* (*Helmia*) *Dregeana*, Kunth, ex Africa, non differre videtur, stamina 6 perfecta dicuntur, in speciminibus tamen pluribus 3 alterna ad staminodia reducta invenimus. Species Americanæ haud numerosæ, nonnullæ 6-andræ, pleræque tamen 3-andræ absque staminodiis, in *D. convolvulacea*, Cham. et Schlecht, semina interdum non perfecte samaroidea ala etiam in margine superiore anguste prominente. Botryosycios, *Hochst. in Flora*, 1844, *Beil.* 3, species Abyssinica olim perperam ad *Passifloreas* relata, a *D.* (*Helmia*) *pentaphylla*, Linn., non differre videtur.

4. Dioscorea, *Kunth, Enum. Pl.* v. 325 (Merione, Dioscorea et Polynome, *Salisb. Gen. Pl. Fragm.* 12) ad species quarum semina ala membranacea undique cincta limitatur, charactere tamen cum nullo alio constanter comitato, species plures (e.g. *D. triphylla* et *D. pentaphylla*) quarum auctor semina non vidit et ad *Dioscoream* retulit, semina præbent omnino *Helmiæ*.

Grisebach, in Mart. Fl. Bras. iii. i. 27, genus in sectiones dividit ad formas varias florum ♂, quæ tamen minime cum variationibus seminum conveniunt. Perianthium ♂ fere ad basin 6-partitum, campanulatum v. explanatum in speciebus omnibus gerontogeis et in plerisque Americanis, in nonnullis Americanis perianthium præsertim floris ♀, majus, late cupulatum semi-6-fidum. Huc pertinere videtur Sismondæa, *Delponte in Mem. Acad. Torin. ser.* 2, xiv. 394, *t.* 1, species evidenter eadem ac *D.* (*Helmia*) *subhastata*, Vell. Fl. Flum. Ic. x. t. 121, a Kunthio ad *D. furcatam*, Griseb.,

relata. Racemi ♂ et ♀ sæpe in eodem ramo evolvuntur, quod occurrit etiam in nonnullis aliis speciebus Brasilianis.

Strophis et Elephantodon, *Salisb. Gen. Pl. Fragm.* 12, genera ad descriptiones Loureirianas *D. cirrosæ* et *D. eburneæ*, Lour., proposita, a botanicis recentioribus adhuc non recognita, valde dubia remanent.

Siebera, *Presl in Oken, Isis*, 1838, 275 (ex Pfeiff.), nomen a Steudelio in Beriesam mutatum, genus propositum ad plantam a Siebero sub nomine falso *Dioscoreæ sativæ* distributam, est *Anredera*, Juss., supra p. 78, ubi synonymon casu omissum.

2. **Testudinaria,** *Salisb. in Burch. Trav.* ii. 147.—Flores dioici. Fl. ♂: Perianthium late campanulatum, 6-fidum, lobis subæqualibus v. interioribus paullo majoribus. Stamina 6, infra medium perianthii affixa, filamentis brevibus; antheræ parvæ, ovoideo-globosæ. Styli rudimentum parum prominens. Fl. ♀: Perianthii segmenta parva, distincta. Staminodia parva. Ovarium ovoideum v. oblongum, 3-loculare; styli brevissimi, stigmatibus recurvis 2-lobis; ovula in quoque loculo 2, superposita, pendula. Capsula 3-quetra, angulis seu lobis valde prominentibus a latere complanatis, cuneatis alæformibus. Semina valde compressa, sursum alata, samaroidea; albumen et embryo omnino *Dioscoreæ*.—Rhizoma seu caudex epigæum maximum, hemisphæricum, solido-carnosum v. lignosum, tessellato-lobatum. Caulis tenuiter volubilis, alte scandens. Folia alterna, caudata v. subdeltoidea. Flores parvi, ad axillas racemosi, omnino *Dioscoreæ*.

Species 2, Africæ australis incolæ. *Kunth, Enum. Pl.* v. 440. *Bot. Mag. t.* 1347 (*Tamus*). *Bot. Reg. t.* 921.

Genus vix non pro sectione *Dioscoreæ* habendum, nec differt nisi seminibus sursum nec deorsum nec circumcirca alatis, et tubere maximo tessellato. Tuber tamen non longe diversum a Wawrao in Pr. Maxim. Reise, Bot. t. 88 delineatur in *D. filiformi*, Griseb., e Brasilia.

3. **Rajania,** *Linn. Gen. n.* 1121.—Flores dioici. Fl. ♂: Perianthium late campanulatum v. explanatum, ad medium v. fere ad basin 6-fidum, lobis subæqualibus. Stamina 6, infra medium v. in fundo perianthii affixa, filamentis brevibus; antheræ parvæ, ovoideo-globosæ. Styli rudimentum pulvinatum v. vix prominens. Fl. ♀: Perianthii segmenta 6, parva, distincta. Staminodia minima v. 0. Ovarium ovoideum v. oblongum, 3-loculare; styli brevissimi, stigmatibus recurvis sæpius 2-lobis; ovula in quoque loculo 2 superposita, in uno solo loculo perfecta. Fructus abortu ad carpellum unicum reductus, plano-compressus, samaroideus, superne in alam membranaceam productus, indehiscens, 1-spermus, perianthii reliquiis ad unum latus infra alam persistentibus, et loculis 2 abortivis interdum ad latus fructus leviter prominentibus. Semen plano-compressum, exalatum, albumine more *Dioscoreæ* in laminas 2 diviso, embryonem brevem includente.—Radix 'tuberosa.' Caulis volubilis, et habitus omnino *Dioscoreæ*. Folia alterna, indivisa, hastata cordato-oblonga v. linearia. Flores parvi, racemosi, ♂ secus rhachin sæpe fasciculati v. in racemulos brevissimos dispositi; racemi ♀ et interdum utriusque sexus simplices, pedicellis sparsis brevibus tenuibus.

Species nobis adsunt 6, omnes Indiæ occidentalis incolæ. *Kunth, Enum. Pl.* v. 445, excl. *R. brasiliensi*, Griseb., quæ certe *Dioscoreæ* species (*D. cinnamomea*, Hook.). *Plum. Descr. Pl. Amer. t.* 98; *Pl. Amer. ed. Burm. t.* 155. *Gærtn. Fruct.* i. *t.* 14. *Hook. Ic. Pl. t.* 1392.

Folia in *R. angustifolia*, Sw., haud raro hinc inde in ramulo brevissimo conferta folium digitatum 3–5-foliolatum simulant, et huc forte pertinet *R. quinquefolia*, Linn. Specimina ♂ Brasiliana a Grisebachio ad *R. lobatam*, Poir., relata, verisimiliter ad *Dioscoreæ* speciem pertinent.

4. **Tamus,** *Linn. Gen. n.* 1119. (Tamnus, *Juss. Gen.* 43.)—Flores dioici. Fl. ♂: Perianthium urceolato-campanulatum, demum subrotatum, alte 6-fidum, lobis subæqualibus. Stamina 6, in fundo perianthii circa rudimentum styli depressum v. breviter 3-fidum affixa, perianthio parum v. multo breviora, filamentis filiformibus; antheræ parvæ, ovoideæ. Fl. ♀: Perianthii segmenta 6, parva, angusta, distincta. Staminodia minuta v. 0. Ovarium 3-loculare; stylus breviter columnaris, stigmatibus 3 recurvis emarginatis; ovula in loculis 2, superposita. Bacca subglobosa, succulenta, indehiscens. Semina pauca,

ovoidea v. subglobosa, exalata, testa appressa; albumen solidum, durum, nec 2-partibile; embryo juxta hilum inclusus, obovoideo-oblongus, cotyledone crassiuscula parum dilatata. —Radix tuberosa. Caulis volubilis et habitus omnino *Dioscoreæ*. Folia alterna, cordata, integra v. 3-loba. Racemi axillares, ♂ sæpe elongati, laxi, floribus secus rhachin solitarii pedicellati v. in racemulos seu cymulas laxe paucifloras dispositi; ♀ brevissimi, pauciflori, interdum ad fasciculum sessilem reducti.

Species 2, altera Canariensis, altera per Europam Africam borealem et Asiam temperatam late dispersa. *Kunth, Enum. Pl.* v. 453. *Reichb. Ic. Fl. Germ. t.* 439. *Nees, Gen. Fl. Germ. Monocot.* iii. *n.* 1. *Sibth. Fl. Græc. t.* 958. *Webb, Phytogr. Canar. t.* 223.

5. **Stenomeris,** *Planch. in Ann. Sc. Nat. ser.* 3, xviii. 319.—Flores hermaphroditi. Perianthii tubus supra ovarium urceolatus, ad os parum constrictus, lobi 6, e basi parum latiore setaceo-acuminati fere cirrhiformes. Stamina 6, sub apice tubi 1-seriatim affixa, deflexa, filamentis brevissimis; antherarum connectivum oblongum, crassiusculum, ultra loculos in appendicem elongatam filiformem apice cochleatam v. stylo adhærentem productum. Ovarium 3-loculare; stylus brevis, crassus, obverse pyramidatus, 3-pterus, lobis lateralibus longitudinaliter sulcatis (intra sulcum stigmatosis?); ovula in loculis numerosa, 2-seriatim superposita, anatropa. Fructus (in specimine unico immaturus) elongatus, lobis 3 longitudinalibus more *Dioscoreæ* a latere compressis quasi 3-alatus. Semina . . .—Caulis alte volubilis, uti tota planta glaber, siccitate nigricans. Folia alterna, petiolo basi torto, cordata, acuminata, dissite ∞-nervia, nervis venis transversis dissitis connexis, inter venas reticulato-venulosa. Paniculæ axillares, angustæ, laxæ, folia rarius superantes. Flores pedicellati, secus rhachin laxe breviterque cymulosi. Fructus unicus a nobis visus, jam 10 poll. longus, ½ poll. latus.

Species 2, ins. Philippinarum incolæ, una sola a nobis visa, *Walp. Ann.* vi. 41, altera a *Beccario, Nuov. Giorn. Bot. Ital.* ii. 8, *t.* 2 descripta et delineata, ad specimen Cumingianum in Herb. Webb. n. 1739, sed hic verisimiliter error in scheda latet, nam planta a Cumingio distributa sub n. 1739 est *Leptaspis urceolata*. Genus *Stenomeris* ab ordine longe differt antheris, ovulis numerosis aliisque notis, sed nulli alio affinius videtur.

6. **Trichopus,** *Gærtn. Fruct.* i. 44, *t.* 14. (Trichopodium, *Lindl. Bot. Reg. sub t.* 1543. Podianthus, *Schnitzl. in Bot. Zeit.* 1843, 739.)—Flores hermaphroditi. Perianthium supra ovarium campanulatum, alte 6-fidum, lobis subæqualibus. Stamina 6, ad basin loborum affixa, filamentis brevissimis; antheræ breves, latæ, connectivo in appendicem rectam producto. Ovarium 3-loculare; stylus brevissimus, stigmatibus 3 crassis brevibus reflexis 2-fidis; ovula in quoque loculo 2, superposita, sub apice lateraliter affixa, anatropa. Capsula ovoidea, 3-quetra, perianthio emarcido coronata, indehiscens. Semina oblonga, crassa, transverse rugosa, extrorsum in longitudinem profunde involuto-sulcata, medio ad hilum introrsum fissura transversa notata, testa tenuissima; embryo prope hilum in albumine cartilagineo inclusus.—Rhizoma breve, horizontale. Caules breves, simplices, erecti; apice folium unicum cum fasciculo pedicellorum ferentes. Folium petiolatum, variat a lineari-lanceolato ad cordato-ovatum v. 3-angulare, 3–7-nerve et reticulato-venosum. Pedicelli filiformes, 1-flori.

Species 1, Zeylaniæ et Peninsulæ Indiæ Orientalis incola. *Beccari, Nuov. Giorn. Bot. Ital.* ii. 13, *t.* 3. *Bedd. Ic. Pl. Ind. Or. t.* 290.

Genus a Lindleyo *Aristolochiaceis* relatum, ab auctoribus recentioribus ad *Dioscoreaceas* translatum, a quibus differt habitu, antheris et seminibus. Beccari bene cum utroque ordine comparat.

7. ? **Oncus,** *Lour. Fl. Cochinch.* 194. (Oncorhiza, *Pers. Syn.* i. 374.)—Flores hermaphroditi. Perianthium subcampanulatum, pilosum, tubo oblongo 6-gono sursum ampliato; limbus 6-fidus, reflexus, parvus, laciniis subulatis. Stamina 6, basi laciniarum perianthii affixa, filamentis brevissimis; antheræ subrotundæ, minimæ. Ovarium oblongum, 6-sulcatum, 'superum' sed 'media sua parte tubo perianthii coalitum'; stylus brevis,

3-partitus, stigmatibus 3 oblongis reflexis apice 2-fidis. Bacca 'corollina' (corallina?), oblonga, 6-gona, 3-locularis, polysperma. Semina subrotunda.—Frutex scandens, teres, ramosus, inermis, absque cirris. Tuber maximum, ovatum, inæquale, farinosum, edule. Folia alterna, cordata, subrotunda, acuminata. Spicæ longæ, laxæ, tenues, subterminales. Bracteæ 2, parvæ, erectæ, basin perianthii amplectentes. (*Char. ex Lour.*)

Species 1, Cochinchinensis, a nobis non visa, nec a botanicis recentioribus recognita, et genus adhuc dubium remanet.

8. **Petermannia,** *F. Muell. in Benth. Fl. Austral.* vi. 462.—Flores hermaphroditi. Perianthium supra ovarium fere ad basin 6-partitum; segmenta oblonga, patentia v. demum reflexa, subæqualia v. interiora paullo angustiora. Stamina 6, basi perianthii affixa, segmentis vix breviora, filamentis erectis brevibus; antheræ oblongæ, erectæ, loculis contiguis extrorsum dehiscentibus. Ovarium inferum, ovoideum, apice contractum, 1-loculare, placentis 3 parietalibus; stylus tenuiter columnaris, perianthio brevior, stigmate terminali capitato; ovula in quaque placenta ∞, horizontalia v. pendula (anatropa?). 'Bacca 1-locularis, polysperma.'—Frutex alte scandens, ramosus, caule sæpe aculeolato. Folia alterna, breviter petiolata, oblonga v. lanceolata, acuminata, rigidula, subparallele ∞-nervia, nervis tamen interioribus cum costa confluentibus, venulis reticulatis. Cymulæ v. racemuli laxi, ad axillas laterales v. oppositifolii, pauciflori, rhachi flexuosa; inflorescentia interdum in cirrum ramosum mutata.

Species 1, Australiana. *Hook. Ic. Pl. t.* 1391. Genus habitu perianthio et staminibus potius *Liliaceis* (*Smilaceis*) quam *Dioscoreaceis* accedit, sed ovarium distincte inferum, et in utroque ordine insigne est placentis parietalibus multiovulatis. Baccam unicam olim vidimus in herb. F. Mueller. Specimina serius a C. Mooreo accepta bene florida fructum non ostendunt.

Ordo CLXXVII. **ROXBURGHIACEÆ.**

Wall. Pl. As. Rar. iii. 50. Endl. Gen. 157 (sub *Smilaceis*). Lindl. Veg. Kingd. 219.

Flores hermaphroditi, regulares. *Perianthium* corollinum; lobi v. segmenta 4, 2-seriata, subæqualia. *Stamina* 4, basi loborum v. segmentorum affixa v. fere hypogyna; filamenta crassiuscula, libera v. basi in annulum connata. *Antheræ* erectæ v. dorsifixæ, loculis 2 parallelis v. divergentibus rima longitudinali introrsum dehiscentibus. *Ovarium* liberum v. semi-inferum, 1-loculare; stigma terminale, sessile, parvum, pulvinatum v. didymum. *Ovula* 2-∞, in fundo loculi erecta v. ab apice pendula, anatropa. *Capsula* demum in valvas 2 dehiscens. *Semina* oblonga, funiculo plus minus squamuloso-crinifero quasi stupposo affixa, testa coriacea. *Albumen* carnoso-corneum. *Embryo* axilis, minimus v. longiusculus, radicula ab hilo parum remota.

Caules e rhizomate perenni alte volubiles, v. erecti simplicesque, v. parce ramosi. Folia alterna v. sparsa, petiolata, 3-∞-nervia, venulis transversis crebris parallelis. Pedunculi axillares, filiformes, 1-flori v. laxe pauciflori, v. dense minuteque ∞-flori.

Species ad 8, Asiæ et Australiæ tropicæ, Japoniæ et Floridæ incolæ.

Ordo *Liliaceis* affinis, differt imprimis floribus in quaque serie constanter 2-meris, et ovarii indole. Foliorum venatio etiam peculiaris.

CONSPECTUS GENERUM.

1. Stemona. Caulis alte volubilis. Flores majusculi. Antherarum connectivum ultra loculos in appendicem linearem productum. Ovula et semina e fundo loculi erecta.—*Asia et Australia trop.*

2. Croomia. Caulis erectus, simplex, apice paucifoliatus. Pedunculi 1-2-flori. Antheræ inappendiculatæ. Ovula et semina ex apice loculi pendula.—*Florida, Japonia.*

3. Stichoneuron. Caulis erectus, parce ramosus, paucifoliatus. Pedunculi apice flores ∞ minutos confertos ferentes. Antheræ inappendiculatæ, loculis apice divergentibus. Ovula ex apice loculi pendula.—*Ind. or.*

1. **Stemona,** *Lour. Fl. Cochinch.* 404. (Roxburghia, *Banks in Roxb. Corom. Pl.* i. 29, *t.* 32.)—Perianthii segmenta 4, a basi distincta, 2-seriata, erecta, acuminata, ∞-nervia. Stamina fere hypogyna, filamentis brevibus plus minus in annulum connatis; antheræ lineares, erectæ, connectivo incrassato ultra loculos in appendicem linearem erectam producto. Ovarium liberum, 1-loculare, stigmate parvo sessili coronatum; ovula in fundo loculi 2-∞, erecta, funiculis brevibus v. longiusculis. Capsula ovoidea v. oblonga, 2-valvatim dehiscens. Semina erecta, oblonga, teretia, sulcato-striata, apice breviter rostrata, testa crassiuscula, funiculo plus minus squamuloso-crinifero quasi stupposo; embryo longiusculus, radicula juxta hilum.—Radix tuberosa, fusiformis. Caulis volubilis, alte scandens, uti tota planta glaberrimus. Folia alterna, petiolo inarticulato, lanceolata ovata v. cordata, nitidula, 3-∞-nervia, venulis transversis creberrimis. Pedunculi axillares, nunc breves 1-flori solitarii v. 2-3-ni, nunc racemoso-pauciflori v. in ramulum foliatum florentemque abeuntes. Flores majusculi.

Species 4 v. 5, Indiæ orientalis, Archipelagi Malayani et Australiæ tropicæ incolæ, *Kunth, Enum. Pl.* v. 286. *Benth. Fl. Austral.* vii. 1. *Sm. Exot. Bot. t.* 57. *Wall. Pl. As. Rar. t.* 282. *Wight, Ic. t.* 2061. *Bot. Mag. t.* 1500; (*omnes sub Roxburghia*). *Kurz in Journ. Asiat. Soc. Beng.* xlii. 109, *t.* 10.

2. **Croomia,** *Torr. et Gr. Fl. N. Amer.* i. 663.—Perianthii segmenta 4, a basi distincta, 2-seriata, patentissima. Stamina fundo perianthii affixa, segmentis opposita iisque subbreviora, filamentis crassiusculis liberis; antheræ ovali-oblongæ, dorsifixæ, loculis contiguis, connectivo inconspicuo. Ovarium lata basi sessile v. toro leviter immersum, depresso-globosum, 1-loculare, stigmate pulvinato parum prominente coronatum; ovula 4-6, ab apice loculi pendula. Capsula oblique ovoidea, rostrata, pericarpio subherbaceo demum 2-valvi. Semina pauca, ab apice loculi suspensa, funiculo dense crinifero quasi stupposo, testa coriacea; embryo minimus, hilo proximus.—Rhizoma repens. Caules erecti, simplices, basi vaginis 1-2 parvis stipati, apice breviter foliati. Folia pauca, irregulariter conferta v. parum dissita, petiolata, oblongo-cordata, 5-∞-nervia, transversim venulosa. Pedunculi axillares, filiformes, folio multo breviores, 1-2-flori. Flores parvi. Bracteæ minimæ.

Species 2, altera Floridana, altera Japonica. *A. Gray in Mem. Amer. Acad. ser.* 2, vi. 453, *t.* 31, *et Gen. Pl. U. S. Illustr. t.* 37. *Miq. in Ann. Mus. Lugd. Bat.* ii. 138.

3. **Stichoneuron,** *Hook. f. gen. nov.*—Perianthium ima basi ovario adnatum, campanulatum, 4-fidum; lobi ovati, 2-seriati, subæquales. Stamina 4, basi loborum affixa iisque breviora, filamentis crassis; antherarum loculi discreti, ad apicem filamenti divergentes, connectivo inappendiculato. Ovarium semi-inferum, 1-loculare, vertice intra perianthium convexum, stigmatibus 3 brevissimis latis obtusissimisque coronatum; ovula ∞, ab apice loculi pendula, anatropa. Fructus . . .—Rhizoma breve. Caules erecti, superne in ramos 2-3 paucifoliatos divisi. Folia alterna, brevissime petiolata, membranacea, pinnatim 3-5-nervia, venulis transversis crebris tenuibus. Pedunculi axillares, rigidule filiformes. Flores ad apicem pedunculi plures, minuti, confertim breviterque racemulosi, pedicellis brevibus filiformibus, bracteis setaceis parvis imbricatis.

Species 1, Indiæ orientalis incola. *Wall. Cat. Herb. Ind. n.* 9110 (*absque nomine*). Genus evidenter *Croomiæ* affine, etsi fructus et semina adhuc ignota.

Ordo CLXXVIII. **LILIACEÆ.**

Endl. Gen. 139. Lindl. Veg. Kingd. 200. Smilaceæ, Endl. Gen. 152. Lindl. Veg. Kingd. 215. Alph. DC. Monogr. Phaner. i. 1. Philesiaceæ et Trilliaceæ, Lindl. Veg. Kingd. 217, 218. Gilliesiaceæ, Lindl. Veg. Kingd. 196. Melanthaceæ, Endl. Gen. 133. Lindl. Veg. Kingd. 198.

Flores hermaphroditi v. rarius abortu unisexuales, regulares v. rarius irregulares. *Perianthium* inferum, ab ovario liberum v. rarissime basi brevissime adnatum, marcescens persistensque v. mox deciduum, corollinum, tubo 0 v. plus minus evoluto; segmenta v. lobi 6, rarissime 4, 8, v. ∞, plus minus distincte 2-seriata, utriusque seriei similia v. parum diversa, in quaque serie sæpissime similia, leviter imbricata v. exteriora valvata. *Stamina* sæpissime 6, hypogyna v. perianthio affixa, segmentis v. lobis opposita; filamenta libera v. varie connata. *Antheræ* longæ v. breves, basi v. dorso v. introrsum varie affixæ, loculis 2 sæpius parallelis, rima longitudinali v. rarius poro terminali dehiscentibus. In paucis generibus stamina seriei interioris desunt, v. plus quam 6 adsunt, v. andrœcium valde obliquum v. uno latere tantum antheriferum, v. antheræ loculi in unum confluentes. *Ovarium* superum, rarissime basi tubo brevi perianthii adnatum, sæpissime 3-loculare placentis axilibus, v. interdum 1-loculare placentis 3 parietalibus, rarissime cum perianthio 2-merum v. 4–∞-merum. *Stylus* nunc filiformis v. columnaris, indivisus, stigmate terminali parvo capitato dilatato v. 3-dymo, nunc apice v. fere a basi 3-fidus v. in stylos 3 distinctos solutus, ramis stylisve filiformibus v. brevibus, apice v. superne introrsum stigmatosis, v. rarius stigmata ad apicem ovarii sessilia. *Ovula* in quoque loculo 2 collateralia, v. ∞ 2-seriatim superposita, rarius in loculis solitaria, v. numerosissima irregulariter conferta, anatropa hemianatropa v. in paucis generibus orthotropa, basi medio v. apice lateraliter affixa v. rarius horizontalia. *Fructus* nunc baccatus v. carnosus, indehiscens, nunc siccus, capsularis, loculicide v. septicide dehiscens v. partibilis, v. rarius irregulariter ruptus, in paucis generibus 3-lobus v. fere ad basin in carpella 3 stellato-divaricata v. in nuculas distinctas divisus. *Semina* numerosa pauca v. in toto fructu ad 1–2 reducta, sessilia v. funiculo brevi interdum strophiolo instructo fulta, v. strophiolo a rhaphe dilatato instructa; testa nunc laxa membranacea crassiuscula v. crustacea, nunc tenuis albumini arcte appressa, rarius apice basi v. utrinque in appendicem v. circumcirca in alam producta. *Albumen* copiosum, carnosum cartilagineum v. corneum, nec farinaceum. *Embryo* nunc minutus globosus, nunc plus minus elongatus, interdum albumine vix brevior, rectus v. curvulus, extremitate radiculari hilo proxima v. ab eo plus minus remota.

Herbæ sæpissime perennes v. frutices, rarius arborescentes. Rhizoma nunc brevissimum v. a basi bulbi non distinctum, fibris radicalibus fasciculatis haud raro carnosis v. tuberoso-incrassatis, nunc hypogæum tuberosum v. lignosum, descendens v. horizontale v. longe reptans, nunc in caudicem erectum lignosum simplicem v. ramosum productum. Caulis herbaceus v. lignosus, erectus v. alte scandens, varie foliatus v. ad scapum aphyllum reductus, v. inter folia radicalia non v. vix evolutus. Folia polymorpha, caulina v. radicalia. Inflorescentia axillaris v. in scapo v. pedunculo terminalis, nunc 1–2-flora, nunc umbellata spicata racemosa v. paniculata, v. ad fasciculum intra folia sessilem reducta. Bracteæ variæ, sæpius scariosæ v. parvæ, rarius sub umbella spathiformes. Habitus cæterum in diversis tribubus valde diversus.

Species bene notæ ad 2100, per varias regiones utriusque orbis latissime dispersæ, in temperatis subtropicisque tamen copiosiores quam inter tropicos, in terris siccis petrosis apricisque numerosæ, in frigidis alpinisque v. in uliginosis paucæ, aquaticæ fluitantes deesse videntur.

Ordo vastus et polymorphus, a diversis botanicis varie extensus v. in ordines plures divisus, a nonnullis finitimis limitibus quodammodo incertis separatus, et difficillime in tribus distinctas dividendus. Seminum structura cum *Irideis, Amaryllideis* et *Juncaceis* convenit, quarum 2 priores ovario constanter infero facile dignoscendæ. *Juncaceæ* tamen vix nisi perianthio minore calycino v. glumaceo differunt, et genera nonnulla hic in *Juncaceis* inclusa, fere æquo jure ad *Liliaceas* referenda.

Hæmodoracearum genera ovario libero (semper generibus ovario infero v. seminifero arcte connexa) distinguimus præsertim embryone intra albumen intruso nec incluso, charactere in nonnullis ulterius probando. *Ophiopogoneæ* et *Conanthereæ*, quas in *Hæmodoraceis* includimus, a botanicis plurimis ad *Liliaceas* anomalas referuntur. His tamen exclusis, ovarium in *Liliaceis* nunquam inferum nec semi-inferum, nec, speciebus perpaucis exceptis, ima basi tubo turbinato perianthii adnatum.

FORMÆ ABNORMES.

Flores in quaque serie 2-meri in *Maianthemo*, 4-meri in *Aspidistro* et interdum in *Tupistra*, 4-∞-meri in *Paride*.

Perianthium parum irregulare, lobis segmentisve 1–3 minoribus v. obsoletis in *Gilliesia* et in *Chionographide*; segmenta exteriora subherbacea in *Trillio* interdumque in *Calochorto*.

Stamina perfecta 3 tantum in *Heterosmilace*, *Rusco*, *Anemarrhena*, *Hodgsoniola*, *Leucocoryne*, *Stawellia*, *Sowerbæa*, *Johnsonia*, *Hewardia*, et in speciebus paucis generum nonnullorum aliorum; plus quam 6 in *Pleea*, et rarius in *Smilace*.

Andrœcium valde obliquum v. uno latere tantum antheriferum in *Gilliesia* affinibusque.

Ovarium 1-loculare placentis parietalibus in *Lapageria*, *Philesia*, *Asteliæ* speciebus, et *Scoliopode*; 1-loculare 2-ovulatum in *Rusco*; 1-loculare 3-ovulatum in *Dasylirio*.

Ovula orthotropa in *Smilace*, *Rusco*, nonnullisque affinibus.

Fructus parvus nuculiformis 1-spermus indehiscens in *Agrostocrino*, e nuculis 1–3 1-spermis in *Tricoryne*, membranaceus indehiscens v. irregulariter ruptus in *Nolina*, *Dasylirio* et *Scoliopode*.

Semina aculeis brevibus exasperata in *Xeronemate*, pilis longis dense vestita in *Eriospermo*, papillis subpiliformibus dense obtecta in *Blandfordia*.

CONSPECTUS TRIBUUM (exceptis neglectis).

SERIES A. Caulis ebulbosus, ima basi sæpius squamatus superne foliatus, v. scapus squamatus. Antheræ introrsum dehiscentes. Fructus sæpissime baccatus.

Tribus I. Smilaceæ. Caulis sarmentosus v. scandens. Folia 3–5-nervia, reticulato-venulosa. Antheræ specie 1-loculares. Ovula orthotropa v. hemianatropa.

Tribus II. Asparageæ. Caulis ramosus v. scandens. Cladodia foliiformia v. acicularia. Ovula orthotropa v. hemianatropa.

Tribus III. Luzuriageæ. Caulis fruticoso-ramosus v. scandens. Folia varia. Antheræ normales. Ovula anatropa, rarius hemianatropa.

Tribus IV. Polygonateæ. Caulis herbaceus, simplex v. parce ramosus, superne foliatus. Ovula anatropa.

Tribus V. Convallarieæ. Folia in rhizomate fasciculata, cum scapo laterali aphyllo basi sæpe squamis vaginantibus inclusa. Racemus v. spica interrupta simplex. Ovula anatropa.

Tribus VI. Aspidistreæ. Folia in rhizomate pauca, ampla, petiolata v. basi contracta. Scapus inter folia simplex, brevissimus 1-florusque, v. apice dense spicifer. Stigma sæpius latissime peltatum.

SERIES B. Folia in rhizomate v. ad apicem caudicis dense conferta v. ad basin scapi bulbum formantia, in caule v. scapo radicalibus minora v. 0. Antheræ introrsum dehiscentes. Fructus loculicide dehiscens, rarius indehiscens v. baccatus.

Tribus VII. Hemerocalleæ. Folia in rhizomate brevi conferta, linearia v. membranacea. Scapus elatus. Perianthium cylindraceum infundibuliforme v. campanulatum. Filamenta in foveolam dorsalem antherarum intrusa. Fructus capsularis.

Tribus VIII. Aloineæ. Rhizoma durum, sæpe in caudicem lignosum productum. Folia sæpius coriaceo-carnosa v. rigida, interdum spinoso-dentata. Perianthii segmenta in tubum conniventia v. connata v. apice breviter patentia. Filamenta in foveolam dorsalem antherarum intrusa. Fructus capsularis, rarius carnosus.

Tribus IX. Dracæneæ. Rhizoma breve v. in caudicem lignosum productum. Folia varia nec carnosa. Perianthium campanulatum cylindraceum v. rarius infundibuliforme, segmentis sæpius distinctis. Antheræ dorsifixæ non foveolatæ. Fructus capsularis v. carnosus, rarius baccatus. Inflorescentia sæpe paniculata.

Tribus X. Asphodeleæ. Rhizoma breve sæpius brevissimum. Caulis rarius bulbosus. Folia non carnosa. Perianthii segmenta sæpius distincta, patentia. Antheræ variæ. Fructus capsularis, rarissime baccatus. Inflorescentia simplex v. parce ramosa.

Subtribus 1. Euasphodeleæ. *Folia ad basin caulis ebulbosi conferta, caulina dum adsint minora. Antheræ dorsifixæ, versatiles, sæpius leviter foveolatæ.*

Subtribus 2. Chlorogaleæ. *Folia e bulbo pauca. Antheræ dorsifixæ, versatiles, non foveolatæ.*

Subtribus 3. Bowieæ. *Folia e tubere crasso v. bulbo carnoso pauca, cito evanida v. coætanea. Caulis seu scapus aphyllus v. rarius basi 1-foliatus, interdum ramosissimus. Antheræ erectæ, basi v. prope basin affixæ.*

Subtribus 4. Anthericeæ. *Rhizoma breve sæpe brevissimum. Folia ad basin caulis conferta. Antheræ erectæ, basi v. prope basin affixæ.*

Subtribus 5. Dianelleæ. *Folia rigidula disticha, nunc ad basin caulis conferta, nunc secus caulem numerosa. Antheræ erectæ.*

Tribus XI. Johnsonieæ. Rhizoma breve v. reptans. Caulis ebulbosus, sæpius humilis, ramosus v. junceus. Flores in fasciculum seu capitulum terminale conferti, bracteis imbricatis.

Tribus XII. Allieæ. Bulbus seu cormus tunicatus v. rarius folia in rhizomate brevissimo conferta. Umbella in scapo aphyllo terminalis, bracteis 2–∞ involucrata.

Subtribus 1. Agapantheæ. *Bulbus 0. Folia radicalia conferta.*

Subtribus 2. Euallieæ. *Bulbus seu cormus tunicatus. Scapus evolutus. Bracteæ involucrantes 2 rarius ∞. Andrœcium regulare.*

Subtribus 3. Gilliesieæ. *Bulbus tunicatus. Scapus evolutus. Bracteæ involucrantes 2. Andrœcium valde obliquum v. uno latere tantum antheriferum.*

Subtribus 4. Massonieæ. *Bulbus tunicatus. Scapus brevissimus, umbella densa inter folia subsessili. Bracteæ involucrantes 3–∞.*

Tribus XIII. Scilleæ. Bulbus tunicatus. Racemus, rarius spica, in scapo aphyllo terminalis, simplex.

Tribus XIV. Tulipeæ. Bulbus tunicatus v. squamosus. Caulis 1–∞-foliatus. Flores pauci v. laxe racemosi.

Series C. Bulbus tunicatus v. caulis ebulbosus herbaceus, rarius alte scandens, basi v. superne foliatus. Antheræ sæpius (nec semper) introrsum affixæ extrorsum dehiscentes. Capsula sæpius septicide, interdum loculicide dehiscens v. bacca indehiscens. Embryo parvus, sæpius minutus.

Tribus XV. Colchiceæ. Cormus tunicatus. Scapus intra vaginas hypogæas brevissimus, 1–3-florus. Perianthii tubus longus. Antheræ introrsum dehiscentes. Capsula septicida.

Tribus XVI. Anguillarieæ. Bulbus sæpissime tunicatus. Folia in caule pauca, angusta, basi cum vagina continua. Antheræ extrorsum dehiscentes. Capsula septicida v. loculicida.

Tribus XVII. Narthecieæ. Caulis ebulbosus. Folia radicalia conferta v. petiolata, caulina minora sæpe minima v. 0. Antheræ extrorsum rarius introrsum dehiscentes. Capsula septicida v. loculicida.

Tribus XVIII. Uvularieæ. Caulis ebulbosus, foliatus, herbaceus v. alte scandens. Folia alterna, sessilia v. amplexicaulia, absque vaginis. Antheræ extrorsum dehiscentes. Capsula loculicida v. septicida, rarius bacca indehiscens.

Tribus XIX. Medeoleæ. Caulis ebulbosus, foliatus. Folia pauca subradicalia v. in caule verticillata. Flores terminales, solitarii v. umbellati. Antheræ extrorsum dehiscentes. Bacca indehiscens.

Tribus XX. Veratreæ. Caulis elatus, basi bulbosus v. ebulbosus, foliatus v. præter folia radicalia subaphyllus. Flores paniculati v. racemosi. Antheræ extrorsum dehiscentes, loculis confluentibus, polline emisso orbiculato-peltatæ. Capsula septicida.

CONSPECTUS GENERUM.

SERIES A. Caulis florifer nec bulbosus nec foliis radicalibus stipatus, ima basi sæpius squamatus, superne sæpius foliatus, herbaceus fruticosus v. alte scandens, v. interdum scapus aphyllus, squamatus, e rhizomate a foliis separatim evolutus. Antheræ extrorsum v. basi affixæ, loculis introrsum dehiscentibus. Fructus (*Herreria* excepta) baccatus, indehiscens. Semina varia, nunc nigra, embryone longo seriei B, nunc pallida, embryone parvo rarius tamen minuto seriei C.

Tribus I. Smilaceæ. Caulis sæpius lignosus, sarmentosus v. alte scandens. Folia sæpius coriacea, 3–5-nervia, inter nervos reticulato-venulosa. Flores parvuli, umbellis racemisve axillaribus v. in panicula terminali dispositis. Antherarum loculi ad normam paralleli, sed valva interiore cujusque loculi angustissima, anthera aperta 1-locularis videtur. Ovula in ovarii loculis solitaria v. gemina, orthotropa v. hemianatropa. Embryo in albumine duro ab hilo remotus.

1. HETEROSMILAX. Flores dioici, umbellulati. Perianthium indivisum, ore minute dentato. Petioli cirriferi.—*Ind. or., Archip. Malay., China, Japonia.*

2. SMILAX. Flores dioici, umbellulati. Perianthium 6-partitum. Petioli cirriferi.—*Utriusque orbis reg. trop. et temp.*

3. RHIPOGONUM. Flores hermaphroditi, spicati v. racemosi. Perianthium 6-partitum. Cirri 0.—*Australia, Nov. Zel.*

Tribus II. Asparageæ. Caulis sæpe lignosus, erectus ramosus v. alte scandens. Cladodia foliiformia ∞-nervia, v. acicularia. Flores parvi, fasciculati solitarii v. breviter racemosi. Antherarum loculi distincti v. apice confluentes. Ovula in loculis 2 v. pauca, orthotropa v. hemianatropa. Embryo in albumine duro ab hilo remotus.

* *Filamenta in urceolum connata, antheris ad os urceoli sessilibus.*

4. RUSCUS. Flores dioici. Perianthii segmenta distincta. Antheræ 3. Florum fasciculi in media facie cladodiorum.—*Eur., Reg. Mediterr., Madera, Caucasus.*

5. SEMELE. Perianthii lobi patentes, tubo longiores. Antheræ 6. Florum fasciculi ad margines cladodiorum v. rarius in media facie.—*Ins. Canar.*

6. DANAE. Perianthium subglobosum, lobis brevibus erectis, fauce corona carnosa instructa. Antheræ 6. Florum racemi breves, terminales, a cladodiis foliiformibus distincti.—*Oriens.*

** *Filamenta libera.*

7. ASPARAGUS. Perianthii segmenta distincta. Flores solitarii fasciculati v. racemosi, a cladodiis acicularibus v. foliiformibus distincti.—*Orbis veteris reg. trop. et temp.*

Tribus III. Luzuriageæ. Caulis erectus, ramosus, fruticosus v. alte scandens. Folia varia. Flores ad axillas foliorum v. apices ramorum solitarii fasciculati cymosi v. rarius racemosi. Antherarum loculi distincti. Ovula in loculis v. placentis pauca v. numerosa, anatropa v. hemianatropa.

* *Capsula a latere 3-loba, in carpella 3 septicide partibilis.*

8. HERRERIA. Folia fasciculata, cladodiis *Danais* simillima. Flores parvi, racemosi. Perianthii segmenta distincta. Ovarium 3-loculare.—*Amer. austr. extratrop.*

** *Bacca indehiscens.*

9. BEHNIA. Folia sparsa, cladodiis *Rusci* similia. Flores parvuli, racemosi. Perianthii lobi tubo lato breviores. Ovarium 3-loculare.—*Afr. austr.*

10. LAPAGERIA. Folia 3–5-nervia. Flores magni, solitarii v. pauci. Perianthii segmenta distincta, erecta, subæquilonga. Ovarium 1-loculare, placentis 3 parietalibus.—*Chile.*

11. PHILESIA. Folia 1-nervia. Flores majusculi, solitarii v. pauci. Perianthii segmenta distincta, erecta, exteriora interioribus multo breviora. Ovarium 1-loculare, placentis 3 parietalibus.—*Chile austr., Terra Magell.*

12. LUZURIAGA. Folia tenuiter ∞-nervia. Flores mediocres, ad axillas solitarii v. pauci. Perianthii segmenta distincta, patentia. Ovarium 3-loculare. Semina pallida.—*Chile, Nov. Zel.*

13. EUSTREPHUS. Folia tenuiter ∞-nervia. Flores parvuli, ad axillas fasciculati. Perianthii segmenta distincta, patentia. Ovarium 3-loculare. Semina nigra, opaca.—*Australia.*

14. GEITONOPLESIUM. Folia tenuiter ∞-nervia. Flores parvuli, ad apices ramorum v. rarius simul ad axillas foliorum cymosi. Perianthii segmenta distincta, patentia. Ovarium 3-loculare. Semina nigra, nitida.—*Australia, N. Caledonia, ins. Pacif.*

Tribus IV. Polygonateæ. Caulis herbaceus, simplex v. parce ramosus, superne foliatus. Flores axillares, v. racemus rarius panicula terminalis.

* *Flores in axillis 1–2, rarius plures, sæpius nutantes.*

15. Polygonatum. Perianthii tubus cylindraceus, lobi breves. Stylus indivisus, stigmate parvo.—*Hemisph. bor. reg. temp.*

16. Streptopus. Perianthii tubus 0; segmenta superne v. fere a basi patentia. Stylus breviter v. longiuscule 3-fidus.—*Hemisph. bor. reg. temp.*

17. Drymophila. Perianthii tubus 0; segmenta patentia. Stylus fere a basi 3-partitus.—*Australia.*

(Confer etiam 177 Disporum, antheris tamen extrorsum dehiscentibus.)

** *Racemus v. panicula terminalis. Perianthii tubus 0, segmenta patentia.*

18. Smilacina. Flores in quaque serie 3-meri.—*Amer. bor., Asia temp. et mont.*

19. Maianthemum. Flores in quaque serie 2-meri.—*Hemisph. bor. reg. temp.*

Tribus V. Convallarieæ. Folia in rhizomate fasciculata. Scapus ad basin foliorum lateralis, aphyllus, basi sæpe cum foliorum fasciculo squamis vaginantibus scariosis inclusus v. ex axilla folii oriundus. Flores in scapo simpliciter racemosi v. interrupte spicati.

20. Convallaria. Perianthium subglobosum, lobis tubo brevioribus. Flores racemosi, nutantes.—*Eur., Asia temp., Amer. bor.*

21. Theropogon. Perianthium subglobosum, segmentis distinctis. Flores racemosi, subnutantes.—*Himalaya.*

22. ? Speirantha. Perianthii segmenta distincta, patentissima. Flores racemosi, patentes nec nutantes. (Fructus ignotus.)—*China.*

23. Reineckea. Perianthii tubus cylindraceus, lobi recurvo-patentes. Flores in spica sessiles, dissiti.—*China, Japonia.*

Tribus VI. Aspidistreæ. Folia in rhizomate pauca, ampla, petiolata v. basi contracta. Scapus inter folia simplex, aphyllus, brevissimus, 1-florus, v. erectus spica simplici densa terminatus. Perianthium campanulatum, lobis tubo non longioribus. Stigma sæpius maximum, late peltatum, orbiculatum v. 3–6-lobum.

24. Aspidistra. Scapi brevissimi, 1-flori. Flores 4-meri. Stigma maximum, orbiculato-peltatum, indivisum.—*Ind. or., China, Japonia.*

25. Tupistra. Spica densa, cylindracea. Flores sæpius 3-meri. Perianthii lobi patentes. Stigma crassum, orbiculato-peltatum v. 3–6-lobum.—*Ind. or.*

26. Rohdea. Spica densa, cylindracea. Flores 3-meri. Perianthii lobi inflexi. Stigma late peltatum, 3-lobum. Folia vix petiolata.—*Japonia.*

27. Gonioscypha. Spica densa, cylindracea, apice bracteis vacuis linearibus comosa. Flores 3-meri. Perianthii lobi patentes. Stylus quam in præcedentibus tenuior, stigmate 3-lobo.—*Himalaya.*

Series B. Folia nunc in rhizomate v. ad apicem caudicis interdum arborei conferta, nunc pauca radicalia v. ad basin scapi bulbum formantia, in caule v. scapo radicalibus sæpissime minora v. 0. Antheræ extrorsum v. basi affixæ, loculis introrsum v. a latere subintrorsum dehiscentibus. Ovula anatropa v. hemianatropa. Fructus sæpius capsularis, loculicide dehiscens, in paucis generibus indehiscens carnosus v. siccus, in perpaucis bacca indehiscens v. capsula septicida. Semina sæpius nigra; embryo albumine carnoso parum v. dimidio rarius subtriplo brevior.

Excepta: Folia caulina radicalibus longiora in speciebus perpaucis *Dianellearum.*

Capsula septicida in *Calochorto.* Fructus plus minus carnosus v. baccatus in *Dracæneis* nonnullis, et in *Dianella.*

Tribus VII. Hemerocalleæ. Folia in rhizomate v. ad basin caulis numerosa, conferta, linearia v. membranacea nec carnosa. Scapus seu pedunculus elatus, aphyllus v. rarius foliis paucis parvis instructus. Flores sæpius magni, paniculati racemosi v. spicati. Perianthium cylindraceum v. infundibuliforme, segmentis basi in tubum connatis v. conniventibus. Antheræ filamentum in foveola dorsali recipientes. Ovula numerosa. Fructus capsularis.

Excepta: Flores minores late campanulati in *Notosceptro.*

28. HEMEROCALLIS. Flores erecti, in panicula pauci. Perianthii infundibuliformis tubus cylindraceus, lobis brevior. Stamina ad apicem tubi affixa. Folia longa, angusta.—*Eur.*, *Asia temp.*, *Japonia.*

29. PHORMIUM. Flores erecti, in panicula ramosa. Perianthii subincurvi segmenta supra tubum turbinatum laxe conniventia. Stamina ad apicem tubi affixa. Folia longa, angusta.—*Nov. Zel.*

30. BLANDFORDIA. Flores penduli. Perianthii tubus superne ampliatus, lobis brevibus. Stamina medio tubo affixa. Capsula *septicide dehiscens.* Folia longa, angusta.—*Australia.*

31. FUNKIA. Flores penduli, racemosi. Perianthii infundibuliformis tubus brevis v. longus. Stamina sæpe hypogyna. Folia petiolata, sæpius lata.—*China*, *Japonia.*

32. KNIPHOFIA. Flores spicati, reflexi. Perianthium anguste tubulosum, lobis brevibus. Stamina hypogyna. Folia longa, angusta.—*Afr. austr. et trop.*, *Madagasc.*

33. NOTOSCEPTRUM. Flores dense spicati, non reflexi. Perianthium breve, late campanulatum, alte lobatum. Stamina hypogyna. Folia longa, angusta.—*Afr. austr.*

Tribus VIII. Aloineæ. Folia in rhizomate v. ad apicem caudicis lignosi conferta, coriaceo-carnosa, crassa v. rigida, margine sæpe spinuloso-serrata v. cartilaginea. Scapi seu pedunculi simplices v. ramosi, in axillis superioribus v. pseudoterminales. Perianthii segmenta in tubum conniventia v. connata. Antheræ dorsifixæ, filamento in foveolam intruso. Ovula in loculis numerosa. Fructus siccus rarius carnosus, demum loculicide dehiscens.

34. GASTERIA. Perianthii segmenta alte in tubum basi ventricosum arcte connata, apice breviter libera. Stamina tubo inclusa.—*Afr. austr.*

35. ALOE. Perianthii segmenta usque ad apicem in tubum cohærentia v. conniventia, v. apice brevissime subpatentia. Stamina sæpius exserta.—*Afr. austr. et trop.*, *Asia occid.*, *Reg. Mediterr.*, *ins. Canar.*

36. APICRA. Perianthii segmenta alte cohærentia v. connata, apice breviter stellato-patentia. Stamina perianthio paullo breviora.—*Afr. austr.*

37. HAWORTHIA. Perianthii sæpius incurvi segmenta alte cohærentia v. conniventia, apice recurvo sub-2-labiatim patentia. Stamina perianthium non excedentia.—*Afr. austr. et trop.*

38. LOMATOPHYLLUM. Perianthium *Alois.* Stamina perianthio subbreviora. Fructus coriaceo-carnosus, vix tardius loculicide dehiscens (v. interdum indehiscens?).—*Ins. Mascar.*

Tribus IX. Dracæneæ. Folia in rhizomate v. ad apicem caudicis lignosi numerosa, conferta. Scapus seu pedunculus erectus, sæpe elatus, simplex v. paniculatus, præter bracteas foliaceas aphyllus. Perianthium cylindraceum campanulatum v. infundibuliforme. Antheræ basi v. dorso affixæ, non foveolatæ. Fructus siccus carnosus v. baccatus, loculicide dehiscens irregulariter ruptus v. indehiscens.

39. HESPEROCALLIS. Caudex brevis, lignosus, fere cormiformis. Flores in racemo indiviso magni. Perianthium infundibuliforme, tubo cylindraceo. Ovula in loculis ∞. Capsula loculicida.—*California.*

40. HESPERALOE. Caudex brevissimus. Racemus indivisus v. parum ramosus. Perianthium cylindraceum, segmentis vix cohærentibus. Ovula in loculis ∞. Capsula loculicida, valvis sæpe 2-fidis.—*Texas.*

41. YUCCA. Caudex lignosus, humilis v. elatus. Panicula floribunda. Perianthium subglobosum v. campanulatum, segmentis vix basi connatis. Antheræ *parvæ in filamento clavato sessiles.* Ovula in loculis ∞. Fructus carnosus v. baccatus indehiscens, v. capsula varie dehiscens.—*Amer. bor.*, *Mexico*, *Amer. centr.*

42. DRACÆNA. Caudex lignosus, humilis v. arborescens. Panicula nunc ampla floribunda, nunc ad racemum indivisum v. capitulum sessile reducta. Perianthium infundibuliforme v. anguste campanulatum. Ovula in loculis solitaria, erecta. Bacca indehiscens.—*Orb. veteris reg. calid.*

43. CORDYLINE. Caudex lignosus, sæpe arborescens. Panicula ampla, floribus parvulis. Perianthium cylindraceum v. anguste campanulatum, tubo brevi. Ovula in loculis ∞. Fructus parvus, subglobosus, carnosus, indehiscens v. vix demum breviter loculicide fissus.—*Ind. or.*, *Archip. Malay.*, *ins. Pacif.*, *N. Zel.*, *Australia*, *Brasilia.*

44. NOLINA. Rhizoma breve v. caudex lignosus. Flores polygamo-dioici, parvuli. Pani-

cula laxa. Perianthium campanulatum, segmentis distinctis. Ovula in loculis 2. Fructus siccus, sæpe 3-alatus, maturitate irregulariter ruptus—*Reg. Mex.-Tex.*

45. DASYLIRION. Caudex lignosus. Flores dioici, parvuli. Panicula densa. Perianthium campanulatum, segmentis distinctis. Ovula in ovario 1-loculari 3. Fructus siccus, indehiscens v. tardius septicide fissus.—*Reg. Mex.-Tex.*

46. ASTELIA. Rhizoma breve. Indumentum sericeum v. lanosum. Racemi in ramis paniculæ densi. Flores polygamo-dioici, parvuli. Perianthium campanulatum, segmentis basi connatis. Ovula in loculis v. placentis ∞. Fructus parvus, carnosus, indehiscens.—*Ins. Pacif., N. Zel., Australia, Amer. antarct.*

47. MILLIGANIA. Rhizoma breve. Indumentum laxe pilosum. Panicula ampla. Flores hermaphroditi, parvuli. Perianthii tubus campanulatus, lobi patentes. Ovula in loculis ∞. Capsula superne loculicida.—*Tasmania.*

Tribus X. Asphodeleæ. Rhizoma breve, sæpius brevissimum, bulbo rarius formato. Inflorescentia racemosa, simplex v. ramosa. Folia non crasso-carnosa. Perianthii segmenta sæpius distincta, patentia, nec (nisi in speciminibus siccis) conniventia. Antheræ variæ. Capsula (excepta *Dianella*) loculicida.

Excepta: Perianthium infundibuliforme in *Paradisea*, tubo longo hypocraterimorphum in *Leucocrino*, segmentis linearibus erectis in *Xeronemate*.

Subtribus 1. Euasphodeleæ. *Rhizoma brevissimum v. tuberosum descendensque. Bulbus 0. Folia radicalia sæpius longa, conferta, caulina 0 v. sparsa, radicalibus minora. Racemus simplex v. panicula parum ramosa. Antheræ dorsifixæ, versatiles, filamento in foveolam sæpius intruso. Capsula loculicida.*

Excepta: Antheræ erectæ *Anthericearum* in *Bulbinis* Australiensibus.

48. XERONEMA. Racemus densus, simplex, secundus, scapo abrupte inflexo horizontalis. Perianthii segmenta linearia, cum staminibus longioribus erecta. Ovula in loculis ∞.—*Nov. Caled.*

49. ANEMARRHENA. Scapus aphyllus. Racemus longus, erectus. Stamina 3, in mediis segmentis interioribus affixa. Ovula in loculis 2.—*China borealis.*

50. ASPHODELUS. Scapus aphyllus, indivisus v. parce ramosus. Flores albi. Stamina hypogyna, filamentis ima basi concavis ovarium includentibus. Ovula in loculis 2.—*Reg. Mediterr., Ind. or., ins. Mascar.*

51. ASPHODELINE. Caulis plus minus foliatus. Flores sæpius flavi. Cætera *Asphodeli.*—*Reg. Mediterr., Oriens.*

52. PARADISEA. Scapus aphyllus v. 1-foliatus. Flores pauci, majusculi, in racemo laxo secundi. Perianthium infundibuliforme. Stamina hypogyna. Ovula in loculis ∞.—*Alp. Eur., Pyren.*

53. SIMETHIS. Caulis aphyllus, laxe paniculatus. Stamina basi segmentorum affixa, filamentis superne villoso-barbatis. Ovula in loculis 2.—*Eur. occid., Afr. bor.-occid.*

54. BULBINELLA. Caulis aphyllus. Flores parvuli, in racemo numerosi. Filamenta glabra. Antheræ non foveolatæ. Ovula in loculis 2.—*Afr. austr., Nov. Zel., Terr. Antarct.*

55. BULBINE. Caulis aphyllus. Flores parvuli v. mediocres, in racemo numerosi. Filamenta longe barbata. Antheræ non foveolatæ. Ovula in loculis 4–∞.—*Afr. austr. et trop., Australia.*

Subtribus 2. Chlorogaleæ. *Bulbus fere Scillearum, sed inflorescentia sæpe ramosa cæteraque Asphodelearum. Antheræ versatiles, non foveolatæ. Capsula loculicida.*

Genera boreali-Americana inter se parum distincta.

56. CHLOROGALUM. Panicula laxe ramosa. Perianthii segmenta 3-nervia, post anthesin supra capsulam sæpe torta. Stylus longus.—*California.*

57. SCHŒNOLIRION. Inflorescentia parce ramosa, interdum indivisa. Perianthii segmenta 3-nervia, post anthesin sub capsula laxe marcescentia. Stylus brevis.—*Amer. bor., civit. austral.*

58. HASTINGSIA. Perianthii segmenta 1-nervia. Cætera *Schœnolirii.*—*California.*

Subtribus 3. Bowieæ. *Folia e tubere crasso v. bulbo carnoso pauca, cito evanida v. coætanea. Caulis seu scapus aphyllus, interdum ramosissimus, rarius basi 1-phyllus. Antheræ parvæ, prope basin dorsifixæ. Ovula in loculis ∞, sæpius pauca. Capsula loculicida.*

59. BOWIEA. Bulbus tuberiformis. Folia perpauca v. solitaria, linearia, ante anthesin evanida. Caulis seu scapus intricato-ramosissimus, subscandens. Semina glabra.—*Afr. austr.*

60. SCHIZOBASIS. Bulbus tunicatus. Folia perpauca v. solitaria, linearia, ante anthesin evanida. Caulis seu scapus tenuis, sæpe filiformis, erectus, laxe ramosus v. intricato-ramosissimus. Semina glabra.—*Afr. austr. et trop.*

61. ERIOSPERMUM. Tuber interdum cormiforme. Folia lanceolata v. lata, solitaria v. pauca, ante anthesin evanida v. coætanea. Caulis rarius ramosus, pedicellis sæpe longis. Semina *pilis longis dense lanata.—Afr. austr. et trop.*

Subtribus 4. Anthericeæ. *Rhizoma breve, sæpius brevissimum, rarius repens, fibris radicalibus fasciculatis sæpe carnosis v. tuberiferis. Bulbus 0. Folia radicalia sæpius conferta, caulina perpauca v. sæpissime 0. Racemus simplex v. panicula ramosa. Antheræ erectæ, basifixæ v. juxta basin dorsifixæ, filamento ibidem sæpius in foveolam intruso, apice sæpius recurvæ v. revolutæ.*

* *Inflorescentia in scapo simplici v. ramis paucis racemosa v. spicata. Perianthium post anthesin non v. parum tortum. Stylus filiformis, stigmate parvo (excepta Bottinæa). Ovula in loculis 4–∞.*

62. EREMURUS. Racemus simplex, longus, densus. Stamina demum perianthio æquilonga v. longiora, filamentis filiformibus.—*Oriens, Asia Rossica, Ind. or.*

63. ACROSPIRA. Inflorescentia *Antherici*. Stamina perianthio breviora, filamentis brevibus latis, antheris magnis.—*Angola.*

64. ANTHERICUM. Inflorescentia simplex v. parce ramosa, racemis sæpius tenuibus. Stamina perianthio breviora, filamentis filiformibus v. parum incrassatis. Capsulæ anguli parum prominuli.—*Europa, Afr. trop. et extratrop., Amer. bor. et austr.*

65. CHLOROPHYTUM. Inflorescentia quam in *Antherico* sæpius densior, haud raro ramosa. Stamina perianthio breviora, filamentis sæpe nec semper medio incrassatis. Capsula acute 3-quetra v. fere 3-alata.—*Asia, Afr. trop. et austr., Amer. bor. et austr.*

66. DASYSTACHYS. Spica in scapo simplici v. ramis paucis longa, dense cylindracea, floribus parvulis subsessilibus. Stamina perianthio sublongiora, filamentis leviter complanatis. Capsula *Chlorophyti.—Afr. trop.*

67. ECHEANDIA. Antheræ filamentis longiores, circa stylum in cylindrum cohærentes; cætera *Antherici.—Amer. trop. a Guiana usque ad Mexicum.*

68. BOTTINÆA. Inflorescentia *Antherici*. Perianthii segmenta interiora ciliato-fimbriata *Thysanoti*. Stylus crassiusculus, stigmate 3-lobo.—*Chile.*

(Vide etiam 55, BULBINIS species Australianas.)

** *Panicula laxa, interdum ad umbellam v. fasciculum reducta, rarius racemus laxe pauciflorus. Perianthium post anthesin non v. parum tortum.*

69. THYSANOTUS. Perianthii segmenta interiora fimbriato-ciliata. Filamenta glabra. Ovula in loculis 2.—*Australia, Archip. Malay., China.*

70. ARTHROPODIUM. Perianthii segmenta interiora integerrima v. margine crispula. Filamenta piloso-barbata. Ovula in loculis 4–∞.—*Australia, Nov. Zel., Nov. Caled.*

71. DICHOPOGON. Perianthium *Arthropodii*. Filamenta glabra, apice utrinque appendicula ab anthera descendente auriculata. Ovula in loculis ∞.—*Australia.*

*** *Inflorescentia varia. Perianthium emarcidum distincte spiraliter tortum.*

72. PASITHEA. Panicula laxa. Ovarium toro carnoso lata basi impositum. Stigma breviter 3-lobum. Ovula in loculis 4.—*Chile.*

73. CHAMÆSCILLA. Panicula v. cyma laxa. Stigma parvum. Ovula in loculis ∞.—*Australia.*

74. HODGSONIOLA. Racemus simplex. Antheræ 3 in cylindrum circa stylum cohærentes; staminodia 3, libera. Ovula in loculis 2.—*Australia.*

75. CÆSIA. Flores secus ramos paniculæ dissite fasciculati. Stamina normalia. Ovula in loculis 2.—*Australia, Afr. austr.*

76. AGROSTOCRINUM. Panicula parum ramosa. Perianthium post anthesin supra basin persistentem circumscissum. Antheræ poro terminali dehiscentes. Ovula in loculis 2.—*Australia.*

77. CORYNOTHECA. Caules aphylli, sæpius intricato-ramosissimi. Flores minuti, secus ramos sparsi. Ovula in loculis 2. Fructus abortu 1-spermus, indehiscens, nuculiformis.—*Australia.*

**** *Genera anomala, caule brevissimo, floribus inter folia radicalia solitariis v. fasciculatis, sæpius subsessilibus.*

78. HERPOLIRION. Folia disticha. Perianthium 6-partitum, non tortum. Filamenta filiformia. Ovula in loculis ∞.—*Nov. Zel., Tasmania, Victoria.*

79. NANOLIRION. Folia quaquaversa. Perianthium 6-partitum, post anthesin tortum. Filamenta complanata. Ovula in loculis 2.—*Afr. austr.*

80. LEUCOCRINUM. Folia quaquaversa. Perianthium hypocraterimorphum, tubo longo tenui. Ovula in loculis ∞.—*Amer. bor.*

(Vide etiam 64, *Antherici* sect. *Holopodium.*)

Subtribus 5. Dianelleæ. *Rhizoma lignosum, breve horizontale v. stoloniferum. Caulis rigidus, ima basi v. undique distiche foliatus. Paniculæ rami laxe cymosi. Filamenta varie incrassata v. dense tomentoso-lanata. Ovula in loculis ∞.*

81. DIANELLA. Filamenta apice v. medio carnoso-incrassata. Bacca indehiscens.—*Amer. trop., ins. Pacif., Nov. Zel., Australia, ins. Mascar.*

82. ECCREMIS. Filamenta supra medium carnoso-incrassata. Capsulæ exocarpium loculicide 3-valve, endocarpium septicide dehiscens.—*Andes Amer. austr.*

83. STYPANDRA. Filamenta dense tomentoso-lanata. Capsula loculicide 3-valvis.—*Australia.*

Tribus XI. Johnsonieæ. Rhizoma breve v. reptans, bulbo 0. Caulis nunc junceus nunc humilis, interdum ramosus, aphyllus v. dense foliatus. Flores in capitulis terminalibus sessiles v. in fasciculis umbelliformibus pedicellati, bracteis semper dense imbricatis.

* *Bracteæ paleaceæ.*

84. APHYLLANTHES. Caules junciformes, basi paucivaginati. Capitulum oblongum, 1-2-florum. Perianthium infundibuliforme. Stamina 6. Ovula in loculis solitaria.—*Reg. Mediterr.*

85. JOHNSONIA. Caules cæspitosi, subjuncei, aphylli, foliis radicalibus. Capitulum spiciforme, ∞-florum. Perianthii tubus turbinatus, lobi longiores patentes. Stamina 3. Ovula in loculis 2.—*Australia.*

** *Bracteæ scariosæ.*

86. ARNOCRINUM. Caules juncei, aphylli, ima basi dense lanati, foliis radicalibus. Capitula parva, floribus sessilibus. Perianthium hypocraterimorphum, post anthesin tortum. Stamina 3. Ovula in loculis 2.—*Australia.*

87. TRICORYNE. Caules virgati, ramosi, foliis paucis v. parvis. Flores in fasciculis parvis pedicellati. Perianthium 6-partitum, post anthesin tortum. Stamina 6. Ovula in loculis 2. Fructus e nuculis 1-3 1-spermis.—*Australia.*

88. LAXMANNIA. Caules dense cæspitosi v. elongati, ramosi, foliis linearibus subulatisve confertis. Flores in capitulo sessiles v. pedicellati. Perianthium 6-partitum. Stamina 6. Ovula in loculis 2-4.—*Australia.*

89. STAWELLIA. Herba humilis, dense cæspitosa, foliis radicalibus lineari-filiformibus. Flores in capitulo sessiles. Perianthium 6-partitum, in eodem capitulo dimorphum. Stamina 3. Ovula in loculis 2.—*Australia.*

90. BORYA. Caules brevissimi cæspitosi v. longiores ramosi, foliis linearibus subulatisve confertis. Flores e capitulo pedicellati. Perianthium hypocraterimorphum. Stamina 6. Ovula in loculis ∞.—*Australia.*

91. ALANIA. Caules diffuse ramosi, foliis lineari-subulatis confertis. Flores e capitulo pedicellati. Perianthium 6-partitum. Stamina 6. Ovula in loculis pauca.—*Australia.*

92. SOWERBÆA. Caules juncei, foliis radicalibus. Flores e capitulo pedicellati. Perianthium 6-partitum. Stamina 3. Ovula in loculis pauca.—*Australia.*

Tribus XII. Allieæ. Bulbus seu cormus tunicatus, v. rarius folia in rhizomate brevissimo non bulbifero conferta. Umbella in scapo simplici aphyllo terminalis, laxa v. rarius fere in capitulum condensata. Bracteæ membranaceæ sub umbella 2-∞, liberæ v. basi connatæ, involucrantes, interiores sub pedicellis minores, sæpius paucæ v. omnino desunt. Capsula loculicide dehiscens, valvis rarius septicide fissis.

Subtribus 1. Agapantheæ. *Rhizoma breve, fibris radicalibus fasciculatis. Bulbus 0.*

93. AGAPANTHUS. Perianthium infundibuliforme, ecoronatum, lobis tubo longioribus. Stamina fauci affixa.—*Afr. austr.*

94. TULBAGHIA. Perianthium urceolatum v. fere hypocraterimorphum; corona in fauce e squamis 3 integris 2-partitisve liberis v. in annulum connatis. Stamina tubo 2-seriatim inclusa. —*Afr. austr. et trop.*

Subtribus 2. Euallieæ. *Bulbus seu cormus tunicatus. Scapus evolutus. Bracteæ involucrantes 2, rarius ∞. Andrœcium regulare.*

* *Perianthium hypocraterimorphum v. urceolatum.*

95. TRISTAGMA. Perianthii tubus cylindraceus, ad faucem sæpe squamis 3–6 coronatus. Stamina 6, intra tubum 2-seriatim inclusa.—*Chile.*

96. LEUCOCORYNE. Perianthii tubus cylindraceus, ad faucem staminodiis 3 squamiformibus coronatus. Stamina 3, intra tubum inclusa.—*Chile.*

97. MILLA. Perianthii tubus cylindraceus, ad os annulo parum prominulo constrictus. Stamina 6, ad os tubi filamentis brevissimis exserta.—*Mexico.*

98. ? DIPHALANGIUM. Perianthii tubus medio ventricosus, lobi tubo longiores. Stamina 6, tubo 2-seriatim inclusa. Capsula usque ad medium cum perianthii tubo connata.—*Mexico.*

99. STROPHOLIRION. Perianthii tubus subglobosus, ad os constrictus, costis 6 subvesiculoso-inflatis percursus. Stamina 3, fauci affixa, cum staminodiis totidem alterna. Scapus sæpius longe volubilis.—*California.*

100. BREVOORTIA. Perianthii tubus late cylindraceus, basi breviter 6-saccatus, lobi multoties breviores. Stamina 3, fauci affixa, staminodiis totidem pone antheras in coronam spuriam connatis.—*California.*

** *Perianthium infundibuliforme v. campanulatum, lobis tubo æqualibus v. longioribus.*

101. BRODIÆA. Stamina perfecta 6 v. 3, fauci v. tubo affixa, filamentis liberis brevissimis v. filiformibus.

102. ANDROSTEPHIUM. Stamina 6, fauci affixa, filamentis in tubum alte connatis. Perianthii tubus superne ampliatus, lobis subæqualis.—*Amer. bor.*

103. BESSERA. Stamina 6, fauci affixa, filamentis in tubum alte connatis. Perianthii tubus turbinatus, lobis multo brevior.—*Mexico.*

*** *Perianthium rotatum v. campanulatum, segmentis distinctis v. basi in annulum seu cyathum connatis.*

104. BLOOMERIA. Cormus fibroso-tunicatus. Filamenta basi in squamas truncatas ovarium cingentes dilatata.—*California.*

105. MUILLA. Cormus fibroso-tunicatus. Filamenta infra medium leviter dilatata.—*California.*

106. NOTHOSCORDUM. Bulbus tunicatus. Perianthii segmenta basi v. ad medium connata (odor alliaceus deest).—*Amer. extratrop. v. andin., China, in aliis reg. inquilina.*

107. ALLIUM. Bulbus tunicatus. Perianthii segmenta distincta, v. basi in annulum brevissimo connata (odor alliaceus constans ?).—*Hemisph. bor. extratrop., Abyssinia, Mexico.*

Subtribus 3. Gilliesieæ. *Bulbus tunicatus. Scapus evolutus. Bracteæ involucrantes 2. Andrœcium valde obliquum v. uno latere tantum antheriferum.*

108. GILLIESIA. Perianthii segmenta 6 rarius 5, distincta, inæqualia; coronæ squamellæ 3–12, lineares. Staminum filamenta in urceolum carnosum valde obliquum apice latere inferiore 3-antheriferum connata.—*Chile.*

109. MIERSIA. Perianthii segmenta 6, distincta, subæqualia; coronæ squamellæ 6, integræ v. 2-fidæ. Staminum filamenta in urceolum valde obliquum ventricosum ore 6-antheriferum connata.—*Chile.*

110. TRICHLORA. Perianthii segmenta 3, distincta, subæqualia; corona 0. Staminum filamenta in urceolum latum 5–6-lobum connata, lobis 3 antheriferis, 3 v. 2 anantheris.—*Peruvia.*

111. ERINNA. Perianthium infundibuliforme, tubo brevi, lobis 6 angustis subæqualibus. Filamenta 3 brevissima, antheris longis, 3 filiformia ananthera.—*Chile.*

112. SOLARIA. Perianthii tubus brevis, campanulatus; lobi patentes, interiores breviores, corona 0. Filamenta basi dilatata in annulum connata, 3 inferiora antherifera, antheris ovatis, 3 superiora ananthera.—*Chile.*

113. GETHYUM. Perianthii segmenta 6, distincta, perangusta, subæqualia; corona e squamellis 6. Filamenta basi in membranam latam connata, 3 inferiora antherifera, 3 superiora ananthera.—*Chile.*

114. ANCRUMIA. Perianthii tubus breviter campanulatus; lobi longi, 3 exteriores lanceolati, 3 interiores breviores lineares; corona e squamellis 6. Filamenta 3, basi dilatata, breviterque connata, 2 antherifera, tertium anantherum.—*Chile.*

Subtribus 4. Massonieæ. *Bulbus tunicatus. Scapus brevissimus, umbella densa inter folia subsessili. Bracteæ involucrantes 3–∞, imbricatæ. Andræcium regulare.*

115. MASSONIA. Perianthii tubus cylindraceus, æqualis; lobi æquales, patentes v. reflexi. Stamina 6, perianthio longiora, filamentis basi in annulum connatis.—*Afr. austr.*

116. DAUBENYA. Perianthii tubus cylindraceus, apice sæpe oblique ampliatus; limbus valde obliquus, latere exteriore elongatus quasi ligulatus, lobi inæquales, postico minimo. Stamina 6, perianthio breviora.—*Afr. austr.*

Tribus XXIII. Scilleæ. Bulbus tunicatus. Racemus, rarius spica, in scapo aphyllo simplici terminalis. Bracteæ sub floribus singulis herbaceæ scariosæ v. parvæ, nunquam involucrantes.

* *Perianthii tubus cylindraceus v. campanulatus rarius brevissimus. Ovula in loculis ∞. Semina obovoidea v. globosa.*

117. WHITEHEADIA. Perianthii tubus abbreviatus. Filamenta basi in annulum prominentem more *Massoniæ* connata. Spica brevis, bracteis herbaceis concavo-cucullatis flores superantibus.—*Afr. austr.*

118. POLYXENA. Perianthii tubus cylindraceus, lobi multo breviores. Filamenta filiformia, a basi distincta. Folia radicalia 2, *Massoniæ*. Bracteæ parvæ, scariosæ.—*Afr. austr.*

119. LACHENALIA. Perianthium tubulosum v. subcampanulatum; segmenta conniventia v. plus minus connata, exteriora interioribus breviora. Bracteæ parvæ, scariosæ.—*Afr. austr.*

** *Perianthii tubus cylindraceus v. campanulatus. Ovula in loculis ∞, sæpius numerosa. Semina valde compressa v. angulata.*

120. DRIMIA. Perianthii tubus campanulatus, lobi patentissimi. Stamina e fauce exserta, erecta, conniventia.—*Afr. austr. et trop.*

121. RHADAMANTHUS. Perianthii tubus campanulatus, lobi erecti, subconniventes. Antheræ erectæ, circa stylum conniventes. Flores in racemo tenui parvi, penduli.—*Afr. austr.*

122. LITANTHUS. Perianthium cylindraceum, lobis brevissimis. Planta pusilla, tenerrima, flore parvo in scapo filiformi unico nutante.—*Afr. austr.*

123. DIPCADI. Perianthii tubus cylindraceus, lobi exteriores patentes, interiores erectiores brevioresque. Racemus laxus, bracteis subscariosis angustis.—*Eur. austr., Ind. or., Afr. trop. et austr.*

124. GALTONIA. Perianthii tubus latiusculus, lobi patentes, subæquales v. interiores paullo latiores. Flores in racemo longo laxo speciosi, candidi, penduli, bracteis membranaceo-scariosis. —*Afr. austr.*

*** *Perianthii segmenta a basi distincta. Ovula in loculis numerosa. Semina valde compressa.*

125. ALBUCA. Perianthii persistentis segmenta exteriora patentia, interiora paullo breviora, erecta, apice conniventia, varie cristata.—*Afr. austr. et trop.*

126. URGINEA. Perianthii decidui segmenta subæqualia, campanulato-conniventia v. patentia. Habitus *Scillæ*.—*Europa, Reg. Mediterr., Ind. or., Afr. trop. et austr.*

**** *Perianthii tubus varius, lobi breviores v. longiores. Ovula in loculis 2–6, rarius plura. Semina obovoidea v. globosa, nec complanata nec angulata.*

127. VELTHEIMIA. Perianthium cylindraceum, lobis brevissimis. Capsula membranaceo-scariosa, 3-alata. Flores in spica v. racemo conferti, penduli.—*Afr. austr.*

128. RHODOCODON.—Perianthium campanulatum, lobis tubo multo brevioribus. Flores in racemo laxo penduli.—*Madagasc.*

129. MUSCARI. Perianthium urceolato-globosum, ad faucem constrictum, lobis brevissimis dentiformibus. Stamina inclusa.—*Europa, Afr. bor., Asia occid.*

130. HYACINTHUS. Perianthium infundibuliformi-campanulatum, ad faucem non constrictum, lobis tubo brevioribus æqualibus rarius paullo longioribus. Stamina tubo v. fauci affixa, filamentis filiformibus v. basi dilatatis.—*Reg. Mediterr., Oriens, Afr. trop. et austr.*

131. PUSCHKINIA. Perianthii lobi tubo campanulato longiores. Staminum filamenta in cyathum ultra antheras in conum productum connata. Flores pauci, laxe racemosi.—*Asia occid.*

132. CHIONODOXA. Perianthii lobi tubo campanulato longiores. Staminum filamenta omnia v. alterna petaloideo-dilatata, erecta nec connata. Flores pauci, laxe racemosi.—*Oriens.*

***** *Perianthii segmenta distincta v. ima basi brevissime connata. Ovula in loculis 2–∞. Semina obovoidea v. globosa, nec complanata nec angulata.*

133. DRIMIOPSIS. Perianthii segmenta concava v. cucullata, conniventia. Staminum filamenta alte complanato-dilatata. Flores parvi, in spica v. racemo denso subsessiles.—*Afr. austr. et trop.*

134. EUCOMIS. Perianthii segmenta patentia. Staminum filamenta infra medium dilatata. Racemus longus, densus, apice bracteis vacuis herbaceis v. coloratis comosus.—*Afr. austr.*

135. SCILLA. Perianthii segmenta patentia v. rarius campanulato-conniventia, 1-nervia. Staminum filamenta filiformia v. basi complanata. Flores cærulei rosei v. purpurascentes rarius albidi.—*Europa, Asia temp. et mont., Afr. extratrop. v. mont.* (*Chile ?*)

136. CAMASSIA. Perianthii segmenta patentia, 3–∞-nervia. Staminum filamenta filiformia. Flores cærulei purpurascentes v. albidi.—*Amer. bor.*

137. ORNITHOGALUM. Perianthii segmenta patentia, unicoloria v. dorso late vittata, nervis obscuris. Staminum filamenta basi v. alte complanata. Flores undique v. margine albi flavi v. miniati, nec cærulei nec roseo-purpurascentes.—*Europa, Oriens, Afr. extratrop. et trop., in Amer. inquilina.*

Tribus XIV. Tulipeæ. Bulbus tunicatus v. carnoso-squamatus. Caulis erectus, 1–∞-foliatus. Flores pauci, sæpius magni, laxe racemosi. Perianthii segmenta distincta. Capsula, excepto *Calochorto*, loculicide dehiscens.

138. LILIUM. Perianthium infundibuliforme v. subcampanulatum, unguibus segmentorum sæpius sulco nectarifero præditis. Flores nutantes penduli v. rarius erecti. Antheræ lineares, dorsifixæ, versatiles.—*Hemisph. bor. reg. temp.*

139. FRITILLARIA. Perianthium campanulatum, segmentis supra basin sæpius foveola v. macula nectarifera instructis. Flores nutantes v. penduli. Antheræ lineares v. oblongæ, erectæ, basifixæ, filamento sæpius intruso.—*Hemisph. bor. reg. temp.*

140. TULIPA. Perianthium campanulatum v. subinfundibuliforme, segmentis prope basin sæpe maculatis nec foveolatis. Antheræ oblongo-lineares, erectæ, basifixæ, filamento intruso. Flores sæpissime erecti.—*Europa, Afr. bor., Asia occid. et centr., Japonia.*

141. ERYTHRONIUM. Perianthii segmenta angusta, a medio v. fere a basi recurva v. reflexa. Antheræ oblongo-lineares, erectæ, basifixæ, filamento intruso. Caulis infra medium 2-foliatus. Flores nutantes.—*Europa, Asia Rossica, Japonia, Amer. bor.*

142. GAGEA. Perianthii segmenta patentia, non foveolata. Antheræ ovatæ v. oblongæ, erectæ, basifixæ. Racemus pedicellis longis suberectis sæpe fere umbelliformis. Flores quam in præcedentibus minores, sæpe flavi.—*Europa, Afr. bor., Asia temp. et mont.*

143. LLOYDIA. Perianthii segmenta demum patentia, basi plica transversali v. foveola instructa. Antheræ ovato-oblongæ, erectæ, basifixæ. Caulis humilis, gracilis, apice 1–2-florus. —*Europa, Asia med. et bor., Amer. bor.*

144. CALOCHORTUS. Perianthii segmenta subgloboso-conniventia v. patentia, exteriora interioribus foveolatis sæpius angustiora v. minora, subcalycina et non v. vix foveolata. Antheræ oblongæ v. lineares, erectæ, basifixæ, filamento longe intruso. Capsula *septicide dehiscens v. 3-partita.* Flores erecti v. penduli.—*Amer. bor., Mexico.*

SERIES C. Bulbus seu cormus tunicatus, v. caulis ebulbosus, herbaceus, basi v. superne foliatus. Antheræ nunc sæpius introrsum affixæ, loculis extrorsum v. a latere dehiscentibus, nunc extrorsum prope basin affixæ, loculis introrsum dehiscentibus. Ovula anatropa. Capsula sæpius septicide

dehiscens v. partibilis, interdum loculicida v. bacca indehiscens. Embryo prope hilum parvus, sæpe minutus, rarissime tertiam partem albuminis excedens.

Series a botanicis plerisque recognita, sæpeque pro ordine proprio *Melanthacearum* v. *Colchicacearum* distincta, charactere tamen nullo constante stricte definita. Genera nunc antheris plus minus in extera versis, nunc capsula, sæpissime embryone parvo, recognoscenda.

Tribus XV. Colchiceæ. Cormus hypogæus, tunicatus, foliis radicalibus. Scapus intra vaginas hypogæus, brevissimus, 1–3-florus. Perianthii segmentorum ungues in tubum longum tenuem conniventes v. connati. Antheræ angustæ, dorsifixæ, loculis introrsum dehiscentibus. Capsula septicide dehiscens.

145. COLCHICUM. Perianthii tubus integer. Styli 3, a basi distincti.—*Europa, Asia occid. et centr., Afr. bor.*

146. SYNSIPHON. Perianthii tubus integer. Stylus intra tubum integer, extra faucem 3-fidus.—*Asia centr.*

147. BULBOCODIUM. Perianthii segmentorum ungues distincti, in tubum conniventes. Stylus intra tubum integer, apice 3-fidus.—*Europa, Asia Ross. austr.*

148. MERENDERA. Perianthii segmentorum ungues distincti, in tubum conniventes. Styli 3, a basi distincti.—*Reg. Mediterr., Affghan., Abyssinia.*

Tribus XVI. Anguillarieæ. Bulbus seu cormus tunicatus, rarius 0. Caulis sæpe humilis, 1-∞-foliatus, foliis angustis basi cum vagina continuis. Antherarum loculi distincti, extrorsum dehiscentes. Styli 3, distincti v. rarius basi in stylum connati. Capsula septicide v. loculicide dehiscens.—Perianthii segmenta sæpe basi glandulis v. maculis nectariferis notata.

* *Capsula septicide dehiscens.*

149. BURCHARDIA. Caulis *ebulbosus*. Perianthii segmenta distincta, laminis patentibus. Flores in umbella terminali pedicellati.—*Australia.*

150. ANDROCYMBIUM. Perianthii segmenta distincta, unguibus erectis, laminis erecto-patentibus. Folia in caule brevi basi dilatata, inflorescentiam capituliformem involucrantia.—*Afr. austr., Reg. Mediterr.*

151. WURMBEA. Perianthii tubus brevis, lobi longiores patentes. Flores in spica terminali subsessiles.—*Afr. austr., Australia.*

152. BÆOMETRA. Perianthii segmenta distincta, unguibus erectis, laminis patentibus. Flores in racemo terminali pauci, breviter pedicellati. Capsula longa, erecta.—*Afr. austr.*

153. DIPIDAX. Perianthii segmenta distincta, unguibus brevibus suberectis, laminis patentibus. Flores in spica terminali subsessiles. Capsula turbinata truncata v. 3-loba.—*Afr. austr.*

** *Capsula loculicide dehiscens.*

154. ANGUILLARIA. Perianthium persistens, segmentis oblongis patentibus. Flores in spica terminali subsessiles.—*Australia.*

155. ORNITHOGLOSSUM. Perianthium sub fructu persistens, segmentis angustis patentibus. Flores longe pedicellati, laxissime racemosi.—*Afr. austr.*

156. IPHIGENIA. Perianthium post anthesin caducissimum, segmentis linearibus patentibus. Flores ad axillas bractearum foliacearum longe pedicellati, vix racemosi, interdum in caule solitarii.—*Ind. Or., Nov. Zel., Australia, Madagasc., Afr. trop.*

Tribus XVII. Narthecieæ. Rhizoma breve v. reptans, bulbus 0. Folia radicalia conferta disticha, v. petiolata patentia, caulina minora, nunc minima v. 0. Perianthium (an semper?) persistens. Antheræ basi v. juxta basin affixæ, loculis a latere subintrorsum v. subextrorsum dehiscentibus.

* *Capsula loculicide dehiscens.*

† *Antherarum loculi subintrorsum dehiscentes. Stylus indivisus.*

157. NEITNERIA. Folia radicalia linearia, rigida, disticha, caulina perpauca. Inflorescentia ramosa, fere corymboso-cymosa, pedicellis erectis rigidis. Perianthium rigidum, segmentis basi in tubum ovario adnatum connatis.—*Mont. Roraima Guianæ.*

158. NARTHECIUM. Folia radicalia linearia, rigida, disticha, caulina perpauca v. 0. Racemus simplex v. parce ramosus. Perianthii segmenta rigida, distincta, patentia.—*Hemisph. bor. reg. temp.*

159. Metanarthecium. Folia membranacea, radicalia oblonga, petiolata, caulina perpauca minima v. 0. Racemus spiciformis, simplex v. parce ramosus. Perianthii segmenta distincta, linearia.—*Japonia.*

†† *Antherarum loculi subextrorsum dehiscentes. Styli 3.*

160. Chamælirion. Folia membranacea, radicalia obovalia petiolata, caulina minora angustiora. Racemus spiciformis, simplex. Flores dioici. Perianthii segmenta linearia, subæqualia, Antheræ parvæ, subglobosæ.—*Amer. bor.*

161. Chionographis. Habitus et inflorescentia *Chamælirii.* Flores hermaphroditi. Perianthii segmenta 2–4 superiora linearia, 4–2 inferiora minima v. obsoleta. Antheræ parvæ, 2-globosæ.—*Japonia.*

162. Xerophyllum. Folia radicalia conferta, longe linearia, rigida, caulina subulata, sparsa. Racemus terminalis, simplex, floribundus, primum dense pyramidatus, demum valde elongatus. —*Amer. bor.*

163. Hewardia. Folia radicalia rigida, linearia, disticha, caulina pauca spathiformia. Flos unicus, terminalis, majusculus. Stamina 3, antheris longis. Styli basi breviter connati.—*Tasmania.*

** *Capsula septicide dehiscens v. partita.*

† *Antherarum loculi subextrorsum dehiscentes.*

164. Heloniopsis. Folia membranacea, radicalia petiolata, oblonga, caulina pauca, minima v. 0. Flores ad apicem scapi pauci, majusculi. Stamina perianthio sublongiora. Stylus indivisus.—*Japonia.*

165. Helonias. Folia membranacea, radicalia petiolata, caulina pauca minima. Flores parvuli, dense racemosi. Stamina perianthio paullo longiora. Styli 3, brevissimi.—*Amer. bor.*

†† *Antherarum loculi introrsum dehiscentes.*

166. Tofieldia. Folia radicalia linearia, caulina pauca parva v. 0. Flores parvuli, in racemo spiciformi v. spica subsessiles. Styli 3, brevissimi.—*Hemisph. bor. reg. temp. et mont., Andes Amer. austr.*

167. ? Petrosavia. Caulis aphyllus, squamatus, tenuis. Flores parvi, in racemo simplici laxo. Stigmata 3, in carpellis sessilia.—*Borneo.*

168. Pleea. Stamina 6–12. Cætera *Tofieldiæ.*—*Carolina.*

Tribus XVIII. Uvularieæ. Rhizoma tuberosum v. repens. Caulis simplex v. ramosus, brevis v. alte scandens, foliatus, foliis sessilibus v. amplexicaulibus nec vaginatis. Flores axillares v. terminales, solitarii v. rarius gemini v. pauci. Antheræ extrorsum dehiscentes. Stylus filiformis, (excepta *Walleria*) 3-fidus. Capsula loculicida, rarius septicida.

* *Capsula (ubi nota) loculicida.*

169. Schelhammera. Caulis humilis, sæpe ramosus. Flores terminales. Perianthii segmenta patentia.—*Australia.*

170. Kreysigia. Caulis simplex. Flores axillares. Perianthii segmenta a basi patentia.—*Australia.*

171. Uvularia. Caulis parum ramosus. Flores terminales, penduli. Perianthii segmenta erecta, conniventia v. superne patentia.—*Amer. bor.*

172. Gloriosa. Caulis alte scandens. Flores speciosi, in axillis longe pedicellati. Perianthii segmenta patentia, sæpissime undulato-crispa.—*Asia et Afr. trop.*

173. Sandersonia. Caulis (an semper ?) simplex, suberectus. Flores aurantiaci, axillares. Perianthium urceolato-globosum, lobis brevissimis.—*Natal.*

174. Littonia. Caulis scandens. Flores aurantiaci, axillares. Perianthii segmenta distincta, suberecta, campanulato-conniventia.—*Afr. austr. et trop.*

175. ? Walleria. Caulis simplex, elatus. Flores axillares. Perianthii tubus brevissimus, lobi patentes. Antherarum loculi poro terminali dehiscentes. Stylus indivisus.—*Afr. trop.*

** *Capsula septicida.*

176. Tricyrtis. Perianthii segmenta erecta, conniventia, superne patentia, exteriora basi saccata. Flores axillares v. in cyma terminali laxe dichotoma.—*Himalaya, Japonia, China.*

*** *Bacca indehiscens.*

177. Disporum. Perianthii segmenta erecta, conniventia, superne patentia, basi sæpe (nec semper) foveolata v. saccata. Flores ad apices ramulorum solitarii gemini v. rarius umbellati. —*Asia mont. et centr., Japonia,*Amer. bor.*

Tribus XIX. Medeoleæ. Caulis ebulbosus, simplex. Folia membranacea, lata, pauca, ad basin caulis subradicalia v. in medio caule v. apice opposita v. verticillata. Flores terminales, solitarii v. umbellati. Antherarum loculi extrorsum dehiscentes. Fructus indehiscens, baccatus v. membranaceus.

178. Clintonia. Folia ad basin caulis pauca, petiolata v. in vaginam contracta. Umbella longe pedunculata (rarius flos unicus). Perianthii segmenta subæqualia.—*Asia mont. et temp., Japonia, Amer. bor.*

179. Scoliopus. Folia ad apicem caulis 2. Umbella inter folia sessilis, pedicellis longis. Perianthii segmenta exteriora patentia, interiora linearia, erecta. Ovarium 1-*loculare, placentis parietalibus.* Fructus *membranaceus,* demum ruptus nec valvatim dehiscens.—*Amer. bor.*

180. Medeola. Folia in medio caule verticillata. Umbella terminalis, foliis 3 involucrata. Perianthii segmenta subæqualia.—*Amer. bor.*

181. Trillium. Folia 3, ad apicem caulis verticillata. Flos inter folia unicus, 3-merus. Perianthii segmenta exteriora subherbacea, interiora petaloidea.—*Asia mont. et temp., Japonia, Amer. bor.*

182. Paris. Folia 4–∞, ad apicem caulis verticillata. Flos inter folia unicus, 4–∞merus. Perianthii segmenta exteriora herbacea, interiora linearia subulata v. 0.—*Europa, Asia temp. et mont.*

Tribus XX. Veratreæ. Caules erecti, sæpius elati, basi ebulbosi v. bulbosi, foliati v. præter folia subradicalia aphylli. Racemi simplices v. paniculati. Flores sæpius polygami. Antheræ breves, introrsum affixæ, extrorsum dehiscentes, loculis confluentibus, demum explanatæ orbiculato-peltatæ. Styli breves, lobos ovarii terminantes. Capsula septicide dehiscens v. partita.

* *Semina circumcirca membranaceo-alata. Caules foliati.*

183. Melanthium. Folia angusta v. longe petiolata. Perianthii segmenta distincte unguiculata.—*Amer. bor.*

184. Veratrum. Folia sæpius lata, plicato-venosa, in vaginam contracta nec distincte petiolata. Perianthii segmenta basi parum contracta.—*Europa, Asia Ross., Amer. bor.*

** *Semina angusta, angulata, vix alata. Folia radicalia v. ad basin caulis conferta, linearia v. rarius sublanceolata.*

185. Stenanthium. Flores in racemo v. panicula pedicellati. Perianthium anguste v. late campanulatum, tubo brevissimo turbinato. Stamina perianthio multo breviora. Ovarium basi perianthio brevissime adnatum.—*Amer. bor., Asia bor. or.*

186. Zygadenus. Flores in racemo v. panicula pedicellati. Perianthium explanatum, basi interdum brevissime turbinatum. Stamina perianthio paullo breviora. Ovarium sæpe basi perianthio breviter adnatum.—*Amer. bor.*

187. Schœnocaulon. Flores in spica subsessiles. Perianthii segmenta angusta. Stamina perianthio longiora. Ovarium a basi liberum.—*Amer. bor.*

GENERA EXCLUSA V. DUBIA.

Ophiopogoneæ et *Conanthereæ*, a pluribus botanicis in *Liliaceis* inclusæ, supra ad **Hæmodoraceas** referuntur.

Wachendorfia, Linn., affinesque a Lindleyo inter *Liliaceas* enumeratæ, pariter ad **Hæmodoraceas** pertinent.

Xanthorrhœa, Sm., inter **Juncaceas** quærenda est.

Duchekia, Kostel., est *Palisota*, genus **Commelinacearum.**

Androsyne, *Salisb. Gen. Pl. Fragm.* 61, genus ad ramulum in insula Nicobar lectum descriptum, nulli nobis noto convenit. Caulis volubilis, aculeatus. Folia alterna, dorso aculeata, nervis paral-

lelis isthmis paucis transversis. Perianthii segmenta 6, lanceolata. Stamina 6, hypogyna; antheræ filamento longiores in conum cohærentes, foraminibus terminalibus dehiscentes. Ovarium superum, 3-loculare; stylus gracilis, stigmate parvo. Fructus capsularis. Semina plurima.

BIDWILLIA, *Herb. in Lindl. Veg. Kingd.* 205, genus nomine tantum signatum, delendum est.

TRIBUS I. SMILACEÆ.

1. **Heterosmilax,** *Kunth, Enum. Pl.* v. 270. (Oligosmilax, *Seem. Journ. Bot.* 1868, 258, *t.* 83.)—Flores dioici. Perianthium ovoideum v. tubulosum, ore parvo minute 2–5-dentato. Fl. ♂: Stamina 3, fundo perianthii affixa eoque inclusa, filamentis in columnam connatis; antheræ ad apicem columnæ sessiles v. brevissime stipitatæ, erectæ, loculis introrsum dehiscentibus septo angustissimo separatis, apertæ 1-loculares videntur. Ovarii rudimentum 0. Fl. ♀: Perianthium post anthesin deciduum. Staminodia ad basin ovarii 1–3, minima, filiformia. Ovarium perianthio inclusum, sessile, ovoideum, 3-loculare; stigmata 3, brevissima, ad apicem ovarii sessilia; ovula in loculis 2, pendula, orthotropa. Bacca globosa, abortu 1–3-sperma. Semina *Smilacis.*—Frutices glabri, scandentes, inermes, habitu *Smilacis.* Folia membranacea v. rarius subcoriacea, 3–5-nervia, reticulato-venulosa, petiolo cirrifero. Flores parvi v. minimi, in umbellis ad axillas solitariis pedunculatis numerosi.

Species 5, Indiæ orientalis, Archipelagi Malayani, Chinæ et Japoniæ incolæ.—*A. DC. Monogr. Phanerog.* i. 41.

✓2. **Smilax,** *Linn. Gen. n.* 1120.—Flores dioici. Perianthii segmenta distincta, subæqualia, sub anthesi patentia incurva v. recurva. Fl. ♂: Stamina 6, rarius ∞, fundo perianthii affixa, segmentis vix breviora, filamentis erectis liberis brevissimis v. longiusculis; antheræ filamento multo breviores v. longiores, ovatæ, erectæ, loculis introrsum dehiscentibus septo angustissimo separatis, apertæ 1-loculares videntur. Ovarii rudimentum 0. Fl. ♀: Staminodia filiformia, 6 v. pauciora. Ovarium sessile, ovoideum, 3-loculare; stigmata 3, ad apicem ovarii v. in stylo brevissimo sessilia, lata, recurva; ovula in loculis solitaria v. gemina, pendula, orthotropa. Bacca globosa, abortu sæpius 1–2-sperma. Semina si solitaria globosa, si 2 hemisphærica testa tenui appressa; embryo in albumine duro parvus, oblongus, ab hilo plus minus remotus.—Frutices sarmentosi, raro humiles subherbacei, rhizomate sæpe valido, folio secundo cujusque rami sæpe squamiformi. Folia cætera alterna, disticha, v. rarius opposita, sæpius perennantia, 3-rarius 5–∞-nervia, inter nervos reticulata, petiolo supra basin persistentem sæpius cirris 2 instructo, infra v. juxta limbum tardius rumpendo. Flores parvuli, in umbellis (v. cymulis umbelliformibus) subæqualiter pedicellati, sæpius numerosi, rarius subsolitarii, bracteis ad basin pedicellorum minimis. Umbellæ ad axillas foliorum solitariæ, pedunculatæ v. subsessiles, v. ad apices ramorum plures, secus rhachin subsessiles, racemum formant subaphyllum, foliis floralibus plerisque minimis bracteiformibus.

Species satis notæ ex *A. DC.* 187, per regiones tropicas temperatasque utriusque orbis late dispersæ. —*A. DC. Monogr. Phanerog.* i. 45.

Genus in sectiones 4, fatente A.DC. parum naturales dividitur:—

1. *Coprosmanthus,* Torr. Stamina 6. Ovarii loculi 2-ovulati. *Hook. Fl. Bor. Amer. t.* 187. *Wats. Dendrol. t.* 110. *Seem. Bot. Her. t.* 99. *Bot. Mag. t.* 1920. COPROSMANTHUS, *Kunth, Enum. Pl.* v. 263. NEMEXIA, *Rafin. Med. Fl. U.S.* ii. 264, *absque char.*

2. *Coilanthus.* Stamina 6. Ovarii loculi 1-ovulati. Perianthii segmenta, præsertim interiora, incurva, concava, sæpe crassiuscula. Species paucæ, Asiaticæ v. Australasieæ. *Labill. Sert. Austr. Caled. t.* 22. *Endl. Iconogr. t.* 39. *Seem. Bot. Her. t.* 100.

3. *Eusmilax.* Stamina 6. Ovarii loculi 1-ovulati. Perianthii segmenta patentia v. recurva. *Wats. Dendrol. t.* 108, 109, 111. *Reichb. Ic. Fl. Germ. t.* 438. *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 63. *Sibth. Fl. Græc. t.* 959. *Webb. Phytogr. Canar. t.* 225. *Grant in Trans. Linn. Soc.* xxix. *t.* 106. *Wight, Ic. t.* 809, 2057 *ad* 2059. *Royle, Illustr. Bot. Himal. t.* 94. *Dcne. in Jacquem. Voy. Bot. t.* 169. *Klotzsch in Pr. Waldem. Reise, Bot. t.* 91. *Griseb. in Mart. Fl. Bras.* iii. i. *t.* 1 *ad* 3. *Vell. Fl.*

Flum. Ic. x. *t.* 105 *ad* 111. *Bertol. Misc.* xvi. *t.* 2, 3. *Bot. Mag. t.* 1846. *Fl. des Serres. t.* 1049. PARILLAX, *Rafin. Fl. Med. U.S.* ii. 264 *absque char.*

4. *Pleiosmilax.* Stamina plusquam 6, cætera *Eusmilacis.* Species paucæ, insularum maris Pacifici. *Labill. Sert. Austr. Caled. t.* 23. PLEIOSMILAX, *Seem. Journ. Bot.* 1868, 193, *t.* 81; *Fl. Vit. t.* 93.

3. **Rhipogonum,** *Forst. Char. Gen.* 49, *t.* 25 (Ripogonum).—Flores hermaphroditi. Perianthii segmenta distincta, æqualia v. exteriora breviora. Stamina 6, hypogyna, filamentis brevissimis leviter complanatis; antheræ erectæ, ovatæ, perianthio paullo breviores v. longiores, loculis introrsum dehiscentibus. Ovarium sessile, 3-loculare, in stylum brevissimum attenuatum, stigmatibus 3 crassis recurvis; ovula in loculis solitaria v. rarius gemina, a latere sub apice affixa, orthotropa v. hemianatropa. Bacca globosa, abortu 1-sperma v. interdum 2–3-sperma. Semina globosa, testa appressa; embryo parvus, in albumine duro ab hilo plus minus remotus.—Frutices alte scandentes, glabri v. pubescentes. Folia pleraque sæpius opposita v. subopposita, interdum omnia alterna, 3–5-nervia, venulis reticulatis, petiolo non cirrifero. Flores parvuli, racemosi v. spicati, secus rhachin breviter pedicellati v. subsessiles, spicis racemisve ad axillas solitariis sessilibus v. ad apices ramorum in paniculam dispositis. Bracteæ parvæ, additis sæpe sub quoque flore bracteolis 2–3.

Species 5, quarum una Novo-Zelandica perianthio antheris breviore, ovarii loculis sæpissime 2-ovulatis, 4 Australianæ, perianthio antheras superante, ovarii loculis sæpissime 1-ovulatis.—*A.DC. Monogr. Phanerog.* i. 213. *Benth. Fl. Austral.* vii. 8, *et in Hook. Ic. Pl. t.* 1395, 1396.

TRIBUS II. ASPARAGEÆ.

4. **Ruscus,** *Linn. Gen. n.* 1139.—Flores dioici. Perianthium parvum, marcescens; segmenta distincta, 3 exteriora ovata subvalvata demum patentia, 3 interiora in alabastro inclusa, multo minora. Staminum filamenta in urceolum globosum v. ovoideum carnosulum coalita; antheræ 3, ad os urceoli subextrorsum sessiles, loculis leviter divergentibus apice confluentibus; in fl. ♀ urceolus tenuior anantherus, ovarium imperfecte cingens. Ovarium in fl. ♂ 0 v. rudimentum minimum; in fl. ♀ ovoideo-globosum v. oblongum, jam sub anthesi (abortu?) 1-loculare; stylus breviter columnaris v. supra ovarium oblongum vix ullus, stigmate crasso capitato; ovula in loculo 2, collateralia, orthotropa. Bacca globosa, pulposa, indehiscens. Semina solitaria globosa, v. 2 uno latere plana, pallida, testa tenuissima arcte adnata, hilo cum chalaza late orbiculari; embryo cylindraceus, albumine duro 2–3-plo brevior, ab hilo plus minus remotus.—Caulis erectus, ramosus, sublignosus. Cladodia foliiformia alterna v. sparsa, ad axillas squamellarum scariosarum solitaria, ovata v. ovato-lanceolata, acuta v. pungenti-acuminata, rigide coriacea, venis crebris parallelis distinctis v. plus minus reticulato-anastomosantibus. Flores parvi, in media facie superiore v. rarius inferiore cladodii fasciculati, fasciculo costam prominulam terminante. Pedicelli breves, apice articulati. Bracteæ minimæ, scariosæ, sub quoque pedicello sæpius 2, adest etiam sæpe sub fasciculo bractea foliacea lanceolata acuta, brevis v. flores superans.

Species 2 v. 3, Europæ et totius regionis Mediterraneæ incolæ, a Madera usque ad Caucasum extensæ. *Kunth, Enum. Pl.* v. 273. *Baker in Journ. Linn. Soc.* xiv. 629. *Reichb. Ic. Fl. Germ. t.* 437. *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 64. *Sibth. Fl. Græc. t.* 955. *Bot. Mag. t.* 2049.

R. Hypophyllum et *R. Hypoglossum*, Linn., a variis botanicis qui plantas in loco natali observarunt characteribus variis distinguuntur v. in speciem unicam junguntur. Florum fasciculus in una semper in pagina inferiore oriundus, in altera sæpius nec semper in pagina superiore; bractea foliacea sub fasciculo quam maxime variabilis est; ovarium interdum oblongum stigmate sessili, interdum subglobosum stylo breviter columnari observavimus, sed differentia vix cum aliis characteribus convenit. Flores minimos perpaucos examinare potuimus, semper tamen ovarii loculum unicum tantum paullo excentricum invenimus.

5. **Semele,** *Kunth in Abhandl. K. Akad. Wiss. Berlin*, 1842, 49 ; *Enum. Pl.* v. 277. (Amphion, *Salisb. Gen. Pl. Fragm.* 66.)—Perianthium persistens, tubo brevissimo turbinato fere hemisphærico ; lobi ovati, subæquales v. interiores paullo minores, patentissimi v. reflexi ; corona 0. Stamina fauci affixa, filamentis in urceolum brevem latum membranaceum coalitis ; antheræ ad os urceoli extrorsum sessiles, loculis leviter divergentibus apice confluentibus. Ovarium intra tubum perianthii sessile, brevissimum, 3-loculare ; stylus ovario longior, columnaris, medio incrassatus, stigmatibus 3 crassiusculis ex urceolo prominentibus patentibus ; ovula in loculis 2, collateralia, hemianatropa. Bacca globosa, pulposa, indehiscens. Semina solitaria v. rarius 2, globosa v. uno latere plana, pallida, testa tenuissima adnata ; embryo cylindraceus, albumine duro 2–3-plo brevior, ab hilo remotus.—Caulis fruticosus, ramosus, super arbores alte scandens. Cladodia foliiformia alterna v. sparsa, ad axillas squamellarum fusco-membranacearum solitaria, ovata v. ovato-lanceolata, acuminata, coriacea, tenuiter multinervia. Flores parvi, fasciculati, fasciculis ad margines cladodiorum sæpe in eodem cladodio pluribus, rarius in facie cladodii solitariis, pedicellis brevibus apice articulatis. Bracteæ sub pedicellis minute squamiformes.

Species 1, ins. Canariensium incola. *Webb, Phytogr. Canar. t.* 224 (*Danae*). *Baker in Journ. Linn. Soc.* xiv. 630. *Bot. Mag. t.* 1898, 3029 (*Ruscus*).

6. **Danae,** *Medicus, Malv. Fam.* 71. (Danaidia, *Link, Handb.* i. 276.)—Perianthium subglobosum, tubo hemisphærico subcarnoso ; lobi breves, erecti, subæquales, ovati, membranacei ; corona ad faucem sub lobis crasse carnosa. Stamina ad faucem sub corona affixa, filamentis in urceolum membranaceum coalitis ; antheræ 6, ad os urceoli subextrorsum sessiles, loculis parum divergentibus apice confluentibus. Ovarium tubo perianthii urceoloque inclusum, liberum, sessile, subglobosum, 3-loculare ; stylus brevis, stigmate capitato ex urceolo exserto ; ovula in loculis 2, collateralia, hemianatropa (v. orthotropa ?). Bacca globosa, pulposa, indehiscens. Semina abortu solitaria v. rarius 2, subglobosa, pallida, testa tenui adnata ; embryo oblongus, albumine cartilagineo 3–4-plo brevior, ab hilo remotus.—Caulis fruticosus, erectus, ramosissimus. Cladodia foliiformia alterna v. sparsa, lanceolata v ovato-lanceolata, acuta, coriacea, multinervia, ad axillas squamellarum minimarum solitaria. Flores parvi, in racemos breves terminales a cladodiis liberos dispositi, pedicellis apice articulatis. Bracteæ minutæ v. 0.

Species 1, Orientalis. *Kunth, Enum. Pl.* v. 276. *Baker in Journ. Linn. Soc.* xiv. 631. *Gaertn. Fruct. t.* 16 (*Ruscus*). *Wats. Dendrol. Brit. t.* 145 (*Ruscus*).

7. **Asparagus,** *Linn. Gen. n.* 424.—Perianthium parvum, marcescens, persistens ; segmenta distincta v. vix ima basi connata, subæqualia, conniventia v. apice v. a basi patentia. Stamina 6, ima basi segmentorum affixa v. hypogyna, perianthio sæpius parum breviora, filamentis distinctis filiformibus v. leviter complanatis ; antheræ ovatæ v. oblongæ, basi 2-lobæ, dorsifixæ, loculis introrsum dehiscentibus. Ovarium sessile, 3-loculare ; stylus columnaris, brevis crassusque v. longior tenuisque, stigmatibus 3 brevibus recurvis, v. rarius styli breves fere a basi distincti ; ovula in loculis 2–∞ (usque ad 8), obovoidea, hemianatropa v. fere orthotropa. Bacca globosa, pulposa, indehiscens. Semina abortu solitaria v. pauca, subglobosa, sæpius nigra, opaca v. foveolato-rugulosa, testa tenui appressa ; embryo cylindraceus, albumine duro parum v. 2–3-plo brevior, sæpius obliquus v. transversus, ab hilo plus minus remotus.—Caulis e rhizomate brevi v. repente herbaceus v. lignosus, sæpius ramosissimus, erectus v. alte scandens. Cladodia nunc acicularia teretia v. angulata, nunc foliiformia linearia falcata lanceolata v. rarius ovata, ad axillas squamellarum scariosarum sæpe minutarum fasciculata v. solitaria, rarius subverticillata. Flores parvi, ad basin fasciculorum v. cladodiorum solitarii fasciculati subumbellati v. breviter racemosi, pedicellis brevibus v. gracilibus, apice articulatis. Bracteæ squamiformes, sub pedicellis sæpius minutæ v. 0.

Species fere 100, per regiones calidiores temperatasque orbis veteris latissime dispersæ ; in America prorsus deesse videntur. *Kunth, Enum. Pl.* v. 57. *Baker in Journ. Linn. Soc.* xvi. 594

et in Trans. Linn. Soc. Bot. i. 253. *Red. Lil. t.* 288, 407, 434, 446, 451, 460. *Jacq. Hort. Schœnbr. t.* 97, 266. *Jacq. f. Ecl. t.* 40. *Wendl. Hort. Herreph. t.* 22. *Hayne, Arzneigew.* viii. *t.* 29. *Reichb. Ic. Fl. Germ. t.* 518 *ad* 520. *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 57. *Waldst. et Kit. Pl. Rar. Hung. t.* 201. *Cav. Ic. t.* 136. *Webb, Phytogr. Canar. t.* 226 *ad* 229. *Tornabene in Atti Acad. Gioen.* xii. *cum tabb.* (*opus a nobis non visum*). *Sibth. Fl. Græc. t.* 337 *ad* 339. *Regel, Fl. Turkest. t.* 22. *Wight, Ic. t.* 2055, 2056. *Schweinf. Pl. Nilot. t.* 13 (*Asparagopsis*). *Grant in Trans. Linn. Soc.* xxix. *t.* 105. *Saund. Ref. Bot. t.* 21, 214, 261.

Genus a Kunthio restrictum fuit ad species floribus ex Kunthio dioicis ex Bakero polygamis, et species floribus omnibus hermaphroditis pro genere proprio separavit: ASPARAGOPSIS, *Kunth in Abhandl. K. Akad. Wiss. Berlin*, 1842, 35; *Enum. Pl.* v. 76; character tamen sæpe valde ambiguus, et genera duo bene in sectionem unicam jungeres iconibus supra citatis illustrandam. Cladodia in *Asparago*, Kunth, sæpissime fasciculata acicularia teretia v. angulata, nunc rigide pungentia, nunc tenuiora fere filiformia, in *Asparagopside*, Kunth, interdum iis *Asparagi* similia, sæpe tamen plana haud raro ad squamellas solitaria, anguste linearia recta v. falcata, v. lineari-lanceolata rarius latiuscula.

MYRSIPHYLLUM, *Willd. in Gesellsch. Naturf. Fr. Berl. Mag.* ii. 25. *Kunth, Enum. Pl.* v. 105 (HECATRIS, *Salisb. Gen. Pl. Fragm.* 66), species continet 4 austro-Africanas, a plerisque botanicis bene ad sectionem *Asparagi* relatas, cladodiis foliiformibus ad squamellas solitariis ovatis v. ovato-lanceolatis vix coriaceis. *Red. Lil. t.* 442 (*Medeola*). *Bot. Mag. t.* 5584. *Saund. Ref. Bot. t.* 47.

TRIBUS III. LUZURIAGEÆ.

8. **Herreria**, *Ruiz et Pav. Prod.* 48, *t.* 35; *Syst. Veg.* 83; *Fl. Per. et Chil.* iii. 69, *t.* 303. —Perianthium deciduum; segmenta distincta, subæqualia, patentia. Stamina 6, ima basi segmentorum affixa iisque parum breviora, filamentis filiformibus; antheræ ovoideo-oblongæ, medio dorso affixæ, loculis introrsum dehiscentibus. Ovarium sessile, 3-quetrum, 3-loculare; stylus brevis, columnaris, stigmatibus 3 ad apicem subclavatum adnatis; ovula in loculis pauca (3–6), lateraliter affixa, latiuscula. Capsula coriacea, fere suberosa, 3-quetra, angulis valde prominentibus a latere 3-loba, demum septicide in carpella introrsum v. interdum 2-valvatim dehiscentia secedens. Semina in loculis sæpius abortu solitaria v. gemina, a latere complanata, nigra, testa laxa crassiuscule membranacea circumcirca fere in alam dilatata; embryo cylindraceus, albumine carnoso 2–3-plo brevior. —Caulis e rhizomate sæpe tuberoso elatus, ramosus, tortuoso-volubilis v. rarius flexuoso-erectus rigidulus. Folia cladodiis *Danais* et *Semelis* simillima, ad basin caulis v. ad nodos fasciculata, linearia v. lanceolata, rigidula, tenuiter multinervia, interdum angustissima subpungentia; squamellæ parvæ ad basin fasciculorum v. etiam foliis intermixtæ sæpissime adsunt paucæ v. plurimæ. Racemi ad basin fasciculorum solitarii v. 2 suboppositi, v. ad apices ramorum laxe paniculati. Flores parvi, secus rhachin sparsi v. fasciculati, breviter pedicellati, pedicellis sub apice articulatis. Bracteæ ad basin pedicellorum parvæ, squamiformes.

Species 3 v. 4, Americæ australis extratropicæ incolæ. *Kunth, Enum. Pl.* v. 291. *Baker in Journ. Linn. Soc.* xviii. 231. *Griseb. in Mart. Fl. Bras.* iii. i. 23, *t.* 4, 5. *Bot. Reg. t.* 1042.

CLARA, *Kunth in Abhandl. K. Akad. Wiss. Berlin*, 1848, 44; *Enum. Pl.* v. 295; *Griseb., Symb. Fl. Argent.* 321, ex speciminibus Balansanis e Paraguay, n. 629, omnino cum descriptione Kunthii et Grisebachii convenientibus, a cæteris *Herreriis* non differt nisi caule elato quidem flexuosoque sed non volubili parumque ramoso, fasciculos foliorum paucos ferente. Flores et fructus omnino *Herreriæ.*

9. **Behnia**, *Didrichs. in Vidensk. Meddel. Kjöbenh.* 1854, 182. (Dictyopsis, *Harv. in Bot. Mag. t.* 5638. Hylonome, *Baker in Journ. Linn. Soc.* xiv. 561, *vix Webb.*)—Perianthium deciduum, oblongo-urceolatum, tubo lato cylindraceo apice contracto; lobi breves subæquales, patentes. Stamina 6, medio tubo affixa, perianthio breviora, filamentis crassiuscule filiformibus; antheræ breviter oblongæ, medio dorso affixæ, loculis introrsum dehiscentibus. Ovarium basi in stipitem crassum contractum, 3-loculare; stylus crassiuscule filiformis, stigmatibus 3 brevibus obtusis crassis patentibus; ovula in loculis pauca (2–4?). Bacca subglobosa, indehiscens, pericarpio carnoso. Semina pauca v. solitaria, subglobosa, testa nigra crassiuscula appressa; embryo subcentralis, albumine corneo

dimidio brevior.—Caulis basi tenuis, ramosus, scandens. Folia sessilia, ovata, acuminata, coriacea, insigniter parallele venosa et venulis transversis inter venas reticulata, cladodia *Rusci* quodammodo referentia. Flores viridi-flavescentes, in axillis superioribus laxe subcymoso-racemosi, pedicellis gracilibus secus pedunculum ad axillas bractearum minimarum 2–3-nis v. solitariis.

Species 1, Africæ australis incola (*Ruscus reticulatus*, Thunb.).

Webb, Phytogr. Canar. iii. 320, genus Hylonome proposuit cum synonymo Thunbergiano supra citato, character tamen nequaquam convenit. Flores dioici, 5-meri, perianthio 10-partito etc. potius plantam quamdam e Dicotyledoneis indicant.

10. **Lapageria,** *Ruiz et Pav. Fl. Per. et Chil.* iii. 64, *t.* 297. (Capia, *Domb. in Poir. Dict. Suppl.* v. 596. Phænocodon, *Salisb. Gen. Pl. Fragm.* 58.)—Perianthii segmenta erecta, distincta, conniventia, subæquilonga, seriei exterioris paullo angustiora, basi sæpius extus gibba intus foveolata nectarifera. Stamina 6, hypogyna v. ima basi segmentis interioribus breviter adnata, erecta, perianthio breviora, filamentis filiformibus v. basi dilatatis breviterque cohærentibus; antheræ oblongo-lineares, prope basin dorsifixæ, loculis introrsum dehiscentibus. Ovarium sessile, 1-loculare, placentis 3 parietalibus; stylus elongatus, stigmate parvo obsolete 3-lobo; ovula in quaque placenta numerosa, funiculis (v. placenta) gelatinosis fulta, amphitropa. Bacca ovoideo-oblonga, sub-3-quetra, indehiscens. Semina ovoidea v. subglobosa, in pulpa nidulantia, testa tenui appressa; embryo in albumine fere cartilagineo inclusus, oblongo-linearis.—Frutex alte scandens, ramosus. Folia alterna, lanceolata ovata v. subcordata, acuminata, coriacea, 3–5-nervia et reticulato-venulosa, petiolo brevi infra limbum sæpius articulato, parte inferiore persistente torta. Flores speciosi, in axillis superioribus v. ad apices ramorum solitarii v. pauci, penduli, breviter pedunculati. Bracteæ in pedunculo plures, parvæ, imbricatæ.

Species 1, Chilensis. *Kunth, Enum. Pl.* v. 283. *Baill. Adans.* i. 44. *Bot. Mag. t.* 4447, 4892.

Baillon arillum carnosum sub ovulis descripsit quem tamen in speciminibus vivis frustra quæsivimus, nisi pro arillis funiculi gelatinosi habendi.

11. **Philesia,** *Comm. in Juss. Gen.* 41.—Perianthii segmenta distincta, conniventia, exteriora acutiuscula erecta, interiora 2–3-plo longiora, obovato-oblonga, superne subpatentia. Stamina 6, hypogyna, erecta, perianthio breviora, filamentis basi v. ultra medium dilatatis et plus minus in tubum connatis v. rarius fere a basi filiformibus liberisque; antheræ oblongo-lineares, prope basin dorsifixæ v. lobis basalibus concretis intra basin intrusam affixæ. Ovarium sessile, 1-loculare, placentis 3 parietalibus; stylus elongatus, stigmate capitato obscure 3-lobo; ovula in quaque placenta numerosa, anatropa. Bacca subglobosa, indehiscens. Semina ovoidea v. subglobosa, in pulpa nidulantia, testa tenui appressa; embryo albumine fere cartilagineo inclusus, oblongo-linearis.—Frutex glaber, ramosissimus. Folia alterna, brevissime petiolata, oblonga, coriacea, margine revoluta, 1-nervia, tenuissime reticulato-venulosa. Flores speciosi, quam in *Lapageria* tamen minores, ad apices ramorum solitarii v. perpauci, brevissime pedicellati. Bracteæ paucæ, parvæ, imbricatæ.

Species 1, Chile australis et terræ Magellanicæ incola. *Kunth, Enum. Pl.* v. 284. *Hook. f. Fl. Antarct.* ii. 355. *Bot. Mag. t.* 4738.

12. **Luzuriaga,** *Ruiz et Pav. Fl. Per. et Chil.* iii. 65, *t.* 298. (Callixene, *Juss. Gen.* 41. Enargea, *Banks ex Gærtn. Fruct.* i. 283, *t.* 59, *ic. quoad embryonem erronea.*)—Perianthium deciduum; segmenta distincta, subæqualia, patentia, enervia, tenuia, maculata. Stamina 6, hypogyna, filamentis erectis; antheræ oblongo-lineares, basifixæ, loculis a latere subintrorsum dehiscentibus. Ovarium sessile v. subsessile, ovoideum, 3-loculare; stylus crasse filiformis, stigmate in lobos 3 breves rotundatos diviso; ovula in loculis ∞ (8–10). Bacca subglobosa, indehiscens. Semina pauca, ovoidea v. subglobosa, interdum obtuse angulata, pallida, testa tenui appressa; embryo albumine corneo inclusus, brevis, rectus.—Caules fruticosi, glabri, ramosi, ramulis tenuibus patentibus basi squama fusco-

membranacea stipatis. Folia fere sessilia, alterna, parvula, oblonga v. elliptica, prominenter 3–∞-nervia. Flores albi, ad axillas foliorum solitarii v. pauci; pedicelli graciles, basi bracteis brevibus fusco-membranaceis stipati.

Species 3, quarum 2 Chilenses, tertia in terra Magellanica et Nova Zelandia obvia, sæpe pro genere distincto habita. In specie typica, *L. radicante*, R. et Pav., filamenta brevissima, lata, crassa, antheris erectis. *Kunth, Enum. Pl.* v. 278. *Baker in Journ. Linn. Soc.* xiv. 573. *Lam. Illustr. t.* 248. *Bot. Mag. t.* 6465. *In L. erecta*, Kunth, et in *L. marginata* (CALLIXENE, *Kunth, Enum. Pl.* v. 281. *Baker in Journ. Linn. Soc.* xiv. 592. *Hook. f. Handb. N. Zeal. Fl.* 281. *Hook. Ic. Pl. t.* 632, 674. *Bot. Mag. t.* 5192), filamenta filiformia, antheris sublongiora, summo apice abrupte reflexa, anthera extrorsum reversa. Perianthium, ovarium, fructus et semina omnino eadem in omnibus; antherarum loculi in omnibus ad normam ordinis rima longitudinali 2-valvatim dehiscunt, nec poris terminalibus tantum ut a Bakero descripti.

13. **Eustrephus**, *R. Br. Prod.* 281.—Perianthium marcescens, demum deciduum; segmenta distincta, subæqualia, patentia, 5-nervia, margine attenuata, exteriora integerrima, interiora fimbriato-ciliata. Stamina 6, hypogyna, perianthio breviora, filamentis brevibus complanatis in tubum conniventibus v. sæpius connatis; antheræ oblongo-lineares, erectæ, basifixæ, loculis a latere subintrorsum dehiscentibus. Ovarium sessile, breve, 3-loculare; stylus filiformis, stigmate parvo; ovula in loculis ∞. Bacca subglobosa, indehiscens, pulpa parca, pericarpio demum tenui. Semina ∞, ovoidea v. subglobosa, sæpe obtusangula, nigra, rugosula, opaca, testa appressa; embryo in albumine corneo excentricus, sæpe curvulus, eoque parum v. triente brevior.—Caules basi lignosi, tenues, ramosissimi, flexuosi, alte scandentes. Folia alterna, subsessilia v. breviter petiolata, linearia lanceolata v. ovata, venosa. Flores ad axillas 2–∞ fasciculati, pedicellis gracilibus folio tamen multo brevioribus. Bracteæ minutæ v. 0.

Species 1 (v. 2?), Australiana. *Baker in Journ. Linn. Soc.* xiv. 572. *Benth. Fl. Austral.* vii. 17. *Endl. Iconogr. t.* 4. *Bot. Mag. t.* 1245.

14. **Geitonoplesium**, *A. Cunn. in Bot. Mag. t.* 3131. (Luzuriaga, *R. Br. Prod.* 281, *non R. et Pav.* Calcoa, *Salisb. Gen. Pl. Fragm.* 67.)—Perianthium marcescens, demum sæpius deciduum; segmenta distincta, patentia, subæqualia, tenuiter 5-nervia, exteriora paullo rigidiora, interiora margine integerrimo attenuata. Stamina 6, hypogyna, perianthio breviora, filamentis filiformibus distinctis v. basi in annulum connatis; antheræ oblongo-lineares, erectæ, basifixæ, loculis a latere subintrorsum dehiscentibus. Ovarium sessile, breve, 3-loculare; stylus filiformis, stigmate parvo; ovula in loculis ∞. Bacca globosa v. ovoidea, indehiscens, pulpa parca, pericarpio succulento. Semina ∞, ovoidea v. compressiuscula, nigra, nitida, testa crustacea laxa; embryo crassiusculus, rectus v. leviter curvus, albumini carnoso fere æquilongus.—Caulis basi lignosus, tenuis, ramosissimus volubilis v. flexuosus, super arbores scandens, squamula parva ad basin ramulorum. Folia alterna, brevissime petiolata, linearia oblonga lanceolata v. rarius ovata, tenuiter venosa. Flores parvuli, laxe cymosi, cymis nunc omnibus terminalibus supra folium ultimum breviter pedunculatis, nunc pluribus simul ad axillas superiores pedunculatis. Bracteæ minutæ v. 0.

Species v. varietates insignes 2, Australiæ Novæ Caledoniæ et insularum maris Pacifici incolæ. *Baker in Journ. Linn. Soc.* xiv. 571. *Benth. Fl. Austral.* vii. 18. *Red. Lil. t.* 393 (*Medeola*).

In forma typica Australiana cymæ omnes terminales v. rarissime 1 v. 2 in axillis superioribus; in speciminibus Novo-Caledonicis et insularum Fiji (an speciei alterius?) folia rigidiora, sæpius latiora et cymæ plures axillares.

TRIBUS IV. POLYGONATEÆ.

15. **Polygonatum**, *Adans. Fam.* ii. 54. (Evallaria, *Neck. Elem.* iii. 189. Axillaria, *Raf. in Journ. Phys.* lxxxix. 261. Campydorum, *Salisb. Gen. Pl. Fragm.* 64.)—Perianthium marcescens, demum deciduum, tubo cylindraceo basi interdum latiore; lobi breves, erecto-patentes, subæquales. Stamina 6, tubo affixa eoque inclusa, filamentis filiformibus rarius complanatis; antheræ oblongo-lineares, erectæ, basi 2-lobæ, dorsifixæ, loculis

introrsum dehiscentibus. Ovarium sessile v. subsessile, oblongum v. globosum, 3-loculare; stylus filiformis v. breviter columnaris, stigmate parvo v. parum incrassato; ovula in loculis ∞ (4–6). Bacca globosa, indehiscens, pulposa. Semina sæpius pauca, ovoidea globosa v. varie compressiuscula, pallida v. brunnea, testa appressa; embryo juxta hilum cylindraceus, albumine corneo 2–3-plo brevior.—Caulis e rhizomate horizontali v. repente erectus, simplex, superne foliatus. Folia alterna opposita v. verticillata, ovata lanceolata v. linearia, in *P. sibirico* apice breviter cirroso-acuminata. Flores nutantes v. penduli, ad axillas solitarii, v. sæpius in pedunculo brevi 2–∞ breviter laxeque racemosi v. subumbellati, pedicellis sub apice articulatis. Bracteæ 0.

Species enumeratæ 23, per regiones temperatas hemisphærii borealis late dispersæ. *Kunth, Enum. Pl.* v. 131. *Baker in Journ. Linn. Soc.* xiv. 552. *Desf. in Ann. Mus. Par.* ix. *t.* 7. *Red. Lil. t.* 229, 243, 244, 258, 315. *Willd. Hort. Berol. t.* 45. *Hayne, Arzneigew.* iii. *t.* 19, 20. *Reichb. Ic. Fl. Germ. t.* 433 *ad* 435. *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 60. *Jacq. Fl. Austr. t.* 232. *Jaub. et Spach. Ill. Pl. Or. t.* 441. *Ledeb. Ic. Fl. Ross. t.* 1. *Hook. Exot. Fl. t.* 125; *Ic. Pl. t.* 833. *Bot. Mag. t.* 3529, 5049, 5061, 6133. *Lodd. Bot. Cab. t.* 640 (*ic. plures sub Convallaria*).

Periballanthus, *Franch. et Sav., Enum. Pl. Jap.* ii. 524, planta japonica a nobis non visa, cujusque specimen unicum habuit Savatier, ex charactere dato a *Polygonato* differt bracteis in pedunculo sub floribus 3 foliaceis, quod etiam observatur in varietate *P. multiflori*, All. in Helvetia haud rara, et filamentis complanatis, charactere vix ad genus condendum sufficiente.

16. **Streptopus,** *Mich. Fl. Bor. Amer.* i. 200, *t.* 18. (Hekorima, *Raf. in Journ. Phys.* lxxxix. 262. Hekorima, *Kunth, Enum.* iv. 203.)—Perianthium campanulatum v. expansum, deciduum; segmenta distincta v. vix basi connata, erecta et superne recurvo-patentia, v. a basi rotato-patentia, subæqualia. Stamina 6, hypogyna v. interiora ima basi segmentis adnata, filamentis basi late membranaceis apice acutis; antheræ oblongo-lineares v. abbreviatæ, erectæ, inter lobos basales breves affixæ, loculis a latere subintrorsum dehiscentibus, connectivo interdum ultra loculos breviter producto. Ovarium sessile, ovoideum, 3-loculare; stylus filiformis v. columnaris, apice brevissime v. longiuscule 3-fidus, ramis linearibus recurvis superne introrsum stigmatosis; ovula in loculis ∞ (6–18). Bacca subglobosa, indehiscens, pulpa tenui. Semina ∞, oblonga, sæpius curvula, in longitudinem striata, pallida, testa tenui adnata; embryo juxta hilum cylindraceus, albumine solido 3–4-plo brevior.—Caulis e rhizomate brevi dense fibrifero v. longiore repente erectus, simplex v. parce ramosus, foliatus, basi præter vaginas 1–2 nudus. Folia alterna, ovata v. lanceolata, membranacea, sessilia v. amplexicaulia. Flores mediocres, ad axillas solitarii v. gemini, nutantes, rosei v. albidi, pedunculis filiformibus recurvis v. abrupte reflexis, nunc 1-floris medio articulatis, nunc ad articulationem in pedicellos 2 1-floros divisis. Bracteæ minutæ v. 0.

Species 4, Europæ, Asiæ temperatæ et montanæ v. Americæ borealis incolæ. *Kunth, Enum. Pl.* iv. 204. *Baker in Journ. Linn. Soc.* xiv. 590. *S. Wats. in Proc. Amer. Acad.* xiv. 269. *Red. Lil. t.* 259. *Reichb. Ic. Fl. Germ. t.* 431. *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 59. *Waldst. et Kit. Pl. Rar. Hung. t.* 167 (*Uvularia*). *Hook. Fl. Bor. Amer. t.* 188. *Bot. Mag. t.* 1489 (*Uvularia*). *Lodd. Bot. Cab. t.* 1603.

Kruhsea, *Regel, Fl. Ajan.* 281 *ex Maxim. Prim. Fl. Amur.* 278; *Baker l. c.* 593 est *S. ajanensis*, Tiling, species floribus parvis, perianthii segmentis a basi rotato-patentibus insignis, et antheris parvis, styloque breviore columnare a cæteris parum distincta, rite tamen a S. Wats. ad *Streptopum* revocatur.

17. **Drymophila,** *R. Br. Prod.* 292.—Perianthium deciduum; segmenta distincta, subæqualia, patentia, 3–5-nervia. Stamina 6, hypogyna, perianthio breviora, filamentis filiformibus; antheræ breviter oblongæ, erectæ, inter lobos basales affixæ, loculis a latere subintrorsum dehiscentibus. Ovarium sessile, ovoideum, 3-loculare; stylus fere a basi in ramos 3 lineares recurvos apice introrsum stigmatosos divisus; ovula in loculis ∞. Bacca subglobosa, indehiscens. Semina ∞, ovoideo-globosa v. obtusangula, pallida, testa crustacea nitida; embryo in albumine corneo parvus, hilo proximus.—Caulis e rhizomate

crasso erectus, tenuis, parce ramosus, superne foliatus. Folia alterna, subsessilia, lanceolata v. elliptica. Flores in axillis solitarii v. gemini, nutantes, pedicellis folio brevioribus recurvis supra medium articulatis. Bracteæ minimæ.

Species 2, Australianæ. *Benth. Fl. Austral.* vii. 12.

18. **Smilacina,** *Desf. in Ann. Mus. Par.* ix. 51, *t.* 9. (Tovaria, *Neck. Elem.* iii. 190, *non aliorum.* Polygonastrum, *Mœnch. Meth.* 637. Sigillaria, *Raf. in Journ. Phys.* lxxxix. 261. Smilacina, Asteranthemum, Jocaste *et* Medora, *Kunth, Enum. Pl.* v. 148 *ad* 155. Neolexis, *Salisb. Gen. Pl. Fragm.* 64.)—Perianthium demum deciduum; segmenta distincta v. ima basi breviter connata, subæqualia, patentia. Stamina 6, hypogyna v. ima basi perianthio affixa, filamentis nunc brevissimis latis, nunc filiformibus perianthio longioribus; antheræ ovatæ, dorsifixæ, loculis introrsum dehiscentibus. Ovarium sessile, subglobosum, 3-loculare; stylus columnaris, interdum abbreviatus, stigmate parvo v. brevissime 3-lobo; ovula in loculis 2, collateralia v. fere superposita. Bacca globosa, pulposa, indehiscens. Semina pauca, sæpe solitaria, subglobosa, testa tenui adnata; embryo juxta hilum albumine corneo parum v. fere dimidio brevior.—Rhizoma nunc repens tenue, nunc breve crassum v. nodosum. Caulis erectus, simplex, basi squamis nonnullis scariosis v. hyalinis stipatus, superne foliatus. Folia alterna, brevissime petiolata, ovata lanceolata v. rarius angusta, nec cordata. Inflorescentia terminalis, breviter pedunculata, racemosa v. ramis simplicibus paniculata. Flores parvuli, nunc minimi, secus rhachin v. ramos paniculæ ad bracteas solitarii v. 2–3-natim fasciculati, pedicellis brevibus. Bracteæ parvæ, nunc minutæ v. obsoletæ.

Species fere 20, Americæ borealis et centralis, Asiæ temperatæ et montanæ incolæ. *Baker in Journ. Linn. Soc.* xiv. 564 (*Tovaria*). *S. Wats. in Proc. Amer. Acad.* xiv. 244. *Red. Lil. t.* 185, 230. *Wall. Pl. As. Rar. t.* 144, 257. *Griff. Ic. Pl. Asiat. t.* 279. *Klotzsch in Pr. Waldem. Reise, Bot. t.* 96 (*Veratrum*). *Torr. Fl. N. York, t.* 130. *Bertol. Fl. Guatem. t.* 4 (*Nov. Comm. Acad. Sc. Bonon.* iv. *t.* 39). *Hook. Ic. Pl. t.* 529. *Bot. Mag. t.* 899, 1043 (*Convallaria*). *Lodd. Bot. Cab. t.* 1080.

De nomine Neckeriano rejecto confer A. Gray in Amer. Journ. Sc. ser. 3, xvii. 337.

19. **Maianthemum,** *Wiggers, Prim. Fl. Holsat.* 15. (Sciophylla, *Wibel, Prim. Fl. Werthem.* 147, *ex Kunthio.* Bifolium, *G. Gærtn. Fl. Wett.* i. 209. Styrandra, *Raf. in Journ. Phys.* lxxxix. 102. Maia, *Salisb. Gen. Pl. Fragm.* 64.)—Flores 2-meri. Perianthium explanatum, demum deciduum; segmenta 4, distincta, subæqualia, patentia. Stamina 4, hypogyna, perianthio breviora, filamentis leviter complanatis; antheræ ovatæ, dorsifixæ, versatiles, loculis introrsum dehiscentibus. Ovarium subsessile, breve, 2-loculare; stylus filiformis, stigmate parvo; ovula in loculis 2, collateralia. Bacca subglobosa, pulposa, indehiscens. Semina pauca v. solitaria, ovoidea v. globosa, pallide brunnea, testa arcte appressa; embryo juxta hilum albumine corneo dimidio brevior.—Caules e rhizomate tenui repente erecti, simplices, florentes supra medium 2- rarius 3-foliati, steriles 1-foliati. Folia petiolata v. rarius subsessilia, ovato-cordata, membranacea, summum si adsit sub inflorescentia 2 inferioribus minus sessiliusque. Racemus terminalis, simplex, gracilis. Flores parvi, pedicellis patentibus filiformibus ad bracteas minutas v. obsoletas solitariis v. sæpius 2–3-natim fasciculatis.

Species 1, per regiones temperatas hemisphærii borealis latissime dispersa. *Kunth, Enum. Pl.* v. 147. *Baker in Journ. Linn. Soc.* xiv. 563. *Red. Lil. t.* 216. *Reichb. Ic. Fl. Germ. t.* 436. *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 62. *Barton, Fl. N. Amer.* ii. *t.* 70 (*Smilacina*). *Bot. Mag. t.* 510.

Tribus V. Convallarieæ.

20. **Convallaria,** *Linn. Gen. n.* 425, *pro parte.*—Perianthium subgloboso-campanulatum, deciduum; lobi breves, recurvo-patentes, subæquales. Stamina 6, prope basin tubi affixa, eoque breviora, filamentis brevibus crassiusculis superne attenuatis; antheræ

oblongæ, erectæ, basifixæ, loculis a latere subintrorsum dehiscentibus. Ovarium sessile, ovoideo-globosum, 3-loculare; stylus columnaris, 3-sulcus, stigmate parum dilatato; ovula in loculis ∞ (4–8). Bacca globosa, indehiscens, pulposa. Semina ∞, sæpius pauca, ovoidea v. subglobosa, pallida, testa appressa; embryo albumine corneo dimidio v. subtriplo brevior.—Caules e rhizomate dense fibrifero horizontali v. stolonifero brevissimi. Folia 2, ovato-lanceolata, vaginis longis semet involventibus caulem simulantibus. Scapus lateralis, aphyllus, cum foliorum vaginis basi squamis plurimis membranaceis imbricatis inclusus. Racemus in scapo terminalis, simplex, pedicellis ad bracteas solitariis recurvis. Flores nutantes, albi rarius rosei. Bracteæ lineares, scariosæ, caducæ.

Species 1, per Europam et Asiam temperatam late dispersa, etiam in Virginia et Carolina obvia. *Kunth, Enum. Pl.* v. 130. *Baker in Journ. Linn. Soc.* xiv. 552. *Red. Lil. t.* 227. *Reichb. Ic. Fl Germ. t.* 432. *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 61. *Hayne, Arzneigew.* iii. *t.* 18.

21. **Theropogon,** *Maxim. in Bull. Acad. Imp. Sc. Petersb.* xv. 89; *Mel. Biol.* vii. 330. —Perianthium subgloboso-campanulatum, marcescens, demum deciduum; segmenta distincta v. vix basi brevissime cohærentia, subæqualia. Stamina 6, ima basi perianthio affixa eoque breviora, filamentis brevibus late v. anguste membranaceis basi subconnatis; antheræ ovatæ, acutiusculæ, erectæ, basifixæ, loculis basi divergentibus introrsum dehiscentibus. Ovarium sessile, subglobosum, 3-loculare; stylus columnaris, stigmate parvo; ovula in loculis ∞ (6–10). Bacca subglobosa, indehiscens, pulposa. Semina ∞ v. ad 1–2 reducta, ovoidea v. subglobosa, pallide brunnea, testa arcte appressa; embryo rectus v. curvulus, albumine corneo triente v. fere dimidio brevior.—Rhizoma obliquum, crassiusculum, breve, fibris radicalibus tuberiferis. Folia in rhizomate plura, linearia, graminea, basi cum scapo squamis paucis inclusa. Scapus inter folia infima lateralis, aphyllus, erectus. Racemus terminalis, simplex. Flores ad bracteas parvas lineares solitarii v. rarius gemini, rosei, patentes v. nutantes, pedicellis sæpius recurvis.

Species 1, in Himalaya frequens. *Baker in Journ. Linn. Soc.* xiv. 562. *Hook. f. Bot. Mag. t.* 6154.

22. ? **Speirantha,** *Baker in Journ. Linn. Soc.* xiv. 562.—Perianthium expansum, marcescens (demum deciduum?); segmenta distincta, subæqualia, patentissima. Stamina 6, ima basi segmentorum affixa iisque breviora, filamentis leviter complanatis; antheræ oblongæ, inter lobos basales longiusculos affixæ, loculis introrsum dehiscentibus. Ovarium sessile, subglobosum, 3-loculare; stylus columnaris, stigmate parvo; ovula in loculis pauca (2–4), anatropa. Fructus (baccatus?) . . .—Rhizoma obliquum, crassum, stoloniferum. Folia in rhizomate plura, vaginis basi dilatatis squamisque exterioribus fere in bulbum incrassatis, laminis lanceolatis v. latioribus. Scapus lateralis, cum foliorum vaginis intra squamas exteriores inclusus, vaginis seu squamis nonnullis erectis dissitis instructus, cæterum aphyllus. Racemus in scapo terminalis, simplex, pedicellis patentibus nec recurvis ad bracteas solitariis. Flores albi v. viriduli. Bracteæ lineares, subscariosæ.

Species 1, Chinensis. *Bot. Mag. t.* 4842 (*Albuca*, patria falsa et antheris imperfecte delineatis). Genus, fructu ignoto, quoad affinitates adhuc incertum; habitu nulli nisi *Convallarieis* accedit.

23. **Reineckea,** *Kunth in Abhandl. Akad. Wiss. Berlin,* 1842, 29. (Sanseviella, *Reichb. Consp.* 44. Liriope, *Salisb. Gen. Pl. Fragm.* 74, *non Lour.*)—Perianthium marcescens, tubo cylindraceo subæquali; lobi inter se et tubo subæquales, sub anthesi recurvo-patentes. Stamina 6, tubo sub lobis affixa iisque subæquilonga, filamentis filiformibus; antheræ oblongæ, dorsifixæ, loculis basi apiceque liberis introrsum dehiscentibus. Ovarium sessile, 3-loculare; stylus filiformis, stigmate parvo brevissime 3-lobo, ovula in loculis 2, erecta, v. ex Kunthio 4, 2-seriatim superposita. Bacca globosa, indehiscens. Semina pauca, interdum in bacca solitaria, crassa, testa fere pulposa; embryo in albumine corneo duro parvus.—Rhizoma reptans, foliorum cicatricibus annulatum, caule cæterum nullo. Folia in rhizomate subdistiche fasciculata v. sparsa, linearia v. latiuscule

graminea subplicata. Scapus aphyllus, e rhizomate ad latus fasciculi foliorum erectus, simplex, jam infra medium v. fere a basi florens. Flores in spica simplici sub bractea membranacea solitarii, sessiles, dissiti.

Species 1, Chinæ et Japoniæ incola. *Kunth, Enum. Pl.* v. 21. *Baker in Journ. Linn. Soc.* xiv. 551. *Jacq. Fragm. t.* 102. *Red. Lil. t.* 323. *Andr. Bot. Rep. t.* 361. *Bot. Mag. t.* 739 (*ic. omnes sub Sanseviera*).

Genus quoad perianthium et semina *Dracænæ* subaffine, habitu et inflorescentia longe diversum.

Tribus VI. Aspidistreæ.

24. **Aspidistra,** *Ker in Bot. Reg. t.* 628. (Macrogyne, *Link et Otto, Ic. Pl. Sel. t.* 31. Porpax, *Salisb. Gen. Pl. Fragm.* 9.)—Perianthium campanulatum, tubo lato ad faucem vix contracto; lobi 8, patentes, subæquales v. alterni paullo minores. Stamina 8, infra medium tubi affixa eoque inclusa, filamentis brevissimis; antheræ ovato-oblongæ, dorsifixæ, recurvæ, loculis introrsum dehiscentibus. Ovarium intra perianthium liberum, sessile, breve, crassum nec sulcatum, cum stylo crasso continuum, 4-loculare; stigma maximum, orbiculato-peltatum, faucem perianthii claudens, sæpius integrum, supra plus minus 4-sulcatum sulcis 2-fidis, demum interdum 8-fidum; ovula in loculis 2–6, lateraliter affixa. Bacca (a nobis non visa) globosa, indehiscens, 1-sperma. Semen . . .—Rhizoma crassum, breve v. repens. Folia radicalia longa, ampla, elevato-venosa, in petiolum erectum basi breviter dilatatum contracta. Scapi radicales brevissimi, 1-flori, squamis membranaceo-scariosis nunc paucis nunc dense imbricatis stipati. Perianthium luridum v. flavo-virens, intus sæpe punctatum.

Species 3, Himalayæ, Chinæ et Japoniæ incolæ. *Kunth, Enum. Pl.* v. 311. *Baker in Journ. Linn. Soc.* xiv. 579. *Bot. Mag. t.* 2499. *Bot. Reg. t.* 977.

Plectogyne, *Link in Allgem. Gartenz.* 1834, 266; *Kunth, Enum. Pl.* v. 313; *Baker in Journ. Linn. Soc.* xiv. 579, *t.* 18, est *A. elatior*, Blume in Hœv. et Vr. Tidschr. i. 76, t. 4 et 3 D; Bot. Mag. t. 5386, stigmate supra evidentius sulcato demum in lobos 8 reflexos fisso; ovula ex Blumeo in uno loculo 4, in cæteris 2, ex J. Gayo in loculis omnibus 4, ex Kunthio in loculis 6.

25. **Tupistra,** *Ker in Bot. Mag. t.* 1655. (Platymetra, *Salisb. Gen. Pl. Fragm.* 9.)—Perianthium campanulatum, tubo lato ad faucem vix contracto; lobi 6, rarius 8, breves, patentes, subæquales. Stamina tot quot lobi, tubo infra faucem affixa eoque inclusa, filamentis brevissimis crassis inflexis; antheræ dorsifixæ, ovato-oblongæ, recurvæ, loculis introrsum dehiscentibus. Ovarium intra perianthium liberum, sessile, breve, crassum nec sulcatum, 3- rarius 4-loculare, cum stylo crasso columnari continuum; stigma suborbiculari-peltatum, crassum, nunc maximum subintegrum faucem perianthii claudens, nunc profunde 3- v. 6-lobum; ovula in loculis 2, collateralia, lateraliter affixa. Bacca globosa, sæpius 1-sperma, indehiscens. Semen globosum, testa appressa, albumine carnoso; embryo . . .—Rhizoma crassum, nunc breve tuberosum, nunc elongatum cicatricibus foliorum vetustorum annulatum. Folia radicalia longa, ampla, in petiolum erectum basi dilatatum contracta. Scapus inter folia radicalis, brevis v. elongatus, erectus v. apice recurvus, simplex, basi squamis membranaceis scariosis stipatus, cæterum aphyllus. Spica terminalis, densa, cylindracea. Flores sessiles, conferti, violacei v. luridi. Bracteæ herbaceæ v. scariosæ, ovatæ v. lanceolatæ, primum imbricatæ, jam sub anthesi sub floribus occultæ.

Species 3 v. 4, Himalayæ v. Burmæ incolæ. *Kunth, Enum. Pl.* v. 315. *Baker in Journ. Linn. Soc.* xiv. 580. *Bot. Mag. t.* 3054. *Bot. Reg. t.* 704, 1223. *Lodd. Bot. Cab. t.* 515.

Macrostigma, *Kunth, Enum. Pl.* v. 319; *Regel, Gartenfl.* 1857, 130, *t.* 192, est *T. macrostigma*, Baker in Bot. Mag. t. 6280, stigmate fere *Aspidistræ elatioris*, sed 6-lobum nec 8-lobum, et inflorescentia *Tupistræ*.

Campylandra, *Baker in Journ. Linn. Soc.* xiv. 582, *t.* 20, est *T. aurantiaca*, Wall, a cæteris speciebus parum diversa, filamentis paullo magis evolutis et stylo tenuiore.

26. **Rohdea,** *Roth, Nov. Pl. Sp.* 196. (Titragyne, *Salisb. Gen. Pl. Fragm.* 9.)—Perianthium subgloboso-campanulatum, tubo lato; lobi 6, breves, lati, supra antheras

inflexi. Stamina 6, fauci affixa, filamentis brevissimis vix ullis; antheræ ovatæ, loculis introrsum dehiscentibus. Ovarium intra perianthium liberum, subglobosum, 3-loculare, apice in stylum brevissimum contractum, stigmate amplo peltato 3-lobo, lobis recurvis; ovula in loculis 2, collateralia, lateraliter affixa. Bacca globosa, indehiscens, sæpius 1-sperma. Semen maturum non visum.—Rhizoma breve, crassum. Folia radicalia ampla, longa, elevato-venosa, basi contracta, vix petiolata, vaginis imbricatis. Scapus inter folia iis multo brevior, simplex, erectus. Spica terminalis, dense cylindracea. Flores arcte sessiles, dense conferti. Bracteæ ovatæ, membranaceæ, breves, summæ sæpe vacuæ imbricatæ.

Species 1, Japonica. *Kunth, Enum. Pl.* v. 320. *Baker in Journ. Linn. Soc.* xiv. 582. *Bot. Mag. t.* 898 (*Orontium*). *Blume in Hæv. et Vr. Tijdschr.* i. 73, 83, *t.* 3, A, B.

27. **Gonioscypha,** *Baker in Journ. Linn. Soc.* xiv. 581, *t.* 19.—Perianthium campanulatum, tubo late cylindraceo; lobi 6, suborbiculati, obtusissimi, crenulati, patentes, parum inæquales. Stamina 6, sub fauce affixa, filamentis brevissimis; antheræ breviter oblongæ, dorsifixæ, e tubo subprominentes, loculis introrsum dehiscentibus. Ovarium sessile, breve, 3-sulcum, 3-loculare; stylus columnaris, fere filiformis, stigmate 3-lobo, lobis brevibus latis patentibus; ovula in loculis 2, collateralia. Fructus . . .—Rhizoma . . . Folium adest unicum, petiolatum, amplum, ovali-oblongum, acuminatum, elevato-venosum. Scapus simplex, aphyllus, basi vaginis scariosis stipatus. Spica terminalis, cylindracea, densa etsi quam in *Rohdea* paullo laxior, floribus confertis sessilibus. Bracteæ lineari-setaceæ, summæ vacuæ ad apicem spicæ carnosæ.

Species 1, in Bhotan Himalayæ a Boothio lecta, specimine descripto in herb. Kew. ex herb. Nuttallii.

Tribus VII. Hemerocalleæ.

28. **Hemerocallis,** *Linn. Gen. n.* 433, *pro parte.*—Perianthium infundibuliforme, tubo cylindraceo brevi v. longiusculo; lobi tubo multo longiores, oblongo-spathulati, erecto-patentes, multinerves. Stamina 6, ad apicem tubi affixa, perianthio breviora, declinata, filamentis filiformibus; antheræ oblongo-lineares, dorsifixæ, filamento in foveolam intruso, loculis introrsum dehiscentibus. Ovarium subsessile, oblongum, obtuse 3-gonum, 3-loculare; stylus filiformis, declinatus, stigmate parvo capitato; ovula in loculis numerosa. Capsula coriacea, oblonga v. subglobosa, 3-quetra, transverse rugosa, breviter loculicide 3-valvis. Semina sæpius pauca, ovoidea, angulata, nigra, nitida, testa laxa crassiuscule membranacea; embryo cylindraceus, albumine carnoso parum brevior.—Rhizoma brevissimum, fibris radicalibus numerosis fasciculatis plus minus carnoso-incrassatis. Folia radicalia elongata, angusta, sæpe fere graminea. Flores magni, erecti, ad apicem scapi terminalis elati aphylli pauci, in paniculam brevem irregularem dispositi, v. perpauci fere in capitulum conferti. Bracteæ scariosæ, deciduæ.

Species 5, Europæ centralis et Asiæ temperatæ præsertim Japoniæ incolæ. *Kunth, Enum. Pl.* iv. 587. *Baker in Journ. Linn. Soc.* xi. 357. *Jacq. Hort. Vind. t.* 139. *Red. Lil. t.* 15, 16. *Andr. Bot. Rep. t.* 244. *Reichb. Ic. Fl. Germ. t.* 510. *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 56. *Bot. Mag. t.* 19, 64, 873. *Sweet, Brit. Fl. Gard. t.* 28. *Saund. Ref. Bot. t.* 213. *Regel, Gartenfl. t.* 522.

29. **Phormium,** *Forst. Char. Gen.* 47, *t.* 24. (Chlamydia, *Banks in Gærtn. Fruct.* i. 71, *t.* 18.)—Perianthium incurvum; segmenta basi in tubum brevem turbinatum connata, cæterum libera, laxe conniventia, 3 exteriora lanceolata firmiora usque ad apicem erecta, 3 interiora interdum paullo longiora tenuiora apice breviter patentia. Stamina 6, tubo ad basin segmentorum affixa iisque sublongiora, filamentis filiformibus; antheræ oblongæ v. oblongo-lineares, erectæ, juxta basin dorsifixæ, filamento in foveolam intruso, loculis introrsum dehiscentibus. Ovarium sessile, oblongum, 3-quetrum, perfecte v. imperfecte 3-loculare; stylus crassiuscule filiformis, stigmate parvo capitato; ovula in loculis

numerosa. Capsula subcoriacea, breviter v. longe cylindraceo-3-quetra, interdum valde torta, loculicide dehiscens. Semina oblonga, valde compressa, testa nigra membranacea, circa nucleum margine acuto dilatata nec vere alata; embryo in albumine carnoso longiusculus.—Rhizoma breve, incrassatum, fibris radicalibus fasciculatis crassis. Folia radicalia longa, lineari-ensiformia, disticha, coriacea, tenacissima. Scapus aphyllus, elatus, apice ramosus, bracteis sub ramis membranaceo-scariosis sæpius caducis. Flores in panicula terminali secus ramos irregulariter pedicellati, intra bracteas scariosas fasciculati, versicolores, sæpius luridi v. flavicantes interdum abortu masculi. Pedicelli sub flore articulati.

Species 2, Novæ Zelandiæ incolæ. *Faujas in Ann. Mus. Par.* xix. 401, *t.* 20. *Hook. f. Handb. N. Zeal. Fl.* 286. *Baker in Journ. Linn. Soc.* xi. 357. *Red. Lil. t.* 448, 449. *Bot. Mag. t.* 3199.

30. **Blandfordia,** *Sm. Exot. Bot.* i. 5, *t.* 4.—Perianthium persistens, tubo superne v. fere a basi valde ampliata, fere infundibuliforme v. campanulatum; lobi 6, breves, lati, erectiusculi, subæquales. Stamina 6, medio tubo v. paullo altius affixa, perianthio breviora v. vix longiora, filamentis filiformibus; antheræ oblongæ, dorsifixæ, filamento in foveolam sæpe longe tubulosam intruso, loculis introrsum dehiscentibus. Ovarium longe stipitatum, 3-loculare, in stylum brevem attenuatum, stigmate parum dilatato capitato v. 3-dymo; ovula in loculis numerosa. Capsula stipitata, elongata, anguste 3-quetra, acuminata, chartacea, septicide 3-valvis. Semina numerosa, oblongo-falcata, angulata, testa laxa crassiuscula papillis subfiliformibus dense obtecta; embryo linearis, vix albumine carnoso brevior.—Rhizoma brevissimum, fibris radicalibus fasciculatis crassiusculis. Caulis simplex, foliis paucis parvis sparsis. Folia ad basin caulis subradicalia, conferta, longa, angusta, rigidula, prominenter venosa. Racemus terminalis, simplex, brevis, floribus speciosis pedicellatis pendulis. Bracteæ sub pedicellis angustæ, additis sæpe bracteolis 2 parvis ad basin pedicelli.

Species 4, Australianæ. *Benth. Fl. Austral.* vii. 22. *Endl. Iconogr. t.* 27. *Bot. Mag. t.* 2003, 4819, 5734, 5809, 6209. *Bot. Reg. t.* 286, 924; 1845, *t.* 18. *Fl. des Serres, t.* 585, 1829.

31. **Funkia,** *Spreng. Syst. Veg.* ii. 40. (Hosta, *Trattin. Arch. Gewächs.* i. 55, *cum tabb.* 2; *Thes. Bot. t.* 51, 52. Libertia, *Dumort. Comm. Bot.* 9. Saussurea, *Salisb. in Trans. Linn. Soc.* viii. 11, *absque char.*)—Perianthium infundibuliforme, tubo brevi v. longiusculo in faucem ampliato; lobi 6, tubo paullo breviores v. longiores. Stamina 6, tubo affixa v. hypogyna, declinata, perianthio parum breviora, filamentis filiformibus; antheræ oblongæ, dorsifixæ, filamento in foveolam intruso, versatiles, loculis introrsum dehiscentibus. Ovarium sessile, oblongum, 3-loculare; stylus filiformis, stigmate parum incrassato; ovula in loculis numerosa. Capsula anguste oblonga v. fere linearis, loculicide 3-valvis. Semina angulato-compressa v. fere plana, testa membranacea nigra deorsum quasi in alam producta; embryo albumine carnoso parum brevior.—Rhizoma breve, crassum, lignosum, fibris radicalibus fasciculatis crassiusculis. Folia radicalia petiolata, ampla, oblongo-lanceolata ovata v. cordata, venis primariis basi cum costa confluentibus inter se dissitis, venulis transversis connexis. Scapus simplex, elatus, aphyllus. Flores speciosi, albi v. cærulei, in racemo terminali subsecundi, declinati v. penduli, brevissime v. longiuscule pedicellati. Bracteæ scariosæ v. fere herbaceæ.

Species 4 v. 5, Japoniæ et Chinæ incolæ. *Baker in Journ. Linn. Soc.* xi. 366. *Miq. Archiv. Neerl.* iv. 219.

Genus a Salisburyo in 2 dividitur, quæ sectiones sequentes formant:—

1. Niobe, *Salisb. in Trans. Hort. Soc.* i. 335, *absque char.; Gen. Pl. Fragm.* 82, est *F. subcordata*, Spr., perianthio maximo, fauce minus ampliata, staminibus medio tubo infra faucem affixis. Bracteola ad basin pedicelli intra bracteam parva. *Red. Lil. t.* 3. *Andr. Bot. Rep. t.* 194. *Bot. Mag. t.* 1433. *Fl. des Serres, t.* 158–9.

2. Bryocles, *Salisb. in Trans. Hort. Soc.* i. 335, *absque char.; Gen. Pl. Fragm.* 81, species cæteras continet, perianthii fauce sæpe fere campanulata, staminibus hypogynis. Bracteola deest. *Red. Lil. t.* 106. *Vent. Jard. Malm. t.* 18. *Andr. Bot. Rep. t.* 6. *Bot. Mag. t.* 894, 3657, 3663. *Bot. Reg.* 1839, *t.* 50. *Lodd. Bot. Cab. t.* 1869. (*Ic. veteres pleræque sub Hemerocallide.*)

32. **Kniphofia,** *Mœnch, Meth.* 631. (Tritoma, *Ker in Bot. Mag. t.* 744. Tritomanthe, *Link, Enum. Hort. Berol.* i. 333. Tritomium, *Link, Handb.* i. 170. Rudolphorœmeria, *Steud. in Schimp. Pl. Abyss. n.* 752. Triclissa, *Salisb. Gen. Pl. Fragm.* 75.)—Perianthium tubulosum, æqualiter cylindraceum v. in speciebus tropicis superne ampliatum; segmenta 1-nervia, alte connata, apice breviter libera, ovata v. deltoidea, æqualia v. seriei interioris paullo latiora. Stamina 6, hypogyna, perianthio paullo breviora v. sæpius exserta, filamentis filiformibus; antheræ oblongæ v. fere lineares, dorsifixæ, filamento in foveolam intruso, loculis introrsum dehiscentibus. Ovarium sessile, 3-loculare; stylus filiformis, sæpe exsertus, stigmate parvo; ovula in loculis numerosa. Capsula globosa v. breviter ovoidea, coriacea, loculicide dehiscens. Semina angulata, testa nigra appressa; embryo oblongus, albumine bene brevior.—Rhizoma breve, fibris radicalibus fasciculatis numerosis crassiusculis. Folia radicalia longa, angusta, firma. Scapus aphyllus, elatus, simplex. Flores speciosi, dense racemosi v. spicati, e flavo coccinei, subsessiles v. breviter pedicellati, arcte deflexi. Bracteæ sub pedicellis breves, scariosæ.

Species ad 16, Africæ australis et tropicæ et Madagascariæ incolæ. *Baker in Journ. Linn. Soc.* xi. 360. *Kunth, Enum. Pl.* iv. 550. *Red. Lil. t.* 161, 186 (*Veltheimia*), 291. *Andr. Bot. Rep. t.* 54 (*Aletris*), *Bot. Mag. t.* 758, 764, 4816, 5946, 6116, 6167, 6553, 6569. *Bot. Reg. t.* 1745. *Lodd. Bot. Cab. t.* 444. *Saund. Ref. Bot. t.* 169. *Regel, Gartenfl. t.* 907. *Fl. des Serres, t.* 1393. *Lemaire, Jard. Fleur. t.* 362. (*Ic. nonnullæ sub Tritomate.*)

33. **Notosceptrum,** *Benth. gen. nov.*—Perianthium late campanulatum, alte 5-fidum, persistens; lobi obovati, 1-nerves, interioribus latioribus. Stamina 6, hypogyna, perianthio longiora, filamentis filiformibus; antheræ breviter oblongæ, infra medium dorsifixæ, filamentis in foveolam intrusis, loculis introrsum dehiscentibus. Ovarium sessile, globosum, 3-loculare; stylus crassiuscule filiformis, stigmate parvo; ovula in loculis ∞ (4–6). Capsula subglobosa, loculicide dehiscens. Semina pauca, angulata, testa nigra, appressa; embryo cylindraceus, leviter incurvus, albumine carnoso vix brevior. Rhizoma verticale, breve, crassum, lignosum, fibris radicalibus copiosis carnosis. Folia radicalia conferta, linearia, pluripedalia. Scapus terminalis erectus, elatus, simplex. Flores parvuli, in spica longa densa cylindracea subsessiles, quaquaversi, nec deflexi, flavi v. rubentes, singuli bractea parva scariosa stipati.

Species typicæ 2, Angolenses: *N. benguellense* et *angolense*, Benth.; Baker in Trans. Linn. Soc. Bot. i. 246, sub *Kniphofia*, a quo genere habitu, inflorescentia, perianthio etc. nobis longe differre videntur. His valde affinis nisi stricte congener est *Urginea alooides*, Bolus in Journ. Linn. Soc. xviii. 395, species austro-Africana, perianthii segmentis fere ad basin solutis 3-nervibus v. exterioribus 5-nervibus; perianthii forma, stamina, ovarium, stylus et capsula junior omnino *Notosceptri*, cui addimus sub nomine *N. alooidis*.

Tribus VIII. Aloineæ.

34. **Gasteria,** *Duval, Pl. Succ. Hort. Alenç.* 6, *ex Haw. Syn. Pl. Succ.* 85.—Perianthium tubulosum, basi sæpius ventricosum, supra ovarium contractum, superne incurvum; segmenta arcte connata, apice breviter libera, erecta. Stamina hypogyna, perianthio parum breviora v. breviter exserta, filamentis subulatis; antheræ oblongæ v. lineares, erectæ, juxta basin dorsifixæ, filamento in foveolam intruso. Ovarium sessile, oblongum, sub-3-quetrum, 3-loculare; stylus columnaris v. filiformis, e perianthio sæpe exsertus, stigmate parvo v. parum dilatato; ovula in loculis numerosa. Capsula coriacea, loculicide dehiscens. Semina (in sp. 2 observata) numerosa, valde compressa, fere plana, irregulariter suborbiculata, testa nigra exalata.—Caudex brevissimus. Folia rosulata, crassa, carnosa, breviter ligulata v. oblonga, sæpe maculata, integerrima. Scapus elongatus, simplex v. parce ramosus. Flores breviter pedicellati, laxe racemosi, secus rhachin sparsi, sub bracteis parvis solitarii.

Species infra 30, Africæ australis incolæ. *Kunth, Enum. Pl.* iv. 534 (*Alois sect.*). *Baker in Journ. Linn. Soc.* xviii. 182, qui species 45 enumerat, plurimas tamen includit hybridas v. varietates

hortenses. *Salm-Dyck, Monogr. Aloe,* § 29, *f.* 1 *ad* 38. *Jacq. Hort. Schœnbr. t.* 418, 419. *DC. Pl. Grasses, t.* 63, 68, 91. *Bot. Mag. t.* 765, 837, 838, 979, 1322, 1331, 2304, 2369, 5812. *Saund. Ref. Bot. t.* 162. (*Ic. plur. sub Aloe.*)

✓ 35. **Aloe,** *Linn. Gen. n.* 430.—Perianthium æqualiter cylindraceum v. supra ovarium contractum, rectum v. leviter incurvum; segmenta conniventia v. sæpius plus minus cohærentia v. connata, erecta v. summo apice vix brevissime patentia. Stamina 6, hypogyna, perianthio subæquilonga v. longiora, filamentis subulatis; antheræ oblongæ v. oblongo-lineares, prope basin dorsifixæ, filamento in foveolam intruso, loculis introrsum dehiscentibus. Ovarium sessile, oblongum v. ovoideum, 3-quetrum, 3-loculare; stylus filiformis, stigmate parvo v. vix incrassato; ovula in loculis numerosa. Capsula coriacea, ovoidea v. oblonga, loculicide dehiscens. Semina ∞, 3-quetra v. compressa, nuda v. plus minus 3-alata, testa crassiuscule membranacea nigra; embryo in albumine carnoso longiusculus, rectus.—Caudex, nunc brevissimus, nunc elatus frutescens v. arborescens, interdum ramosus. Folia crassa, carnosa, rosulata v. rarius disticha v. sparsa, margine sæpius spinoso-dentata. Scapus seu pedunculus axillaris v. pseudo-terminalis, sæpius elongatus, simplex v. rarius ramosus. Flores secus pedunculum v. ramos breviter denseque v. longe et laxe racemosi, breviter v. longe pedicellati, sæpius nutantes, ad bracteas solitarii. Bracteæ scariosæ, sæpius parvæ, nonnullæ haud raro secus pedunculum infra flores sparsæ vacuæ.

Species enumeratæ ultra 80, pleræque Africæ australis v. ins. Mascarensium incolæ, nonnullæ Africanæ tropicæ, una in regione Mediterranea et ins. Canariensibus late dispersa, in aliis terris diu culta et forte inquilina. *Kunth, Enum. Pl.* iv. 515, *pro parte. Baker in Journ. Linn. Soc.* xviii. 152, *et in Trans. Linn. Soc. Bot.* i. 263. *Salm-Dyck, Monogr. Aloe,* § 15 *ad* 26. *Sibth. Fl. Gr. t.* 341. *Jacq. Fragm. t.* 61, 62; *Hort. Schœnbr. t.* 420. *DC. Pl. Grass. t.* 15, 21, 27, 38, 39, 44, 80, 81, 85, 97 *ad* 99. *Andr. Bot. Rep. t.* 468. *Link et Otto, Ic. Pl. Sel. t.* 40. *Todaro, Hort. Panorm. t.* 9, 16, 18, 21, 23. *Bot. Mag. t.* 472, 757, 1270, 1278, 1306, 1323, 1332, 1346, 1355, 1362, 1415, 1460, 1474, 2272, 6377, 6520, 6580, 6596. *Bot. Reg. t.* 996. *Regel, Gartenfl. t.* 970.

Præter species typicas iconibus supra citatis illustratas, genera sequentia a variis auctoribus proposita rite a Bakero aliisque ad *Aloem* reducuntur.

Pachidendron, *Haw. Revis. Pl. Succ.* 35 (Busipho, *Salisb. Gen. Pl. Fragm.* 76), includit species paucas, caudice elato frutescente v. arborescente etsi simplici, perianthio recto, staminibus longe exsertis. *Salm-Dyck, Monogr. Aloe,* § 27. *DC. Pl. Grass. t.* 32. *Bot. Mag. t.* 1975, 2517.

Bowiea, *Haw. in. Philos. Mag.* 1824, 299; *A. DC. Pl. Rar. Hort. Gen.* vi. 21, *t.* 2; *Salm-Dyck Monogr. Aloe,* § 14, *f.* 1, est *A. Bowiea,* Schult., species floribus minoribus, perianthii segmentis a basi liberis apice brevissime recurvo-patentibus, staminibus exsertis. In *A. myriacantha,* Schult. (*Bowiea myriacantha,* Haw. in *Philos. Mag.* 1827) perianthii segmenta pariter libera apiceque brevissime recurva, sed stamina inclusa fere *Haworthiæ.* Perianthii segmenta a basi libera etsi usque ad apicem arcte conniventia observantur in speciebus nonnullis aliis inter typicas inclusis.

Kumara, *Medik. Theodora,* 69, *t.* 4 (Rhipidodendron, *Willd. in Gesellsch. Naturf. Fr. Mag. Berlin,* v. 164; Ptyas, *Salisb. Gen. Pl. Fragm.* 76) est *A. plicatilis,* Mill., cum *A. dichotoma,* Linn., caule arborescente dichotome ramoso, foliis distichis subintegerrimis, perianthii segmentis exterioribus margine membranaceo in tubum connatis, interioribus intra tubum a basi discretis. *Salm-Dyck, Monogr. Aloe,* § 28, *f.* 1. *Jacq. Hort. Schœnbr. t.* 423. *DC. Pl. Grass. t.* 75. *Bot. Mag. t.* 457.

Catevala, *Medik. Theodora,* 67, includit *A. arborescentem,* Mill., speciesque nonnullas *Haworthiæ,* quas auctor distinxit perianthii segmentis vix cohærentibus facillime solvendis.

36. **Apicra,** *Willd. in Gesellsch. Naturf. Fr. Mag. Berlin* v. 167.—Perianthium cylindraceum, rectum; segmenta 3-nervia, alte cohærentia v. connata, apice breviter stellato-patentia, subæqualia. Stamina 6, hypogyna, perianthio paullo breviora, filamentis filiformibus; antheræ erectæ, prope basin dorsifixæ, filamento in foveolam intruso, loculis introrsum dehiscentibus. Ovarium oblongum, 3-loculare; stylus filiformis, stigmate parvo capitato; ovula in loculis numerosa. Capsula oblonga, apice (in *A. deltoidea*) obtuse conica nec truncata. Semina . . .—Caulis v. caudex foliatus brevis, longius tamen evolutus quam in *Haworthia.* Folia brevia, crassa, carnosa, pluriseriatim imbricato-

patentia. Pedunculus simplex v. ramosus. Flores secus rhachin breviter pedicellati, sparsi, quam in *Haworthia* adhuc paullo minores, sub bracteis solitarii. Bracteæ scariosæ, parvæ.

Species ad 7, Africæ australis incolæ. *Kunth, Enum. Pl.* iv. 492 (*Alois sect.*). *Baker in Journ. Linn. Soc.* xviii. 216. *Salm-Dyck, Monogr. Aloe*, § 1, 2. *Jacq. Fragm. t.* 109 *ad* 111. *DC. Pl. Grass. t.* 56. *Bot. Mag. t.* 1338, 1352, 1455, 6071. (*Ic. plur. sub Aloe.*)

37. **Haworthia,** *Duval, Pl. Succul. Hort. Alenç.* 7, *ex Haw. Syn. Pl. Succul.* 90.—Perianthium cylindraceum, superne incurvum; segmenta conniventia v. leviter cohærentia, apice recurva, sub-2-labiata, 3 nempe superiora erectiuscula 3 inferiora deflexa. Stamina 6, hypogyna, perianthio subæquilonga v. paullo breviora, filamentis subulatis; antheræ ovatæ v. oblongæ, prope basin dorsifixæ, filamento in foveolam intruso, quam in *Aloe* sæpius minores, loculis introrsum dehiscentibus. Ovarium oblongum v. ovoideum, 3-loculare; stylus filiformis, stigmate parvo capitato v. obscure 3-lobo; ovula in loculis numerosa. Capsula oblonga, obtusa v. truncata, 3-quetra, loculicide dehiscens. Semina (in perpaucis speciebus nota) valde compressa v. obovoideo-3-quetra, angulis acutis exalatis.—Caulis v. caudex foliatus brevis nunc brevissimus. Folia rosulata v. imbricato-patentia, brevia, 3-∞-faria, crassa, carnosa. Pedunculus simplex v. parce ramosus. Flores quam in *Aloe* minores, in racemo longo sparsi, sæpe dissiti, erecti v. subpatentes, breviter pedicellati. Bracteæ scariosæ, minimæ v. pedicellum æquantes.

Species enumeratæ 59, quarum una Angolensis cæteræ omnes Africæ australis incolæ, nisi nonnullæ forte varietates hortenses. *Kunth, Enum. Pl.* iv. 496 (*Alois sect.*). *Baker in Journ. Linn. Soc.* xviii. 197; *et in Trans. Linn. Soc. Bot.* i. 263. *Salm-Dyck, Monogr. Aloe*, § 3 *ad* 13. *Jacq. Fragm. t.* 108, 112; *Hort. Schœnbr. t.* 421, 422. *DC. Pl. Grass. t.* 16, 45, 50, 51, 57, 62. *Bot. Mag. t.* 455, 756, 802, 814, 815, 1314, 1337, 1345, 1353, 1354, 1360, 1361, 1417, 1452. *Lodd. Bot. Cab. t.* 1354, 1430. *Saund. Ref. Bot. t.* 232 *ad* 234, 263. (*Ic. plur. sub Aloe.*)

38. **Lomatophyllum,** *Willd. in Gesellsch. Naturf. Fr. Mag. Berlin*, v. 166. (Phylloma, *Ker in Bot. Mag. t.* 1585.)—Perianthium subinfundibuliforme; segmenta angusta, subæquilonga, in tubum cylindraceum conniventia, superne præsertim exteriora subpatentia. Stamina 6, ima basi segmentorum affixa iisque paullo breviora, filamentis filiformibus; antheræ oblongæ, dorsifixæ, basi 2-fidæ, filamento in foveolam intruso, loculis introrsum dehiscentibus. Ovarium sessile, 3-loculare; stylus filiformis, stigmate parvo; ovula in loculis ∞. Fructus subglobosus, coriaceo-carnosus, 3-sulcus, demum (an semper ?) loculicide dehiscens. Semina pauca, sæpe uno solo cujusque loculi perfecto, testa nigra splendente (bene maturam non vidimus).—Caudex lignosus, simplex interdum elatus. Folia ad apicem caudicis conferta, loriformi-elongata, coriaceo-carnosa, margine cartilagineo sæpe colorata, calloso- v. spinuloso-serrulata. Paniculæ ad axillas superiores pedunculatæ, floribus secus ramulos racemosis breviter pedicellatis. Bracteæ parvæ, scariosæ.

Species 2 v. 3, insularum Mascarensium incolæ. *Baker in Journ. Linn. Soc.* xiv. 550. *DC. Pl. Grass. t.* 31 (*Aloe*).

Genus certe *Aloi* affine, etsi a cæteris *Aloineis* differat paniculis pluribus axillaribus et fructu carnoso, a nonnullis bacca, ab aliis (*Willd.*, *DC.*, etc.) capsula dicto; maturitate certe interdum in valvas dehiscit.

Tribus IX. Dracæneæ.

39. **Hesperocallis,** *A. Gray in Proc. Amer. Acad.* vii. 390.—Perianthium infundibuliforme, tubo cylindraceo; lobi tubo longiores, oblongo-spathulati, erecto-patentes, subæquales, medio 5–7-nervii. Stamina 6, fauci affixa, perianthio breviora, filamentis filiformibus; antheræ lineares, infra medium dorsifixæ nec foveolatæ, versatiles, loculis introrsum dehiscentibus. Ovarium sessile, 3-loculare; stylus filiformis, stigmate capitato sub-3-lobo; ovula in loculis numerosa. Capsula subglobosa, loculicide 3-valvis. Semina in loculis ∞, nigra, plano-compressa, matura non vidimus.—Caudex brevis, lignosus, foliorum vetustiorum basibus persistentibus obtectus, vix tamen revera bulbosus. Folia

radicalia linearia, elongata, crassiuscula. Scapus erectus, simplex. Flores in racemo simplici breviter pedicellati, magni, sub bracteis solitarii. Bracteæ sub pedicellis scariosæ, infra inflorescentiam interdum paucæ vacuæ subfoliaceæ. Pedicelli infra florem articulati.

Species 1, Californica.

40. **Hesperaloe**, *Engelm. in S. Wats. Bot. 40 Parall.* 497.—Perianthium cylindraceum, rectum; segmenta angusta, subæqualia, tenuiter ∞-nervia, usque ad apicem erecta, conniventia, non v. vix cohærentia. Stamina 6, ima basi segmentorum affixa iisque paullo breviora, filamentis tenuibus; antheræ oblongæ, basi 2-fidæ, infra medium dorsifixæ, versatiles, nec foveolatæ, loculis introrsum dehiscentibus. Ovarium sessile, 3-loculare; stylus filiformis, stigmate parvo; ovula in loculis numerosa. Capsula subglobosa, coriacea, duriuscula, loculicide dehiscens, valvis demum septicide 2-partitis 6-valvis. Semina numerosa, angulato-compressa v. fere plana, exalata, testa nigra crassiuscula; embryo in albumine carnoso longiusculus, rectus.—Caulis foliatus seu caudex brevissimus. Folia conferta, linearia, canaliculata, rigida, margine filamentosa. Pedunculus seu scapus aphyllus, elatus, simplex v. ramis nonnullis strictis instructus. Flores secus rhachin v. ramos fasciculati, rubescentes (½–1-pollicares), pedicellis apice articulatis. Bractea sub quoque fasciculo membranaceo-scariosa, sub pedicellis minimæ.

Species 1, Texana. Genus quoad perianthii formam *Aloi* affine, sed folia inflorescentiaque potius *Yuccæ*. Antheræ *Hesperocallidis*, filamento cum connectivo continuo nec in foveolam distinctam inserto.

41. **Yucca**, *Linn. Gen. n.* 429.—Perianthium diu persistens; segmenta distincta v. vix ima basi connata, lanceolato-ovata, crassiuscula, plus minus in globum conniventia. Stamina 6, hypogyna, erecta, perianthio multo breviora, filamentis crassiusculis apice elevatis sæpiusque subrecurvis; antheræ parvæ ad apicem filamenti sessiles v. adnatæ, loculis introrsum dehiscentibus. Ovarium sessile, 3-loculare, loculis imperfecte 2-locellatis; stylus columnaris, brevis, superne in lobos 3 erectos introrsum stigmatosos plus minus divisus; ovula in loculis ∞. Fructus nunc carnosus pulposus v. fere spongiosus indehiscens, nunc siccus loculicide dehiscens. Semina obovoidea v. angulato-compressa, testa nigra; embryo albumine corneo vix brevior, diagonalis.—Caudex lignosus, nunc humilis, nunc demum elatus v. arborescens ramosus. Folia ad apicem caudicis conferta, lineari-lanceolata, crassa rigidaque v. rarius flaccida, apice plerumque spinescentia, margine integra v. filamentosa. Panicula terminalis, speciosa, multiflora, inter folia subsessilis v. pedunculo bracteato fulta. Flores majusculi, secus ramos breviter pedicellati, penduli.

Species admisit Engelmann 12, Americæ borealis civitatum australiorum Mexici et Americæ centralis incolas; Baker species 21 distinxit imprimis ad specimina hortensia, quorum plurima floribus adhuc ignotis valde dubia remanent. *Kunth, Enum. Pl.* iv. 268. *Engelmann in Trans. Acad. Sc. St. Louis*, iii. 17. *Baker in Journ. Linn. Soc.* xviii. 219.

Engelmann in monographia supra citata genus, ad specimina sylvestria plerumque in vivo examinata, in sectiones 4 sequentes imprimis ad fructum divisit:—

1. *Sarcoyucca.* Bacca indehiscens, pendula. Semina crassa, albumine ruminato. Huc *Y. aloifolia*, Linn., speciesque aliæ sæpius arborescentes. *Red. Lil. t.* 326, 327, 401, 402. *DC. Pl. Grass. t.* 20. *Andr. Bot. Rep. t.* 473. *Salisb. Parad. Lond. t.* 31. *Bot. Mag. t.* 1260, 1700, 5201, 6316. *Bot. Reg. t.* 1690, 1894. *Sweet, Brit. Fl. Gard. t.* 195. *Saund. Ref. Bot. t.* 313, 316 *ad* 321.

2. *Clistoyucca.* Fructus indehiscens, demum siccatus spongiosus. Semina crassiuscula, albumine integro. Species unica, *Y. brevifolia*, Engelm., arborescens.

3. *Chænoyucca.* Fructus capsularis, erectus, septicide dehiscens, demum 6-valvis. Semina tenuia, plana, albumine integro. Huc *Y. filamentosa*, Linn., speciesque affines acaules v. vix caulescentes. *Red. Lil. t.* 277, 278. *Bot. Mag. t.* 900, 2222, 2236, 2662. *Bot. Reg. t.* 1895. *Sweet, Brit. Fl. Gard. t.* 53, 251. *Saund. Ref. Bot. t.* 314 ?, 315, 322 *ad* 325.

4. *Hesperoyucca.* Capsula loculicide 3-valvis. Semina *Chænoyuccæ*. Filamenta quam in cæteris speciebus minus incrassata, summo apice attenuata, antheris solito multo majoribus, loculis discretis per anthesin late apertis. Species unica, acaulis, scapo elato, *Y. Whipplei*, Torr. In icone in Gard. Chron. 1876, ii. 197 ad vivum a W. G. Smith delineata, filamenta apparent ut in sectionibus præcedentibus clavata.

42. **Dracæna,** *Linn. Mant. n.* 1256. (Terminalis, *Medik. Theodora,* 83. Pleomele, *Salisb. Gen. Pl. Fragm.* 74.)—Perianthium infundibuliforme v. anguste campanulatum, tubo brevi v. longiusculo ; lobi subæquales, angusti, recurvo-patentes, tubo longiores v. breviores. Stamina 6, tubo ad basin loborum affixa, quibus sæpius paullo breviora, filamentis filiformibus v. leviter complanatis v. incrassatis ; antheræ oblongæ, rarius lineares alteque 2-lobæ, medio dorso affixæ, versatiles, loculis introrsum dehiscentibus. Ovarium sessile v. subsessile, 3-loculare ; stylus filiformis, stigmate capitato integro v. vix diviso ; ovula in loculis solitaria (v. rarius 2 ?) a basi erecta. Bacca globosa, lævis v. 2–3-sulca, indehiscens. Semina in bacca abortu solitaria globosa, v. 2–3 pressione obtusangula, testa crassiuscula interdum pulposa ; embryo albumine corneo sæpius durissimo prope hilum inclusus, parvus.—Caudex lignosus, cicatricibus foliorum delapsorum annulatus v. varie tessellatus, nunc elatus arborescens v. brevis crassusque, nunc tenuis ramosus v. surculosus, nunc abbreviatus vix lignosus foliis obtectus. Folia coriacea v. membranacea ; crebre parallele venosa sæpeque venulis transversis parvis instructa, nunc longa subsessilia ad apicem caudicis conferta, nunc brevia secus caudicem numerosa approximata v. in caudice brevi longe petiolata ovata. Flores sæpius dense fasciculati, fasciculis secus ramos paniculæ v. rhachin simplicem dissitis v. confertis, in paucis speciebus inflorescentia tota in capitulum densum v. spicam oblongam inter folia sessilem conferta. Bracteæ scariosæ, sæpius parvæ.

Species ad 35, per regiones calidiores orbis veteris late dispersæ. *Kunth, Enum. Pl.* v. 2. *Regel in Act. Hort. Petrop.* i. 133. *Baker in Journ. Linn. Soc.* xiv. 523, *et in Trans. Linn. Soc. Bot.* i. 252. *Jacq. Hort. Schœnbr. t.* 95, 96. *Red. Lil. t.* 92, 117. *Andr. Bot. Rep. t.* 306 (*Aletris*). *Gaudich. Voy. Bonite, Bot. t.* 1. *Wight, Ic. t.* 2054. *Bot. Mag. t.* 1081, 1180, 4571, 4787, 5248, 5352, 5662, 5846, 6169, 6234, 6327, 6447, 6630, et (*sub Cordyline*) 4279. *Bot. Reg. t.* 1169. *Lodd. Bot. Cab. t.* 289. *Fl. des Serres, t.* 1169.

Genus foliis et habitu varium, ovario et seminibus facillime distinctum, a Regelio in sectiones 2 dividitur, ad folia sessilia v. petiolata, a Bakero in stirpes 7 limitibus quodammodo incertis distinctas. Typi tamen adsunt plurimi forte melius definiendi, floribus fructibusque cum habitu ulterius comparatis. In *D. Dracone,* Linn., affinibusque caudex sæpius arborescens, folia longa conferta sessilia, inflorescentia semper paniculata ; in *D. spicata,* Roxb., affinibusque folia distincte petiolata, ovata v. ovato-lanceolata, inflorescentia elongata, simplex v. vix ramosa ; in *D. surculosa,* Lindl., et *D. camerooniana,* Baker, caudex tenuis, divaricato-ramosus v. surculosus, florum fasciculi pauci dissiti ; in *D. ovata, D. cylindrica,* aliisque caudex sæpius humilis, folia ovata, pauca, longe petiolata, v. numerosa approximata, breviter petiolata, inflorescentia pariter in capitulum sessile v. spicam oblongam densissime conferta ; in *D. phrynoide,* inflorescentia pariter capitata, folia longissime petiolata, late ovata, venis dissitis nonnullis cæteris multo validioribus, venulis transversis insigniter connexis. Perianthium in plerisque speciebus anguste infundibuliforme, tubo tenui cylindraceo ; in *D. Dracone* et in *D. schizantha,* Baker, perianthium vix 3 lin. excedens, potius urceolato-campanulatum quam infundibuliforme ; in *D. aurea,* Mann, ex ins. Sandwicensibus, perianthium fere 1½-pollicare, tubo amplo leviter incurvo, lobis brevibus.

Stœrkea et Œdera, *Crantz, De duabus Draconis Arboribus, Viennæ* 1768, 25, 30, *cum tab.,* a Kunthio ut videtur rite ad varietates *Dracænæ Draconis,* Linn., referuntur.

43. **Cordyline,** *Comm. ex Juss. Gen. Pl.* 41. (Tætsia, *Medik. Theodora,* 82.)—Perianthium cylindraceum v. anguste campanulatum, tubo brevi ; lobi oblongi, erecti v. subpatentes, æquales v. interiores paullo longiores. Stamina 6, tubo ad basin loborum affixa, iisque paullo breviora v. vix longiora, filamentis filiformibus v. complanatis ; antheræ anguste oblongæ, dorsifixæ, loculis introrsum dehiscentibus. Ovarium sessile, breve, 3-loculare ; stylus filiformis, stigmate capitato v. breviter 3-lobo ; ovula in loculis ∞ (4–16). Fructus globosus v. 3-dymus, carnosus, epulposus, 3-locularis, indehiscens v. demum exsiccatus interdumque loculicide subdehiscens. Semina in loculis ∞ v. abortu solitaria, obovoidea v. compressiuscula, sæpe curvula, testa nigra nitida ; embryo curvulus, albumine carnoso vix brevior.—Caudex lignosus, basi sæpe stolonifer, interdum arborescens, cicatricibus foliorum annulatus. Folia ad apicem caudicis conferta, subsessilia v. longiuscule petiolata, elongata v. lanceolata, subcoriacea. Flores quam in *Dracæna* sæpius minores ; interdum parvi, ample paniculati, ad quamque

bracteam solitarii v. pauci, breviter pedicellati. Bracteæ parvæ, subscariosæ, bracteolæ sæpius 2, minimæ.

Species ad 10, Indiæ orientalis, Archipelagi Malayani, Australiæ, Novæ Zelandiæ et insularum maris Pacifici incolæ, cum una Brasiliana. *Kunth, Enum. Pl.* v. 22. *Baker in Journ. Linn. Soc.* xiv. 538. *Benth. Fl. Austral.* vii. 20. *Hook. f. Handb. N. Zeal. Fl.* 281; *Fl. N. Zel. t.* 58. *Jacq. Ic. Rar. t.* 448. *Red. Lil. t.* 91. *Seem. Fl. Vit. t.* 94. *Bot. Mag. t.* 2053, 2835, 5636. *Bot. Reg. t.* 1749. *Lodd. Bot. Cab. t.* 136, 1224. *Lemaire, Jard. Fleur. t.* 399. *Regel, Gartenfl. t.* 444, 450.

Genus habitu et perianthio *Dracænæ* prope accedit, fructu tamen et præsertim seminibus longius distat et in genera plura vix pro sectionibus habenda a variis auctoribus dividitur:—

CHARLWOODIA, *Sweet, Fl. Austral. t.* 18, genus propositum fuit ad *C. strictam*, Endl., perianthii segmentis interioribus exteriora paullo excedentibus.

COHNIA, *Kunth, Enum.* v. 35; *Baker in Journ. Linn. Soc.* xiv. 545, species continet 3 Mascarenses v. Novo-Caledonicas, a *Cordyline* distinguitur floribus minoribus, perianthii segmentis fere ad basin solutis (nec prorsus distinctis) et stylo breviore crassiore. Habitus omnino *Cordylinis* et perianthii segmenta non altius soluta in *Cohnia neocaledonica*, Baker, quam in *Cordyline indivisa*, Kunth. Hæc *C. indivisa* insignis est floribus secus ramos paniculæ in spicas longas cylindraceas densissime confertis.

Planchon in Fl. des Serres, vi. 110, nomen *Cordyline* ad sectionem *Dracænæ* transfert, et *Cordylines* veras in genera 4 distribuit: DRACÆNOPSIS, *Planch. l. c.* 110, CALODRACON, *Planch. l. c.* 137, CHARLWOODIA, *Sweet*, et COHNIA, Kunth, characteribus levioris momenti separata.

44. **Nolina,** *Mich. Fl. Bor. Amer.* i. 207. (Roulinia, *Brongn. in Ann. Sc. Nat. ser.* 2, xiv. 320. Beaucarnea, *Lemaire, Illustr. Hortic.* viii. *Misc.* 59, *cum ic.*)—Flores polygamo-dioici. Perianthium campanulatum; segmenta distincta, subæqualia, sub anthesi patentia. Stamina 6, basi segmentorum affixa, eaque non v. vix superantia, filamentis crassiuscule filiformibus; antheræ ovatæ v. oblongæ, dorsifixæ; in floribus ♀ staminodia ananthera. Ovarium lata basi sessile, 3-loculare; stigmata 3, sessilia, v. stylo brevissimo fulta; ovula in loculis 2, a basi erecta; in floribus ♂ ovarium sæpius adest imperfectum, ovulis omnibus abortientibus. Fructus siccus, 3-queter, angulis valde prominentibus acutis v. sæpius in alas scariosas productis (rarius obtusis), nec loculicide nec septicide dehiscens, sed sæpius maturitate irregulariter ruptus, abortu 1–2-locularis 1–2-spermus. Semina perfecta obovoidea v. globosa, testa tenui; embryo teres, albumine carnoso duriusculo vix brevior.—Rhizoma nunc brevissimum, foliorum vaginis obtectum cormiforme, nunc a basi crassa in caudicem erectum productum. Folia in rhizomate v. ad apicem caudicis conferta, longe linearia, rigidula, integerrima v. minute scabro-serrulata. Panicula terminalis, ampla, præsertim in planta ♂ laxiuscule divaricato-ramosa. Flores parvuli, ad bracteas breves fasciculati, breviter pedicellati.

Species ad 12, regionis Mexicano-Texanæ Americæ borealis incolæ. *S. Wats. Proc. Amer. Acad.* xiv. 246. *Baker in Journ. Linn. Soc.* xviii. 233 (*Beaucarnea*).

45. **Dasylirion,** *Zucc. in Abhandl. Akad. München.* iii. 221, *t.* 1.—Flores dioici. Perianthium campanulatum; segmenta distincta, subæqualia, sub anthesi patentia. Stamina 6, basi segmentorum affixa eaque non v. vix superantia, filamentis crassiuscule filiformibus; antheræ ovatæ v. oblongæ, dorsifixæ; in floribus ♀ staminodia ananthera. Ovarium in floribus ♀ lata basi sessile, jam sub anthesi 1-loculare; stylus brevissimus, stigmatibus 3; ovula sæpius 3, a basi erecta, 2 tamen mox abortientia. Fructus siccus, 3-queter, angulis in alas scariosas productis v. rarius obtusis, indehiscens v. pericarpio tardius in valvas 3 septicide deciduus. Semen unicum, subglobosum v. ovoideum, testa tenui; embryo albumine carnoso duriusculo vix brevior.—Caudex erectus, lignosus. Folia conferta, longa, rigida, plana v. concava, margine spinuloso-serrata. Panicula quam in *Nolina* densior, floribus præsertim fœmineis in spicas cylindraceas secus rhachin sessiles densissime confertis. Bracteæ seu folia floralia sub spicis membranaceæ caducæ, sub florum fasciculis parvæ. Flores parvi *Nolinæ*, sed sæpius brevius nunc brevissime pedicellati.

Species ad 8, regionis Mexicano-Texanæ Americæ borealis incolæ. *S. Wats. Proc. Amer. Acad.* xiv. 249. *Baker in Journ. Linn. Soc.* xviii. 237. *Bot. Mag. t.* 5030 (*planta* ♀), 5041 (*planta* ♂).

Genus *Nolinæ* valde affine, quacum connectitur speciebus nonnullis adhuc non satis notis. In *D. Hookeri*, Baker; *Bot. Mag. t.* 5099, caudex magnus subglobosus fere *Testudinariæ*, folia linearia integerrima *Nolinæ*, fructus (adhuc non perfecte maturus) indehiscens, 1-spermus, angulis tamen obtusissimis exalatis. In speciminibus Andrieuxianis *D. serratifolii*, a Zuccarinio, l. c. 225, et a Bakero sub nomine *D. laxiflori* descriptis, panicula ♂ laxa omnino *Nolinæ*, sed folia cum panicula missa spinoso-serrata basi dilatata *Dasylirii*; planta ♀ ignota.

46. **Astelia,** *Banks et Sol.; R. Br. Prod.* 291. (Hamelinia, *A. Rich. Fl. Nouv. Zel.* 158, *t.* 24.)—Flores polygamo-dioici. Perianthium marcescens, persistens; segmenta subæqualia, basi in tubum campanulatum connata v. fere a basi distincta, patentia. Stamina in fl. ♂ 6, basi segmentorum affixa iisque breviora v. sublongiora, filamentis filiformibus; antheræ ovatæ v. oblongæ, erectæ, basi v. inter lobos basales affixæ, loculis a latere introrsum dehiscentibus; staminodia in fl. ♀ parva, acuta v. clavata. Ovarium in fl. ⚥ sessile, breve, 1-loculare, placentis 3 parietalibus, v. 3-loculare placentis axilibus; stylus brevissimus indivisus, v. styli 3 breves introrsum stigmatosi, v. stigmata 3 sessilia; ovula in quaqua placenta ∞; in fl. ♂ ovarii rudimentum parvum v. 0. Fructus parvus, subglobosus v. oblongus, sæpius 3-sulcus, carnosus indehiscensque at epulposus. Semina ∞, ovoidea v. angulosa, nigra, testa crustacea nitida; embryo cylindraceus, albumine carnoso 2–3-plo brevior.—Rhizoma breve, crassum. Folia radicalia v. ad basin caulis conferta, vaginis breviter dilatatis imbricatis, floralia sub ramis paniculæ lanceolata v. longa. Caulis nunc elatus, superne paniculatus, nunc brevissimus foliorum vaginis obtectus, sæpius cum inflorescentia foliisque plus minus pilis sericeis lanosis v. subpaleaceis vestitus. Flores parvi, secus ramos paniculæ dense racemosi, v. in speciebus paucis intra foliorum vaginas conferti. Bracteæ parvæ, nunc minimæ v. 0.

Species ad 9, Novæ Zelandiæ, insularum maris Pacifici, montium Australiæ meridionalis et Tasmaniæ v. Americæ antarcticæ incolæ. *Hook. f. Handb. N. Zeal. Fl.* 283; *Fl. Antarct.* i. 76, ii. 357, *t.* 127. *Kirk in Trans. N. Zeal. Inst.* iv. 244. *Benth. Fl. Austral.* vii. 11. *Hook. Bot. Misc. t.* 3. *Gaudich. in Freyc. Voy. Bot. t.* 31. *Seem. Fl. Vit. t.* 95. *Bot. Mag. t.* 5175, 5503.

Ovula sub anthesi sæpe pulpa viscidula e placenta oriunda immersa, in fructu maturo semina semper sicca nudaque vidimus.

Funkia, *Willd. in Gesellsch. Naturf. Fr. Mag, Berlin,* ii. 19, *non Spr.* est *Astelia linearis,* Hook. f., species Magellanica, a cæteris habitu nano distincta. Hanguana, *Blume, Enum. Pl. Jav.* 15, species Javensis e solo charactere manco Blumei nota, a Lindleyo *Asteliæ* refertur, species tamen nulla hujus generis adhuc in Archipelago Malayano reperta, et ovarii loculi 1-ovulati affinitatem potius cum *Dracæna* indicant. Genus valde dubium remanet.

47. **Milligania,** *Hook. f. in Hook. Kew Journ.* v. 296, *t.* 9.—Perianthium persistens, tubo campanulato; lobi tubo longiores, patentes, subæquales, ovati v. oblongi, irregulariter 3-nerves. Stamina 6, fauci affixa, lobis breviora, filamentis inferne leviter complanatis, apice subulatis; antheræ ovatæ, infra medium dorsifixæ, caducissimæ, loculis introrsum dehiscentibus. Ovarium sessile, obovoideum, 3-sulcum, 3-loculare; stylus columnaris v. breviter filiformis, plus minus 3-fidus, ramis recurvis superne introrsum stigmatosis; ovula in loculis ∞. Capsula subglobosa, 3-angulata v. fere 3-loba, membranacea, superne loculicide dehiscens. Semina in loculis pauca, sæpe angusta, angulata, leviter incurva sæpeque acuminata, testa crassiuscula nigra nitida; embryo in albumine carnoso longiusculus.—Rhizoma breve, crassum. Folia radicalia conferta, linearia v. lanceolata, basi in vaginas breves crassas imbricatas prominenter venosas dilatata; caulina pauca, minora, gradatim in bracteas abeuntia. Caulis infra inflorescentiam simplex, cum panicula laxe piloso-lanatus. Panicula ampla, floribunda, bracteis inferioribus foliaceis superioribus parvulis. Flores parvuli, sub quaque bractea breviter pedicellati.

Species 4, Tasmanicæ. *Benth. Fl. Austral.* vii. 25.

Tribus X. Asphodeleæ.

48. **Xeronema,** *Brongn. et Gris. in Bull. Soc. Bot. Fr.* xi. 316, *et in Nouv. Arch. Mus. Par.* iv. 2, *t.* 1. (Scleronema, *Brongn. et Gris. in Ann. Sc. Nat. ser.* 5, ii. 166.)—Perian-

thium persistens; segmenta distincta, linearia, erecta, subæqualia, 1-nervia. Stamina 6, hypogyna, erecta, perianthio longiora, filamentis leviter complanatis; antheræ oblongæ, versatiles, medio dorso affixæ, filamento in foveolam intruso, loculis introrsum dehiscentibus. Ovarium sessile (v. brevissime stipitatum ?), obtusum, 3-loculare; stylus filiformis, stigmate parvo; ovula in loculis ∞ (ad 8), anatropa. Capsula (a nobis non visa) brevissime stipitata, perianthio staminibusque persistentibus stipata, 3-gona, chartacea, loculicide dehiscens. Semina perfecta pauca, ellipsoidea, testa crustacea nigra aculeis brevibus exasperata; embryo albumine carnoso subdimidio brevior.—Rhizoma brevissimum, fibris radicalibus fasciculatis. Caulis erectus, simplex. Folia ad basin caulis conferta, elongata, secus caulem pauca, multo breviora, disticha, vaginis longis complicatis, omnia erecta, rigidule venosa. Racemus terminalis, simplex, secundus, rhachi basi abrupte inflexa sæpius horizontalis, floribus confertis erectis breviter pedicellatis. Bracteæ ovatæ, scariosæ. Perianthia rubra, speciosa (semipollicaria).

Species 1, Novo-Caledonica. *Illustr. Hortic.* xxiv. *t.* 297. *Gard. Chron.* 1878, ii. 17, *cum ic.*

49. **Anemarrhena,** *Bunge, Enum. Pl. Chin. Bor.* 66.—Perianthium persistens; segmenta ima basi in cyathum brevem connata, cæterum libera, angusta, 3-nervia, patentia, subæqualia, interioribus tamen basi angustioribus canaliculatis. Stamina 3, mediis segmentis interioribus affixa iisque breviora, filamentis breviter filiformibus; antheræ oblongæ, medio dorso affixæ, vix foveolatæ, versatiles, loculis apice basique distinctis medio tantum ad filamenti insertionem breviter connexis introrsum dehiscentibus. Ovarium sessile, angulatum, 3-loculare; stylus breviter filiformis, stigmate parvo; ovula in loculis 2, prope basin collateraliter affixa, ascendentia, anatropa. Capsula subgloboso-3-quetra, loculicide dehiscens, in speciminibus nostris immatura. Semina ex Bungeo in loculis 1, rarius 2, oblonga, subulato-3-quetra, magna, nigra.—Rhizoma breve, crassum, horizontale. Folia radicalia, conferta, linearia, graminea. Caulis inter folia elatus, simplex, squamellis paucis minutis sparsis instructus, cæterum aphyllus. Flores parvi, in racemo longo interrupte spiciformi brevissime pedicellati, ad bracteas fasciculati. Bracteæ parvæ, scariosæ.

Species 1, Chinæ borealis incola. *Kunth, Enum. Pl.* iv. 600. *Baker in Journ. Linn. Soc.* xv. 268. In Japoniæ hortis raro colitur nec indigena (*Maximowicz*).

✓ 50. **Asphodelus,** *Linn. Gen. n.* 421.—Perianthium marcescens, diu persistens v. demum deciduum; segmenta a basi distincta v. brevissime connata, in alabastro basi circa ovarium in tubum conniventia, sub anthesi patentia, subæqualia, medio 1-nervia v. vittata. Stamina 6, hypogyna, segmentis breviora, erecta v. leviter declinata, filamentis ima basi dilatatis concavis ovarium includentibus, supra basin filiformibus v. complanatis; antheræ oblongæ v. fere lineares, dorso infra medium affixæ, versatiles, filamento in foveolam intruso, loculis a latere subintrorsum dehiscentibus. Ovarium sessile, 3-loculare; stylus filiformis stigmate subcapitato 3-dymo; ovula in loculis 2, collateralia, lateraliter affixa, amphitropa. Capsula globoso-3-quetra, coriacea, loculicide dehiscens, septis interdum intus insigniter rugosis. Semina in loculis sæpe solitaria, 3-quetra, sæpius rugosa, testa nigra appressa; embryo albumine cartilagineo vix brevior.—Rhizoma parvum v. radix annua, fibris radicalibus fasciculatis tuberoso-incrassatis v. filiformibus. Folia radicalia, linearia, loriformia, sub-3-quetra v. fistuloso-teretia. Scapus aphyllus, nunc altissimus simplex v. parum ramosus, nunc humilis foliorum vaginis subinclusus. Flores secus rhachin v. ramos inflorescentiæ racemosi, ad bracteas scariosas solitarii, pedicellis sub flore articulatis. Perianthii segmenta alba, medio fusco-nervata.

Species 6 v. 7, a Bakero ad 5 reductæ, regionis Mediterraneæ incolæ, quarum una usque ad Indiam orientalem et insulas Mascarienses extensa. *Kunth, Enum. Pl.* iv. 554. *Baker in Journ. Linn. Soc.* xv. 268. *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 52. *Reichb. Ic. Fl. Germ. t.* 513 *ad* 515. *Moggr. Fl. Ment. t.* 69. *Jord. et Fourr. Ic. Fl. Eur. t.* 11 *ad* 15 *et* 116 *ad* 125.

Genus a nonnullis reducitur ad *A. ramosum*, Linn., sub quo includunt *A. album*, Mill., et *A. microcarpum*, Viv., fibris radicalibus crassis fusiformibus v. napiformibus, caule elato haud raro ramoso, foliis triquetris v. subplanis. *Sibth. Fl. Gr t.* 334. *Moggr. Fl. Ment. t.* 69, C, D.

CLAUSONIA, *Pomel, Mater. Fl. Atl.* 1 (GETHOSYNE, *Salisb. Gen. Pl. Fragm.* 72) est *A. acaulis, Desf.* Fl. Atl. t. 89, species nana, fibris radicalibus in rhizomate brevi fasciculatis crassiusculis, caule cum inflorescentia fere tota intra vaginas foliorum subincluso.

VERINEA, *Pomel, l.c.* 1 (ASPHODELOIDES, *Mœnch. Meth.* 634. OPHIOPRASON, *Salisb. Gen. Pl. Fragm.* 72), est *A. fistulosus*, Linn., cum affinibus, radice annua, fibris radicalibus fasciculatis non incrassatis; scapis cum foliorum fasciculis ex eodem rhizomate sæpe pluribus tenuibus at rigidulis, foliis teretibus fistulosis. *Red. Lil. t.* 178. *Cav. Ic. t.* 202, 587. *Reichb. Ic. Fl. Germ. t.* 513. *Sibth. Fl. Græc. t.* 335. *Wight, Ic. t.* 2062. *Bot. Mag. t.* 984. *Lodd. Bot. Cab. t.* 1124.

51. **Asphodeline,** *Reichb. Fl. Germ. Exc.* 116. (Dorydium, *Salisb. Gen. Pl. Fragm.* 72.)—Perianthium marcescens, diu persistens v. demum deciduum; segmenta ima basi circa ovarium breviter connata, sub anthesi supra basin rotato-patentia, subæqualia, 1-nervia. Stamina 6, hypogyna v. vix basi perianthio brevissime adnata quo breviora, inæqualia, declinata, omnia perfecta v. 3 castrata, filamentis ima basi dilatatis concavis ovarium includentibus, supra basin filiformibus; antheræ oblongæ v. lineares, dorso infra medium affixæ, versatiles, filamento in foveolam intruso, loculis introrsum dehiscentibus. Ovarium sessile, subglobosum, 3-loculare; stylus filiformis, stigmate parvo interdum 3-lobo; ovula in loculis 2, collateralia, lateraliter affixa, longiuscule adnata, amphitropa. Capsula subglobosa, loculicide dehiscens, valvis coriaceis transverse rugosis. Semina in loculis sæpius abortu solitaria, acute 3-gona, testa crassiuscula sæpe rugosa; embryo albumine cartilagineo vix brevior.—Rhizoma parvum v. demum longiusculum, fibris radicalibus fasciculatis sæpe carnosis. Caulis erectus, ima basi v. usque ad inflorescentiam foliatus, in speciebus normalibus simplex. Folia conferta, linearia. Racemus longus, densus, floribus flavis v. albis, breviter nunc brevissime pedicellatis ad quamque bracteam solitariis v. ad basin racemi fasciculatis. Bracteæ scariosæ, fere hyalinæ, in racemo juniore sæpe imbricatæ, interdum minimæ.

Species ad 14, regionis Mediterraneæ incolæ, in Oriente usque ad Persiam et Caucasum extensæ. *Baker in Journ. Linn. Soc.* xv. 273. *Red. Lil. t.* 223, 380, 470. *Desf. in Ann. Mus. Par.* x. *t.* 11. *Jacq. Hort. Vind. t.* 77. *Jacq. f. Ecl. t.* 77. *Reichb. Ic. Fl. Germ. t.* 516, 517. *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 53. *Bot. Mag. t.* 773, 2626. *Bot. Reg. t.* 1507. *Lodd. Bot. Cab. t.* 915, 1102 (*ic. plures sub Asphodelo*).

Sectio *Dendrasphodeline*, Baker, est *A. prolifera*, Kunth, species Orientalis, ab omnibus diversa caulis parte foliata sæpe, nec semper, ramosa, floribus multo minoribus et staminibus 3 tantum ad normam perfectis, 3 castratis, filamentis sub apice subgloboso-inflatis, antheridio parvo 2-globoso, ut bene observavit J. Gay.

52. **Paradisia,** *Mazzuc. Viag. Alp. Giul.* 27, *ex Bertol. Fl. Ital.* iv. 132. (Czackia, *Andrz. Diss.* 1818, *cum ic.* Liliastrum, *Link, Handb.* i. 173. Allobrogia, *Tratt. Fl. Austr.* ii. 71. Hyperogyne, *Salisb. Gen. Pl. Fragm.* 81.)—Perianthium infundibuliforme, marcescens, diu persistens; segmenta distincta, a basi angusta erecta, superne oblongo-spathulata, erecto-patentia, 3-nervia. Stamina 6, hypogyna, declinata, perianthio paullo breviora, filamentis filiformibus; antheræ oblongo-lineares, basi alte bifidæ, dorsifixæ, versatiles, filamento in foveolam intruso, loculis introrsum dehiscentibus. Ovarium sessile, ovoideum, acuminatum, 3-loculare; stylus filiformis, stigmate parum incrassato 3-dymo; ovula in loculis , 2-seriata. Capsula perianthio emarcido stipata, ovoidea, coriacea, loculicide dehiscens. Semina ∞, angulata, testa crassiuscula nigra; embryo albumine cartilagineo triente brevior.—Rhizoma brevissimum, fibris radicalibus fasciculatis crassiusculis. Folia radicalia linearia, longiuscula. Scapus simplex, aphyllus, v. folio unico brevi instructus. Flores pauci, speciosi, albi, in racemo subsecundi, patentes v. subnutantes, pedicello brevi. Bracteæ breves, angustæ.

Species 1, montium Pyrenæorum v. Alpium Europæ incola. *Kunth, Enum. Pl.* iv. 592 (*Czackia*). *Baker in Journ. Linn. Soc.* xv. 286. *Red. Lil. t.* 255 (*Phalangium*). *Reichb. Ic. Fl. Germ. t.* 509 (*Czackia*). *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 55. *Bot. Mag. t.* 318 (*Anthericum*). *Fl. des Serres, t.* 2182.

De itinere Mazzucati (1811 nec 1814) confer Moretti, Difesa Op. Mathioli iv. 17, in Giorn. Istit. Lomb. xiv., germanice reddita in *Bot. Zeit.* 1851, 268.

53. **Simethis,** *Kunth, Enum. Pl.* iv. 618. (Morgagnia, *Bubani in Nuov. Ann. Sc. Nat. Bologna,* ix. (1843), 92, *absque char.* Pogonella, *Salisb. Gen. Pl. Fragm.* 70.)—Perianthium marcescens, diu persistens, demum deciduum; segmenta subæqualia, patentia, 5-nervia. Stamina 6, ima basi segmentorum affixa iisque breviora, filamentis filiformibus superne leviter incrassatis villoso-barbatis apice attenuatis glabris; antheræ oblongæ, dorsifixæ, versatiles, filamento in foveolam intruso, loculis introrsum dehiscentibus. Ovarium sessile, 3-dymum, 3-loculare; stylus filiformis, stigmate parvo; ovula in loculis 2, superposita. Capsula subglobosa, fere 3-loba, tardius loculicide dehiscens. Semina in loculis 1–2, ovoideo-subglobosa, strophiolata, testa nigra crustacea nitente; embryo in seminibus examinatis albumine carnoso multo brevior, sed forte demum longior.—Rhizoma parvum, fibris radicalibus fasciculatis carnosis. Folia radicalia, linearia, graminea. Caulis præter squamas paucas parvas aphyllus, superne laxe paniculatus, ramulis dichotomis v. hinc inde subumbellatis. Flores pedicellati, ad bracteas solitarii v. pauci, irregulariter fasciculati v. subumbellati.

Species 1, Europæ occidentalis et Africæ boreali-occidentalis incola. *Baker in Journ. Linn. Soc.* xv. 354 (*Morgagnia*). *Red. Lil. t.* 215 (*Phalangium*). *Brot. Phytogr. Lusit. t.* 44 (*Anthericum*). *Desf. Fl. Atl. t.* 90 (*Anthericum*).

Bubani l. c. genus *Morgagniam* indicavit nec characteribus definivit. Nomen, quamvis a Parlatoreo Fl. Ital. receptum, a Caruelo in Prod. Fl. Tosc. rejicitur ob consonantiam cum *Morgania,* R. Br., a cæteris botanicis ignotum est v. rejectum.

54. **Bulbinella,** *Kunth, Enum. Pl.* iv. 569. (Chrysobactron, *Hook. f. Fl. Antarct.* i. 72, *t.* 44.)—Perianthium marcescens, diu persistens; segmenta subæqualia, distincta v. vix basi connata, ovata v. oblonga, 1-nervia. Stamina 6, hypogyna v. vix basi segmentis adnata, iis paullo breviora v. sublongiora, filamentis filiformibus v. anguste complanatis; antheræ oblongæ, parvulæ, dorsifixæ, versatiles, loculis introrsum dehiscentibus. Ovarium sessile v. subsessile, subglobosum, 3-loculare; stylus filiformis, stigmate parvo capitato v. 3-dymo, ovula in loculis 2, collateralia v. uno paullo altius affixo, anatropa v. plus minus amphitropa. Capsula brevis, globoso-3-quetra, membranacea v. chartacea, loculicide dehiscens. Semina pauca, interdum ad unum reducta, testa nigra laxiuscula; embryo albumine carnoso triente v. subdimidio brevior.—Rhizoma brevissimum, fibris radicalibus fasciculatis sæpe carnoso-incrassatis. Folia radicalia, nunc angustissima basi vaginis fibrosis foliorum emarcidorum cincta, nunc loriformia v. latiora, vaginis vetustis vix v. non fibrosis. Scapus aphyllus, simplex v. rarius ramosus. Flores parvuli, flavi v. albi, interdum abortu polygami, dense v. laxe racemosi, pedicellis ad bracteas solitariis.

Species ad 14, Africæ australis, Novæ Zelandiæ et insularum australiorum incolæ. *Baker in Journ. Linn. Soc.* xv. 293 (*Antherici sect.* 1 *et* 2). *Hook. Ic. Pl. t.* 817 (*Chrysobactron*). His addenda videtur *B. Burkei,* a Bakero l. c. sub sectione sua *Streptanthera* generis *Antherici* edita; perianthium tamen post anthesin non tortum, et characteres cæteri omnino *Bulbinellæ,* excepta inflorescentia in ramos paucos longos divisa, racemis laxis.

55. **Bulbine,** *Linn. Gen. ed.* 1, 95, *pro parte.*—Perianthium marcescens, persistens; segmenta distincta, subæqualia, patentia, 1-nervia. Stamina 6, hypogyna v. ima basi segmentis cohærentia iisque breviora, filamentis filiformibus medio v. supra medium pilis longis barbatis, apice tenuibus glabris; antheræ in speciebus normalibus oblongæ, dorsifixæ, versatiles, loculis introrsum dehiscentibus. Ovarium sessile, 3-loculare; stylus filiformis, stigmate parvo; ovula in loculis 4–∞. Capsula globosa v. ovoidea, leviter 3-sulca, loculicide dehiscens. Semina pauca, angulato-3-quetra, testa nigra tuberculoso-rugosula v. lævi opacaque nec nitida; embryo albumine carnoso vix brevior, sæpius valde curvus.—Rhizoma nunc brevissimum (v. non persistens ?), fibris radicalibus fasciculatis, nunc crassum, descendens v. tuberiforme, fibris variis interdum basi incrassatis. Caulis foliatus, interdum brevissime ramosus. Folia radicalia v. ad basin caulis conferta, lanceolata v. linearia, sæpe carnosa. Scapus seu pedunculus terminalis simplex, aphyllus.

Racemus sæpius dense floribundus, pedicellis ad bracteas solitariis apice articulatis. Flores parvuli v. mediocres, flavi v. rarius albi.

Species genuinæ ad 20, Africæ australis incolæ, quarum una in Africa tropica usque ad Abyssiniam extensa. *Baker in Journ. Linn. Soc.* xv. 341. *Red. Lil. t.* 283, 284, 397, 423. *DC. Pl. Grass. t.* 8, 14, 26. *Jacq. Ic. Rar. t.* 403 *ad* 408; *Hort. Vind. t.* 181. *Andr. Bot. Rep. t.* 386. *A. Rich. Fl. Abyss. t.* 97. *Bot. Mag. t.* 816, 1317, 1339, 1451, 1454, 3129. *Lodd. Bot. Cab. t.* 996. (*Ic. plures sub Antherico.*)

Species 2 Australianæ sectionem distinctam *Orthantheram* formant vix non pro genere proprio habendam. Habitus et perianthium omnino *Bulbinis* sed antheræ, in *B. bulbosa* omnes, in *B. semibarbata* interiores, erectæ, oblongæ v. oblongo-lineares, inter pilos filamenti sessiles basifixæ; in *B. semibarbata*, Haw., stamina seriei exterioris interioribus minora, filamentis brevibus imberbibus. *Benth. Fl. Austral.* vii. 34. *Bot. Mag. t.* 3017 (anthera errore barbata delineata). *Anthericum semibarbatum*, Bot. Mag. t. 3129, non R. Br., est evidenter species quædam Capensis *Bulbinis* genuinæ.

56. **Chlorogalum,** *Kunth, Enum. Pl.* iv. 681.—Perianthium marcescens, persistens, post anthesin supra capsulam sæpius tortum; segmenta angusta, distincta v. vix ima basi connexa, sub anthesi recurvo-patentia, medio 3-nervia. Stamina 6, ima basi segmentorum affixa iisque parum breviora, filamentis filiformibus; antheræ oblongæ, dorsifixæ, versatiles, loculis introrsum dehiscentibus. Ovarium sessile, 3-loculare; stylus elongatus, filiformis, stigmate parvo breviter 3-fido; ovula in loculis 2 collateralia, sub apice v. medium versus lateraliter affixa, amphitropa. Capsula subgloboso-turbinata, 3-quetra. Semina in loculis 1–2, obovato-oblonga, compressiuscula, testa nigra laxa; embryo vix albumine carnoso brevior.—Bulbus angustus, tunicatus, foliorum emarcidorum vaginis sæpe supra bulbum elongatis demum in fibras longas solvendis. Folia radicalia, loriformia. Scapus elatus, laxe ramosus. Flores secus ramos sparsi, dissiti, ad bracteas solitarii, pedicello infra apicem articulato. Bracteæ sub ramis inferioribus inflorescentiæ interdum foliaceæ, cæteræ parvæ scariosæ. Perianthii segmenta alba, medio viridi-vittata.

Species 3, Californicæ. *S. Wats. in Proc. Amer. Acad.* xiv. 242; *Bot. Calif.* ii. 159. *Torr. Bot. Emory Exped. t.* 60. *Kell. Proc. Calif. Acad.* ii. 104, *fig.* 30. *Red. Lil. t.* 421 (*Scilla*). *Bot. Reg. t.* 564 (*Anthericum*) *et* 1842, *t.* 28 (*Ornithogalum*). *Don in Sweet, Brit. Fl. Gard. ser.* 2, *t.* 381 (*Phalangium*, ovarii loculis errore ∞-ovulatis dictis).

57. **Schœnolirion,** *Torr. in Bot. Emory Exped.* 220.—Perianthium persistens, post anthesin laxe marcescens non tortum; segmenta distincta, ovata v. oblonga, patentia, 3-nervia. Stamina 6, ima basi segmentorum affixa iisque breviora, filamentis filiformibus; antheræ oblongæ, dorsifixæ, versatiles, loculis introrsum dehiscentibus. Ovarium subsessile, 3-loculare; stylus filiformis, stigmate parvo; ovula in loculis 2, collateralia, lateraliter affixa. Capsula brevis, 3-quetra, truncata, loculicide dehiscens. Semina (a nobis non visa) obovoideo-globosa, testa nigra nitida; embryo in albumine carnoso rectus. —Rhizoma breve, bulbum seu potius cormum vaginis foliorum obtectum ferens. Folia radicalia, longe linearia. Scapus elatus, aphyllus, simplex v. parce ramosus. Flores in scapo v. ramis racemosi, parvuli, flavidi v. albidi, ad bracteas solitarii, longiuscule pedicellati.

Species 3, Americæ borealis civitatum australiorum incolæ. *S. Wats. in Proc. Amer. Acad.* xiv. 242.

58. **Hastingsia,** *S. Wats. in Proc. Amer. Acad.* xiv. 217, 242.—Perianthium persistens, post anthesin laxe marcescens, non tortum; segmenta distincta, ovata v. oblonga, patentia, tenuia, 1-nervia v. confertim 3-nervia. Stamina 6, ima basi segmentorum affixa iisque subæquilonga, filamentis filiformibus; antheræ oblongæ, dorsifixæ, versatiles, loculis introrsum dehiscentibus. Ovarium sessile, ovoideum, 3-loculare; stylus breviter filiformis, stigmate parvo; ovula in loculis 2, juxta basin lateraliter affixa, ascendentia, fere anatropa. Capsula ovoidea, 3-sulca, loculicide dehiscens. Semina in loculis sæpius solitaria, erecta, oblique oblonga, subtriquetra, testa nigra opaca appressa; embryo albumine carnoso

parum brevior, curvulus.—Rhizoma breve, crassum. Caulis basi incrassatus, vaginis foliorum fere tunicatus. Folia radicalia longe linearia. Scapus aphyllus, simplex v. parce ramosus. Flores parvi, albi, in scapi ramis racemosi, ad bracteas solitarii, breviter pedicellati.

Species 1, Californica. Genus vix ac ne vix a *Schœnolirio* differre videtur.

59. **Bowiea,** *Harv.; Hook. f. in Bot. Mag. t.* 5619.—Flores polygami. Perianthium marcescens, persistens; segmenta distincta, æqualia, patentia. Stamina 6, basi segmentorum affixa iisque breviora, filamentis filiformibus basi leviter dilatatis; antheræ parvæ, oblongo-lineares, erectæ, prope basin dorsifixæ, loculis valvis latis subintrorsum dehiscentibus, in floribus ♀ minimæ loculis vacuis. Ovarium lata basi sessile, 3-loculare; stylus breviter columnaris, apice leviter clavato-capitatus, stigmatibus adnatis recurvis; ovula in loculis ∞. Capsula perianthio marcescente stipata, ovoideo-3-quetra fere pyramidalis, loculicide dehiscens. Semina plurima, oblonga, compressa, testa nigra laxa; embryo albumine carnoso triente v. subdimidio brevior.—Bulbus tuberiformis (v. tuber) magnus, globosus, carnosus, e vaginis (v. tunicis) paucis crasso-carnosis sibimet arcte appressis compositus, apice squamis nonnullis parvis ad basin caulis coronatus. Folia præcocia, cito decidua, pauca v. solitaria, breviter linearia, erecta. Caulis v. scapus aphyllus, alte volubilis, ramis inferioribus intricato-ramosissimis flexuosis sterilibus ramulis corniculatis, superioribus floridis minus ramulosis elongatis flexuoso-volubilibus. Flores longe pedicellati, virescentes, segmentis interdum margine albidis.

Species 1, Africæ australis incola. *Baker in Journ. Linn. Soc.* xiii. 290. *Irmisch in Abhandl. Nat. Ver. Bremen,* vi. 433, *t.* 5.

60. **Schizobasis,** *Baker in Trim. Journ. Bot.* 1873, 105.—Perianthium marcescens, persistens; segmenta distincta, æqualia, patentia. Stamina 6, basi segmentorum affixa iisque breviora, filamentis filiformibus basi leviter dilatatis; antheræ prope basin dorsifixæ, loculis valvis latis subintrorsum dehiscentibus. Ovarium lata basi sessile, 3-loculare; stylus columnaris v. breviter filiformis, stigmate parvo sæpe 3-fido; ovula in loculis ∞ (4–7). Capsula subgloboso-3-quetra, loculicide dehiscens. Semina in loculis 1–2 rarius 3, ovoideo-globosa v. angulata, testa nigra laxa; embryo albumine carnoso paullo brevior.—Bulbus globosus v. ovoideus, e squamis ∞ crasse carnosis, vaginis emarcidis sæpe coronatus. Folia radicalia præcocia, pauca, linearia, crassiuscula, in speciminibus floridis desunt. Caulis aphyllus, tenuis, ramosus, ramis nunc elongatis virgatis, nunc breviter divaricatis flexuosis v. intricato-ramosissimis. Bracteæ minutæ, squamiformes v. obsoletæ. Flores parvi nunc minimi, secus ramos racemosi v. dissiti, pedicellis sub apice articulatis.

Species 5, Africæ tropicæ et australis incolæ. *Baker in Journ. Linn. Soc.* xv. 260, *et in Trans. Linn. Soc. Bot.* i. 255. Huc includenda *S. cuscutoides* (*Asparagus cuscutoides,* Baker in Journ. Linn. Soc. xiv. 606) cui fructus certe capsularis 3-valvis omnino *Schizobaseos.*

61. **Eriospermum,** *Jacq. Collect.* v. (*Suppl.*) 72.—Perianthium marcescens, persistens; segmenta distincta, ovata oblonga v. linearia, subæqualia, patentia, medio 1-nervia v. vittata. Stamina 6, prope basin segmentorum affixa iisque breviora, filamentis complanatis v. crassiusculis rarius filiformibus; antheræ ovatæ, basi inter lobos affixæ, loculis valvis latis subintrorsum dehiscentibus. Ovarium sessile v. subsessile, 3-loculare; stylus filiformis, stigmate parvo; ovula in loculis 2–6. Capsula perianthii segmentis emarcidis stipata, subglobosa v. ovoidea, 3-quetra, loculicide dehiscens. Semina pauca, oblonga, testa membranacea laxa pilis longis dense lanata; embryo cylindraceus, albumini carnoso æquilongus, sæpe elongandus ex albumine exsertus.—Tuber interdum majusculum, foliorum vetustiorum vaginis fibrosis coronatum, nunc cormum formans. Folia radicalia nunc 1–3 ad basin scapi, nunc solitaria, a scapo distincta, petiolata, linearia lanceolata ovata cordata v. rotundata, crassiuscula. Scapus simplex, sæpius aphyllus, inter folia radicalia v. e gemma distincta evolutus, basi vaginis nonnullis stipatus, vagina interdum una alterave laminam parvam patentem ferente. Racemus simplex, nunc longus dense

floribundus pedicellis brevibus, nunc laxus pedicellis longissimis. Bracteæ minimæ squamiformes. Flores albidi v. flavescentes.

Species ad 25, Africæ tropicæ et australis incolæ. *Kunth, Enum. Pl.* iv. 649. *Baker in Journ. Linn. Soc.* xv. 262, *et in Trans. Linn. Soc. Bot.* i. 261. *Jacq. Ic. Rar. t.* 420 *ad* 422; *Hort. Schœnbr. t.* 264, 265. *Red. Lil. t.* 394. *Bot. Mag. t.* 1382. *Bot. Reg. t.* 578, 795.

Bulbine Mackenii, Hook. f. Bot. Mag. t. 5955, a Bakero ad *Eriospermum* translata, a cæteris speciebus differt habitu, floribus flavis, filamentis filiformibus, et forte non revera congener. Fructus et semina nobis desunt.

PHYLLOGLOTTIS, *Salisb. Gen. Pl. Fragm.* 15 (*E. folioliferum*, Andr. Bot. Rep. t. 521) et THAUMAZA, *Salisb. l. c.* (*E. paradoxum*, Ker, *Ornithogalum paradoxum*, Jacq. Coll. Suppl. 81, t. 1), cum *E. Bowieano* et *E. prolifero*, Baker (*E. folioliferum*, Bot. Reg. t. 795) species sunt insignes, folio solitario a scapo aphyllo distincto, supra ad basin laminæ processubus linearibus integris v. varie nunc longe ramosis instructo. De horum processuum (an inflorescentia abortiva?) natura ulterius inquirendum est. Specimina nobis desunt, et species ad icones plantarum cultarum definitæ sunt forte varietates v. formæ proliferæ specierum sub aliis nominibus descriptarum.

62. **Eremurus,** *Bieb. Cent. Pl. Ross. t.* 61, *ex eod. Fl. Taur. Cauc.* iii. 269. (Ammolirion, *Kar. et Kir. in Bull. Soc. Imp. Nat. Mosc.* 1842, 515. Henningia, *Kar. et Kir. l. c.* 516.)—Perianthium campanulatum v. explanatum, marcescens, persistens v. demum deciduum; segmenta distincta v. vix basi brevissime connata, a basi patentia, 1-nervia v. basi 3–5-nervia. Stamina 6, hypogyna, perianthio demum sæpius longiora, filamentis filiformibus; antheræ oblongæ, suberectæ, juxta basin dorsifixæ, filamento in foveolam intruso, demum sæpe recurvæ v. revolutæ, loculis introrsum dehiscentibus. Ovarium sessile, 3-loculare; stylus filiformis, stigmate parvo; ovula in loculis 4–6, rarius 2 collateralia, lateraliter affixa, amphitropa. Capsula subglobosa, membranacea, transverse rugosa v. lævis, loculicide dehiscens. Semina in quoque loculo 1–4, acute 3-quetra, testa crassiuscula interdum ad angulos in alas angustas producta; embryo albumine cartilagineo parum brevior.—Rhizoma breve, vaginis foliorum vetustorum membranaceis v. fibrosis sæpe coronatum, fibris radicalibus fasciculatis tenuibus v. carnosis. Folia radicalia, sæpe numerosa, longe linearia. Scapus elatus, nunc altissimus, simplex, aphyllus. Racemus sæpius longe floribundus. Flores albi v. flavi, ad axillas bractearum solitarii, pedicellis apice v. sub apice articulatis. Bracteæ sæpius scariosæ.

Species ad 18, Orientis Asiæ Rossicæ et Indiæ orientalis incolæ. *Baker in Journ. Linn. Soc.* xv. 278; xix. *t.* 27. *Regel in Act. Hort. Petrop.* ii. 422; *Fl. Turkest. t.* 1 *ad* 3; *Gartenfl. t.* 769, 997, 1048. *Stev. in Nouv. Mem. Soc. Imp. Nat. Mosc.* ix. *t.* 6 *ad* 8. *Jaub. et Spach. Ill. Pl. Or. t.* 102 (*Asphodelus*). *Bot. Mag. t.* 4870. *Sweet, Brit. Fl. Gard. t.* 188.

Genus a Bakero in sectiones 3 dividitur ad staminum longitudinem, character tamen ut demonstrat Regel valde incertus est et in eadem specie variat, et alii characteres quibus Karelin et Kirilov genera sua distinxerunt ex observatione Regelii non confirmantur. Hic auctor sectionem tamen *Henningiam* admisit ab *Eremuris* typicis parum distinctam, segmentis exterioribus perianthii basi 3–5 nerviis.

SELONIA, *Regel, Enum. Pl. Semenow.* 134, *t.* 6, est *E. soogdiana*, Reg., quam ab *Eremuro* (*Henningia*) distinguere nequimus nisi segmentis exterioribus perianthii quam interiora firmioribus nec vere calycinis, et in var. *β. Reg.* differentia vix distinctior est quam in nonnullis aliis *Henningiis*.

63. **Acrospira,** *Welw.*; *Baker in Trans. Linn. Soc. Bot.* i. 255, *t.* 34.—Perianthium marcescens, non tortum; segmenta distincta, angusta, subæqualia, medio 3-nervia (sub anthesi patentia?). Stamina 6, hypogyna, filamentis brevibus latis apice acutis; antheræ magnæ, lineares, erectæ, inter lobos basales breves affixæ, apice demum sæpius tortæ v. recurvæ, loculis introrsum dehiscentibus. Ovarium sessile, subglobosum, 3-loculare; stylus filiformis, stigmate parvo; ovula in loculis ∞ (ultra 12). Fructus . . .—Rhizoma (a nobis non visum) obliquum, crassum, fibris multis gracilibus præditum. Caulis simplex, ∞-pedalis. Folia (radicalia? v. ad basin caulis?) prælonga, angusta, rigidule ∞-nervia, in vaginam longam contracta, superiora breviora, dissita, erecta, subdisticha. Racemus

simplex v. basi breviter ramosus, floribus sub quaque bractea pluribus fasciculatis. Bracteæ parvæ, hyalinæ.

Species 1, Angolensis, ad Pungo Andongo frequens, *Welwitsch*.

64. **Anthericum**, *Linn. Gen. n.* 422, *pro parte*. (Phalangium, *Juss. Gen. Pl.* 52.)—Perianthium marcescens, non v. leviter tortum, persistens v. demum a fructu deciduum; segmenta distincta, rotato-patentia, subæqualia, 3–5-nervia. Stamina 6, hypogyna v. vix ima basi segmentis brevissime adnata, perianthio breviora, filamentis filiformibus; antheræ lineares, erectæ, inter lobos basales dorsifixæ, filamento sæpius in foveolam plus minus distinctam intruso, loculis introrsum dehiscentibus. Ovarium sessile, 3-loculare; stylus filiformis, stigmate parvo; ovula in loculis ∞ (4–8), lateraliter affixa. Capsula obtusa, globosa v. 3-dyma, vix 3-loba, loculicide dehiscens. Semina interdum in loculis abortu 1–2, angulata v. angulato-compressa, testa nigra opaca crassiuscula; embryo albumine carnoso fere cartilagineo paullo brevior, curvulus.—Rhizoma breve nunc brevissimum, fibris radicalibus fasciculatis sæpe carnosis, vaginis foliorum emarcidorum interdum fibrosis coronatum. Folia radicalia, linearia, quaquaversa. Scapus aphyllus, sæpius elatus, simplex v. ramosus (excepto *Holopodio*). Flores tenuiter pedicellati, secus ramos v. scapum laxe racemosi, sub quaque bractea solitarii v. fasciculati. Bracteæ lineares, scariosæ.

Species ad 50, Europæ, Africæ tropicæ et extratropicæ et Americæ tam borealis quam australis incolæ. *Baker in Journ. Linn. Soc.* xv. 290, *excl. sect.* 1 *ad* 4, *et in Trans. Linn. Soc. Bot.* i. 256.

Genus in sectiones 3 dividitur, a nonnullis pro generibus propriis habitas, etsi 2 priores charactere nimis artificiali separantur; tertia facile pro genere proprio ad *Anthericeas* anomalas amandanda.

1. *Phalangium*. Inflorescentia normalis. Filamenta glabra. *Red. Lil. t.* 287. *Jacq. Fl. Austr. t.* 161; *Hort. Vind. t.* 83; *Ic. Rar. t.* 411. *Reichb. Ic. Fl. Germ. t.* 511, 512. *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 54. *Boiss. Voy. Hisp. t.* 172. *Grant in Trans. Linn. Soc.* xxix. *t.* 103 B. *Ruiz et Pav. Fl. Per. et Chil. t.* 301. *H. B. et K. Nov. Gen. et Sp. t.* 676. *Bot. Mag. t.* 914, 1055, 1635, 3610. *Lodd. Bot. Cab. t.* 1580. ANTHERICI *sect.* 5 *et* 6, *Baker*. PHALANGIUM, *Kunth, Enum. Pl.* iv. 593. PESSULARIA et LILIAGO, *Salisb. Gen. Pl. Fragm.* 70.

2. *Trachyandra*. Inflorescentia normalis. Filamenta scabra. *Jacq. Ic. Rar. t.* 409, 410, 412, 413; *Hort. Schœnbr. t.* 85, 413, 414. *Bot. Mag. t.* 1040, 1044, 1124. *Bot. Reg. t.* 877. ANTHERICI *sect.* 7, 8, 9, *Baker*. TRACHYANDRA, *Kunth, Enum. Pl.* iv. 573. HESPERANTHES, *S. Wats. in Proc. Amer. Acad.* xiv. 241. DILANTHES, *Salisb. Gen. Pl. Fragm.* 70.

Sectiones Bakerianæ *Trachyandra* et *Dilanthes* ex Africa, et *Hesperanthes* ex America, characteribus valde incertis separantur. Articulatio pedicelli in Africanis variabilis est, et nervi segmentorum perianthii plus minus distantes v. approximati. *Dilanthes*, Salisb., est *A. revolutum*, Linn., a Bakero in sect. *Trachyandra* nec in *Dilanthe* collocatum.

3. ? *Holopodium*, Baker. Plantæ humiles, cæspitosæ, scapo cum rhachi racemi brevissimo inter foliorum vaginas recondito, pedicellis longis exsertis. Species 2 v. 3 Abyssinicæ, quibus etiam referrimus *Chlorophytum tetraphyllum*, Baker.

65. **Chlorophytum**, *Ker in Bot. Mag. t.* 1071. (Hartwegia, *Nees in Nov. Act. Nat. Cur.* xv. ii. 372. Schidospermum, *Griseb. in Pl. Lechl. Exs. n.* 2382. Asphodelopsis, *Steud. in Hohen. Pl. Ind. Or. Exs. n.* 1311.)—Perianthium marcescens, non tortum, persistens v. demum a fructu deciduum; segmenta distincta, rotato-patentia, 3–7-nervia. Stamina 6, hypogyna v. seriei interioris basi segmentis brevissime adnata, perianthio breviora, filamentis filiformibus supra medium sæpius parum dilatatis; antheræ oblongæ v. lineares, erectæ, basi v. inter lobos basales dorso affixæ, filamento in foveolam dorsalem breviter intruso, loculis introrsum dehiscentibus. Ovarium sessile, 3-quetrum, 3-loculare; stylus filiformis, stigmate parvo; ovula in loculis 4–∞. Capsula coriacea, truncata, acutangula, sæpius 3-loba, loculicide dehiscens. Semina lata, sæpius compressa, rugosa nec angulata, testa nigra; embryo albumine duriusculo paullo brevior, sæpius incurvus.—Rhizoma breve, durum, fibris radicalibus fasciculatis sæpe carnoso-incrassatis v. tuberiferis. Folia radicalia, conferta, sæpe lata, interdum longe petiolata, rarius loriformia v. linearia. Scapus aphyllus, brevis v. elatus, simplex v. ramosus. Flores pedicellati, secus ramos

dense v. laxe racemosi, sub quaque bractea sæpius fasciculati. Bracteæ nunc parvæ scariosæ, nunc conspicuæ membranaceæ.

Species ad 40, Asiæ, Africæ tropicæ et australis et Americæ incolæ. *Kunth, Enum. Pl.* iv. 602. *Baker in Journ. Linn. Soc.* xv. 321; *et in Trans. Linn. Soc. Bot.* i. 259. *Red. Lil. t.* 191 (*Phalangium*). *Roxb. Corom. Pl. t.* 138 (*Anthericum*). *Wight, Ic. t.* 2037 *ad* 2039 (*Phalangium*). *Kotschy et Peyr. Pl. Tinn. t.* 23 B. *Grant in Trans. Linn. Soc.* xxix. *t.* 104. *Bot. Reg. t.* 813, 998. *Saund. Ref. Bot. t.* 216, 333, 352.

Genus vix ac ne vix ab *Antherico* differt capsulis acutangulis et sæpius filamentis plus minus medium versus dilatatis.

66. **Dasystachys,** *Baker in Trans. Linn. Soc. Bot.* i. 255, *t.* 35.—Perianthium persistens, non tortum; segmenta distincta, angusta, subæqualia, obscure 1-nervia. Stamina 6, hypogyna, perianthio subæqualia v. longiora, filamentis leviter complanatis; antheræ oblongo-lineares, erectæ, dorso inter lobos basales affixæ, filamento in foveolam parvam intruso, demum recurvæ, loculis introrsum dehiscentibus. Ovarium sessile, breve, late 3-lobum, 3-loculare; stylus filiformis, elongatus, stigmate parvo capitato; ovula in loculis ∞ (4–8), conferta. Capsula late 3-loba, loculicide dehiscens. Semina (ubi nota) in loculis abortu solitaria, orbiculata, valde compressa, lateraliter affixa, testa nigra laxiuscula; embryo in albumine carnoso brevis, sed forte in semine examinato imperfecte maturus.—Rhizoma breve, fere cormiforme, fibris radicalibus crassiusculis, v. longius horizontale fibris paucioribus. Folia radicalia, longe linearia loriformia, v. paullo latiora rigida falcataque. Scapus aphyllus, elatus, simplex v. parce ramosus. Flores parvuli, in spica longa subsessiles, quaquaversi, sub quaqua bractea fasciculati. Bracteæ scariosæ v. membranaceæ, interdum aciculari-acuminatæ.

Species 7 v. 8, Africæ tropicæ incolæ. Præter species 4 Welwitschianas a Bakero l. c. descriptas, huc pertinent: *D. Grantii*, Benth. (*Cæsia africana*, Baker in Trans. Linn. Soc. xxix. 160, t. 103, quoad specimen Grantianum); *D. drimiopsis*, Baker in herb. Kew. (*Anthericum drimiopsis*, Baker in Journ. Linn. Soc. xv. 301, et *Cæsia africana*, Baker l. c. 361, quoad specimen Kirkianum), et species ut videtur nova, iis affinis, *Schweinfurth*, n. 1504, et 3752.

Genus *Chlorophyto* valde affine.

67. **Echeandia,** *Ortega, Nov. Pl. Dec.* 90, 135, *t.* 18.—Perianthium marcescens, non tortum; segmenta a basi distincta, rotato-patentia, æqualia v. seriei interioris latiora, 3–5-nervia. Stamina 6, hypogyna, perianthio breviora, filamentis breviter filiformibus erectis; antheræ lineares, basifixæ, filamento sublongiores, circa stylum in cylindrum cohærentes, loculis introrsum dehiscentibus. Ovarium sessile, 3-loculare; stylus filiformis, ex antherarum cylindro breviter exsertus, stigmate parvo capitato; ovula in loculis numerosa, lateraliter affixa. Capsula ovoidea v. longiuscule oblonga, 3-quetra, loculicide dehiscens. Semina numerosa, angulato-compressa, testa nigra appressa; embryo albumine laxe carnoso triente v. subdimidio brevior.—Rhizoma breve, fibris radicalibus fasciculatis crassiusculis interdum fusiformibus. Folia radicalia, longa, anguste v. late linearia, disticha, membranacea, basi in vaginam longam angustata. Scapus tenuis, elatus, parce ramosus, aphyllus. Flores secus ramos dissite fasciculati, tenuiter pedicellati, albi v. flavescentes. Bracteæ sub fasciculis parvæ, scariosæ.

Species editæ 3, a Bakero in unam junctæ, Americæ tropicæ a Guiana usque ad Mexicum incolæ. *Kunth, Enum. Pl.* iv. 627. *Baker in Journ. Linn. Soc.* xv. 288. *Red. Lil. t.* 313. *Cav. Ic. t.* 241 (*Anthericum*). *Link et Otto, Ic. Pl. Rar. t.* 3 (*Conanthera*).

68. **Bottionea,** *Colla in Mem. Acad. Torin.* xxxvii. 43, *t.* 1. (Trichopetalum, *Lindl. Bot. Reg. t.* 1535.)—Perianthium marcescens, persistens, non tortum; segmenta distincta, rotato-patentia, ∞-nervia, exteriora integra, interiora paullo angustiora, marginibus dense ciliato-fimbriatis. Stamina 6, hypogyna, perianthio breviora, filamentis filiformibus; antheræ oblongæ, basi alte 2-fidæ, inter lobos dorsifixæ, loculis introrsum dehiscentibus. Ovarium sessile, 3-loculare; stylus crassiuscule filiformis, stigmate breviter expanso late

3-lobo; ovula in loculis numerosa. Capsula oblonga v. fere linearis, 3-quetra, obtusa, loculicide dehiscens. Semina ∞, orbiculata, valde compressa, testa nigra appressa; embryo in albumine carnoso longus, valde incurvus.—Rhizoma breve, fibris radicalibus fasciculatis carnosis v. tuberosis. Caulis basi foliatus, erectus, simplex v. parce ramosus. Folia linearia, inferiora conferta, superiora pauca brevia distantia, floralia sub ramis inflorescentiæ multo minora, in bracteas scariosas sub florum fasciculis abeuntia. Racemi laxi, floribus sæpius fasciculatis, pedicellis tenuibus.

Species 1, Chilensis. *Baker in Journ. Linn. Soc.* xv. 333. *Kunth, Enum. Pl.* iv. 601 (*Trichopetalum*). *Bot. Mag. t.* 3084 (*Anthericum*). *Ruiz et Pav. Fl. Per. et Chil. t.* 300 *b* (*Anthericum*).

69. **Thysanotus,** *R. Br. Prod.* 282. (Chlamysporum, *Salisb. Parad. Lond. t.* 103.)—Perianthium marcescens, persistens, non tortum; segmenta distincta, patentia, medio opaca, 3-nervia, exteriora anguste marginata integra, interiora margine lato colorata pulchre fimbriato-ciliata. Stamina 6, hypogyna, perianthio breviora, v. 3 seriei interioris ima basi segmentis affixa v. interdum abortiva, filamentis filiformibus; antheræ lineares, æquales v. seriei interioris exterioribus longiores, basifixæ, loculis introrsum dehiscentibus apice in unum confluentibus. Ovarium sessile v. breviter stipitatum, 3-loculare; stylus filiformis, stigmate parvo v. fimbriato-dilatato; ovula in loculis 2, superposita. Capsula globosa v. ovoidea, obtusa, perianthio emarcido inclusa v. stipata, loculicide dehiscens. Semina in loculis 1 v. 2, subglobosa, strophiolata, testa nigra crassiuscula; embryo (ubi notus) albumine carnoso dimidio brevior, incurvus.—Rhizoma nunc brevissimum, fibris radicalibus fasciculatis haud raro in tubera incrassatis, nunc crassum, horizontale, durum, fibris radicalibus tenuibus. Folia radicalia, graminea, plana v. teretia. Scapi aphylli, nunc erecti simplices v. apice paniculati, nunc ramosissimi v. in una specie volubiles. Flores nunc dense fasciculati, fasciculo unico terminali v. pauci ad apicem scapi, nunc varie paniculati fasciculati v. fere solitarii, pedicellati. Bracteæ sub fasciculis parvæ, scariosæ, sub pedicellis minutæ.

Species 19, omnes Australianæ, quarum una etiam in insulis Philippinis et China australi obvia. *Benth. Fl. Austral.* vii. 36 (perianthio errore torto dicto). *Labill. Pl. Nov. Holl. t.* 109, 110 (*Ornithogalum*). *Bot. Mag. t.* 2351. *Bot. Reg. t.* 655, 656; 1838, *t.* 8, 50; 1840, *t.* 4. *Lodd. Bot. Cab. t.* 1986. *Maund, Botanist, t.* 187. *Fl. des Serres, t.* 1911.

Isandra, *Salisb. Gen. Pl. Fragm.* 67, includit species antheris inter se subæqualibus. Thysanella, *Salisb. l. c.*, includit species 3-andras.

70. **Arthropodium,** *R. Br. Prod.* 276.—Perianthium marcescens, persistens, non tortum; segmenta distincta, 3-nervia, patentia, subæqualia v. interiora sæpius latiora, interdum margine crispula, rarius brevissime fimbriata. Stamina 6, hypogyna v. interiora ima basi segmentorum affixa, perianthio breviora, filamentis apice v. fere a basi dense piloso-barbatis v. papilloso-appendiculatis; antheræ lineares, erectæ, basifixæ, loculis introrsum dehiscentibus. Ovarium sessile, 3-loculare; stylus filiformis, stigmate parvo; ovula in loculis ∞ (4–8). Capsula subglobosa, loculicide dehiscens. Semina sæpius pauca, 3-quetra, v. plura angulato-compressa, testa nigra lævi v. minute granulata nec nitente; embryo in albumine carnoso v. fere cartilagineo longus, valde curvus.—Rhizoma breve, fibris radicalibus fasciculatis haud raro carnoso-incrassatis v. tuberiferis. Folia radicalia v. ad basin caulis conferta, anguste v. late linearia, sub ramis inferioribus paniculæ parva. Scapus v. pedunculus terminalis, simplex v. ramosus. Flores secus ramos dissite fasciculati, v. ad bracteas solitarii, albi v. purpurascentes, pedicellis tenuibus supra medium articulatis, per anthesin sæpius recurvis. Bracteæ parvæ, nunc minutæ, inferiores rarius majores foliaceæ. Capsulæ ut in affinibus erectæ.

Species notæ 8, quarum 1 Novo-Caledonica, 2 Novo-Zelandicæ, cæteræ Australianæ. *Baker in Journ. Linn. Soc.* xv. 351. *Hook. f. Handb. N. Zeal. Fl.* 285. *Raoul, Choix Pl. Nouv. Zel. t.* 6. *Benth. Fl. Austral.* vii. 55. *Endl. Iconogr. t.* 28. *Red. Lil. t.* 58, 360. *Andr. Bot. Rep. t.* 395 *Bot. Mag. t.* 1421, 2350, 6326. *Bot. Reg. t.* 709, 866.

71. **Dichopogon,** *Kunth, Enum. Pl.* iv. 622.—Perianthium marcescens, persistens, non tortum; segmenta distincta, 5–7-nervia, patentia, æquilonga, interiora latiora, marginibus sæpe scariosis crispulis. Stamina 6, hypogyna, perianthio breviora, filamentis brevibus leviter complanatis glabris; antheræ lineares, erectæ, basifixæ, basi utrinque in appendicem brevem papillosam in filamentum deflexum auctæ, loculis introrsum dehiscentibus. Ovarium sessile, obtusum, 3-loculare; stylus filiformis, stigmate parvo capitato; ovula in loculis ∞ (6–12). Capsula ovoidea v. globosa, obtusa, leviter 3-sulca, loculicide dehiscens.—Semina ∞, ovoidea v. angulata, testa nigra granulosa v. lævi nec nitente; embryo in albumine duriusculo longus, valde curvatus.—Rhizoma breve, fibris radicalibus fasciculatis sæpe tuberiferis. Folia radicalia, anguste linearia, basi rarius vaginis vetustis fibrosis stipata. Scapus sæpius ramosus, aphyllus v. bractea foliacea infra inflorescentiam instructus. Flores secus ramos laxe racemosi, ad bracteas scariosas solitarii v. fasciculati, pedicellis gracilibus supra medium sæpius articulatis.

Species 2, Australianæ. *Benth. Fl. Austral.* vii. 58. *Hook. f. Fl. Tasm. t.* 131 (*Arthropodium*).

Siona, *Salisb. Gen. Pl. Fragm.* 67, genus propositum fuit ad characterem Brownianum *Arthropodii fimbriati.* Specimina olim in herb. Br. frustra quæsivimus. Quæ nuper ex eodem herbario sub hoc nomine distributa ad *Dichopogonem Sieberianum*, Kunth, pertinere videntur, sed vix cum charactere Browniano *A. fimbriati* conveniunt.

72. **Pasithea,** *Don in Edinb. N. Phil. Journ.* xiii. 236.—Perianthium marcescens, diu persistens, spiraliter tortum, demum a fructu deciduum; segmenta ima basi cum toro incrassato continua, cæterum libera, anguste oblonga, subæqualia, 3–5-nervia, patentia. Stamina 6, toro incrassato ad basin segmentorum affixa, perianthio paullo breviora, filamentis breviter filiformibus; antheræ oblongo-lineares, inter lobos basales affixæ, erectæ, demum recurvæ v. revolutæ, loculis introrsum dehiscentibus. Ovarium toro crasso leviter concavo lata basi impositum, 3-loculare; stylus filiformis, elongatus, superne leviter incrassatus, stigmate (an semper?) in lobos 3 breviter subulatos diviso; ovula in loculis 4. Capsula perianthio demum delapso denudata, in toro cupulato sessilis, brevis, 3-dyma, loculicide dehiscens. Semina (adhuc non perfecte matura) compressiuscula, testa nigra laxa; albumen carnosum; embryo. . .—Caulis e rhizomate brevi erectus, basi foliatus, superne paniculatus. Folia inferiora graminea, vaginis distiche imbricatis, superiora perpauca brevia erecta. Panicula laxe pyramidata v. thyrsoidea, ramis primariis apice laxe cymiferis, pedicellis longiusculis tenuibus. Flores cærulei. Bracteæ minimæ v. 0.

Species 1, Chilensis. *Kunth, Enum. Pl.* iv. 634. *Baker in Journ. Linn. Soc.* xv. 320. *Ruiz et Pav. Fl. Per. et Chil. t.* 299, *f. b* (*Anthericum*).

73. **Chamæscilla,** *F. Muell. Fragm. Phyt. Austral.* vii. 68.—Perianthium marcescens, post anthesin spiraliter tortum, demum a fructu deciduum; segmenta subæqualia, oblonga, stellato-patentia, 3-nervia. Stamina 6, hypogyna, segmentis breviora, filamentis filiformibus; antheræ parvæ, juxta basin dorsifixæ, primum erectæ, mox recurvæ, loculis introrsum dehiscentibus. Ovarium sessile, 3-loculare; stylus filiformis, stigmate parvo capitato; ovula in loculis ∞. Capsula 3-loba, lobis a latere plano-compressis margine acutis, loculicide dehiscens. Semina in loculis pauca, compressa, margine acuto, strophiolo parvo v. 0, testa crustacea nigra nitida; embryo albumine carnoso 2–4-plo brevior.—Rhizoma breve, fibris radicalibus sæpe tuberoso-incrassatis. Folia radicalia, linearia v. latiuscule graminea, membranacea, basi vaginis vetustis fibrosis stipata. Scapus aphyllus, infra inflorescentiam simplex. Panicula v. cyma laxa, corymbiformis, bracteis parvis membranaceis. Flores cærulei, ad bracteas solitarii, pedicellati.

Species 2, Australianæ. *Benth. Fl. Austral.* vii. 48. *Hook. f. Fl. Tasm. t.* 132 (*Cæsia*).

74. **Hodgsoniola,** *F. Muell. Fragm. Phyt. Austral.* ii. 176. (Hodgsonia, *F. Muell. ibid.* ii. 95, *non Hook. f.*)—Perianthium marcescens, diu persistens, spiraliter tortum, demum a fructu deciduum; segmenta linearia, basi brevissime connata, 3–5-nervia, æqualia v. seriei

interioris paullo minora. Stamina perfecta 3, basi segmentorum interiorum affixa iisque breviora, filamentis filiformibus; antheræ lineares, basifixæ, erectæ, circa stylum in cylindrum cohærentes, connectivis ultra loculos in tubum productis, loculis introrsum dehiscentibus; staminodia 3, filamentis brevibus, antheris lanceolatis castratis. Ovarium sessile, breve, 3-loculare; stylus tenuiter filiformis, e tubo antherarum breviter exsertus, stigmate parvo; ovula in loculis 2, superposita, anatropa. Capsula parva, subgloboso-3-quetra, pericarpio crassiusculo, loculicide dehiscens. Semina in loculis 1 v. 2, ovoidea, strophiolata, testa nigra lævi; albumen carnosum, embryone in speciminibus nostris nondum perfecto.—Rhizoma brevissimum, fibris radicalibus tenuibus, vaginis nonnullis foliorum detritorum fibrosis coronatum. Folia radicalia perpauca, linearia, acuminata. Scapus aphyllus, simplex, junciformis, squamis paucis distantibus instructus. Racemus simplex, floribundus, pedicellis breviusculis filiformibus. Flores parvuli, cærulei. Bracteæ angustæ, scariosæ.

Species 1, Australiæ austro-occidentalis incola. *Benth. Fl. Austral.* vii. 45.

75. **Cæsia,** *R. Br. Prod.* 277.—Perianthium marcescens, diu persistens, spiraliter tortum, demum a fructu deciduum; segmenta basi brevissime connata, 3-nervia, æqualia v. seriei interioris latius marginata, patentia. Stamina 6, basi segmentorum affixa iisque breviora, filamentis filiformibus; antheræ parvæ, oblongæ, juxta basin dorsifixæ, primum erectæ, mox recurvæ v. revolutæ, loculis introrsum dehiscentibus. Ovarium sessile, breve, 3-loculare; stylus filiformis v. superne leviter clavatus, stigmate parvo; ovula in loculis 2, lateraliter affixa, plus minus superposita, anatropa. Capsula parva, depresso-globosa 3-dyma v. fere 3-loba, loculicide dehiscens. Semina in loculis sæpius solitaria, globosa, strophiolata, testa nigra crustacea tuberculoso-granulata; embryo albumine carnoso brevior.—Rhizoma breve, fibris radicalibus fasciculatis haud raro tuberoso-incrassatis. Caulis erectus, sæpius ramosus. Folia ad basin caulis sæpeque sub ramis inferioribus conferta, subdisticha, linearia, sub ramis paniculæ solitaria, minora, in bracteas abeuntia. Inflorescentia laxe paniculato-ramosa, rarius simplex. Flores cærulei v. albi, secus ramos paniculæ dissite fasciculati, pedicellis filiformibus. Bracteæ minimæ, squamiformes.

Species ad 9, Australiæ et Africæ australis incolæ. *Kunth, Enum. Pl.* iv. 608. *Benth. Fl. Austral.* vii. 46. *Baker in Journ. Linn. Soc.* xv. 357, quoad sect. *Eucæsiam.* Huc etiam pertinent *Anthericum contortum,* Linn., affinesque nonnullæ Capenses, a Kunthio bene sub *Cæsia* recensitæ, a Bakero cum *Bulbinella Burkei* ad subgenus *Streptantheram Antherici* relatæ. *Cæsia africana,* Baker, ex Africa tropica, est *Dasystachys Grantii,* Benth.

76. **Agrostocrinum,** *F. Muell. Fragm. Phyt. Austral.* ii. 94.—Perianthium ima basi breviter turbinato-campanulatum persistensque; lobi tubo multo longiores, æquales, stellato-patentes, 5-nerves, post anthesin spiraliter torti, demum a fructu decidui. Stamina 6, hypogyna, perianthio breviora, filamentis glabris vix complanatis; antheræ lineares, erectæ, basifixæ, loculis poro terminali dehiscentibus. Ovarium intra tubum perianthii sessile, 3-loculare; stylus filiformis, stigmate parvo; ovula in loculis 2, collateralia. Capsula brevis, depressa, 3-dyma, perianthii tubo stipata, loculicide dehiscens. Semina in loculis sæpius solitaria, obovoidea v. globosa, strophiolo parvo, testa crustacea nitida; embryo albumine carnoso dimidio saltem brevior.—Caules e rhizomate brevi lignoso erecti, infra inflorescentiam simplices v. parce ramosi. Folia pauca, longa, rigide graminea, vaginis longis subancipitibus. Panicula v. cyma laxissima, parce ramosa. Flores longe pedicellati, ad apices ramorum solitarii v. laxe subfasciculati, cærulei.

Species 1, Australiæ austro-occidentalis incola. *Benth. Fl. Austral.* vii. 36.

77. **Corynotheca,** *F. Muell. Fragm. Phyt. Austral.* vii. 68.—Perianthium marcescens, post anthesin spiraliter tortum, demum a fructu deciduum; segmenta subæqualia v. interiora latiora, stellato-patentia. Stamina 6, ima basi segmentorum affixa iisque breviora, seriei interioris cæteris paullo longiora, filamentis filiformibus; antheræ parvæ, juxta

basin dorsifixæ, primum erectæ, mox recurvæ, loculis introrsum dehiscentibus. Ovarium sessile, 3-loculare; stylus filiformis, stigmate parvo; ovula in loculis 2 v. rarius solitaria. Fructus abortu 1-spermus, indehiscens, nuculiformis. Semen obovoideum, strophiolatum, testa crustacea nigra nitida minute granulata v. lævi; embryo albuminis carnosi dimidium æquans v. superans.—Folia radicalia, angusta, pauca, mox evanida. Caules aphylli, tenues at rigidi, sæpius intricato- v. divaricato-ramosissimi, paniculam formans nunc latam nunc anguste thyrsoideam, ramulis interdum spinescentibus. Flores minuti, secus ramulos sparsi remoti, ad axillas bractearum minimarum solitarii v. rarius gemini.

Species 3, Australianæ. *Benth. Fl. Austral.* vii. 49.

78. **Herpolirion,** *Hook. f. Fl. Nov. Zel.* i. 258; *Fl. Tasm.* ii. 54, *t.* 132 B.—Perianthium marcescens, persistens; segmenta distincta, subæqualia, linearia, basi erecta, dein stellato-patentia, 5-nervia. Stamina basi segmentorum affixa iisque breviora, filamentis filiformibus; antheræ lineares, erectæ, basifixæ, post anthesin tortæ, loculis introrsum dehiscentibus. Ovarium lata basi sessile, subglobosum, 3-loculare; stylus filiformis, stigmate parvo; ovula in loculis ∞ (ad 6), medio v. infra medium lateraliter affixa, fere anatropa. Fructus capsularis videtur, pericarpio crassiusculo loculicide dehiscente, maturus tamen nobis deest. Semina immatura ovoideo-oblonga, nec angulata.—Herba nana, cæspitosa, rhizomate tenui repente ramoso. Folia in caule brevissimo conferta, disticha, carinata, basi equitantia. Flos unicus, terminalis, intra folia 2 summa 5–7-nervia brevissime pedicellatus, cærulescens v. albidus.

Species 1, montium Novæ Zelandiæ, Tasmaniæ et Victoriæ incola. *Benth. Fl. Austral.* vii. 60.

79. **Nanolirion,** *Benth. gen. nov.*—Perianthium marcescens, diu persistens, post anthesin spiraliter tortum; segmenta distincta, lanceolato-linearia, subæqualia, tenuiter 3-nervia. Stamina 6, hypogyna v. seriei interioris ima basi segmentis adnata iisque breviora, filamentis complanatis; antheræ breviter oblongo-ovoideæ, dorsifixæ, loculis introrsum dehiscentibus. Ovarium sessile, 3-loculare; stylus filiformis, stigmate parvo; ovula in loculis 2, collateralia, fere anatropa. Capsula (a nobis non visa) subglobosa, leviter 3-loba, loculicide dehiscens.—Herba nana, cæspitosa, rhizomate tenui repente ramoso. Folia in caule brevissimo conferta, anguste linearia, quaquaversa. Scapus intra folia brevissimus, 1–3-florus. Pedicelli breves. Perianthium pallide cærulescens.

Species 1, *N. capense*, in summo monte Winterhok Africæ australis a H. Boluso detecta, et in Journ. Linn. Soc. xviii. 395 sub *Herpolirio* edita. Genus habitu quidem *Herpolirio* subsimile, sed foliis minime distichis, perianthio, staminibus, et ovulorum numero bene distinctum videtur.

80. **Leucocrinum,** *Nutt.*; *A. Gray in Ann. Lyc. N. York*, iv. 110.—Perianthium hypocrateriforme, marcescens, persistens, tubo longissimo tenui vix apice ampliato; lobi subæquales, angusti, patentes. Stamina 6, sub fauce affixa, lobis breviora, filamentis filiformibus; antheræ lineares, erectæ, basifixæ, mox recurvæ v. tortæ, loculis introrsum dehiscentibus. Ovarium ovoideo-globosum, 3-loculare; stylus filiformis, apice leviter incrassatus, stigmate parvo; ovula in loculis ∞ (ad 12), 2-seriata. Capsula ovoideo-globosa, obtusa, 3-sulca, loculicide dehiscens. Semina ∞, nigra, angulato-compressa, testa crassiuscule membranacea, laxa; embryo linearis, incurvus, albumine carnoso vix brevior.—Rhizoma breviter descendens, fibris radicalibus fasciculatis carnosulis. Folia radicalia, linearia, graminea, exteriora pauca basi late vaginata, interiora gradatim minora, in bracteas lineares basi scariosas abeuntia. Flores ad axillas bractearum radicalium breviter et inæqualiter pedicellati. Capsulæ erectæ, coriaceæ, inter folia breviter epigææ.

Species 1, boreali-Americana. *S. Wats. Bot.* 40 *Parall.* 349, *t.* 36.

Genus ob flores fere hypogæos perianthiique tubum longissimum *Colchiceis* approximatum, nostro sensu *Anthericeis* propinquius rhizomate antheris seminibusque.

81. **Dianella,** *Lam. Dict.* ii. 276. (Rhuacophila, *Blume, Enum. Pl. Jav.* 13.)—Perianthium marcescens, non tortum, demum sæpius deciduum; segmenta distincta,

subæqualia, sub anthesi patentia, oblonga, 3–7-nervia. Stamina 6, perianthio breviora, hypogyna v. sæpius 3 interiora ima basi segmentorum affixa, filamentis apice v. medio v. fere a basi carnoso-incrassatis; antheræ oblongo-lineares, erectæ v. demum recurvæ v. replicatæ, basi inter lobos basales affixæ, loculis poris terminalibus sæpe in rimas introrsum continuas dehiscentibus. Ovarium sessile v. brevissime stipitatum, obtusum; stylus filiformis, stigmate parvo; ovula in loculis ∞ (4–8.) Fructus succulentus, globoso-3-dymus v. ovoideo-oblongus, indehiscens (v. rarius demum breviter dehiscens?). Semina in loculis solitaria v. pauca, ovoidea v. compressiuscula, testa nigra crustaceo-nitida; embryo linearis, rectus v. curvulus, albumine carnoso parum v. dimidio brevior.—Rhizoma sæpe ramosum v. stoloniferum, caule erecto rigido cum pedunculo sæpe pluripedali. Folia prope basin caulis conferta v. secus partem inferiorem approximata, disticha, vaginis equitantibus, lamina longe lineari, in parte superiore caulis pauca, vaginis brevibus, laminis parvis, radicalia pauca v. ad vaginas reducta. Flores cærulei, pedicellati, nutantes, laxe cymosi, cymis in panicula terminali ampla laxa dispositis, pedicellis sub flore articulatis. Bracteæ parvæ scariosæ v. 0.

Species 7 v. 8, a nonnullis usque ad 12 estimatæ, ins Mascarensium, Australiæ, Novæ Zelandiæ et ins. maris Pacifici incolæ, quarum una etiam in Asia tropica late dispersa. *Baker in Journ. Linn. Soc.* xiv. 574. *Benth. Fl. Austral.* vii. 13. *Hook. f. Handb. N. Zeal. Fl.* 283; *Fl. Tasm. t.* 133. *Jacq. Hort. Schœnbr. t.* 94. *Red. Lil. t.* 1, 79. *Lindb. in Act. Soc. Sc. Fenn.* x. *t.* 6. *Bot. Mag. t.* 505, 1404, 5551. *Bot. Reg. t.* 734, 751, 1120. *Lodd. Bot. Cab. t.* 1136.

Genus ob fructum baccatum sæpius ad *Asparageas* relatum, sed habitus cæterique characteres affinitatem arctam cum *Eccremide* et *Stypandra* indicant.

82. **Eccremis,** *Willd. MS. ex Schult. Syst.* vii. 354 (*Excremis*).—Perianthium persistens, non tortum; segmenta distincta, subæqualia, latiuscule oblonga, 5-nervia, patentia. Stamina 6, hypogyna, perianthio breviora, filamentis ima basi in annulum carnosulum connatis supra medium incrassatis cæterum filiformibus; antheræ oblongo-lineares, erectæ, basifixæ, loculis subintrorsum dehiscentibus. Ovarium subsessile, oblongum, obtusum, 3-loculare; stylus crassiuscule filiformis, stigmate parvo; ovula in loculis sat numerosa. Capsula immatura carnosula, demum oblonga, obtusa, 3-sulca, exocarpio loculicide 3-valvi, endocarpio septicide dehiscente, valvis 3 complicatis exterioribus alternis. Semina ∞, ovoidea, testa crustacea nitida; embryo (adhuc vix maturus) in albumine carnoso parvus.—Rhizoma breve, lignosum, caule elato basi foliato superne paniculato. Folia disticha, inferiora plurima basi complicata vaginis equitantibus, superne explanata elongata rigidula, superiora pauca minora erecta, floralia sub ramis inflorescentiæ in bracteas abeuntia. Paniculæ rami laxe subcymosi, vix minute bracteati, pedicellis fasciculatis recurvis. Flores fructusque nutantes.

Species 1, Andium Americæ australis incola. *Baker in Journ. Linn. Soc.* xv. 319. *Ruiz et Pav. Fl. Per. et Chil. t.* 299, *f. a.* (*Anthericum*). *H. B. et K. Nov. Gen. et Sp. t.* 675 (*Dianella*). Habitus *Dianellæ*, differt imprimis fructu capsulari.

83. **Stypandra,** *R. Br. Prod.* 278.—Perianthium marcescens, demum deciduum, non tortum; segmenta distincta, subæqualia v. interiora latiora, patentia, 5–7-nervia. Stamina 6, hypogyna, perianthio breviora, filamentis superne v. fere a basi dense tomentoso-lanatis; antheræ oblongo-lineares, erectæ, basifixæ, mox revolutæ, loculis introrsum dehiscentibus. Ovarium sessile, oblongum, 3-loculare; stylus filiformis, stigmate parvo; ovula in loculis ∞ (4–8). Capsula oblonga, pericarpio crassiusculo, loculicide dehiscens. Semina ovoidea, compressiuscula, testa nigra crustacea lævi nitida v. opaca; embryo albumine carnoso triente v. parum brevior.—Rhizoma breve v. horizontale, caule ascendente ima basi v. undique foliato ramoso. Folia basi disticha, linearia, rigidula. Panicula v. cyma laxissima, terminalis. Flores longiuscule pedicellati, ad apices ramulorum solitarii fasciculati v. subumbellati, cærulei albo-flavidi v. rarius albi. Bracteæ parvæ, nunc minutæ, v. sub ramis inflorescentiæ foliaceæ.

Species 3, Australianæ. *Baker in Journ. Linn. Soc.* xv. 355. *Benth. Fl. Austral.* vii. 53.

In *S. glauca*, Br. (sect. *Eustypandra*, Baker; STYPONEMA, *Salisb. Gen. Pl. Fragm.* 67) caulis ramosus undique foliatus; flores nutantes; filamenta superne lanata, et semina lævia at sæpius vix lucida. *Bot. Mag. t.* 3417. *Kn. et Westc. Fl. Cab. t.* 63.

In *S. cæspitosa*, Br., et *S. umbellata*, Br. (sect. *Styponema*, Baker, non Salisb.), caulis simplex v. ima basi ramosus, basi sola foliatus; flores suberecti; filamenta fere a basi tomentoso-lanata; semina nitida.

TRIBUS XI. JOHNSONIEÆ.

84. **Aphyllanthes,** *Linn. Gen. n.* 408.—Perianthium infundibuliforme, marcescens, non tortum, demum a fructu deciduum; segmenta unguiculata, basi in tubum conniventia v. subcohærentia, superne recurvo-patentia, oblongo-ovata, subæqualia, 1-nervia. Stamina 6, unguibus segmentorum affixa, perianthio breviora, filamentis filiformibus; antheræ parvæ, ovatæ, dorso supra lobos basales affixæ, loculis introrsum dehiscentibus. Ovarium sessile v. subsessile, 3-loculare; stylus filiformis, stigmate breviter 3-fido; ovula in loculis solitaria, lateraliter affixa, amphitropa. Capsula membranacea, subgloboso-3-quetra, loculicide dehiscens. Semina in loculis solitaria, late ovoidea, compressiuscula, testa nigra laxa; embryo rectus, in semine examinato albumini carnoso æquilongus.—Rhizoma breve, subramosum. Caules cæspitosi, junciformes, basi vaginis paucis rigidis interdum in folium breve productis stipati, cæterum aphylli. Capitulum terminale, oblongum, 1–2- rarius 3-florum. Bracteæ paleaceæ, imbricatæ, 1–2 exteriores vacuæ, sub flore solitario v. sub quoque flore unica, cum bracteola lata 2-fida. Flos intra bracteas sessilis, pulchre cærulea.

Species 1, regionis Mediterraneæ occidentalis incola. *Kunth, Enum. Pl.* iv. 646. *Parlat. Fl. Ital.* ii. 366. *Salisb. Parad. Lond. t.* 9. *Red. Lil. t.* 483. *Reichb. Ic. Fl. Germ. t.* 418. *Moggr Fl. Ment. t.* 89. *Bot. Mag. t.* 1132.

Genus pluribus notis *Johnsonieis* Australianis affine, ut bene notavit Parlatore, capitulis tamen sæpius 1-floris aliisque notis sat diversum, nec bene pro typo tribus, minime pro ordine distincto habendum.

85. **Johnsonia,** *R. Br. Prod.* 287.—Perianthium marcescens, non tortum, demum a fructu deciduum, ima basi breviter turbinato-campanulatum; lobi 6, multo longiores, subæquales, 3–5-nerves, patentes. Stamina 3, basi loborum interiorum affixa iisque breviora, filamentis basi breviter dilatatis connatisque superne angustatis; antheræ lineares, erectæ, basifixæ, loculis introrsum dehiscentibus. Ovarium sessile, 3-loculare; stylus filiformis, stigmate parvo; ovula in loculis 2, altero ascendente altero reflexo. Capsula bracteis inclusa, subglobosa, loculicide dehiscens. Semina in loculis sæpe solitaria, ovoidea, strophiolo magno, testa crustacea nitida; embryo albumine carnoso subdimidio brevior.—Herbæ cæspitosæ. Folia radicalia, fasciculata v. basi disticha, linearia. Scapus simplex, aphyllus. Spica terminalis, breviter oblonga, densa, bracteis paleaceis imbricatis flores omnino obtegentibus, inferioribus 1–2 vacuis interdum foliaceo-acuminatis erectisque. Flores sessiles, sub bracteis solitarii iisque breviores.

Species 3, Australiæ austro-occidentalis incolæ. *Benth. Fl. Austral.* vii. 68. *Bauer, Ill. Pl. Nov. Holl. t.* 1. *Lindl. Swan Riv. App. t.* 7.

86. **Arnocrinum,** *Endl. in Pl. Preiss.* ii. 41.—Perianthium hypocraterimorphum, marcescens, diu persistens, post anthesin spiraliter tortum; lobi 6, subæquales, latiusculi, 1-nerves, patentes. Stamina perfecta 3, fauci affixa, lobis subbreviora, filamentis brevibus filiformibus; antheræ 3, lineares, juxta basin dorsifixæ, in cylindrum circa stylum cohærentes, loculis introrsum dehiscentibus; staminodia 3, staminibus alterna, minute filiformia, interdum desunt. Ovarium sessile, obovoideum, 3-loculare; stylus filiformis, stigmate leviter incrassato; ovula in loculis 2, alterum ascendens alterum pendulum. Capsula parva, loculicide dehiscens, bracteis inclusa. Semina in loculis sæpius solitaria, ovoidea v. globosa, estrophiolata, testa crustacea nigra nitida.—Rhizoma cum basi caulis

lana densa involutum. Caulis junceus, simplex v. ramosus, aphyllus. Folia radicalia v. e rhizomate pauca, breviter linearia, graminea. Squamellæ sub ramis rarissime foliaceo-acuminatæ, sæpius parvæ. Flores ad apicem caulis v. ramorum dense capitati v. brevissime spicati, intra bracteas imbricatas glabras v. dense pilosas sessiles, singuli, præter bracteam latiusculam 1-nervem, bracteola latiore 2-nervi stipati.

Species 2, Australiæ austro-occidentalis incolæ. *Benth. Fl. Austral.* vii. 69.

87. **Tricoryne,** *R. Br. Prod.* 278.—Perianthium marcescens, post anthesin spiraliter contortum, demum a fructu deciduum; segmenta angusta, 3-5-nervia, subæqualia v. interiora angustiora, stellato-patentia. Stamina 6, hypogyna, segmentis breviora, filamentis filiformibus sub anthera dense penicillato-lanatis; antheræ oblongo-lineares, erectæ, basifixæ, loculis introrsum dehiscentibus. Ovarium sessile, profunde 3-lobum, 3-loculare; stylus filiformis, stigmate parvo; ovula in loculis 2, collateralia, ascendentia, anatropa. Fructus ad basin divisus in nuculas 3 (interdum abortu 2 v. 1) indehiscentes, carnosas v. siccas, reticulatas v. costatas. Semina in nuculis abortu solitaria, nigra, testa coriacea nitida; embryo albumine carnoso triente brevior.—Rhizoma breve, fibris radicalibus fasciculatis. Caules ramosi, virgati, ramis sæpe fasciculatis. Folia pauca, graminea v. ad squamellas scariosas reducta, rarius plura parvaque. Panicula laxa. Flores ad apices ramulorum fasciculati, pedicellati. Bracteæ ad basin pedicellorum imbricato-capitatæ, parvæ, exteriorum 1–2 sæpe vacuæ, interdum elongatæ v. foliaceæ.

Species 6, Australianæ. *Benth. Fl. Austral.* vii. 50. *Bauer, Ill. Pl. Nov. Holl. t.* 11. *Endl. Iconogr. t.* 61.

88. **Laxmannia,** *R. Br. Prod.* 285.—Perianthium persistens, non tortum, segmenta omnia distincta, enervia v. late 1-nervia, demum subscariosa, subæqualia v. interiora basi leviter connata exterioribus paullo minora v. demum majora. Stamina 6, perianthio breviora, hypogyna v. seriei interioris segmentis breviter adnata, filamentis filiformibus; antheræ ovatæ, medio dorso v. ad basin segmentorum affixæ, versatiles, loculis introrsum dehiscentibus. Ovarium basi contractum, 3-loculare; stylus breviter filiformis, stigmate parvo v. leviter incrassato; ovula in loculis 2 v. 4. Capsula perianthio inclusa, loculicide dehiscens. Semina pauca, (in *L. gracili*) angulato-compressa, nigra, testa crassiuscula nec crustacea; embryo rectus v. leviter curvus, albumine carnoso vix brevior.—Rhizoma breve, fibris radicalibus fasciculatis. Caules breves, dense cæspitosi, v. elongati diffusi ramosique. Folia anguste linearia v. subulata, ad basin v. apices ramorum conferta, vaginis scariosis imbricatis apice sæpe setosis v. lanato-ciliatis. Flores ad apices ramorum in capitula sessilia v. pedunculata conferti, intra bracteas subsessiles. Bracteæ scariosæ, imbricatæ, exteriores sæpius vacuæ integræ involucrantes, interiores breves, tenues, sæpe hyalinæ, margine laceræ v. fimbriatæ v. haud raro fere ad basin in setas v. lanam divisæ.

Species 8, omnes Australianæ. *Benth. Fl. Austral.* vii. 63. *Endl. Iconogr. t.* 97. *Dcne. Herb. Tim. Descr. t.* 16. *Lindl. Swan Riv. App. t.* 7.

89. **Stawellia,** *F. Muell. Fragm. Phyt. Austral.* vii. 85.—Perianthium diu persistens, non tortum, demum a fructu deciduum; segmenta basi brevissime connata, subæqualia, 3-nervia, patentia. Stamina 3, basi segmentorum interiorum affixa iisque breviora, filamentis filiformibus v. complanatis; antheræ lineares, erectæ, basifixæ, loculis introrsum dehiscentibus. Ovarium 3-loculare; stylus filiformis, stigmate parvo; ovula in loculis 2. Capsula (ex F. Muell.) loculicide dehiscens. Semina in loculis 1 v. 2, testa nigra crustacea nitida.—Herba humilis, dense cæspitosa. Folia radicalia, lineari-filiformia, rigidula, basibus dilatatis imbricatis. Scapi simplices, aphylli. Flores in capitulo terminali intra bracteas imbricatas scariosas sessiles, exteriores nonnulli segmentis perianthii filamentisque

angustissimis elongatisque, interiores segmentis filamentisque brevioribus latioribus. Capsula minima.

Species 1 Australiæ austro-occidentalis incola. *Benth. Fl. Austral.* vii. 67. Specimina nostra haud perfecta.

90. **Borya,** *Labill. Pl. Nov. Holl.* i. 81, *t.* 107. (Baumgartenia, *Spr. Syst.* ii. 91.)—Perianthium hypocraterimorphum, marcescens, persistens, tubo tenui cylindraceo; lobi 6, subæquales, lineares, stellato-patentes, post anthesin non torti. Stamina 6, basi loborum affixa, iisque subæquilonga, filamentis filiformibus; antheræ parvæ, ovatæ, basifixæ, loculis introrsum dehiscentibus. Ovarium sessile, ovoideum, 3-loculare; stylus filiformis, stigmate parvo capitato; ovula in loculis ∞ (ad 20). Capsula bracteis perianthioque persistente inclusa, loculicide dehiscens. Semina pauca, estrophiolata, testa nigra crustacea.—Rhizoma perenne. Caules brevissimi cæspitosi v. longiores ramosique, basibus persistentibus foliorum imbricatis obtecti. Folia in rhizomate v. apices versus ramorum dense conferta, brevia, anguste linearia v. fere filiformia. Flores ad apices ramorum in capitula globosa v. ovoidea longe pedunculata conferti, intra bracteas sessiles. Bracteæ arcte imbricatæ, exteriores paucæ vacuæ, subulatæ, involucrum erectum v. patens formantes, interiores latæ, bracteolam latiorem cum flore singulo foventes.

Species 2, Australianæ. *Benth. Fl. Austral.* vii. 70. *Lindl. Swan Riv. App. t.* 9.

91. **Alania,** *Endl. Gen. Pl.* 151.—Perianthium persistens, non tortum; segmenta 6, a basi distincta, oblonga, subæqualia. Stamina 6, hypogyna, perianthio parum breviora, filamentis filiformibus; antheræ minimæ, ovatæ, dorsifixæ, loculis introrsum dehiscentibus. Ovarium sessile, ovoideum, 3-loculare; stylus brevis, recurvus, stigmate parvo subcapitato; ovula in loculis pauca. Capsula subglobosa, loculicide dehiscens. Semina pauca, in loculis sæpe solitaria, oblonga, estrophiolata, testa nigra crustacea nitida; albumem carnosum.—Caulis perennis, humilis, diffusus, ramosus. Folia conferta, lineari-filiformia, acuta, basi in vaginas imbricatas caulem obtegentes dilatata. Flores in umbellam terminalem subglobosam conferti, pedicellati. Bracteæ numerosæ, fuscæ, scariosæ, imbricatæ, 1–2 exteriores vacuæ interdum subfoliaceo-acuminatæ. Flores parvuli, primum pedicellis brevibus subcapitati, pedicellis tamen accrescentibus mox umbellati.

Species 1, Australiana, *Kunth, Enum. Pl.* iv. 644. *Benth. Fl. Austral.* vii. 62.

92. **Sowerbæa,** *Sm. in Trans. Linn. Soc.* iv. 218; v. 160, *t.* 6.—Perianthium persistens, non tortum; segmenta 6, a basi distincta v. seriei interioris basi breviter connata, ovata v. oblonga, subæqualia, demum fere scariosa. Stamina perfecta 3, segmentis interioribus opposita iisque breviora, filamentis brevissimis; antheræ oblongæ, basifixæ, loculis fere ad basin discretis erectis introrsum dehiscentibus; staminodia 3, staminibus alterna, breviter filiformia, v. interdum desunt. Ovarium breve, 3-loculare; stylus filiformis, stigmate parvo; ovula in loculis 2–6. Capsula perianthio persistente inclusa, loculicide dehiscens. Semina pauca, angulata, testa crassiuscule membranacea nigra minute granulata; embryo in albumine carnoso brevis.—Rhizoma lignosum, horizontale, nodosum. Folia radicalia, lineari-filiformia. Caules seu scapi aphylli simplices v. rarius ima basi ramosi, juncei. Flores in umbellam terminalem subglobosam conferti, pedicellati. Bracteæ parvæ, scariosæ, ad basin pedicellorum dense imbricatæ, 2 v. 3 exteriores sæpe paullo majores rigidioresque vacuæ.

Species 3, Australianæ. *Benth. Fl. Austral.* vii. 61. *Red. Lil. t.* 341. *Andr. Bot. Rep. t.* 81. *Bot. Mag. t.* 1104. *Lodd. Bot. Cab. t.* 787.

Tribus XII. Allieæ.

93. **Agapanthus,** *Lhér. Sert. Angl.* 17. (Abumon, *Adans. Fam.* ii. 54. Mauhlia, *Dahl, Obs. Syst. Linn.* 25.)—Perianthium infundibuliforme, tubo cylindraceo sæpius brevi; lobi 6, subæquales, tubo longiores, erecto-patentes. Stamina 6, fauci affixa, perianthio breviora, filamentis filiformibus inferne leviter complanatis; antheræ oblongæ v. oblongo-lineares, dorsifixæ, basi 2-lobæ, loculis introrsum dehiscentibus. Ovarium sessile, 3-loculare; stylus filiformis, stigmate parvo; ovula in loculis ∞. Capsula oblonga, obtusa, angulis valde elevatis fere 3-loba, loculicide dehiscens. Semina ∞, ascendentia, compressa, testa laxiuscula nigra sursum in alam oblongam producta; albumen carnosum.—Rhizoma breve, fibris radicalibus crassiusculis, ebulbosum. Folia radicalia, lato-linearia v. loriformia. Scapus simplex, aphyllus. Flores in umbella terminali numerosi, pedicellati, speciosi, cærulei rarius albi. Bracteæ involucrantes 2, latiusculæ, caducissimæ, interiores ∞, lineari-setaceæ.

Species v. varietates insignes 3, Africæ australis incolæ, in hortis diu cultæ. *Kunth, Enum. Pl.* iv. 478. *Baker in Journ. Linn. Soc.* xi. 368. *Gærtn. Fruct.* ii. 15, *t.* 83 (*Crinum*). *Red. Lil. t.* 6, 403. *Bot. Mag. t.* 500. *Bot. Reg. t.* 699; 1843, *t.* 7. *Lodd. Bot. Cab. t.* 42.

94. **Tulbaghia,** *Linn. Mant. n.* 1300. (Omentaria, *Salisb. Gen. Pl. Fragm.* 87.)—Perianthium urceolatum v. fere hypocraterimorphum, tubo superne contracto v. undique cylindraceo; lobi 6, subæquales, patentes; corona ad faucem carnosula, lobis brevior, e squamis 3 lobis interioribus oppositis nunc in unam fere globosam sinuato-3-lobam connatis, nunc liberis integris emarginatis v. 2-partitis. Stamina 6, tubo 2-seriatim affixa et omnino inclusa, filamentis brevissimis; antheræ oblongæ, dorsifixæ, interdum brevissime apiculatæ, loculis introrsum dehiscentibus. Ovarium sessile, ovoideum v. subglobosum, 3-loculare; stylus brevis, columnaris, stigmate crasso pulvinato v. discoideo obscure 3-lobo; ovula in loculis ∞. Capsula ovoidea v. oblonga, obtusa v. truncata, loculicide dehiscens. Semina oblonga, compressa, testa nigra laxiuscula; embryo albumine carnoso parum brevior.—Rhizoma breve, crassum, lignosum. Folia radicalia, ligulata, vaginis emarcidis interdum cum rhizomate cormum imperfectum formantibus. Scapus simplex, aphyllus. Flores in umbella terminali ∞, pedicellati. Bracteæ involucrantes 2, scariosæ, latæ, interiores angustiores, nunc perpaucæ v. 0. Odor plantæ alliaceus.

Species editæ ad 12, a Bakero ad 9 reductæ, Africæ australis et tropicæ incolæ. *Kunth, Enum. Pl.* iv. 480. *Baker in Journ. Linn. Soc.* xi. 369, *et in Trans. Linn. Soc. Bot.* i. 246. *Jacq. Hort. Vind. t.* 115. *Harv. Thes. Cap. t.* 180. *Bot. Mag. t.* 806, 3547, 3555.

95. **Tristagma,** *Pœpp. et Endl. Nov. Gen. et Sp.* ii. 28, *t.* 140. (Stemmatium, *Philippi, Descr. Nuev. Pl.* ii. (1873), 75. Stephanolirion, *Baker in Gard. Chron.* 1875, i. 234.)—Perianthium hypocraterimorphum, tubo cylindraceo, lobi 6, subæquales, patentes; corona ad faucem carnosula e squamis 3–6 subconnatis v. liberis v. omnino deficiens. Stamina 6, tubo 2-seriatim affixa et omnino inclusa, filamentis brevissimis; antheræ oblongæ, prope basin dorsifixæ, loculis introrsum dehiscentibus. Ovarium sessile, ovoideum, 3-loculare; stylus brevis, columnaris, stigmate crasso pulvinato; ovula in loculis ∞. Capsula (a nobis non visa) loculicide dehiscens. Semina . . .—Cormus subglobosus, tunicatus. Folia radicalia pauca, anguste linearia. Scapus simplex, aphyllus. Flores in umbella terminali haud numerosi, pedicellati. Bracteæ involucrantes 2, scariosæ, latæ, acuminatæ, interiores angustæ, paucæ.

Species 3, Chilenses. Genus vix ac ne vix a *Tulbaghia* differt cormo perfectiore et patria. Corona in utroque genere variat de specie in speciem; in *T. nivali*, Pœpp. et Endl. l.c. omnino deest; in *T. dimorphopetalo*, C. Gay, Fl. Chil. vi. 126, t. 69 bis (*Leucocoryne Gayi*, Baker in Journ. Linn. Soc. xi. 375) constat e squamis 3 oblongis lobis interioribus perianthii affixis; in his 2 speciebus

perianthium, antheræ et habitus omnino *Tulbaghiæ*. In *T. narcissoide* (*Stemmatio narcissoide*, Phil.) perianthium majus *Leucocorynis*, stamina omnino *Tulbaghiæ*, corona e squamis 3–6 latis inæqualibus plus minus connatis.

96. **Leucocoryne**, *Lindl. Bot. Reg. t.* 1293.—Perianthium hypocraterimorphum, tubo cylindraceo æquali v. supra ovarium parum contracto; lobi 6, subæquales, patentes, ovali-oblongi v. angusti. Stamina perfecta 3, tubo inclusa, filamentis brevissimis; antheræ lineari-oblongæ, infra medium dorsifixæ, loculis introrsum dehiscentibus; staminodia 3, ad faucem lobis interioribus opposita iisque breviora, linearia v. basi dilatata, ananthera. Ovarium subsessile, oblongum, obtusum, 3-sulcum, 3-loculare; stylus brevis, columnaris, stigmate parvo 3-dymo; ovula in loculis numerosa. Capsula membranacea, ovoidea v. oblonga, 3-sulca, loculicide dehiscens. Semina ∞, parva, subglobosa, nigra.—Bulbus seu cormus tunicatus. Folia radicalia, anguste linearia, canaliculata. Scapus simplex, aphyllus. Flores in umbella terminali pauci, pedicellati. Bracteæ involucrantes 2, lineari-lanceolatæ, acuminatæ, demum scariosæ, interiores perpaucæ minutæ v. 0.

Species 3 v. 4, Chilenses. *Baker in Journ. Linn. Soc.* xi. 374 (*excl. L. Gayi quæ Tristagma*). *C. Gay, Fl. Chil. t.* 69. *Bot. Mag. t.* 2382 (*Brodiæa*).

97. **Milla**, *Cav. Ic.* ii. 76, *t.* 196.—Perianthium hypocraterimorphum, tubo cylindraceo æquali ad os annulo parum prominulo constricto; lobi rotato-patentes, parum inæquales. Stamina 6, ad os tubi affixa, exserta, filamentis brevissimis; antheræ oblongæ, erectæ, circa stylum conniventes, loculis introrsum dehiscentibus. Ovarium sessile, elongatum, 3-loculare; stylus antheras paullo superans, stigmate parum dilatato 3-dymo; ovula in loculis numerosa. Capsula oblonga, obtusa, membranacea, loculicide dehiscens, valvis facillime septicide partitis sub-6-valvis. Semina compressa, angulata, nigra.—Cormus parvulus, fibris radicalibus fasciculatis nonnullis valde incrassatis carnosis. Folia radicalia pauca, angustissime linearia. Scapus simplex, aphyllus. Flores in umbella terminali 2–4, rarius ad unum reducti, albi, speciosi, longe pedicellati. Bracteæ involucrantes 2–3, parvæ, angustæ, nunc minimæ.

Species 1, Mexicana. *Kunth, Enum. Pl.* iv. 478. *Bot. Reg. t.* 1555. *Fl. des Serres, t.* 1459.

Species a Bakero in Journ. Linn. Soc. xi. 378 sub *Milla* enumeratas pro maxima parte cum S. Watsonio ad *Brodiæam* referrimus; paucæ a Kunthio sub *Nothoscordo* editæ ad hoc genus restituendæ videntur.

98. ? **Diphalangium**, *S. Schau. in Linnæa*, xix. 702.—Perianthium hypocraterimorphum, marcescens, tubo cylindraceo medio ventricoso 6-costato; lobi patentes, tubo longiores, 1-nerves, apice calloso-incrassati. Stamina 6, tubo 2-seriatim affixa, filamentis brevissimis; antheræ lineari-oblongæ, dorso basifixæ, loculis introrsum dehiscentibus. Ovarium 3-gastrum, 3-loculare; stylus longus, apice incrassatus, stigmate 3-gono dilatato. Capsula usque ad medium cum perianthii tubo connata, 3-quetra, ∞-sperma.—Bulbus subrotundus, tunicarum fuscarum fibris linearibus. Folia linearia, incurvo-patula, scapum subæquantia. Scapus simplex, vix semipollicaris (an errore pro semipedalis?), circa basin foliis 2 parvis membranaceis præditus, cæterum nudus. Perianthium album?, lobis pollicaribus, tubo semipollicari cum pedunculo continuo. Antheræ ad sinus perianthii exsertæ. (*Char. ex S. Schauero.*)

Species 1, Mexicana, *Aschenborn, n.* 30, a nobis non visa, pluribus notis *Millæ* convenire videtur, sed si rite descripta caule nano, staminum insertione, capsula basi adnata discrepat.

99. **Stropholirion**, *Torr. Bot. Whipple Exped.* 93 (149), *t.* 23. (Rupalleya, *Morière in Bull. Soc. Linn. Norm.* viii. 313, *t.* 15.)—Perianthium urceolatum, tubo subgloboso ad os constricto, costis 6 subvesiculoso-inflatis percurso; lobi 6, subæquales, patentes. Stamina perfecta 3, cum staminodiis totidem alterna, fauci affixa, erecta, filamentis seu connectivis petaloideis alte 2-fidis; antheræ ad basin filamenti subsessiles, loculis introrsum dehiscentibus; staminodia filamentis æquilonga, angustiora, crassiora, apice emarginata.

Ovarium sessile, ovoideum, 3-loculare, in stylum antheris æquilongum attenuatum, stigmate parum dilatato 3-dymo; ovula in loculis 4, in medio loculo conferta. Capsula perianthio persistente inclusa, globosa, loculicide dehiscens. Semina . . .—Cormus tunicatus. Folia radicalia pauca, demum elongata. Scapus simplex, aphyllus, sæpius volubilis, ∞-pedalis. Flores in umbella terminali numerosi, rosei, pedicellis articulatis. Bracteæ involucrantes 2–5, latiusculæ, interdum coloratæ; interiores parvæ, scariosæ.

Species 1, Californica. *S. Wats. Proc. Amer. Acad.* xiv. 239. *Bot. Mag. t.* 6123 (*Brodiæa*). Genus quoad stamina *Brodiææ* accedit, cui refert Baker, sed perianthium longe diversum et habitus peculiaris.

100. **Brevoortia,** *Wood in Proc. Acad. Philad.* 1868, 173.—Perianthium tubulosum, late cylindraceum, basi breviter 6-saccatum, ad os leviter constrictum; lobi multoties breviores, ovati, patentes. Stamina perfecta 3, fauci affixa, antheris anguste oblongis subsessilibus erectis, loculis introrsum dehiscentibus; staminodia 3, antheris alterna, petaloidea, latissime truncata, pone antheras in coronam spuriam connata, iisque paullo breviora. Ovarium breviter stipitatum, ovoideum, in stylum attenuatum, stigmate capitato 3-dymo; ovula in loculis ∞, haud numerosa. Capsula stipitata, ovoideo-3-quetra, acuminata, perianthio persistente inclusa, membranacea, loculicide dehiscens. Semina pauca (immatura) nigra, compressa.—Cormus tunicatus. Folia radicalia pauca, longa. Scapus simplex, aphyllus. Flores in umbella terminali plures, breviter pedicellati, nutantes v. penduli, speciosi, coccinei apice flavo-virentes. Bracteæ involucrantes 3–4, latiusculæ, scariosæ, coloratæ; interiores angustissimæ v. minimæ.

Species 1, Californica. *S. Wats. in Proc. Amer. Acad.* xiv. 239. *Bot. Mag. t.* 5857 (*Brodiæa*). Genus quoad staminum situm *Brodiææ* accedit cui refert Baker, sed perianthium longe diversum.

101. **Brodiæa,** *Sm. in Trans. Linn. Soc.* x. 2, *t.* 1. (Hookera, *Salisb. Parad. Lond. t.* 98.)—Perianthium infundibuliformi-campanulatum, tubo basi attenuato v. rotundato nec saccato, superne ampliato; lobi tubo longiores v. subæquales, erecti v. subpatentes, inter se subæquales. Stamina 6 omnia perfecta, v. 3 staminodiis totidem alterna, fauci v. tubo affixa, filamentis brevissimis v. intra tubum filiformibus; antheræ oblongæ v. angustæ, dorsifixæ, loculis introrsum dehiscentibus. Ovarium sessile v. stipitatum, 3-loculare; stylus filiformis, brevis v. longiusculus, stigmate parum dilatato 3-sulco v. breviter 3-fido; ovula in loculis ∞. Capsula subglobosa ovoidea v. oblonga, perianthio marcescente inclusa, membranacea v. vix coriacea, loculicide dehiscens, valvis interdum demum septicide fissis. Semina ∞, nigra, sæpius compressa.—Cormus (rarius bulbus?) plus minus tunicatus. Folia radicalia, angusta. Scapus simplex, aphyllus. Flores in umbella terminali plures v. rarius ad unum reducti, pedicellati. Bracteæ involucrantes 2 v. 3, interiores rarius adsunt nisi minutæ.

Species ad 30, Americæ borealis occidentalis v. australis extratropicæ incolæ. *Baker in Journ. Linn. Soc.* xi. 376, *quoad sp.* 1 *ad* 3 *et* 378 (*Millæ sp.* 1, 3, 6 *ad* 9, 11 *ad* 23). *S. Wats. in Proc. Amer. Acad.* xiv. 236.

Generis delimitatio imprimis ad perianthii formam a Watsonio proposita, nobis magis naturæ congrua videtur quam Bakeriana, ad numerum staminum perfectorum; sectiones tamen sequentes facile pro generibus distinctis habendæ etsi habitu simillimæ:—

1. *Eubrodiæa.* Stamina ad faucem æqualiter affixa, filamentis seu connectivis dilatatis v. petaloideis integris v. 2-fidis, alternis (staminodiis) anantheris v. omnibus antheriferis. *Sm. l. c. Salisb. l. c. Bot. Mag. t.* 2877, 5912, 5989. *Lindl. in Journ. Hort. Soc.* iv. 84, *cum ic. xyl. Bot. Reg. t.* 1183.

B. capitata, Benth. Pl. Hartw. 339, a specie typica *B. congesta*, Sm., nequaquam differre videtur nisi staminibus omnibus nec 3 solis antheriferis. *Hookera pulchella*, Salisb. Parad. Lond. t. 117, dubie ad unam alteramve refertur, et verisimiliter utramque includit. Antheræ ex Salisburyo alternæ minores caducæ interdum deesse videntur, sed sæpissime in alabastro inveniuntur. In floribus a nobis examinatis antheras alternas sæpe multo minores vidimus. *B. Douglassii*, S. Wats. (*Triteleia grandiflora*, Hook. Pl. Bor. Amer. t. 198) est species 6-andra, *B. capitatæ* valde affinis staminibus ad faucem sub-2-seriatis. Huc pertinet Dichelostemma, *Kunth, Enum. Pl.* iv. 469.

2. *Triteleia.* Stamina tubo v. fauci 2-seriatim affixa, filamentis filiformibus, omnibus antheriferis. *Pæpp. et Endl. Nov. Gen. et Sp. t.* 139. *Bot. Mag. t.* 3327, 5977, 6236. *Bot. Reg. t.* 1921. *Saund. Ref. Bot. t.* 42, 43, 258 (*ic. plures sub Milla*). TRITELEIA, *Lindl. Bot. Reg. sub t.* 1293 et *t.* 1685. *Benth. in Trans. Hort. Soc. ser.* 2, i. *t.* 15. SEUBERTIA, *Kunth, Enum. Pl.* iv. 475. THEMIS, *Salisb. Gen. Pl. Fragm.* 85.

B. crocea et *B. gracilis*, S. Wats., a *Triteleiis* borealibus differunt perianthio luteo, sed perianthii forma et stamina potius *Triteleiæ* quam *Calliproræ*.

3. *Calliprora.* Perianthium campanulatum, flavum v. album, quam in præcedentibus magis apertum. Stamina 6, ad faucem 1-seriata, filamentis brevibus basi petaloideo-dilatatis integris v. 2-fidis, omnibus antheriferis. Species 2, Californicæ. CALLIPRORA, *Lindl. Bot. Reg. t.* 1590. *Bot. Mag. t.* 3588. HESPEROSCORDUM, *Lindl. Bot. Reg. sub t.* 1293 *et t.* 1639. *Hook. Fl. Bor. Amer. t.* 198. VEATCHIA, *Kell. in Proc. Calif. Acad.* ii. 11.

102. **Androstephium,** *Torr. in Bot. Emory Exped.* 218.—Perianthium infundibuliforme, tubo superne in faucem ampliato; lobi 6, oblongo-lanceolati, erecto-patentes, 1-nerves, tubo sublongiores. Stamina 6, fauci affixa, filamentis membranaceo-dilatatis in tubum ad medium v. altius coalitis, tubo inter antheras in lobos producto; antheræ lineari-oblongæ, dorsifixæ, loculis introrsum dehiscentibus. Ovarium sessile, oblongo-3-quetrum, apice in stylum attenuatum, 3-loculare; stylus filiformis, stigmate parvo capitato 3-sulco; ovula in loculis ∞. Capsula obovoidea, 3-quetra, membranacea, loculicide dehiscens. Semina (a nobis non visa) pauca, suborbiculata, compressa, anguste alata; embryo cylindraceus.—Cormus tunicatus. Folia radicalia, anguste linearia. Scapus simplex, aphyllus, foliis brevior. Flores in umbella terminali haud numerosi, breviter pedicellati, cærulei. Bracteæ involucrantes 2–3, scariosæ, interiores angustiores paucæ.

Species 2, Americæ borealis a Texas usque ad Californiam incolæ. *S. Wats. in Proc. Amer. Acad.* xiv. 239.

103. **Bessera,** *Schult. in Linnæa,* iv. 121. (Pharium, *Herb. in Bot. Reg. t.* 1546.)—Perianthium campanulatum; segmenta ima basi in tubum brevem turbinatum connata, cæterum libera, erecto-patentia. Stamina 6, fauci affixa, perianthio longiora, filamentis ultra medium membranaceo-dilatatis in tubum connatis, tubo inter filamenta truncato v. plus minus in lobos producto; antheræ oblongæ, medio dorso affixæ, loculis introrsum dehiscentibus. Ovarium sessile, oblongum, basi apiceque contractum, 3-loculare; stylus filiformis, apice leviter incrassatus, stigmate dilatato obscure 3-lobo; ovula in loculis numerosa. Capsula erecta, ovoideo-3-quetra, loculicide dehiscens, valvis facillime septicide partitis mox 6-valvis. Semina sat numerosa, oblonga, compressa, bene matura non vidimus.—Cormus tunicatus. Folia radicalia pauca, anguste linearia. Scapus simplex, aphyllus. Flores in umbella terminali longiuscule pedicellati, speciosi, coccinei. Bracteæ involucrantes 2–3, parvulæ, interiores adhuc minores, paucæ.

Species 1, Mexicana, a hortulanis in 3 divisa, quæ tamen potius unius varietates habendæ.—*Kunth, Enum. Pl.* iv. 476, 699. *Baker in Journ. Linn. Soc.* xi. 373. *Bot. Reg.* 1839, *t.* 34. *Fl. des Serres, t.* 424.

104. **Bloomeria,** *Kell. in Proc. Calif. Acad.* ii. 11, *cum ic.*—Perianthium subrotatum; segmenta 6, distincta, subæqualia, patentia. Stamina 6, hypogyna v. vix basi segmentis brevissime adhærentia, filamentis filiformibus erectis basi in squamam truncatam dilatatis, squamis in annulum seu cyathum ovarium cingentem subconnatis; antheræ oblongæ, dorsifixæ, loculis introrsum dehiscentibus. Ovarium ovoideo-globosum, 3-sulcum, 3-loculare; stylus filiformis, stigmate vix dilatato; ovula in loculis ∞. Capsula . . .—Cormus fibroso-tunicatus. Folia radicalia pauca v. solitaria, longe linearia. Scapus simplex, aphyllus. Flores in umbella terminali numerosi, longe pedicellati, flavi, in pedicello articulati. Bracteæ involucrantes 2, setaceo-acuminatæ, interiores minimæ scariosæ.

Species 1, Californica. *S. Wats. in Proc. Amer. Acad.* xiv. 235. *Bot. Mag. t.* 5896 (*Nothoscordum*).

105. **Muilla,** *S. Wats. in Proc. Amer. Acad.* xiv. 235.—Perianthium explanato-campanulatum; segmenta 6, distincta v. vix basi connata, subæqualia, patentia. Stamina 6,

basi segmentorum brevissime adhærentia iisque paullo breviora, filamentis infra medium leviter dilatatis; antheræ ovoideo-oblongæ, dorsifixæ, loculis introrsum dehiscentibus. Ovarium sessile, obtusum, 3-loculare; stylus brevis, columnaris, deciduus, stigmate crassiusculo 3-dymo; ovula in loculis ∞. Capsula subgloboso-3-quetra, obtusissima v. leviter depressa, loculicide dehiscens. Semina ∞, parva, angulata, nigra.—Cormus tenuiter fibroso-tunicatus. Folia radicalia plura, anguste linearia, scapo multo breviora. Scapus simplex, aphyllus. Flores in umbella terminali plures, parvi, pedicellis filiformibus inarticulatis. Bracteæ involucrantes 3–6, scariosæ, breviter acuminatæ, basi plus minus connatæ, interiores minores. Planta inodora.

Species 1, Californica. *Regel, Monogr. All.* 219 (*Allium maritimum*, Torr.).

Genus *Allio* et præsertim *Nothoscordo* valde affine, ab auctore e tribu *Alliearum* ad *Milleas* transfertur, imprimis ob cormum fibroso-tunicatum.

106. **Nothoscordum,** *Kunth, Enum. Pl.* iv. 457. (Pseudoscordum, *Herb. Amaryll.* 11, *absque char.* Hesperocles *et* Oligosma, *Salisb. Gen. Pl. Fragm.* 85.)—Perianthium marcescens, persistens; segmenta 6, basi v. ad medium connata, cæterum patentia v. campanulato-conniventia, subæqualia, 1-nervia. Stamina 6, basi segmentorum affixa iisque breviora, filamentis majus minusve membranaceo-dilatatis apice subulatis integris; antheræ oblongæ, dorsifixæ, loculis introrsum dehiscentibus. Ovarium sessile, 3-loculare; stylus filiformis, sæpius persistens, stigmate parvo; ovula in loculis ∞ (sæpius 6–12). Capsula membranacea, 3-dyma v. 3-loba, loculicide dehiscens. Semina angulato-compressa v. subplana, testa nigra membranacea v. subcrustacea; embryo albumine carnoso sæpius brevior.—Bulbus tunicatus. Folia radicalia, linearia, plana. Scapus simplex, aphyllus. Flores in umbella terminali plures, cum pedicello non articulati. Bracteæ involucrantes 2, basi connatæ, interiores parvæ nunc minimæ v. 0. Odor alliaceus omnino deest.

Species vix 10, quarum una Chinensis, cæteræ omnes Americanæ extratropicæ v. andinæ, quarum 2 (imprimis *N. fragrans*) in variis regionibus orbis veteris inquilinæ, omnes a Regelii All. Monogr. ad *Allium* restitutæ, a Bakero inter *Millam* et *Allium* distributæ. *Jacq. Ic. Rar. t.* 366. *Red. Lil. t.* 50, 68. *Vent. Jard. Cels. t.* 26. *Andr. Bot. Rep. t.* 107. *Colla in Mem. Acad. Torin.* xxxix. *t.* 52. *Link et Otto, Ic. Pl. Rar. t.* 8. *Bot. Mag. t.* 1035, 1129, 1524, *et t.* 2419 (*Ornithogalum*). *Bot. Reg. t.* 898. *Saund. Ref. Bot. t.* 304 (*icones fere omnes sub Allio*).

N. borbonicum, Kunth (*Milla*, Baker) est ipsissimum *N. fragrans*, Kunth, in insulis Mascarensibus (teste Bojero) inquilina, et hodie in locis cultis frequentissimum.

Caloscordum, *Herb. in Bot. Reg.* 1844, *Misc.* 66, 1847, *t.* 5, est species Chinensis, quæ nobis omnino *Nothoscordum* refert (*N. neriniflorum*), a Regelio, qui verisimiliter plantam non vidit, perperam ad *Allium chinensem* v. *A. Thunbergii*, Don, relata. In China boreali sat rara videtur nec adhuc in Japonia nec in Cochinchina reperta.

107. **Allium,** *Linn. Gen. n.* 409.—Perianthii persistentis segmenta 6, a basi libera v. vix ima basi in annulum cohærentia, æqualia v. interiora paullo majora, patentia v. campanulato-conniventia. Stamina 6, basi segmentorum affixa v. seriei interioris paullo altius adnata, segmentis longiora v. sæpius paullo breviora, filamentis nunc liberis filiformibus, nunc basi dilatatis interdumque breviter connatis, staminum interiorum interdum magis dilatatis integris v. apice 3-cuspidatis cuspide medio antherifero, v. basin versus utrinque 1-dentatis; antheræ oblongæ, medio dorso affixæ, loculis introrsum dehiscentibus. Ovarium sessile v. breviter stipitatum, perfecte v. interdum septis vix ad medium attingentibus imperfecte 3-loculare, vertice obtusum v. sæpius ad styli insertionem plus minus depressum; stylus filiformis, brevis v. elongatus, sæpius deciduus, stigmate parvo v. anguste breviterque 3-fido; ovula in loculis sæpissime 2, in speciebus perpaucis 3–6, a basi anguli interioris ascendentia. Capsula membranacea, segmentis persistentibus inclusa v. cincta, loculicide dehiscens. Semina angulato-compressa v. interdum fere plana, testa membranacea atra; embryo cylindraceus, sæpe incurvus v. apice recurvus, albumine carnoso vix v. rarius dimidio brevior.—Bulbus tunicatus, solitarius v. interdum plures

rhizomati brevi v. breviter repenti adnati. Folia radicalia, sæpius angusta, variant linearia plana carinata teretia v. fistulosa, v. latiora oblonga rarissime ovata, vaginis nunc brevissimis hypogæis, nunc elongatis scapum alte involventibus. Scapus simplex, aphyllus. Flores in umbella terminali plures, sæpius numerosi, breviter v. longe pedicellati, erecti v. rarissime penduli, parvuli v. mediocres, cum pedicello non articulati, in speciebus nonnullis plures v. interdum omnes in bulbillas sessiles mutati. Bracteæ involucrantes 2, rarissime 3, basi sæpissime et haud raro usque ad apicem in unam latam membranaceo-scariosam spathaceo-fissam per anthesin deciduam connatæ. Odor peculiaris, *alliaceus* dictus, in genere universalis dicitur, inter alia hujus ordinis genera in solis *Tulbaghia* et *Brodiææ* specie hucusque observatus.

Species ad 250, pro maxima parte Europæ Africæ borealis et Abyssinicæ et Asiæ extratropicæ incolæ, plures in America boreali et Mexico obviæ, paucæ in aliis regionibus inquilinæ. *G. Don, Monogr. in Mem. Wern. Soc.* vi. 1 (1826). *Kunth, Enum. Pl.* iv. 379. *Regel, Alliorum Monogr.* 8vo, *Petrop.* 1875 (*excl. sp. paucis*). *Boiss. Fl. Or.* v. 229.

G. Don species imprimis gerontogeas in sectiones 5 distribuit a Kunthio et Regelio acceptas parumque mutatas, quibus Regel characteres sequentes tribuit, addita sexta (*Nectaroscordo*).

1. *Porrum.* Bulbi rhizomate carentes. Staminum seriei interioris filamenta dilatata, 3-cuspidata, cuspide intermedio antherifero. Folia plana v. carinata, sæpe alte vaginantia. Bracteæ involucrantes breviter v. alte connatæ, floribus breviores v. rarissime ut in *Macrospatha* longe acuminatæ. *Red. Lil. t.* 379, 385, 391. *Reichb. Ic. Fl. Germ. t.* 488 *ad* 493. *W. et Kit. Pl. Rar. Hung. t.* 82. *Guss. Pl. Inarim. t.* 16, 17. *Sibth. Fl. Græc. t.* 312, 315, 316, 322. *Regel, Fl. Turkest. t.* 6, *t.* 7, *f.* 1 *ad* 3. *Bot. Mag. t.* 1385, 1560, 1764.

2. *Schœnoprasum.* Bulbi rhizomate carentes. Filamenta omnia simplicia v. staminum seriei interioris basi utrinque 1-dentata. Folia linearia, semiteretia v. fistulosa, basi v. alte vaginantia. Bracteæ involucrantes erostres v. breviter rostratæ, flores non superantes. *Red. Lil. t.* 100, 118, 214, 240. *Cav. Ic. t.* 206. *Reichb. Ic. Fl. Germ. t.* 494 *ad* 496, 498. *Waldst. et Kit. Pl. Rar. Hung. t.* 68. *Desf. Fl. Atl. t.* 83. *Durieu, Explor. Alg. t.* 46. *Sibth. Fl. Gr. t.* 326. *Ledeb. Ic. Fl. Ross. t.* 136, 355, 360, 378. *Regel, Fl. Turkest. t.* 7, *f.* 4 *ad* 11, *t.* 8 *ad* 10, *t.* 11, *f.* 1 *ad* 13. *Link et Otto, Ic. Pl. Rar. t.* 29. *Bot. Mag. t.* 1141, 1230, 1469. *Bot. Reg.* 1840, *t.* 51. *Hayne, Arzneigew.* vi. *t.* 6. SCHŒNOPRASUM, *H. B. et K. Nov. Gen. et Sp.* i. 277.

3. *Rhiziridium.* Bulbi rhizomati perpendiculari v. obliquo v. repenti adnati, solitarii v. plures cæspitosi. Cætera *Schœnoprasi.* Sectio rarius in speciminibus siccis recognoscenda. *Jacq. Ic. Rar. t.* 62, 364. *Red. Lil. t.* 98, 101, 233, 265, 271, 281, 286, 345, 357, 363. *Reichb. Ic. Fl. Germ. t.* 499, 500, 504, 508. *Waldst. et Kit. Pl. Rar. Hung. t.* 186. *Jacq. Fl. Austr. t.* 216, 423. *Ledeb. Ic. Fl. Ross. t.* 356 *ad* 359, 362, 381. *Bong. et Mey. Pl. Sais. Nor. t.* 16. *Reg. Fl. Turkest. t.* 11, *f.* 14 *ad t.* 15. *Wall. Pl. As. Rar. t.* 260. *Kl. in Pr. Waldem. Reise, Bot. t.* 95. *Bot. Mag. t.* 1142, 1143, 1149, 1150, 1222, 1324, 1381, 1408, 1576. *Hayne, Arzneigew.* vi. *t.* 5.

4. *Macrospatha.* Bracteæ involucrantes acumine lineari rostratæ, sæpeque a basi angustæ, flores æquantes v. superantes. Cætera *Schœnoprasi.* *Red. Lil. t.* 119, 179, 252, 272, 316, 368. *Reichb. Ic. Fl. Germ. t.* 482 *ad* 487, 497, 498. *Waldst. et Kit. Pl. Rar. Hung. t.* 211, 278. *Webb, Phytogr. Canar. t.* 234. *Durieu, Expl. Alg. t.* 46. *Ten. Fl. Nap. t.* 30. *Sibth. Fl. Gr. t.* 317 *ad* 321. *Bieb. Cent. Pl. Ross. t.* 29. *Regel, Fl. Turkest. t.* 15, *f.* 1 *ad* 3 *et f.* 6 *ad* 8. *Bot. Mag. t.* 973, 1330, 1420, 1432. PORRUM, *Mœnch, Meth. Suppl.* 263. CODONOPRASUM, *Reichb. Fl. Germ. Exc.* 114.

5. *Molium.* Bulbi rhizomate carentes. Scapus infra terram foliorum vaginis involutus, supra terram nudus. Folia plana v. carinata, linearia v. lata. Bracteæ involucrantes floribus breviores. Filamenta omnia simplicia v. staminum seriei interioris utrinque 1-dentata. Flores sæpe majores quam in cæteris sectionibus.—*Jacq. Ic. Rar. t.* 365. *Red. Lil. t.* 97, 99, 213, 300, 303, 305, 311, 319, 325, 374, 482. *Cav. Ic. t.* 207. *Andr. Bot. Rep. t.* 377. *Reichb. Ic. Fl. Germ. t.* 501 *ad* 505, 507. *Waldst. et Kit. Pl. Rar. Hung. t.* 17. *Ten. Fl. Nap. t.* 28, 29, 31, 137. *Sibth. Fl. Gr. t.* 313, 314, 324, 325, 327. *Jaub. et Spach, Ill. Pl. Or. t.* 103, 442. *Ledeb. Ic. Fl. Ross. t.* 137. *Regel, Fl. Turkest. t.* 15, *f.* 4, 5, 9, 10, *t.* 16. *Link et Otto, Ic. Pl. Rar. t.* 17. *Zucc. in Abhandl. Bayr. Acad. Wiss.* iii, *t.* 2 *ad* 5. *Bot. Mag. t.* 499, 869, 978, 1203, 3531, 4598, 6426, 6451. *Bot. Reg. t.* 758. *Sweet, Brit. Fl. Gard. t.* 201. *Lodd. Bot. Cab. t.* 943, 1087. *Regel, Gartenfl. t.* 775. OPHIOSCORODON, *Wallr. Sched. Crit.* 129. MŒNCHIA, *Medic. in Act. Acad. Palat.* vi. 343, *ex Endl.* MOLY, *Mœnch, Meth.* 286. SATURNIA, *Maratti, Diss. Romul. et Sat.* 18, *t.* 2.

6. *Nectaroscordum.* Pedicelli apice late incrassati, carnosi, turbinati. Ovarium lata basi

adnatum, ovulis in quoque loculo ∞ (3–∞) a basi ascendentibus; semina tamen in loculo sæpius abortu 1–2. Cætera omnia sectionis *Molii* specierum floribus majusculis pendulis. NECTAROSCORDUM, *Lindl. Bot. Reg. t.* 1912 (*in textu* 1913). *Boiss. Fl. Or.* v. 285. TRIGONEA, *Parlat. in Occhio* 1839, 161 *ex eod. Fl. Ital.* ii. 583. Species unica, *A. Dioscoridis*, Sm. (*A. siculum*, Ucria; Sweet, Brit. Fl. Gard ser. 2, t. 349).

A. nigrum, Linn., cum varietatibus v. speciebus affinibus perpaucis ovarii loculos ut in *A. Dioscoridis* 2–6-ovulatos præbet, sed pedicelli æquales aliique characteres omnino *Molii*. *Reichb. Ic. Fl. Germ. t.* 505, 506. *Red. Lil. t.* 102. *Gouan, Illustr. t.* 16. *Brot. Phytogr. Lusit. t.* 48. *Sibth. Fl. Gr. t.* 323. *Bot. Mag. t.* 1148.

Species boreali-Americanas 46 enumerat S. Wats. in Proc. Amer. Acad. xiv. 226, quarum plures sect. *Molio* affines, paucæ *Schœnopraso* v. *Rhiziridio*. *Hook. Fl. Bor. Amer. t.* 194 *ad* 197. *S. Wats. Bot. 40th Parall. t.* 36 *ad* 38. *Kellogg in Proc. Calif. Acad.* ii. *f.* 32, 33, 35; iii. *f.* 13. *Bot. Mag. t.* 1576, 1840, 6320. *Lindl. et Paxt. Fl. Gard. t.* 25. *Regel, Gartenfl. t.* 770.

Salisb. Gen. Pl. Fragm. 88 ad 94, genus *Allium* ad *A. nutantem*, Linn., limitavit, et species cæteras in genera 17 distribuit: HEXONYCHIA, CALLIPRENA, RAPHIONE, XYLORHIZA, BERENICE, PORRUM, CEPA, PHYLLODOLON, CAMARILLA, SCHŒNISSA, BUTOMISSA, HYLOGETON, MOLYZA, CANIDIA, IULUS, SATURNIA et BRISEIS.

108. **Gilliesia,** *Lindl. Bot. Reg. t.* 992.—Perianthium marcescens, persistens; segmenta distincta, patentia, ∞-nervia, plus minus inæqualia, summo (ex interioribus) haud raro deficiente; corona (falso staminodia dicta) ad basin perianthii sub urceolo stamineo, e squamellis 3–12 linearibus integris v. varie dentatis incisisve. Staminum filamenta in urceolum carnosum valde obliquum v. postice fissum alte connata, 3 inferiora ad apicem urceoli breviter et inæqualiter libera antherifera, 3 superiora parva dentiformia ananthera v. obsoleta, antheræ ovatæ, juxta basin dorsifixæ, loculis introrsum dehiscentibus. Ovarium sessile, ovoideo-subglobosum, urceolo inclusum, 3-loculare; stylus brevis, crassus, stigmate parum dilatato; ovula in loculis ∞ (8–12). Capsula membranacea, ovoidea, loculicide dehiscens. Semina ∞, obovoideo-globosa, nigra, lævia, opaca, testa crassiuscule membranacea; embryo albumine carnoso parum brevior, rectus v. curvulus.—Bulbus tunicatus. Folia radicalia pauca, linearia. Scapus simplex, aphyllus. Flores in umbella terminali plures, longe pedicellati, virides v. sordide albescentes, pedicellis recurvis nutantes. Bracteæ involucrantes 2, scariosæ, altera spathacea, altera minore lineari.

Species editæ 3, Chilenses, inter se evidenter parum distinctæ, sed specimina exsiccata pleraque imperfecta rite examinare nequimus. *Kunth, Enum. Pl.* iv. 487. *Baker in Journ. Linn. Soc.* xvii. 507. *Pœpp. et Endl. Nov. Gen. et Sp. t.* 137, 138. *Bot. Mag. t.* 2716.

Ordinem *Gilliesiarum* olim proposuit Lindley ex notis Miersianis definivitque ad interpretationem partium floris a botanicis recentioribus rejectam. Structuram veram optime illustravit descripsitque W. J. Hooker in Bot. Mag. l. c. Genera 7 a variis auctoribus distincta haud male in unum conjungeres, a cæteris *Allieis* distinctum andrœcio irregulari filamentis plus minus connatis 3–4 antheriferis 3–2 parvis anantheris v. rarius omnibus in urceolo obliquo antheriferis. Corona ad basin segmentorum v. loborum perianthii adest etiam in *Tulbaghia*, *Tristagmate* et *Leucocoryne*.

109. **Miersia,** *Lindl. in Miers, Trav.* ii. 529, *ex eod. Bot. Reg. sub t.* 992.—Perianthium marcescens, persistens; segmenta distincta v. vix ima basi brevissime connata, subæqualia, lineari-lanceolata, patentia; corona ad basin perianthii e squamis 6 brevibus apice sæpius 2-fidis. Staminum filamenta in urceolum valde obliquum ventricosum ore contractum alte connata, apice brevissime libera, ad os urceoli dentiformia, omnia antherifera; antheræ 6, parvæ, ovatæ, loculis introrsum dehiscentibus. Ovarium sessile, ovoideum, obtusum, 3-sulcum, 3-loculare; stylus breviter filiformis, stigmate parvo; ovula in loculis ∞. Capsula membranacea, ovoidea v. subglobosa, loculicide dehiscens. Semina ∞, obovoideo-globosa, nigra, lævia, opaca, testa crassiuscule membranacea; embryo cylindraceus, rectus v. curvulus, albumine carnoso subdimidio brevior.—Bulbus tunicatus. Folia radicalia, linearia. Scapus simplex, aphyllus. Flores in umbella terminali plures, longiuscule

pedicellati, virides v. pallide flavescentes, pedicellis tenuibus erectis v. vix apice recurvis. Bracteæ involucrantes 2, scariosæ, inter se parum inæquales.

Species 2, Chilenses. *Kunth, Enum. Pl.* iv. 486. *Baker in Journ. Linn. Soc.* xvii. 506. *C. Gay, Fl. Chil. t.* 68.

110. **Trichlora,** *Baker in Hook. Ic. Pl. t.* 1237.—Perianthium marcescens, diu persistens; segmenta 3, ima basi brevissime connata, a basi lanceolata acuminata, tenuiter sub-5-nervia, æqualia, patentia; 3 interiorum rudimenta nulla deteximus; corona 0. Stamina basi perianthii affixa eoque multo breviora, filamentis in urceolum latum tenuiter membranaceum 5–6-lobum connatis; lobi 2 v. 3 anantheri, late membranacei, integri v. undulato-lobati, 3 antheriferi quorum 2 late deltoidei, tertius linearis, leviter complanatus; antheræ ovatæ, dorsifixæ, loculis introrsum dehiscentibus. Ovarium sessile, breve, 3-sulcum, 3-loculare; stylus brevis, crassus, subinfundibuliformis, in ramos 3 rigidulos divaricatos introrsum stigmatosos divisus; ovula in loculis ∞. Capsula (immatura) subglobosa. Semina . . .—Bulbus tunicatus. Folia radicalia, linearia. Scapus simplex, aphyllus. Flores in umbella terminali plures, longiuscule pedicellati, colore incerto, pedicellis erectis. Bracteæ involucrantes 2, scariosæ, altera spathacea, altera minor linearis.

Species 1, prope Limam Peruviæ lecta. *Herb. Hook.*
Floris structuram ab illa a Bakero descripta pluribus notis diversam invenimus, forte in specie variabilis est.

111. **Erinna,** *Philippi in Linnæa,* xxxiii. 266.—Perianthium infundibuliforme, tubo brevi; lobi anguste lineares, 1-nerves, subæquales, patentes. Stamina fauci affixa, 3 perfecta filamentis brevissimis, 3 alterna ad filamenta filiformia ananthera perianthii segmentis æquilonga reducta; antheræ oblongo-lineares, loculis introrsum dehiscentibus. Ovarium minutum, tubo perianthii inclusum, 3-loculare; stylus brevis, cylindraceus, apice 3-lobus; ovula in loculis ∞. Capsula . . .—Bulbus tunicatus. Folia radicalia, linearia. Scapus simplex, aphyllus. Flores in umbella terminali plures, e luteo virentes, pedicellis $\frac{1}{2}$–$\frac{3}{4}$ poll. longis. Bracteæ involucrantes 2, scarioso-virescentes, interior exteriore minor. (*Char. ex Philippi.*)

Species 1, Chilensis, a nobis non visa, ab auctore ad specimen unicum descripta.
Genus inter affinia antheris longis distinctum videtur.

112. **Solaria,** *Philippi in Linnæa,* xxix. 72. (Symea, *Baker in Saund. Ref. Bot. t.* 260.) —Perianthium persistens; segmenta basi in tubum breviter campanulatum connata, cæterum distincta, lanceolata, patentia, interiora exterioribus paullo breviora; corona 0. Stamina 3 inferiora perfecta, 3 superiora ananthera, filamentis omnibus inferne dilatatis in membranam annularem basi perianthii adnatam connatis, superne breviter liberis; antheræ ovatæ, prope basin dorsifixæ, loculis introrsum dehiscentibus. Ovarium subglobosum, 3-sulcum, 3-loculare; stylus breviter columnaris, stigmate parvo; ovula in loculis ∞. Capsula 'subglobosa.' Semina . . .—Bulbus tunicatus. Folium radicale (an semper?) unicum, lato-lineare. Scapus simplex, aphyllus. Flores in umbella terminali plures, mediocres, viriduli, longiuscule pedicellati, erecti. Bracteæ involucrantes 2, scariosæ.

Species 1, Chilensis. Ovula in loculis ovarii ex Philippio numerosa, ex Bakero 2 tantum, nos in flore uno examinato 5–6 vidimus, nonnullis jam sub anthesi abortivis, in aliis floribus ovarium nullum deteximus.

113. **Gethyum,** *Philippi, Descr. Nuev. Pl.* ii. 73.—Perianthium persistens, apertum; segmenta distincta (v. basi brevissime connata?), subæqualia, perangusta, patentia; coronæ squamellæ v. glandulæ 6, violaceæ, ad basin segmentorum sitæ. Stamina 3 inferiora perfecta, 3 superiora ananthera, filamentis in membranam latam ad basin perianthii connatis; antheræ cordatæ, loculis introrsum dehiscentibus. Ovarium minutum, ovato-

cylindraceum, 3-loculare; stylus brevis, crassiusculus, stigmate parvo; ovula in loculis ∞. Capsula globosa, apice loculicide dehiscens. Semina globosa, nigra, lævia.—Bulbus tunicatus. Folia radicalia, elongata (5-pedalia, 1¼ poll. lata). Scapus elatus, simplex, aphyllus. Flores in umbella terminali plures, majusculi (pollicares), longe pedicellati, basi virescentes, superne atro-purpurei. (*Char. ex Philippi.*)

Species 1, Chilensis, a nobis non visa, ab auctore ad specimen unicum descripta, ut videtur *Ancrumiæ* valde affinis nisi congener.

114. **Ancrumia,** *Harv.*; *Baker in Hook. Ic. Pl. t.* 1227.—Perianthium marcescens; segmenta basi in tubum breviter campanulatum connata, cæterum distincta, 3 exteriora lanceolata acuminata, patentia, 3 interiora breviora, linearia, inter exteriora recurvo-patentia (in icone errore exteriora delineata); coronæ squamellæ 6, breves, latæ, truncatæ, violaceæ, per paria prope basin segmentorum interiorum affixæ, additis interdum (fide Buchananii) alteris minimis, quas tamen in flore exsiccato haud deteximus. Stamina perfecta 2, cum filamento tertio ananthera ad basin segmentorum interiorum sub coronæ squamellas affixa, segmentis breviora, filamentis basi dilatatis breviterque connatis; antheræ oblongæ, prope basin dorsifixæ, versatiles, loculis introrsum dehiscentibus. Ovarium tubo perianthii subinclusum, ab eo tamen distinctum, ex Buchananio 3-loculare. Ovula . . . Fructus . . .—Bulbus tunicatus. Folia radicalia, linearia. Scapus simplex, aphyllus. Flores in umbella terminali plures, majusculi, longe pedicellati, pedicellis apice recurvis nutantes. Bracteæ involucrantes 2, scariosæ, parum inæquales.

Species 1, Chilensis. Ovarium in flore examinato imperfectum videbatur. Character fusior a Buchananio scriptus adest in Herb. Hook.

115. **Massonia,** *Thunb. Nov. Gen.* 39. (Podocallis, *Salisb. Gen. Pl. Fragm.* 17.)—Perianthii tubus cylindraceus, erectus, æqualis; lobi 6, subæquales, rotato-patentes v. reflexi. Stamina 6, fauci affixa, erecta, perianthio longiora, filamentis filiformibus basi in annulum prominentem connatis; antheræ ovoideæ, dorsifixæ, loculis introrsum dehiscentibus. Ovarium sessile, tubo inclusum, 3-loculare; stylus filiformis, stigmate parvo; ovula in loculis ∞. Capsula oblongo-3-quetra v. 3-loba, membranacea, interdum fere scariosa, loculicide dehiscens. Semina ∞, parva, globosa, nigra.—Bulbus tunicatus. Folia radicalia 2, subopposita, patentia, ovata v. rarius oblonga. Umbella in capitulum condensata, inter folia subsessilis v. scapo brevissimo fulta. Flores numerosi, subsessiles. Bracteæ involucrantes 3–∞, membranaceæ v. herbaceæ, floribus sæpius breviores, interiores minores.

Species vix 20, Africæ australis incolæ. *Kunth, Enum. Pl.* iv. 295. *Baker in Journ. Linn. Soc.* xi. 387, *quoad sp. n.* 1 *ad* 18. *Jacq. Hort. Schœnbr. t.* 454 *ad* 461. *Red. Lil. t.* 183, 392. *Ait. Hort. Kew. ed.* 1, *t.* 3, 4. *Andr. Bot. Rep. t.* 220. *Link et Otto, Ic. Pl. Rar. t.* 1. *Bot. Mag. t.* 559, 642, 736, 848. *Bot. Reg. t.* 694, 958.

Genus ad species involucratas limitatum naturalissimum est, et inflorescentia perianthio et andrœcio bene limitatum. Species exinvolucratæ, inflorescentia spicato-racemosa, genus formant *Polyxena*, Kunth, ad *Scilleas* juxta *Lachenaliam* referendum.

116. **Daubenya,** *Lindl. Bot. Reg. t.* 1813; 1839, *t.* 53.—Perianthii tubus cylindraceus, æqualis, v. apice oblique ampliatus, limbus valde obliquus, latere exteriore præsertim florum exteriorum elongatus quasi ligulatus; lobi 6, posticus in fissura limbi brevis, angustus, erectus, 2 laterales parum distantes, subopposite patentes, breves, 3 inferiores ad apicem ligulæ obovali-oblongi, subæquales. Stamina 6, basi loborum affixa iisque breviora v. posticum lobo suo longius, filamentis breviter filiformibus; antheræ breviter oblongæ, dorsifixæ, loculis introrsum dehiscentibus. Ovarium sessile, perfecte (v. imperfecte?) 3-loculare, apice in stylum longe attenuatum, stigmate capitato; ovula in loculis ∞. Capsula . . .—Bulbus tunicatus. Folia radicalia 2, subopposite patentia, ovalia. Umbella in capitulum depressum condensata, inter folia subsessilis v. scapo

brevissimo fulta, perianthiorum exteriorum lobis exterioribus quasi radiata. Flores numerosi, subsessiles, flavi fulvi v. coccinei. Bracteæ involucrantes ∞, subherbaceæ, floribus breviores. (*Char. ex ic. et descr. Lindleyi.*)

Species 3, Africæ australis incolæ, a nobis non visæ. *Baker in Journ. Linn. Soc.* xi. 394. Genus *Massoniæ* valde affine, floribus valde irregularibus in ordine insigne.

TRIBUS XIII. SCILLEÆ.

117. **Whiteheadia,** *Harv. Gen. S. Afr. Pl. ed.* 2, 396.—Perianthii persistentis segmenta 6, subæqualia, patentia, basi in tubum brevem latum seu annulum connata. Stamina 6, basi perianthii affixa eoque breviora, filamentis filiformibus erectis basi in annulum prominentem more *Massoniæ* connatis; antheræ breviter oblongæ, dorsifixæ, loculis introrsum dehiscentibus. Ovarium sessile, 3-gonum, 3-loculare; stylus subulatus, persistens, stigmate parvo; ovula in loculis ∞. Capsula obovoidea, acutangula sub-3-alata, membranacea, loculicide dehiscens. Semina in loculis ∞, parva, lageniformia, testa nigra membranacea.—Bulbus tunicatus. Folia 2, lata, suborbiculata, more *Massoniæ* patentia. Scapus brevis, simplex, aphyllus. Flores subsessiles, in spica brevi conferti, rhachi crassiuscula. Bracteæ herbaceæ, latæ, concavo-cucullatæ, acuminatæ, floribus longiores. (*Char. ex Jacq. Harv. et Baker.*)

Species 1, austro-Africana, a nobis non visa. *Baker in Journ. Linn. Soc.* xiii. 226. *Jacq. Ic. Rar. t.* 449 (*Eucomis*). *Andr. Bot. Rep. t.* 368 (*Melanthium*). *Bot. Mag. t.* 840 (*Eucomis*).

Genus evidenter *Massoniæ* affine, differt perianthii tubo brevissimo et inflorescentia *Scillearum.*

118. **Polyxena,** *Kunth, Enum. Pl.* iv. 294. (Polyanthes, *Jacq. Ic. Rar. t.* 380. Massoniæ *sect.* Astemma, *Endl. Gen.* 145. Manlilia, *Salisb. Gen. Pl. Fragm.* 17.)—Perianthii tubus cylindraceus, interdum longus tenuisque v. superne parum ampliatus; lobi 6, subæquales, tubo multo breviores, superne recurvi v. fere a basi recurvo-patentes. Stamina 6, fauci 2-seriatim affixa, perianthio parum breviora v. longiora, filamentis a basi distinctis filiformibus; antheræ parvæ, dorsifixæ, loculis introrsum dehiscentibus. Ovarium sessile, 3-loculare; stylus filiformis, stigmate parvo; ovula in loculis ∞. Capsula 3-dyma, membranacea, loculicide 3-valvis. Semina pauca, globosa, nigra, nitidula.—Bulbus tunicatus. Folia radicalia 2, nunc more *Massoniæ* lata subsessilia opposite patentia, nunc angustiora erecta petiolata. Scapus infra inflorescentiam simplex, brevis, nunc inter folia brevissimus. Flores nunc brevissime nunc longius laxiusque spicati v. racemosi, racemo sæpius foliis breviore. Bracteæ ad basin pedicellorum parvæ, scariosæ, nunquam involucrantes.

Species ad 7, Africæ australis incolæ. *Baker in Journ. Linn. Soc.* xi. 388 (*Massoniæ sp. n.* 19 *ad* 25). *Red. Lil. t.* 386. *Andr. Bot. Rep. t.* 46. *Bot. Mag. t.* 554, 5891 (*ic. omn. sub Massonia*).

119. **Lachenalia,** *Jacq. in Act. Helvet.* ix. *ex Murr. Syst. Veg.* 314.—Perianthium tubulosum v. fere campanulatum; segmenta basi breviter v. alte connata, erecta, conniventia v. superne patentia, exteriora interdum fere libera, dorso sub apice sæpe tuberculo instructa, interiora longiora, sæpius altius connata, superne magis patentia. Stamina 6, ad faucem v. basi loborum affixa v. seriei exterioris fere hypogyna, filamentis filiformibus; antheræ parvæ, ovoideæ v. oblongæ, dorsifixæ, loculis introrsum dehiscentibus. Ovarium sessile v. breviter stipitatum, 3-loculare; stylus filiformis, stigmate parvo v. pulvinato; ovula in loculis ∞, 2-seriata. Capsula membranacea v. subcoriacea, perianthio persistente inclusa, loculicide dehiscens. Semina obovoidea v. globosa, testa nigra crassiuscula, funiculo interdum longiusculo.—Bulbus tunicatus. Folia radicalia 2 v. in paucis speciebus 3-5, crassiuscula, oblonga loriformia linearia v. subteretia, haud raro maculata v. pustulata. Scapus simplex, aphyllus. Flores secus rhachin simplicem sessiles, spicati, v. in racemo pedicellati, erecti patentes v. penduli. Bracteæ parvæ, scariosæ.

Species ad 30, Africæ australis incolæ. *Kunth, Enum. Pl.* iv. 283. *Baker in Journ. Linn. Soc.* xi. 401.

Genus lobis interioribus perianthii exteriora superantibus facile distinctum, in sectiones sequentes sat naturales dividitur:—

1. *Eulachenalia.* Flores penduli. Perianthium longe v. longiuscule tubulosum, lobis apice breviter patentibus v. suberectis. *Jacq. Ic. Rar. t.* 61, 394 *ad* 400. *Red. Lil. t.* 2, 52, 297. *Andr. Bot. Rep. t.* 41, 148. *Bot. Mag. t.* 82, 590, 993.

2. *Orchiops.* Flores erecti v. patentes, subspicati v. pedicellis brevibus racemosi. Perianthium tubo brevi interdum fere campanulatum, lobis omnibus v. interioribus solis apice patentibus. *Jacq. Ic. Rar. t.* 381, 382, 384, 386 *ad* 393, 401; *Hort. Schœnbr. t.* 82, 83. *Red. Lil. t.* 22, 162. *Andr. Bot. Rep. t.* 251, 296, 302, 350, 460. *Bot. Mag. t.* 735, 745, 766, 817, 854, 1269, 1372, 1373, 1401, 1497, 1517, 1611, 3552. *Bot. Reg. t.* 287, 1350, 1945. *Lodd. Bot. Cab. t.* 1076, 1129. *Sweet, Brit. Fl. Gard. t.* 179, *ser.* 2, *t.* 129. *Saund. Ref. Bot. t.* 170, 171. HIMAS, PLATYESTES, MONOESTES, CHLORIZA, et ORCHIOPS, *Salisb. Gen. Pl. Fragm.* 21.

3. *Brachyscypha.* Flores erecti, subspicati. Perianthium angustum, lobis omnibus erectis angustis. Huc pertinent *L. orthopetala*, Jacq. Ic. Rar. t. 383, et *L. pusilla*, Jacq. l. c. t. 385 (BRACHYSCYPHA, *Baker in Journ. Linn. Soc.* xi. 393).

4. *Cœlanthus.* Flores erecti, subspicati. Perianthium oblongo-ventricosum, basi valde oblique pedicello brevissimo adnata, lobi breves, erecti, parum inæquales. Species unica: CŒLANTHUS, *Willd. in Schult. Syst.* vii. *Gen.* 46 *in adnot.*

Lemaire in Illustr. Hortic. ii. Misc. 99, 100, et iii. Misc. 33, genus *Lachenaliam* ad alios characteres in genera 3 dividit: LACHENALIA, ORCHIASTRUM et SCILLOPSIS.

120. **Drimia,** *Jacq. Ic. Rar. absque char. gen.*; *Coll.* v. (*Suppl.*) 38. (Idothea, *Kunth, Enum. Pl.* iv. 341. Idothearia, *Presl, Bot. Bemerk.* 114.)—Perianthii segmenta basi in tubum campanulatum plus minus connata, superne libera tuboque sæpius longiora, sub anthesi patentissima v. reflexa. Stamina 6, fauci affixa, perianthio vix breviora, erecta conniventia v. demum patula, filamentis filiformibus; antheræ oblongæ, dorsifixæ, loculis introrsum dehiscentibus. Ovarium sessile, ovoideum, acuminatum, 3-loculare; stylus filiformis, stigmate parum incrassato 3-dymo; ovula in loculis ∞ (6–12). Capsula ovoideo-3-quetra, membranacea, loculicide dehiscens. Semina oblonga, compressa, testa nigra laxiuscula interdum ad margines acuta fere alata; albumen carnosum; embryo cylindraceus, albuminis dimidium superans.—Bulbus laxe tunicatus. Folia radicalia, lanceolata loriformia v. anguste linearia. Scapus simplex, aphyllus. Flores in racemo simplici sæpius elongato breviter v. longiuscule pedicellati, patentes. Bracteæ parvæ.

Species ad 15, Africæ australis et tropicæ. *Baker in Journ. Linn. Soc.* xi. 419, *et in Trim. Journ. Bot.* 1874, 6. *Jacq. Ic. Rar. t.* 373 *ad* 375, 377. *Jacq. f. Ed. t.* 30. *Red. Lil. t.* 430. *Bot. Mag. t.* 822, 1444, 5522. *Bot. Reg. t.* 1346. *Saund. Ref. Bot. t.* 190.

Genus quoad species typicas austro-Africanas facile distinctum, staminibus e fauce longe exsertis erectis conniventibus; in *D. hyacinthoide*, Baker, et in speciebus 2 tropicis, stamina breviora, minus erecta, et flores fere *Hyacinthi* (*Bellevalliæ*), sed semina ∞ videntur et valde compressa *Drimiæ*. Huc etiam pertinere videntur *Ornithogalum? anomalum*, Baker in Saund. Ref. Bot. t. 178, et *O.? Cooperi*, Baker in Journ. Linn. Soc. xiii. 284, quorum tamen semina adhuc ignota.

121. **Rhadamanthus,** *Salisb. Gen. Pl. Fragm.* 37.—Perianthium campanulatum, lobi tubo æquales v. longiores, erecti, subconniventes. Stamina 6, fauci affixa, perianthio breviora, filamentis brevibus; antheræ oblongæ, longiusculæ, circa stylum conniventes, loculis introrsum dehiscentibus. Ovarium sessile, ovoideum, 3-loculare, in stylum breve columnare 3-sulcum attenuatum, stigmate parvo; ovula in loculis ∞. Capsula membranacea, loculicide 3-valvis. Semina in loculis 6–8, plano-compressa, nigra.—Bulbus tunicatus. Folia serotina, brevia, angusta, subteretia. Scapus tenellus, simplex, aphyllus. Flores in racemo laxo plures, parvuli, penduli.

Species 1, Austro-Africana, a nobis non visa. *Baker in Journ. Linn. Soc.* xi. 434. *Jacq. Hort Schœnbr. t.* 81 (*Hyacinthus*). Char. floris ex Jacq. et Salisb., fructus ex Bakero qui specimen Massonianum vidit in herb. Mus. Brit.

122. **Litanthus,** *Harv. in Hook. Lond. Journ.* iii. 314, *t.* 9.—Perianthium tubulosum, cylindraceum; lobi 6, brevissimi, ovati, erecto-patentes, subæquales. Stamina 6, fauci

affixa, filamentis brevissimis; antheræ ovatæ, lobis breviores, loculis introrsum dehiscentibus. Ovarium sessile, 3-quetrum, 3-loculare; stylus filiformis, stigmate brevissime 3-fido; ovula in loculis ∞. Capsula erecta, subglobosa. Semina . . .—Bulbus parvus, tunicatus. Folia radicalia, serotina, brevia, lineari-filiformia. Scapus simplex, filiformis, aphyllus. Flos parvus, ad apicem scapi solitarius, breviter pedicellatus, nutans. Bracteæ 2, minimæ, reflexæ.

Species 1, Africæ australis incola. Specimina nostra plantæ hujus pusillæ tenerrimæque flores perpaucos minimos præbent, cujus structuram interiorem ex Harveyi descr. et ic. sumpsimus.

123. **Dipcadi,** *Medicus in Act. Palat.* vi. 431, *ex eod. in Ust. Ann.* ii. 13. (Zuccagnia, *Thunb. in Rœm. Archiv.* ii. 2. Polemannia, *Berg. ex Schlecht. in Linnæa*, i. 250. Uropetalum, *Ker in Bot. Reg. t.* 156. Tricharis, *Salisb. Gen. Pl. Fragm.* 24.)—Perianthii tubus cylindraceus, æqualis v. supra ovarium leviter contractus; lobi tubo sæpius æquilongi v. longiores, rarius breviores, 3 exteriores distincte patentes v. erecto-patentes obtusi v. acumine v. tuberculo subdorsali instructi; interiores sæpius breviores, erecti, obtusi, in tubum conniventes v. subconnati. Stamina 6, fauci æqualiter affixa, perianthio inclusa, filamentis brevibus nunc brevissimis liberis (nisi infra insertionem decurrentibus); antheræ lineares, dorsifixæ, loculis introrsum dehiscentibus. Ovarium sessile, ovoideum v. oblongum, 3-loculare; stylus brevis, columnaris, 3-sulcus, stigmate 3-dymo parum incrassato; ovula in loculis numerosa. Capsula globosa 3-quetra v. 3-dyma, coriacea, loculicide dehiscens. Semina numerosa, compressa, testa crassiuscule membranacea nigra ad margines acutata v. in alam expansa.—Bulbus tunicatus. Folia radicalia, anguste linearia v. rarius latiora, crassiuscula. Scapus simplex, aphyllus. Racemus terminalis, laxus, simplex. Flores dissiti, breviter rarius longiuscule pedicellati, erecti v. patentes. Bracteæ subscariosæ, angustæ.

Species ad 20, Europæ australis, Africæ tropicæ et australis et Indiæ orientalis incolæ. *Kunth, Enum. Pl.* iv. 377 (*Uropetalum*). *Baker in Journ. Linn. Soc.* xi. 395. *Cav. Ic. t.* 30. *Jacq. Ic. Rar. t.* 66. *Red. Lil. t.* 202, 203. *Reichb. Ic. Fl. Germ. t.* 459. *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 44. *Harv. Thes. Cap. t.* 170. *Bot. Mag. t.* 859, 1185 (*Scilla*). *Bot. Reg. t.* 156, 974. *Saund. Ref. Bot. t.* 16, 17 (*ic. veteriores sub Hyacintho, recentiores plur. sub Uropetalo*).

Genus a Bakero in sectiones 2 dividitur: 1. *Tricharis*, perianthii lobis exterioribus interiora vix superantibus obtusis, et 2. *Uropetalum*, lobis exterioribus longioribus plus minus acumine v. tuberculo instructis, characteres tamen fere de specie in speciem variant. In *D. comosa*, Baker in Trans. Linn. Soc. Bot. i. t. 34, ex Africa tropica, flores inferiores racemi sectioni priori conveniunt intermedii sectioni secundæ, summi steriles comam terminalem formant. In icone *D. ciliaris*, Harv. Thes. Cap. t. 170, stamina infra medium tubi nec fauci affixa delineantur antheris basifixis, quod in speciminibus nostris siccis non confirmatur.

124. **Galtonia,** *Dcne. in Fl. des Serres*, xxiii. (1880) 32.—Perianthii tubus latiusculus, basi rotundatus; lobi tubo subæquilongi, patentes, subæquales v. interiores paullo latiores. Stamina 6, fauci v. tubo affixa, lobis breviora, filamentis subulatis erectis; antheræ ovoideæ v. oblongæ, medio dorso affixæ, loculis introrsum dehiscentibus. Ovarium sessile, oblongum, 3-loculare; stylus stamina subæquans, stigmate crassiusculo 3-dymo; ovula in loculis numerosa. Capsula oblonga, perianthio marcescente inclusa, membranacea, loculicide dehiscens. Semina numerosa, ovata, angulato-compressa v. fere plana, testa nigra membranacea; embryo albumine carnoso vix brevior, cylindraceus.—Bulbus tunicatus. Folia pauca, radicalia, longa, latiuscula. Scapus simplex, aphyllus. Flores in racemo longo laxo speciosi, candidi, penduli, in pedicello longiuscule articulati. Bracteæ lanceolatæ, membranaceo-scariosæ.

Species 2, Africæ australis incolæ. *Baker in Saund. Ref. Bot. t.* 174, 175 (*Hyacinthus*).

125. **Albuca,** *Linn. Gen. n.* 416.—Perianthii persistentis segmenta distincta, 3 exteriora per anthesin a basi plus minus patentia, oblonga, flavida v. albida, dorso late viridi vittata, 3 interiora paullo breviora, erecta, parallela, apice calyptratim conniventia, varie

cristata v. cucullata. Stamina 6, hypogyna, erecta, seriei exterioris interdum castrata, filamentis subulatis v. infra medium parum dilatatis, seriei interioris semper perfecta, filamentis supra basin dilatatam margine sæpius utrinque inflexis quasi 2-auriculatis, apice contractis v. subulatis; antheræ oblongæ, dorsifixæ, loculis introrsum dehiscentibus. Ovarium oblongum, 3-sulcum, 3-loculare; stylus columnaris, sæpius crassiusculus 3-sulcatusque, v. interdum 3-partibilis, apice clavatus, in stigmata brevia divisus, nunc brevissimus v. ovario æquilongus, nunc rarius elongatus tenuisque; ovula in loculis numerosa. Capsula perianthio emarcido stipata, ovoidea v. oblonga, 3-quetra, loculicide dehiscens. Semina numerosa, oblonga, valde compressa, marginibus acutis, testa nigra latiuscula utrinque fere in alam expansa; embryo albumine carnoso parum brevior.—Bulbus tunicatus. Folia radicalia, linearia. Scapus simplex, aphyllus. Flores in racemo laxo, erecti v. cernui, mediocres v. speciosi, albo-virides v. flavi. Bracteæ membranaceo-scariosæ.

Species fere 30, Africæ australis et tropicæ incolæ. *Kunth, Enum. Pl.* iv. 372. *Baker in Journ. Linn. Soc.* xiii. 285; *in Trans. Linn. Soc. Bot.* i. 250. *N. E. Br. in Gard. Chron.* 1880, i. 198, *f.* 41.

Genus potius *Galtoniæ* et *Dipcadi* quam *Ornithogalo* affine, a Bakero in sectiones 3 potius artificiales quam naturales dividitur:—

1. *Eualbuca.* Staminum seriei exterioris antheræ castratæ v. abortivæ. Stylus brevis nunc brevissimus. *Jacq. Ic. Rar. t.* 63, 443, 444, 446. *Red. Lil. t.* 21, 69, 70. *Bot. Mag. t.* 720, 804, 1656, 6395. *Lodd. Bot. Cab. t.* 1191. *Saund. Ref. Bot. t.* 239, 334.

2. *Falconera.* Stamina omnia perfecta. Stylus brevis nunc brevissimus. *Jacq. Ic. Rar. t.* 439 *ad* 442, 445; *Hort. Schœnbr. t.* 84. *Red. Lil. t.* 474. *Andr. Bot. Rep. t.* 450. *Bot. Mag. t.* 1481, 6649. *Bot. Reg. t.* 277. *Saund. Ref. Bot. t.* 44, 45, 335. BRANCIONA *et* FALCONERA, *Salisb. Gen. Pl. Fragm.* 36.

3. *Pallastema.* Stamina omnia perfecta. Stylus quam in *Falconera* longior, interdum longe filiformis. *Jacq. Ic. Rar. t.* 64. *Red. Lil. t.* 195. *Bot. Mag. t.* 6429. *Saund. Ref. Bot. t.* 336. PALLASTEMA, *Salisb. Gen. Pl. Fragm.* 36.

✓126. **Urginea**, *Steinh. in Ann. Sc. Nat. ser.* 2, i. 321, *t.* 14.—Perianthium demum deciduum; segmenta 6, distincta, subæqualia, campanulato-conniventia v. sub anthesi patentia. Stamina 6, ima basi segmentorum affixa iisque breviora, filamentis filiformibus v. rarius basi v. medio dilatatis v. incrassatis; antheræ oblongæ v. oblongo-lineares, dorsifixæ, loculis introrsum dehiscentibus. Ovarium sessile, 3-loculare, sæpius 3-quetrum; stylus filiformis, brevis v. ovario sublongior, stigmate parum incrassato; ovula in loculis ∞. Capsula 3-quetra, inter angulos sulcata v. intrusa, nunc lata obtusissima v. truncata, nunc rarius fere oblonga, obtusa v. acutiuscula, membranacea, loculicide dehiscens. Semina in loculis ∞, rarius abortu 1–2, valde compressa, testa nigra membranacea margine utrinque plus minus in alam expansa; embryo albumine carnoso sæpius paullo v. vix brevior.—Bulbus tunicatus. Folia radicalia, nunc angustissime linearia, nunc late loriformia v. fere oblonga. Scapus simplex, aphyllus. Flores in racemo terminali sæpius numerosi, parvuli v. mediocres, in pedicello brevi v. longiusculo articulati, albidi v. rarius pallide flavidi v. rosei, segmentis medio colore intensiore vittatis 1-nerviis v. tenuiter 2–3-nerviis. Bracteæ parvæ, scariosæ, inferiores in pluribus speciebus basi infra insertionem in calcar productæ, superiores sæpeque omnes minimæ basi nudæ.

Species ad 24, Europæ, regionis totæ Mediterranæ, Indiæ orientalis, et Africæ tropicæ et australis incolæ. *Kunth, Enum. Pl.* iv. 331. *Baker in Journ. Linn. Soc.* xiii. 215, *et in Trans. Linn. Soc. Bot.* i. 247. *Jacq. Ic. Rar. t.* 414, 415, 417, 418 (*Anthericum*); *Hort. Schœnbr. t.* 87 (*Ornithogalum*) *et t.* 86 (*Anthericum*). *Red. Lil. t.* 116 (*Scilla*). *Reichb. Ic. Fl. Germ. t.* 466 (*Scilla*). *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 47. *Jord. et Fourr. Ic. Fl. Eur. t.* 201 *ad* 205 (*Squilla*). *Desf. Fl. Atl. t.* 88 (*Scilla*). *Durieu, Expl. Alg. t.* 45. *Wight, Ic. t.* 2063, 2064. *Bot. Mag. t.* 871 *et* 1046 (*Albuca*), *t.* 918 (*Ornithogalum*), *et t.* 1074 (*Drimia*). *Bot. Reg. t.* 311 *et* 557 (*Albuca*).

Genera plura a Salisburyo aliisque proposita a Bakero bene in unum junguntur, hinc *Drimi* hinc *Scillæ* affine, a priore perianthii segmentis distinctis, ab hac imprimis perianthio deciduo capsula et seminibus separandum. Sectiones adhuc propositæ vix characteribus certis limitatæ.

PHYSODIA, *Salisb. Gen. Pl. Fragm.* 37, est *U. physodes*, Baker, filamentis medio incrassatis papilloso-villosis, a Bakero pro sectione admittitur, species includens 7, vix nisi floribus solito minoribus distinguendas.

Sypharissa, *Salisb. Gen. Pl. Fragm.* 37, genus ad *U. exuviatam* et *U. filifoliam*, Steinh. confectum. Species sunt Austro-Africanæ, bulborum tunicis nonnullis in vaginam scariosam vittis transversis elevatis notatam productis insignes. Baker sectionem extendit ad species omnes typicas Steinheilii, inclusis pluribus quarum vaginæ vittis carent.

Squilla, *Steinh. in Ann. Sc. Nat. ser.* 2, vi. 276, a Bakero pro sectione admissa, includit *U. maritimam*, Bak., speciesque paucas affines, ab *Urgineis* typicis non nisi bulbo majore et foliis latioribus distinctas.

Albucopsis, Baker, pro sectione proposita, includit *U. indicam*, Kunth, speciesque nonnullas affines ex Africa tropica, quibus nervus centralis segmentorum perianthii plus minus distincte duplex est, v. in una specie nervi 3 discreti.

U. secunda, Baker (*Ornithogalum*, Jacq.), ad hujus generis sect. *Osmynem* restituenda videtur, ob perianthium explanatum, filamentis hypogynis.

U. aloides, Bolus in Journ. Linn. Soc. xviii. 395, a genere pluribus notis longe recedens, supra ad *Notosceptrum* relata est.

127. **Veltheimia**, *Gled. in Act. Acad. Berol.* 1769, 66.—Perianthium tubulosum, cylindraceum, æquale v. superne leviter ampliatum, persistens; lobi 6, æquales, brevissime dentiformes. Stamina 6, supra medium tubi æqualiter affixa, inclusa, filamentis brevibus filiformibus; antheræ oblongæ, dorsifixæ, loculis introrsum dehiscentibus. Ovarium sessile v. subsessile, oblongum, 3-loculare; stylus filiformis, stigmate parvo; ovula in quoque loculo 2, collateralia (rarius 3?). Capsula membranaceo-scariosa, angulis 3 valde dilatatis alæformibus, alis demum fissis loculicide dehiscens, valvis tamen in axi persistentibus. Semina in quoque loculo 1-2, obovoidea v. pyriformia, testa nigra appressa.—Bulbus tunicatus. Folia radicalia, plura, oblonga v. loriformia, crassiuscule herbacea, inferiora breviter superiora longe vaginata scapi basin obtegentia. Scapus simplex, aphyllus. Flores speciosi, in racemo v. spica terminali densa conferti, breviter pedicellati v. subsessiles, penduli v. nutantes. Bracteæ scariosæ, breves, summæ sæpe vacuæ ad apicem spicæ comosæ.

Species 3, Africæ australis incolæ. *Kunth, Enum. Pl.* iv. 281. *Baker in Journ. Linn. Soc.* xi. 410. *Jacq. Hort. Schœnbr. t.* 77, 78. *Red. Lil. t.* 440. *Bot. Mag. t.* 501 (*Aletris*), 1091, 3456. *Lodd. Bot. Cab. t.* 1245.

128. **Rhodocodon**, *Baker in Journ. Linn. Soc.* xviii. 280, *t.* 8.—Perianthium campanulatum; lobi tubo pluries breviores, æquales, 1-nerves, subpatentes. Stamina 6, infra medium tubi affixa eoque breviora, filamentis filiformibus; antheræ oblongæ, infra medium dorsifixæ, loculis introrsum dehiscentibus. Ovarium sessile, 3-loculare; stylus filiformis, stigmate parvo; ovula in loculis ∞ (5–6), ascendentia. Capsula . . .—Bulbus tunicatus. Folia radicalia, pauca, linearia. Scapus simplex, aphyllus. Flores in racemo terminali simplici laxo pedicellati, nutantes, ad bracteas minimas solitarii.

Species 1, Madagascariensis.

129. **Muscari**, *Mill. Dict.*—Perianthium urceolato-globosum v. oblongum, ad faucem constrictum, marcescens, demum a fructu deciduum; lobi 6, brevissime dentiformes, erecti v. demum recurvo-patentes, parum inæquales. Stamina 6, tubo 2-seriatim affixa, inclusa, filamentis breviter filiformibus v. basi complanatis; antheræ ovatæ, dorsifixæ, loculis introrsum dehiscentibus. Ovarium sessile, 3-loculare; stylus brevis, columnaris, 3-sulcus v. plus minus 3-partibilis, stigmatibus 3 parvis; ovula in quoque loculo 2, arcte superposita v. collateralia. Capsula brevis, lata, membranacea, 3-quetra, fere 3-alata, loculicide dehiscens. Semina in loculis 1–2, obovoidea v. subglobosa, testa nigra sæpe leviter rugulosa; embryo in albumine duro oblongus.—Bulbus tunicatus. Folia radicalia, pauca, linearia, carnosula. Scapus simplex, aphyllus. Flores in racemo terminali simplici denso v. elongato breviter v. longiuscule pedicellati, penduli v. nutantes, summi interdum steriles, longius pedicellati, comosi. Bracteæ parvæ, scariosæ.

Species præsertim a hortulanis inordinate multiplicatæ, sed fere 40 satis distinctæ videntur, Europæ, Africæ borealis et Asiæ occidentalis incolæ. *Kunth, Enum. Pl.* iv. 310 *et* 313 (*Muscari* et *Botryanthus*). *Baker in Journ. Linn. Soc.* xi. 411, *et in Gard. Chron.* 1878. *Reichb. Ic. Fl. Germ. t.* 456, 457. *Boiss. Fl. Or.* v. 287.

Genus ab auctoribus in sectiones 3 dividitur, inter se vix distinctas etsi a nonnullis pro generibus propriis habeantur:—

1. *Moscharia*. Perianthii lobi dentiformes, minimi, dorso incrassati; *Red. Lil. t.* 132. *Jaub. et Spach, Ill. Pl. Or. t.* 329. *Bot. Mag. t.* 734, 1565, 6269. *Sweet, Brit. Fl. Gard. t.* 210. MOSCHARIA, *Salisb. Gen. Pl. Fragm.* 25.

2. *Botryanthus*. Perianthii lobi etsi brevissimi quam in *Moscharia* evidentiores, sub anthesi stellato-patentes, nec dorso incrassati. *Jacq. Fl. Austr. t.* 187. *Red. Lil. t.* 232, 361 (364 *in textu*), *Jord. et Fourr. Ic. Fl. Eur. t.* 271 *ad* 280. *Bot. Mag. t.* 122, 157. *Sweet, Brit. Fl. Gard. t.* 15. 259, *et ser.* 2, *t.* 369. *Saund. Ref. Bot. t.* 172, 173. *Reg. Gartenfl. t.* 377. BOTRYANTHUS, *Kunth, Enum. Pl.* iv. 310. BOTRYPHILE, *Salisb. Gen. Pl. Fragm.* 25.

3. *Leopoldia*. Flores perfecti *Botryanthi*, summi cujusve racemi imperfecti, steriles, longius pedicellati, comam formantes. *Jacq. Fl. Austr. t.* 126. *Red. Lil. t.* 231. *Bot. Mag. t.* 133. LEOPOLDIA, *Parlat. Fl. Palerm.* i. 435, *Fl. Ital.* ii. 493. COMUS, *Salisb. Gen. Pl. Fragm.* 24.

Icones veteriores nonnullæ sub *Hyacintho*. *M. bootanense*, *Griff. Ic. t.* 280, in Affghanistan lecta fuit, nec in Bhotan.

130. **Hyacinthus,** *Linn. Gen. n.* 427.—Perianthium infundibuliformi-campanulatum, marcescens, demum a fructu deciduum, tubo æquali v. supra ovarium contracto nec ad faucem constricto; lobi 6, subæquales, tubo breviores v. longiores, erecto-patentes v. recurvi. Stamina 6, tubo v. fauci æqualiter affixa, perianthio breviora, filamentis breviter filiformibus v. basi complanatis; antheræ ovatæ v. oblongæ, dorsifixæ, loculis introrsum dehiscentibus. Ovarium sessile, ovoideum, sæpe 3-quetrum, 3-loculare; stylus columnaris, brevis v. rarius elongatus, stigmate parum incrassato; ovula in loculis pauca (sæpius 2–6). Capsula subglobosa, 3-sulca 3-didyma v. 3-loba, loculicide dehiscens. Semina pauca, obovoidea v. globosa, testa nigra; embryo cylindraceus, albumine fere corneo sæpius dimidio brevior.—Bulbus tunicatus. Folia radicalia linearia v. loriformia. Scapus simplex, aphyllus. Flores in racemo simplici laxo v. denso pedicellati, erecti patentes v. penduli. Bracteæ scariosæ, angustæ, sæpius parvæ.

Species ad 30, quarum 3 (sect. *Peribœæ*) Africanæ australes v. tropicæ, cæteræ omnes regionis Mediterraneæ v. Orientis incolæ. *Kunth, Enum. Pl.* iv. 303, 306, 292 (*Hyacinthus, Bellevallia et Peribœa*). *Baker in Journ. Linn. Soc.* xi. 423 (*excl. sp. n.* 1 *et* 2); *in Trim. Journ. Bot.* 1874, 7.

Genus in sectiones sequentes dividitur, ab auctoribus nonnullis pro generibus propriis habitas:—

1. *Euhyacinthus*. Perianthium infundibuliforme, tubo infra ovarium contracto, lobi recurvo-patentes tubo breviores. Stamina tubo inclusa, filamentis filiformibus. Species unica, *H. orientalis*, Linn., in hortis jamdiu culta. *Red. Lil. t.* 465. *Reichb. Ic. Fl. Germ. t.* 460, *f.* 1005. *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 43. *Jord. et Fourr. Ic. Fl. Eur. t.* 216 *ad* 220. *Bot. Mag. t.* 937. *Bot. Reg. t.* 995.

2. *Hyacinthella*. Perianthium campanulatum, lobis tubo multo brevioribus erecto-patentibus. Stamina tubo inclusa, 1–2-seriata. *Red. Lil. t.* 14. *Reichb. Iconogr. Eur. t.* 331. *Bot. Mag. t.* 2425. *Bot. Reg. t.* 398. *Sweet, Brit. Fl. Gard. t.* 135. *Jord. et Fourr. Ic. Fl. Eur. t.* 164, 166. HYACINTHELLA, *Schur in Œstr. Bot. Wochenbl.* 1856, 227. BRIMEURA, *Salisb. Gen. Pl. Fragm.* 26.

3. *Strangweya*. Perianthii lobi tubo æquilongi. Stamina ad faucem 1-seriata, filamentis brevibus late membranaceis 3-dentatis, dente medio antherifero. Ovula ad 4. Flores in spica subsessiles, bracteis semisagittatis. Species unica, *H. spicata*, Sm.; Lindl. Bot. Reg. t. 1869. STRANGWEYA, *Bertol. in Mem. Soc. Ital. Moden.* xxi. 2, *t.* 1. *Boiss. Fl. Or.* v. 309. FOXIA, *Parlat. Nuov. Gen. Monocot.* 17.

4. *Bellevallia*. Perianthii lobi tubo subæquales v. breviores, quam in præcedentibus minus patentes. Stamina ad faucem æqualiter affixa, filamentis plus minus complanatis integris. *Ten. Fl. Nap. t.* 135, 136, *Sibth. Fl. Græc. t.* 340. *Viv. Fl. Lib. t.* 7, *f.* 5. *Red. Lil. t.* 334. *Bot. Mag. t.* 939 (*Scilla*). *Bot. Reg. t.* 394, 1085 (*Muscari*). BELLEVALLIA, *Lapeyr. in Journ. Phys.* lxvii. 425, *t.* 1. *Reichb. Ic. Fl. Germ. t.* 458. *Kunth, Enum. Pl.* iv. 306. *Boiss. Fl. Or.* v. 300. BUSBEQUIA, *Salisb. Gen. Pl. Fragm.* 25.

5. *Peribœa*. Perianthii erecti lobi angusti, tubo æquilongi v. longiores. Stamina basi loborum affixa. Species 3, quarum 2 Africæ australis. *Jacq. Collect.* iii. *t.* 19, *f.* 2. *Andr. Bot. Rep. t.* 345. *Bot. Mag. t.* 991 (*Massonia postea sub t.* 1468 *ad Scillam translata*). PERIBŒA, *Kunth, Enum. Pl.* iv. 292. BÆOTERPE, *Salisb. Gen. Pl. Fragm.* 17. Huc etiam referrimus *H. ledebouroidem*, Baker in Journ. Linn. Soc. xi. 427, e regione Zambesiana.

131. **Puschkinia,** *Adams in Nov. Act. Acad. Petrop.* xiv.; *Hist. Acad.* 164. (Adamsia, *Willd. in Gesellsch. Naturf. Fr. Berlin Mag.* ii. 16.)—Perianthii tubus brevis, campanulatus; lobi 6, subæquales, tubo longiores, subrotato-patentes. Stamina 6, fauci affixa, filamentis alte complanatis dilatatis in cyathum lobatum connatis lobis ultra antheras in conum conniventibus v. connatis; antheræ intra cyathum omnino inclusæ, brevissime stipitatæ, dorsifixæ, loculis introrsum dehiscentibus. Ovarium sessile, 3-loculare; stylus brevis, columnaris, stigmate parvo capitato; ovula in loculis pauca (ad 6). Capsula membranacea, loculicide dehiscens. Semina obovoidea v. globosa, demum nigra, albumine duro.—Bulbus tunicatus. Folia radicalia, pauca, primum sæpe oblongum, cætera linearia. Scapus simplex, aphyllus. Flores pauci, cærulei, laxe racemosi, interdum in scapo solitarii. Bracteæ parvæ.

Species 2, Asiæ minoris, Caucasi et Affghanistaniæ incolæ. *Kunth, Enum. Pl.* iv. 337 (*excl. P. dubia* quæ *Hyacinthus spicatus*). *Baker in Journ. Linn. Soc.* xi. 434. *Lindl. Collect. t.* 24. *Bot. Mag. t.* 2244. *Regel, Gartenfl. t.* 310.

132. **Chionodoxa,** *Boiss. Diagn.* v. 61.—Perianthium deciduum, tubo breviter campanulato; lobi 6, subæquales, tubo longiores, subrecurvo-patentes. Stamina 6, fauci affixa, erecta, filamentis alternis v. omnibus petaloideo-dilatatis oblongis; antheræ longæ, ad apicem filamenti dorsifixæ, basi 2-fidæ, loculis introrsum dehiscentibus. Ovarium sessile, 3-loculare; stylus breviter columnaris nunc brevissimus, stigmate parvo v. capitato; ovula in loculis pauca (4–6). Capsula subglobosa, membranacea, loculicide dehiscens. Semina pauca, obovoidea v. globosa, bene matura non vidimus.—Bulbus tunicatus. Folia radicalia, pauca, linearia, longe vaginata. Scapus simplex, aphyllus. Flores pauci, cærulei, laxe racemosi, sæpe in scapo solitarii. Bracteæ parvæ.

Species 4, Orientales. *Baker in Journ. Linn. Soc.* xi. 435. *Boiss. Fl. Or.* v. 311. *Jaub. et Spach, Illustr. Pl. Or. t.* 443. *Bot. Mag. t.* 6433, 6453.

133. **Drimiopsis,** *Lindl. in Paxt. Fl. Gard.* ii. 73, *f.* 172.—Perianthium persistens; segmenta subæqualia, ima basi brevissime connata, concava v. fere cucullata, conniventia. Stamina 6, supra basin segmentorum affixa iisque breviora, filamentis complanato-dilatatis inter se distinctis triangularibus v. apice breviter nunc brevissime subulatis; antheræ ovatæ v. breviter oblongæ, dorsifixæ, loculis introrsum dehiscentibus. Ovarium sessile, 3-loculare; stylus breviter filiformis, stigmate parvo capitato; ovula in loculis 2, a basi ascendentia. Capsula brevis, obtusissime 3-dyma v. fere 3-loba (carnosula ?), loculicide dehiscens. Semina in loculis 1–2, obovoidea v. globosa, bene matura non vidimus.—Bulbus tunicatus, sæpe parvulus. Folia radicalia 2 rarius 3–4, oblonga, nunc basi in vaginam longe contracta, nunc distincte petiolata, sæpe maculata. Scapus simplex, aphyllus. Flores parvuli, in spica v. racemo denso rarius elongato subsessiles v. brevissime pedicellati. Bracteæ parvæ.

Species ad 6, Africæ australis et tropicæ incolæ. *Baker in Journ. Linn. Soc.* xiii. 226, *et in Saund. Ref. Bot. t.* 191, 192. *Bot. Mag. t.* 6276.
Genus *Scillæ* (*Ledebouriæ*) valde affine.

134. **Eucomis,** *Lhér. Sert. Angl.* 17, *t.* 18. (Basilæa, *Juss. Gen.* 52.)—Perianthium persistens; segmenta 6, subæqualia, patentia, ima basi brevissime connata. Stamina 6, prope basin segmentorum affixa iisque vix breviora, filamentis subulatis infra medium plus minus dilatatis inter se liberis; antheræ oblongæ v. oblongo-lineares, dorsifixæ, loculis introrsum dehiscentibus. Ovarium lata basi sessile, obtuse 3-gonum; stylus columnaris, integer v. 3-partibilis, stigmatibus parvis; ovula in loculis ∞, 2-seriata. Capsula depresso-globosa, 3-sulca 3-dyma v. 3-loba, membranacea, loculicide dehiscens. Semina haud numerosa, obovoidea, interdum compressiuscula nec angulata, testa appressa nigra v. castanea; embryo (in *E. punctata*) rectus, albumine duro vix brevior.—Bulbus tunicatus, sæpe majusculus. Folia radicalia, oblonga v. elongata. Scapus simplex, aphyllus,

crassiusculus, brevis v. elongatus. Flores in racemo denso v. elongato brevissime v. longiuscule pedicellati. Bracteæ sub pedicellis scariosæ v. subherbaceæ, breves ; summæ vacuæ, auctæ, herbaceæ v. coloratæ, comam terminalem formantes.

Species 4 v. 5, Africæ australis incolæ. *Kunth, Enum. Pl.* iv. 301 (*excl. E. bifolia*). *Baker in Journ. Linn. Soc.* xiii. 224. *Jacq. Hort. Schœnbr. t.* 92. *Red. Lil. t.* 175, 208. *Andr. Bot. Rep. t.* 369. *Bot. Mag. t.* 913, 1083, 1495, 1539. *Saund. Ref. Bot. t.* 238.

135. **Scilla,** *Linn. Gen. n.* 419 —Perianthium diu persistens ; segmenta subæqualia, distincta v. vix ima basi brevissime connata, patentia v. basi rarius altius campanulato-conniventia, 1-nervia. Stamina 6, basi v. infra medium segmentorum affixa iisque breviora v. rarius subæquilonga, filamentis filiformibus v. basi rarius alte complanatis integris; antheræ ovatæ v. oblongæ, dorsifixæ, loculis introrsum dehiscentibus. Ovarium sessile v. breviter stipitatum, 3-loculare ; stylus filiformis, brevis v. longiusculus, stigmate parvo capitato ; ovula in loculis 2 v. pauca, rarius 8–10, ascendentia. Capsula globosa 3-dyma v. 3-loba, perianthio marcescente cincta v. demum deliquescente denudata, membranacea, loculicide dehiscens. Semina in loculis 1–2 v. rarius plura, obovoidea v. subglobosa, interdum obscure angulata, non v. vix compressa, testa nigra appressa ; embryo albumine duriusculo dimidio v. parum brevior.—Bulbus tunicatus. Folia radicalia, linearia, lori-formia oblonga v. fere ovata. Scapus simplex, aphyllus. Flores parvi v. mediocres, racemosi, in pedicello articulati, cærulei rosei v. purpurascentes, racemo nunc elongato floribundo, nunc ad flores 2–3 reducto, interdum pedicellis confertis defloratis elongatis fere corymbiformi. Bracteæ parvæ.

Species fere 80, Europæ, Asiæ temperatæ et montanæ et Africæ extratropicæ v. tropicæ montanæ incolæ, cum specie una Chilensi. *Kunth, Enum. Pl.* iv. 314. *Baker in Journ. Linn. Soc.* xiii. 228, *et in Trans. Linn. Soc. Bot.* i. 248.

Genus a Bakero in sectiones tres quoad species plerasque bene distinctas divisum, quæ a pluribus botanicis pro generibus propriis habentur, sed intermediis nonnullis junctæ melius uti sectiones retinendæ videntur :—

1. *Euscilla.* Perianthii segmenta a basi patentia. Ovarium sessile v. vix brevissime stipitatum. Species (omnes ?) extratropicæ, in Africa australi paucæ, in regione Mediterranea numerosæ. *Red. Lil. t.* 130, 166, 167, 190, 205, 254, 298, 304, 317, 321. *Cav. Ic. t.* 274. *Andr. Bot. Rep. t.* 365. *Reichb. Ic. Fl. Germ. t.* 463 *ad* 465. *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 46. *Jacq. Fl. Austr. t.* 117, 218. *Waldst. et Kit. Pl. Rar. Hung. t.* 189. *Webb, Phytogr. Canar. t.* 230 *ad* 233. *Desf. Fl. Atl. t.* 85 *ad* 87. *Vis. Fl. Dalm. t.* 4. *Bot. Mag. t.* 341, 663, 746, 749, 919, 1025, 1140, 2408, 3023, 3211, 5308, 5379. *Bot. Reg. t.* 1355, 1878; 1839, *t.* 63. *Lodd. Bot. Cab. t.* 151, 1015, 1483. *Sweet, Brit. Fl. Gard. ser.* 2, *t.* 141. *Regel, Gartenfl. t.* 307. *Saund. Ref. Bot. t.* 179, 305.

Genera sequentia monotypica a variis auctoribus proposita omnia pro speciebus *Euscillæ* habenda sunt. Barnardia, *Lindl. Bot. Reg. t.* 1029. *Bot. Mag. t.* 3788 est *S. chinensis*, Benth., species Asiæ orientalis ovarii loculis 1-ovulatis. Somera, *Salisb. Gen. Pl. Fragm.* 26, est *S. italica*, Linn.; Prospero, *Salisb. l. c.* 28, est *S. autumnalis*, Linn., utraque ovarii loculis 2-ovulatis. Petranthe, *Salisb. l. c.* 27, est *S. verna*, Linn., ovarii loculis 4-ovulatis. Monocallis, *Salisb. l. c.* 27, est *S. monophylla*, Link, folio sæpius unico. Nectaroscilla, *Parlat. Nuov. Gen. Monocot.* 27, est *S. hyacinthoides*, Linn., ovario brevissime (sæpe inconspicue) stipitato, externe foris 3 nectarifluis instructo, quod etiam in aliis speciebus plus minus distincte observatur. Caloscilla, *Jord. et Fourr. Ic. Fl. Eur.* iii. 14, *t.* 245 *ad* 255 (Basaltogeton, *Salisb. Gen. Pl. Fragm.* 26), est *S. peruviana*, Linn., cum varietatibus præcipue hortensibus, species Mediterranea nec Peruviana, ovarii loculis ∞-ovulatis. Adenoscilla, *Gren. et Godr. Fl. Fr.* iii. 187 (Rinopodium, *Salisb. Gen. Pl. Fragm.* 28), est *S. bifolia*, Linn., seminum funiculo in strophiolum insigne incrassato. Othocallis, *Salisb. Gen. Pl. Fragm.* 28, includit *S. amœnam*, Linn., et *S. sibiricam*, Andr., species perianthio majore subcampanulato sect. *Endymio* accedentes. Stellaris, *Steinh. in Ann. Sc. Nat. ser.* 2, vi. 286, est *S. numidica*, Poir. (*S. parviflora*, Desf.), species ab *Euscillis* charactere nullo distincta. Stellaris, *Mœnch, Meth.* 303, est genus spurium e speciebus ad genera plura *Scillearum* pertinentibus compositum.

2. *Ledebouria.* Perianthii segmenta basi in cupulam conniventia, cæterum patentia v. recurva. Ovarium distincte (interdum brevissime) stipitatum, supra stipitem basi rotundatum v. fere in discum dilatatum. Species Indiæ orientalis, Africæ tropicæ et australis incolæ. *Jacq. Ic. Rar.*

t. 376 (*Drimia*), 402 (*Lachenalia*). *Red. Lil. t.* 59, *et Andr. Bot. Rep. t.* 299 (*Lachenalia*). *Wight, Ic. t.* 2041 (*Barnardia*). *Bot. Mag. t.* 643 (*Lachenalia*), 1380 (*Drimia*) *et* 5580. *Saund. Ref. Bot. t.* 18 *et* 19 (*Drimia*) *et t.* 181 *ad* 189. *Lodd. Bot. Cab. t.* 278 *et* 1041 (*Drimia*). LEDEBOURIA, *Roth, Nov. Pl. Sp.* 194. *Wight, Ic. t.* 2040. *Dcne. in Jacquem. Voy. Bot. t.* 171. *Bot. Mag. t.* 3226. ERATOBOTRYS, *Fenzl in Endl. Gen. Pl. Suppl.* ii. 13. XEODOLON *et* SUGILLARIA, *Salisb. Gen. Pl. Fragm.* 18. Huc etiam pertinere videtur *Ornithogalum? capitatum*, Hook. Bot. Mag. t. 5388, Bak. in Journ. Linn. Soc. xiii. 284.

3. *Endymion.* Perianthii segmenta alte in tubum v. campanulam conniventia, superne patentia. Species 2 Europæ occidentalis, ob formam perianthii olim *Hyacintho* ascriptæ, sed segmenta a basi libera *Scillæ*, et cum *Euscillis* arcte junguntur mediantibus *S. amœna* et *S. sibirica*. *Jacq. Ic. Rar. t.* 65. *Red. Lil. t.* 224, 435. *Bot. Mag. t.* 127 (128 in textu), 1102. ENDYMION, *Dumort. Fl. Belg.* 140. AGRAPHIS, *Link, Handb.* i. 166. *Reichb. Ic. Fl. Germ. t.* 461, 462. *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 45. HYLOMENES, *Salisb. Gen. Pl. Fragm.* 26. USTERIA, *Medic. in Ust. Ann.* ii. 11.

4.? *Hesperoscilla.* Huc referenda *Scilla biflora*, Ruiz et Pav. Fl. Per. et Chil. iii. 69, t. 302 (*Ornithogalum biflorum*, Don in Sweet, Brit. Fl. Gard. ser. 2, 246; *O. ochroleucum*, Lindl. Bot. Reg. t. 1853), species Chilensis, inter *Scillam* et *Ornithogalum* quodammodo ambigua, ab utroque genere differt *Antherico* accedens floribus sub quaque bractea sæpe geminis. Perianthii segmenta patentia, albida, medio 1-nervia et basi virescentia. Filamenta complanata, seriei exterioris hypogyna, seriei interioris segmentis basi adnata. Ovula in quoque loculo (in floribus examinatis) 3, superposita.

136. **Camassia,** *Lindl. Bot. Reg. t.* 1486. (Cyanotris, *Raf. in Amer. Monthl. Mag.* 1819, *ex Endl. Gen. Pl.* 145. Sitocodium, *Salisb. Gen. Pl. Fragm.* 27.)—Perianthium persistens; segmenta subæqualia, distincta, a basi patentia, tenuiter 3–∞-nervia. Stamina 6, ima basi v. prope basin segmentorum affixa iisque breviora, sæpe facile solubilia (v. interdum revera hypogyna?), filamentis filiformibus; antheræ oblongæ v. oblongo-lineares, dorsifixæ, loculis introrsum dehiscentibus. Ovarium sessile, 3-loculare; stylus filiformis, stigmate breviter 3-fido; ovula in loculis ∞. Capsula ovato-oblonga, obtusa, membranacea v. chartacea, loculicide dehiscens. Semina ∞, obovoidea, vix angulata, testa nigra appressa; embryo (in seminibus examinatis) albumine carnoso triente brevior.—Bulbus tunicatus, esculentus. Folia radicalia, linearia v. loriformia. Scapus simplex, aphyllus. Flores in racemo laxo in pedicello articulati, cærulei purpurascentes v. albidi. Bracteæ lineares, scariosæ.

Species 2, Americæ borealis incolæ. *Kunth, Enum. Pl.* iv. 346. *Baker in Journ. Linn. Soc.* xiii. 256. *S. Wats. in Proc. Amer. Acad.* xiv. 240. *Bot. Mag. t.* 1574 *et* 2774 (*Scilla*), 6287. *Fl. des Serres, t.* 275.

Genus a *Scilla* charactere nullo certo nisi perianthii nervis distinguendum. Stamina a Lindleyo, Torreyo et Bakero hypogyna dicuntur (sæpius in speciminibus siccis observata?) a Lemaireo in Fl. des Serres, segmentis affixa dicuntur, qualia etiam in Bot. Mag. t. 6287 delineata, et a nobis in speciminibus variis observata, in nonnullis pallidifloris Douglasianis a basi distantia, etsi sæpius ima basi affixa facillimeque solubilia. Perianthii segmenta variant in *C. Fraseri* 3-nervia, $\frac{1}{4}$–$\frac{1}{2}$-pollicaria, in *C. esculenta* 5–9-nervia, $\frac{3}{4}$–$1\frac{1}{4}$-pollicaria.

137. **Ornithogalum,** *Linn. Gen. n.* 418.—Perianthium persistens; segmenta subæqualia, distincta, per anthesin patentia, unicoloria v. dorso late viridi-vittata, obscure ∞-nervia. Stamina 6, sæpissime hypogyna, filamentis basi v. alte complanatis rarissime a basi filiformibus; antheræ oblongæ, dorsifixæ, loculis introrsum dehiscentibus. Ovarium sessile, 3-loculare; stylus nunc brevissimus v. breviter columnaris, nunc longius filiformis, stigmate capitato 3-sulco v. obscure 3-lobo; ovula in loculis ∞. Capsula globosa, 3-dyma v. 3-loba, nunc prominenter 6-costata, loculicide dehiscens. Semina ovoidea v. subglobosa, compressiuscula, nigra, testa appressa; embryo in albumine duriusculo brevis v. rarius dimidium albuminis superans.—Bulbus tunicatus. Folia radicalia, linearia v. loriformia. Scapus simplex, aphyllus. Racemus terminalis, nunc elongatus cylindraceus floribundus, nunc abbreviatus pedicellis inferioribus elongatis quasi corymbiformis. Bracteæ sub pedicellis scariosæ, angustæ, sæpius parvæ. Flores mediocres v. speciosi, segmentis margine v. undique albis flavidis v. miniatis nec cæruleis nec roseo-purpurascentibus.

Species ad 70, Europæ, Orientis, Africæ extratropicæ tam australis quam borealis incolæ, et in Africa tropica paucæ, una specie etiam in America extratropica inquilina. *Kunth, Enum. Pl.* iv. 349. *Baker in Journ. Linn. Soc.* xiii. 257, *et in Trans. Linn. Soc. Bot.* i. 248. *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 48. *Reichb. Ic. Fl. Germ. t.* 467 *ad* 472. *Boiss. Fl. Or.* v. 211.

Genus a *Scilla* evidenter bene distinctum etsi caracteribus certis difficillime limitandum, nec semper nisi florum colore distinguendum, a Bakero in sectiones sequentes vix semper bene definitas dividitur:—

1. *Heliocharmos* (*O. umbellatum*, Linn. et aff.). Racemi laxi, pedicellis inferioribus elongatis sæpe fere corymbiformes. Perianthii segmenta vittata, marginibus albis angustis. Filamenta sub-lanceolato-dilatata, subæqualia. Stylus filiformis. *Jacq. Ic. Rar. t.* 426; *Fl. Austr. t.* 343. *Red. Lil. t.* 143. *Jord. et Fourr. Ic. Fl. Eur. t.* 72 *ad* 79. *Moggr. Fl. Ment. t.* 67, 68. *Ten. Fl. Nap. t.* 33, 34, 220, 225, 226. *Sibth. Fl. Gr. t.* 333. *Labill. Ic. Pl. Syr. Dec.* v. *t.* 8. *Bot. Mag. t.* 3077. *Bot. Reg. t.* 555; 1838, *t.* 28; 1845, *t.* 21. *Sweet, Brit. Fl. Gard. ser.* 2, *t.* 42, 58, 111.

2. *Caruelia* (*O. arabicum*, Linn. et aff.). Inflorescentia fere *Heliocharmi*. Perianthii segmenta non vittata, alba flavida v. miniata. Filamenta seriei interioris v. interdum omnia basi breviter et latiuscule dilatata, interdum ibidem 2-cuspidata (in specie typica omnia angustius dilatata). Stylus brevissimus v. columnaris. *Jacq. Ic. Rar. t.* 435 *ad* 438; *Hort. Vind.* iii. *t.* 28; *Hort. Schœnbr. t.* 89. *Red. Lil. t.* 333, 439. *Brot. Phytogr. Lusit. t.* 48. *Ruiz et Pav. Fl. Per. et Chil. t.* 300. *Andr. Bot. Rep. t.* 505. *Bot. Mag. t.* 190, 653, 728, 1164, 3179. *Bot. Reg. t.* 305, 315, 906. *Saund. Ref. Bot. t.* 20. CARUELIA, *Parlat. Nov. Gen. et Sp. Monocot.* 21. MYANTHE, ASPASIA, et PHÆOCLES, *Salisb. Gen. Pl. Fragm.* 34, 35.

3. *Myogalum* (*O. nutans*, Linn.). Racemus quam in præcedentibus longior floribus majoribus. Perianthii segmenta vittata, margine alba. Filamenta alte dilatata, petaloidea, apice 3-cuspidata, cuspide medio antherifero. Stylus filiformis. *Jacq. Fl. Austr. t.* 301. *Moggr. Fl. Ment. t.* 38. *Bot. Mag. t.* 269. HONORIUS, *S. F. Gray, Brit. Fl. Pl.* ii. 177. MYOGALUM, *Link, Handb.* i. 163. ALBUCEA, *Reichb. Fl. Germ. Exc.* 109; *Ic. Fl. Germ. t.* 473; *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 49. BRIZOPHILE, *Salisb. Gen. Pl. Fragm.* 34.

4. *Beryllis* (*O. pyrenaicum*, Linn. et aff.). Racemus elongatus v. cylindraceus, floribus mediocribus v. parvulis. Perianthii segmenta vittata, margine alba rarius pallide fuscescentia. Filamenta integra, complanata v. filiformia. Stylus brevis. *Jacq. Ic. Rar. t.* 423, 425, 429; *Hort. Schœnbr. t.* 88, 90; *Hort. Vind.* iii. *t.* 29; *Fl. Austr. t.* 103. *Jacq. f. Ecl. t.* 20. *Red. Lil. t.* 120, 234, 312, 417, 422. *Waldst. et Kit. Pl. Rar. Hung. t.* 95 (*Anthericum*). *Bot. Mag. t.* 805, 972, 2510. *Bot. Reg. t.* 235, 316. *Saund. Ref. Bot. t.* 262. BERYLLIS *et* ARDERNIA, *Salisb. Gen. Pl. Fragm.* 33, 35.

5. *Osmyne* (*O. odoratum*, Ker). Perianthii segmenta margine flava v. virescentia. Cætera *Beryllidis*. *Jacq. Ic. Rar. t.* 430 *ad* 433; *Hort. Schœnbr. t.* 91. *Andr. Bot. Rep. t.* 260. *Bot. Mag. t.* 1329 (*Albuca*). *Bot. Reg. t.* 158. TÆNIOLA *et* OSMYNE, *Salisb. Gen. Pl. Fragm.* 35.

MONOTASSA, *Salisb. Gen. Pl. Fragm.* 36, est *O. secundum*, Jacq., a Bakero ad *Urgineam* translatum. Stamina tamen nobis hypogyna videntur et characteres omnes *Ornithogali* (*Osmynis*), nisi racemus pauciflorus secundus.

6. *Cathissa*. Racemus elongatus. Perianthii segmenta alba v. albida, non vittata, enervia v. tenuiter ∞-nervia. *Jacq. Ic. Rar. t.* 416 (*Anthericum*), 424, 427, 428, 434. *Red. Lil. t.* 418. *Andr. Bot. Rep. t.* 274. *Brot. Phytogr. Lusit. t.* 46. *Bot. Mag. t.* 876, 935, 953, 1134, 3538. *Bot. Reg. t.* 1978. *Lodd. Bot. Cab. t.* 1159. EUSTACHYS *et* CATHISSA, *Salisb. Gen. Pl. Fragm.* 33, 34.

O. biflorum, Don (*Scilla biflora*, R. et Pav.) melius ad *Scillam* restituendum videtur, etsi neutri generi bene convenit.

TRIBUS XIV. TULIPEÆ.

138. **Lilium**, *Linn. Gen. n.* 410.—Perianthium deciduum, infundibuliforme v. subcampanulatum; segmenta distincta, plus minus in unguem contracta, basi v. alte in tubum laxum conniventia v. erecto-patentia, a medio v. apice solo recurvo-patentia v. revoluta, unguibus basi sulco plus minus nectarifero sæpius præditis. Stamina 6, hypogyna, segmentis breviora, filamentis filiformibus v. leviter complanatis; antheræ lineares v. oblongo-lineares, dorsifixæ, versatiles, demum sæpe curvæ, loculis introrsum dehiscentibus. Ovarium sessile, angustum, 3-loculare; stylus elongatus, apice sæpius clavatus, stigmate crasso capitato 3-dymo v. rarius distincte 3-lobo; ovula in loculis numerosa. Capsula

oblonga, chartacea v. coriacea, loculicide dehiscens. Semina numerosa, plano-compressa, late obovata v. irregulariter orbiculata, brunnea v. pallida, testa membranacea appressa sæpe anguste marginata; embryo albumine carnoso parum v. multum brevior.—Bulbus varius, sæpius e squamis crassiuscule carnosis imbricatis v. confertis. Caules erecti, foliati, simplices v. rarius apice ramosi. Folia in sect. *Cardiocrino* petiolata, late cordato-ovata, in cæteris speciebus angusta v. rarius ovata, sessilia v. vix in petiolum contracta, sparsa v. subverticillata. Flores magni, speciosi, ad apicem caulis solitarii v. plures (pauci) laxe racemosi, racemo rarius subramoso, sæpius patentes v. penduli, rarius erecti.

Species ad 45, regionum temperatarum hemisphærii borealis incolæ. *Kunth, Enum. Pl.* iv. 256. *Baker in Journ. Linn. Soc.* xiv. 225. *Elwes, Monogr. Lil., folio, Londini* 1880, *cum tabb.* 48. *Red. Lil. t.* 7, 103 *ad* 105, 145, 146, 199, 210, 276, 301, 378, 395, 475. *Jacq. Fl. Austr. t.* 226, 351; *App. t.* 20. *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 40. *Reichb. Ic. Fl. Germ. t.* 451 *ad* 455. *Wall. Tent. Fl. Nep. t.* 29. *Wight, Ic. t.* 2031 *ad* 2035. *Kl. in Pr. Waldem. Reise, Bot. t.* 93. *Sieb. et Zucc. Fl. Jap. t.* 12, 13, 42. *Bot. Mag. t.* 36, 259, 278, 519, 800, 858, 872, 893, 936, 971, 1018, 1237, 1405, 1591, 1634, 2280, 3785, 4561, 4731 (*Fritillaria*), 5338, 5673, 6005, 6058, 6126, 6146, 6250, 6332, 6630. *Bot. Reg. t.* 560, 580, 594, 2000; 1839, *t.* 38; 1843, *t.* 11; 1846, *t.* 50. *Sweet, Brit. Fl. Gard. ser.* 2, *t.* 185, 367. MARTAGON, *Salisb. Gen. Pl. Fragm.* 56.

Genus ad Endlichero et Kunthio in sectiones 4, a Bakero in subgenera 5 divisum, imprimis ad perianthii formas, certe in speciebus diversis valde diversas sed vix in catervas distinctas ordinandas. Elwes in monographia sua eximia *Cardiocrinum* solum pro sectione retinuit, speciem elatam, foliis petiolatis ample cordato-ovatis, *L. cordifolium*, Thunb., et *L. giganteum*, Wall., includentem. *Elw. Monogr. t.* 1, 2. *Wall. Tent. Fl. Nep. t.* 12, 13. *Sieb. et Zucc. Fl. Jap. t.* 13, 14. *Bot. Mag. t.* 4673, 6337. Species cæteræ iconibus supra citatis illustratæ ad *Eulirium* pertinent, foliis angustis v. basi contractis.

L. Thomsonianum, Lindl. Bot. Reg. 1845, t. 1; Royle, Ill. Pl. Himal. t. 92 (*L. roseum*, Wall.; Bot. Mag. t. 4725, *L. longifolium*, Griff. Ic. Pl. As. t. 277), et *L. Hookeri*, Baker, species Himalaicæ, sectionem *Notholirion*, Wall. (genus NOTHOLIRION, *Boiss Fl. Or.* v. 190) formant, a Bakero serius ad *Fritillariam* translatam et ab Elwesio a *Lilio* exclusum ob bulbum angustum esquamatum tunicis paucis laxis obtectum. Characteres florales tamen omnino *Lilii* nec *Fritillariæ*, et melius sectionem tertiam generis prioris formare videntur, cum *Fritillaria Gardneriana*, Baker, et *Lilio polyphyllo*, Don, Elwes Monogr. t. 48, quæ omnes Himalayæ incolæ.

139. **Fritillaria,** *Linn. Gen. n.* 411.—Perianthium deciduum, campanulatum; segmenta subæqualia, oblonga v. fere ovata, erecta, superne conniventia v. breviter patentia, facie supra basin fovea v. macula sæpius nectarifera instructa. Stamina 6, hypogyna v. vix basi segmentis adhærentia, filamentis filiformibus v. leviter complanatis; antheræ lineares v. oblongæ, erectæ, in speciebus normalibus basi (interdum intrusa) v. inter lobos basales affixæ, loculis a latere dehiscentibus. Ovarium sessile v. subsessile, 3-locularis; stylus filiformis v. columnaris, lobis 3 introrsum stigmatosis nunc longiusculis patentibus nunc erectis conniventibus v. omnino connatis; ovula in loculis numerosa. Capsula obovoidea v. subglobosa, obtusangula v. angulis 6 prominentibus acutis interdum fere in alas productis, loculicide dehiscens. Semina numerosa, plano-compressa, late obovata v. irregulariter orbiculata, brunnea v. pallida, testa membranacea appressa circumcirca in marginem v. alam angustam producta; embryo in speciebus normalibus prope hilum minimus obovoideus, albumine cartilagineo inclusus.—Bulbus varius, sæpius parvulus, squamis carnosis paucis, tunicis haud raro mox deliquescentibus. Caulis simplex, foliatus. Folia nunc pauca, sparsa, nunc subverticillata; floralia sub quoque pedicello 1–2. Flores speciosi, quam in *Lilio* tamen sæpius minores, nutantes v. penduli, nunc solitarii v. 2 parum distantes, nunc plures laxe racemosi v. ad apicem caulis cum foliis floralibus comosis conferti, sub foliis penduli quasi verticillati.

Species enumeratæ ultra 50, regionum temperatarum hemisphærii borealis incolæ, nonnullæ tamen reducendæ et vix 40 rite distinguendæ. *Kunth, Enum. Pl.* iv. 246. *Baker in Journ. Linn. Soc.* xiv. 251. *Gærtn. Fruct. t.* 17. *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 39. *Boiss. Fl. Or.* v. 176.

Genus pro maxima parte naturale, a *Lilio* facillime distinguendum perianthii forma, antheris erectis nec versatilibus, et (tanquam notum) embryone minimo; species tamen nonnullæ infra sub

Liliorhiza notatæ inter hæc genera ambiguæ. Baker subgenera 10 distinxit, characteres tamen nonnullæ e forma foveolorum sumpti valde incerti sunt; et sectiones 5 tantum sequentes melius definitæ videntur :—

1. *Eufritillaria.* Caulis 1-florus, rarius laxe 2–3-florus. Antheræ lineares, rectæ, basifixæ. Styli rami stigmatosi plus minus patentes. Species omnes gerontogeæ, a Bakero in subgeneribus *Eufritillaria*, *Monocodone*, et *Goniocarpa* inclusæ. *Planch. in Bull. Soc. Bot. Fr.* xx. 96. *Jacq. Fl. Austr. App. t.* 32. *Red. Lil. t.* 222. *Reichb. Ic. Fl. Germ. t.* 442 *ad* 445. *Moggr. Fl. Ment. t.* 25, 36, 66. *Sibth. Fl. Gr. t.* 328. *Ledeb. Ic. Fl. Ross. t.* 2, 130. *Jaub. et Spach, Ill. Pl. Or. t.* 500. *Royle, Ill. Bot. Himal. t.* 92, *f.* 2. *Kl. in Pr. Waldem. Reise, Bot. t.* 92. *Hook. Ic. Pl. t.* 860. *Bot. Mag. t.* 664, 853, 952, 1207, 1216, 1538, 3083, 3280, 5052. *Sweet, Brit. Fl. Gard. ser.* 2, *t.* 343. *Regel, Gartenfl. t.* 209.

MONOCODON, *Salisb. Gen. Pl. Fragm.* 56, genus propositum fuit ad *F. pyrenaicam*, Linn., foveola nectarifera quam in *F. meleagri* multo latiore.

2. *Petilium.* Folia floralia plurima, in comam terminalem conferta, floribus sub coma pendulis quasi verticillatis. Species unica, regionis Mediterraneæ, characteribus floralibus omnino *Eufritillariæ*, nec longe a *F. pallidiflora*, Schrenck, distat; flores in hac interdum 3–4 cum foliis floralibus ad apicem caulis haud distantes. Capsulæ anguli acuti in *F. dagana*, Turcz., aliisque observantur. *Red. Lil. t.* 131. *Bot. Mag. t.* 124, 1215. PETILIUM, *Linn. Hort. Cliff.* 119. *Kunth, Enum. Pl.* iv. 245. IMPERIALIS, *Juss. Gen.* 49.

3. *Theresia.* Flores sæpius plures, racemosi, quam in *Eufritillaria* vulgo minores. Antheræ erectæ *Eufritillariæ*, sæpius tamen multo breviores. Stylus apice subinteger v. lobis brevissimis erectis. Species paucæ, Orientales; *Red. Lil. t.* 67. *Jaub. et Spach, Ill. Pl. Or. t.* 499. *Bot. Mag. t.* 857, 962, 1537. THERESIA, *C. Koch in Linnæa*, xxii. 232. TOZZETTIA, *Parlat. Nuov. Gen. e Sp. Monocot.* 11. LYPERIA, *Salisb. Gen. Pl. Fragm.* 56. Genus prius ad *F. persicam*, Linn., propositum, serius a Klattio in Hamb. Gart. Zeit. xvi. 438 ad species omnes *Fritillariæ* extensum quibus stigma indivisum v. vix brevissime 3-lobum.

RHINOPETALUM, *Fisch. ex Alexand. in Edinb. N. Phil. Journ.* viii. 19; *Don in Sweet, Brit. Fl. Gard. ser.* 2, *t.* 283. *Regel, Fl. Turkest. t.* 22, est *F. Karelini*, Baker, species humilis, *F. persicæ* affinis, foveolis perianthii præsertim segmentorum exteriorum profundis extus gibbum valde prominentem formantibus.

4. *Amblirion.* Caulis sæpius 1-florus *Eufritillariæ*, stigma indivisum *Theresiæ*. Antheræ juxta basin inter lobos dorsifixæ, sed erectæ, mox revolutæ, nec versatiles. Species unica, boreali-Americana, *F. pudica*, Spr.; Pursh. Fl. Amer. Sept. i. t. 8 (*Lilium*). AMBLIRION, *Raf. in Journ. Phys.* lxxxix. 102. Species gerontogeæ a Bakero sub sect. *Amblirio* enumeratæ ad *Theresiam* pertinent.

5.? *Liliorhiza.* Species boreali-Americanæ v. Asiaticæ, *Lilium* inter et *Fritillariam* ambiguæ. Bulbus sæpe multisquamosus et antheræ dorsifixæ versatiles *Lilii*, stylus apice sæpius breviter 3-fidus *Eufritillariæ*, habitus et perianthium intermedia, et species ab aliis *Lilio* ab aliis *Fritillariæ* relatæ. Semina perfecta in sola *F. camtschatcense*, Ker (*Lilio camtschatcense* Linn.) observavimus, ubi embryonem vidimus quam in *Fritillariis* typicis longiorem vix tamen quartam partem albuminis excedentem. *Lamb. in Trans. Linn. Soc.* x. *t.* 11. *Hook. Fl. Bor. Amer. t.* 193. *Torr. Bot. Emory Exped. t.* 61. LILIORHIZA, *Kell. Proc. Calif. Acad.* ii. 46, *fig.* 1. Huc etiam referendæ KOROLKOWIA, *Reg. Gartenfl.* 1873, 161, *t.* 760 (prius *Fritillaria Sewerzowii*, Reg.), perianthii segmentis a medio ut in pluribus *Liliis* revolutis, et antheris versatilibus, sed flores quam in *Lilio* minores virescentes.

De sectione *Notholirio*, Baker, cfr. supra sub *Lilio*.

140. **Tulipa**, *Linn. Gen. n.* 415.—Perianthium deciduum, campanulatum v. subinfundibuliforme; segmenta distincta, erecta v. erecto-patentia, subæqualia, prope basin intus sæpe maculata nec foveolata. Stamina 6, hypogyna, perianthio breviora, filamentis plus minus complanatis apice attenuatis v. breviter filiformibus; antheræ oblongo-lineares, erectæ, basi intrusa affixæ, loculis a latere dehiscentibus. Ovarium sessile v. subsessile, oblongum, sæpe angustum, apice in stylum brevissimum v. vix ullum rarius longiusculum contractum; stigmatibus terminalibus adnatis parvis v. magnis recurvisque; ovula in loculis numerosa. Capsula oblonga v. rarius subglobosa, loculicide dehiscens. Semina numerosa, plano-compressa, late obovata v. irregulariter orbiculata, brunnea v. pallida, testa membranacea appressa circumcirca marginata v. angustissime alata; embryo in

albumine carnoso parvus v. albumine vix brevior.—Bulbus tunicatus, tunicis interdum introrsum lanatis. Caulis simplex, paucifoliatus, 1-florus v. rarius 2–3-florus. Folia linearia v. latiuscula. Flores erecti v. rarissime nutantes, speciosi.

Species enumeratæ fere 50, Europæ, Africæ borealis, Asiæ occidentalis et centralis incolæ, usque ad Japoniam extensæ. *Kunth, Enum. Pl.* iv. 219. *Regel in Act. Hort. Petrop.* ii. 437. *Baker in Journ. Linn. Soc.* xiv. 275. *Boiss. Fl. Or.* v. 191. *Red. Lil. t.* 37, 38, 111, 165, 219, 445, 477, 478. *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 36. *Reichb. Ic. Fl. Germ. t.* 446 *ad* 450. *Jord. et Fourr. Ic. Fl. Eur. t.* 16 *ad* 20. *Moggr. Fl. Ment. t.* 24. *Ten. Fl. Nap. t.* 32. *Sibth. Fl. Græc. t.* 329, 330. *Ledeb. Ic. Fl. Ross. t.* 85, 134, 135. *Reg. Fl. Turkest. t.* 21, 22. *Bot. Mag. t.* 717, 839, 1135, 1202, 1390, 2388, 2762, 3887, 6177, 6191, 6242, 6304, 6308, 6310, 6374, 6439, 6459, 6518, 6635, 6639. *Bot. Reg. t.* 127, 204, 380, 535, 1106, 1143, 1419, 1990; 1838, *t.* 46; 1839, *t.* 66. *Sweet, Brit. Fl. Gard. t.* 78, 157, 186; *ser.* 2, *t.* 97, 102, 116, 153.

ORITHYIA, *Don in Sweet, Brit. Fl. Gard. ser.* 2, *t.* 336, *Kunth, Enum. Pl.* iv. 226, genus propositum fuit ad *Ornithogalum uniflorum*, Linn., speciesque paucas affines, scapo sæpe 2–3-floro et ovario distinctius in stylum brevem attenuato, sed character male definitus, et genus rite a Bakero aliisque ad *Tulipam* reducitur. *T. biflora*, Linn., a Kunthio in *Orithya* inclusa, cujus habitum præbet, ovario non producto *Tulipis* veris accedit.

141. **Erythronium,** *Linn. Gen. n.* 414.—Perianthium deciduum; segmenta distincta, angusta, basi in tubum conniventia, a medio v. fere a basi recurva v. reflexa, juxta basin sæpe 2-callosa v. 2-auriculata. Stamina 6, hypogyna v. vix basi segmentis adnata, erecta, perianthio breviora, filamentis leviter complanatis apice breviter subulatis; antheræ oblongo-lineares, erectæ, basi intrusa affixæ, loculis a latere dehiscentibus. Ovarium sessile, 3-loculare; stylus filiformis v. superne clavatus, stigmatibus brevibus, rarius in lobos longiores introrsum stigmatosos divisus; ovula in loculis numerosa. Capsula subgloboso-3-quetra v. longe oblonga, membranacea v. chartacea, loculicide dehiscens. Semina in *E. Dens-canis* numerosa, oblonga, leviter compressa, brunnea v. pallida, apice in appendicem recurvam longe caudatam producta; in *E. purpurascente*, S. Wats., multo latiora, magis compressa, vix v. non appendiculata, in cæteris speciebus ignota; embryo, ubi notus, prope hilum minimus v. quartam partem albuminis carnosi attingens.—Cormus tunicatus. Caulis simplex, infra medium 2-foliatus, foliis petiolatis ovatis v. angustis. Flores nutantes, solitarii v. 2–∞ laxissime racemosi, longe pedicellati, ebracteati.

Species 7, quarum una per Europam et Asiam Rossicam usque ad Japoniam dispersa, cæteræ Americæ borealis incolæ. *Kunth, Enum. Pl.* iv. 216. *Baker in Journ. Linn. Soc.* xiv. 296. *S. Wats. in Proc. Amer. Acad.* xiv. 260. *Red. Lil. t.* 194. *Jacq. Fl. Austr. App. t.* 9. *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 35. *Reichb. Ic. Fl. Germ. t.* 441. *Bot. Mag. t.* 5, 1113, 5714. *Bot. Reg. t.* 1786. *Sweet, Brit. Fl. Gard. ser.* 2, *t.* 71, 76.

142. **Gagea,** *Salisb. in Kœn. et Sims, Ann. Bot.* ii. 555. (Ornithoxanthum, *Link, Handb.* i. 161.)—Perianthium persistens; segmenta distincta, subæqualia, patentia, 3–5-nervia, non foveolata. Stamina 6, ima basi segmentorum affixa v. fere hypogyna, perianthio breviora, filamentis filiformibus v. inferne leviter complanatis, antheræ ovatæ v. oblongæ, erectæ, basi intrusa affixæ, loculis a latere dehiscentibus. Ovarium sessile v. rarius breviter stipitatum, obovoideum v. oblongum, 3-quetrum v. sub-3-lobum, 3-loculare; stylus columnaris v. fere subulatus, stigmate vix latiore; ovula in loculis ∞, interdum numerosa. Capsula membranacea, perianthii segmentis stipata, 3-quetra v. 3-loba, loculicide dehiscens. Semina nunc abortu pauca obovoideo-oblonga vix compressa, nunc numerosa angulato-compressa v. fere plana, testa fusca v. pallida appressa; embryo albumine carnoso sæpius dimidio saltem brevior.—Bulbus parvulus. Caulis sæpius humilis, apice laxe pauciflorus. Folium radicale sæpius unicum, rarius 2–3, additis interdum 1–3 caulinis infra inflorescentiam. Pedicelli longiusculi, ad apicem caulis sparsi dissiti v. fere in umbellam irregularem conferti. Bracteæ sub pedicellis foliaceæ, infima sæpe lanceolata, cæteræ minores lineares, nunc omnes parvæ v. inferior longiuscula. Perianthii segmenta margine sæpissime flava, interdum albida, rarissime pallide rosea, medio sæpius intensius colorata, extus haud raro viridi-fusca.

Species ad 20, Europæ, Africæ borealis, et Asiæ temperatæ v. montanæ incolæ. *Kunth, Enum. Pl.* iv. 233. *Regel in Act. Hort. Petr.* iii. 289; *Fl. Turkest. t.* 17 *ad* 20. *Red. Lil. t.* 221, 242, 302. *Nees, Gen. Fl. Germ. Monocot.* ii, *n.* 37. *Reichb. Ic. Fl. Germ. t.* 474 *ad* 481. *Coss. et Dur. Expl. Alg. t.* 45 *bis. Sibth. Fl. Græc. t.* 331, 332, *et t.* 336 (*Anthericum*). *Labill. Pl. Syr. Dec.* v. *t.* 8, 9 (*Anthericum*). *Ledeb. Ic. Fl. Ross. t.* 379, 392. *Royle, Ill. Bot. Himal. t.* 95 *et t.* 93, *f.* 3 (*Lloydia*). *Bot. Mag. t.* 1200. *Lodd. Bot. Cab. t.* 1209. *Sweet, Brit. Fl. Gard. t.* 158, 177; *ser.* 2, *t.* 29. (*Ic. plur. sub Ornithogalo.*)

Genus *Lloydiæ* valde affine et *G. triflora*, Schult., et *G. rubro-viridis*, Ledeb., a Bakero in Journ. Linn. Soc. xiv. 300 ad *Lloydiam* transferuntur ob perianthii segmenta margine albida v. ex icone Ledebourii pallide rosea nec flava, sed foveolis *Lloydiæ* carent et melius in *Gagea* retinendæ. Eadem ratione ad *Gageam* referrimus *Anthericum græcum*, Linn., cui rite refert Baker *Lloydiam creticam*, Boiss., speciem cæterum insignem stylo abbreviato. In pluribus speciebus *Gageæ* segmenta vix flavicant.

Hornungia, Bernh. in Flora, 1840, 392, est *G. reticulata*, Rœm. et Schult., cui capsula elongata, seminibus numerosissimis pressione fere planis.

Bulbillaria, *Zucc. in Abhandl. Akad. Wiss. Mœnch.* iii. 229, *t.* 2, est *G. amblyopetala*, var. *bulbifera*, Boiss. (*G. thesioides*, C. A. Mey.) species vix a *G. persica*, Boiss., distincta.

143. **Lloydia,** *Salisb. in Trans. Hort. Soc. Lond.* i. 328, *absque char.*; *Reichb. Fl. Germ. Exc.* 102. (Nectarobothrium, *Ledeb. Fl. Alt.* ii. 36. Rhabdocrinum, *Reichb. Consp. Reg. Veg.* 65.)—Perianthium persistens; segmenta distincta, subæqualia, demum patentia, 3–5-nervia, basi intus plica transversali et foveola (nectarifera?) plus minus distincta instructa. Stamina 6, ima basi segmentorum affixa v. fere hypogyna, perianthio breviora, filamentis filiformibus v. inferne leviter complanatis; antheræ ovatæ v. oblongæ, erectæ, basi intrusa affixæ, loculis a latere dehiscentibus. Ovarium sessile, 3-quetrum, 3-loculare; stylus columnaris, stigmate parum incrassato vix 3-dymo; ovula in loculis ∞. Capsula subgloboso-3-quetra, membranacea, perianthii segmentis stipata, loculicide dehiscens. Semina angulato-compressa, testa appressa brunnea v. pallida, angulo interiore interdum anguste alata; embryo albumine carnoso 3–4-plo brevior.—Bulbus angustus. Caulis humilis, gracilis, apice 1–2-florus. Folia radicalia 1–3, linearia, caulina pauca, minora. Flores albidi v. flavi, pedicellati. Bracteæ parvæ, lineares.

Species 2, quarum una montium Europæ, Asiæ mediæ et borealis et Americæ borealis incola, altera ad Himalayam limitata. *Kunth, Enum. Pl.* iv. 243. *Baker in Journ. Linn. Soc.* xiv. 299 (*quoad subgenus Eulloydiam*). *Red. Lil. t.* 270 (*Phalangium*, segmentorum foveolis non delineatis). *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 38. *Reichb. Ic. Fl. Germ. t.* 440. *Royle, Ill. Bot. Himal. t.* 93, *f.* 2. *Hook. Ic. Pl. t.* 834.

Subgenus *Gageopsis*, Baker in Journ. Linn. Soc. xiv. 300, nobis ad *Gageam* ipsam referendum videtur.

144. **Calochortus,** *Pursh, Fl. Bor. Amer.* i. 240. (Cyclobothra, *Don in Sweet, Brit. Fl. Gard. t.* 273, *et ser.* 2, *t.* 20.)—Perianthium deciduum; segmenta distincta, subgloboso-conniventia v. patentia, exteriora sæpius angusta, subcalycina, plus minus virentia, rarius interioribus similia nisi minora minus distincte v. non foveolata; interiora petaloidea, facie sæpe barbata et prope basin foveola nectarifera v. macula vix concava instructa. Stamina 6, hypogyna v. ima basi segmentis leviter adhærentia, erecta, filamentis brevibus subulatis; antheræ oblongæ v. lineares, erectæ, basi longe intrusa affixæ, loculis a latere dehiscentibus. Ovarium sessile, 3-loculare, apice vix in stylum brevissimum contractum, stigmatibus terminalibus adnatis; ovula in loculis numerosa. Capsula oblonga, nunc elongata, 3-quetra, angulis acutis obtusis v. subcalloso-marginatis, septicide dehiscens v. fere in carpella 3 secedens, valvis transverse lineatis interdum apice demum 2-fidis. Semina numerosa, plano-compressa, sæpe margine crassiusculo v. angustissime alæformi cincta, v. apice in appendicem cellulosam producta, testa pallida nunc membranacea appressa, nunc laxe cellulosa; embryo albumine carnoso parum v. multum brevior.—Bulbus tunicatus. Caulis paucifoliatus, sæpe ramosus pauciflorus. Folia angusta. Flores longe pedicellati, speciosi, erecti v. penduli, flavi cærulescentes purpurascentes v. albi.

Species enumerat Baker 21, S. Watson 32, Americæ borealis imprimis occidentalis usque ad Mexicum incolas. *Baker in Journ. Linn. Soc.* xiv. 302. *S. Wats. in Proc. Amer. Acad.* xiv. 262. *H. B. et K. Nov. Gen. et Sp. t.* 677 (*Fritillaria*). *Hook. et Arn. Bot. Beech. Voy. t.* 94. *Dougl. in Trans. Hort. Soc. Lond.* vii. *t.* 9. *Benth. in Trans. Hort. Soc. Lond. ser.* 2, i. *t.* 14 (*Cyclobothra*). *Bot. Mag. t.* 5804, 5862, 5976, 6200, 6475, 6527. *Bot. Reg. t.* 1152, 1567, 1669, 1676, *et sub Cyclobothra, t.* 1661, 1662, 1663. *Maund, Botanist, t.* 30, 98, 170.

Genus a Donio et a Lindleyo olim in duo divisum, a Bakero in subgenera 4, a S. Watsonio in sectiones 3, imprimis ad perianthium magis minusve apertum, segmentis interioribus exterioribusque magis minusve dissimilibus foveolatis maculatisve, fructu erecto v. nutante, aliisque characteribus in speciebus nonnullis distinctissimis, in aliis male definitis v. varie collatis.

TRIBUS XV. COLCHICEÆ.

145. **Colchicum,** *Linn. Gen. n.* 457.—Perianthium infundibuliforme, tubo longo tenui; lobi subæquales, oblongi, erecto-patentes. Stamina 6, ad basin loborum affixa iisque breviora, filamentis filiformibus; antheræ lineares v. oblongæ, dorsifixæ, versatiles, loculis introrsum dehiscentibus. Ovarium sessile, 3-loculare; styli longi, filiformes, a basi distincti, medio interdum leviter cohærentes, apice parum incrassati, breviter recurvo-patentes introrsumque stigmatosi; ovula in loculis numerosa. Capsula ovoidea, 3-sulca, chartacea, superne septicide dehiscens. Semina numerosa, subglobosa, opaca, brunnea v. fusca, testa appressa crassiuscula; embryo in albumine duro parvus, ab hilo plus minus distans.—Cormus hypogæus, tunicatus. Folia radicalia, coætanea v. sæpius serotina, oblonga loriformia v. linearia. Scapus intra vaginas hypogæas brevissimus, 1–3-rarius ∞-florus. Flores speciosi, lilacini v. rarius flavi.

Species ad 30, Europæ, Asiæ occidentalis et centralis et Africæ borealis incolæ. *Kunth, Enum. Pl.* iv. 138. *Baker in Journ. Linn. Soc.* xvii. 423. *Boiss. Fl. Or.* v. 155. *Red. Lil. t.* 228, 238. *Reichb. Ic. Fl. Germ. t.* 424 *ad* 427. *Nees, Gen. Fl. Germ. Monocot.* 11, *n.* 34. *Waldst. et Kit. Pl. Rar. Hung. t.* 179. *Graells, Ramill. Pl. Esp. t.* 9. *All. Fl. Pedem. t.* 74. *Ten. Fl. Nap. t.* 221. *Vis. Stirp. Dalm. t.* 6. *Sibth. Fl. Græc. t.* 350. *Stev. in Mem. Soc. Imp. Nat. Mosc.* vii. *t.* 13 *ad* 16. *Bot. Mag. t.* 1028, 1122, 2673, 6078, 6090, 6153. *Bot. Reg. t.* 541.

Antheræ dorso affixæ introrsum dehiscentes rite a Neesio, Decaisneo et Le Maoutio aliisque descriptæ, a Kunthio tamen auctoribusque pluribus introrsum affixæ extrorsum dehiscentes dicuntur.

FOUHA, *Pomel, Mat. Fl. Atl.* 2, est *C. montanum*, Linn., cui perianthii limbus quam in plerisque speciebus brevior est. MONOCARYUM, *Br. in App. Voy. Denh. et Clapp.* 243, sectio pro genere admissa in *Schult. Syst.* vii. 1135, ad specimen Russellianum *Hypoxidis fascicularis*, Linn., proposita, a Bakero ut videtur rite ad *C. montani*, Linn., formam reducitur, pistillo casu ad carpellum unicum reducto. PALUDARIA, *Salisb. Gen. Pl. Fragm.* 53, ad plantam Africanam descripta, cum synonymo eodem *Hypoxidis fascicularis*, est *C. montanum* normale, ovario 3-loculari, male descriptum.

Genera tria sequentia, *Synsiphon*, *Bulbocodium* et *Merendera*, forte melius ad sectiones *Colchici* reducenda.

146. **Synsiphon,** *Regel in Act. Hort. Petrop.* vi. 490.—Perianthium infundibuliforme, tubo longo tenui; lobi subæquales, erecto-patentes. Stamina 6, fauci affixa, filamentis brevibus linearibus planis; antheræ lineares, erectæ, basi sagittatæ. Ovarium supra basin in perianthii tubo nidulans, 3-loculare; stylus longissimus, exsertus, ad faucem 3-partitus, ramis filiformibus stigmate capitato terminatis; ovula in loculis ∞. Capsula . . .—Bulbus seu cormus tunicatus. Folia radicalia subcoætanea, linearia. Flos breviter pedunculatus, basi e bulbo paullo exsertus. (*Char. ex Regelio.*)

Species 1, Asiæ centralis incola, a nobis non visa, a *Colchico* differre dicitur stylis alte connatis, a *Bulbocodio* perianthii tubo indiviso.

147. **Bulbocodium,** *Linn. Gen. n.* 407.—Perianthium infundibuliforme; segmenta a basi distincta, unguibus longis erectis in tubum tenuem conniventibus, laminis anguste

oblongis subæqualibus erecto-patentibus. Stamina 6, ad basin laminarum affixa iisque breviora, filamentis filiformibus; antheræ lineares, basi alte 2-lobæ, dorsifixæ, versatiles, loculis introrsum dehiscentibus. Ovarium sessile, 3-loculare; stylus longus, filiformis, apice 3-fidus, ramis filiformibus superne parum incrassatis erectis apice introrsum stigmatosis; ovula in loculis numerosa. Capsula anguste ovoidea, 3-quetra, chartacea, septicide dehiscens. Semina numerosa, subglobosa, opaca, brunnea, testa appressa crassiuscula; embryo in albumine duro parvus, ab hilo plus minus distans.—Cormus hypogæus, tunicatus. Folia radicalia, coætanea, linearia. Scapus intra vaginas hypogæas brevissimus, 1–3-florus. Flores speciosi, iis *Colchici* similes.

Species 1, montium Europæ et Rossiæ Asiaticæ meridionalis incola. *Baker in Journ. Linn. Soc.* xvii. 456. *Red. Lil. t.* 197. *Reichb. Ic. Fl. Germ. t.* 428. *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 33. *Bot. Mag. t.* 153. *Bot. Reg. t.* 571 (*Colchicum*).

Genus cum sequente a *Colchico* parum distinctum.

148. **Merendera,** *Ram. in Bull. Soc. Philom. Par.* 1798. (Geophila, *Bergeret, Fl. B. Pyr.* ii. 184, *ex Endl.*)—Perianthium infundibuliforme; segmenta a basi distincta, unguibus longis erectis in tubum tenuem conniventibus, laminis anguste oblongis subæqualibus erecto-patentibus. Stamina 6, ad basin laminarum affixa iisque breviora, filamentis filiformibus; antheræ oblongæ v. lineares, basi breviter v. alte 2-lobæ, loculis introrsum dehiscentibus, valvis demum recurvis. Ovarium sessile, 3-loculare; styli 3, filiformes, longi, apice minute stigmatosi; ovula in loculis numerosa. Capsula obovoidea, 3-sulca, fere 3-loba, chartacea, septicide dehiscens. Semina numerosa, subglobosa, opaca, brunnea, testa appressa crassiuscula; embryo in albumine duro parvus, ab hilo plus minus distans. —Cormus hypogæus, tunicatus. Folia radicalia, coætanea, linearia. Scapus intra vaginas inclusus v. post anthesin breviter exsertus, 1–3-florus. Flores speciosi, iis *Colchici* similes.

Species 10, regionis Mediterraneæ incolæ, usque ad Abyssiniam et Affghanistan extensæ. *Kunth, Enum. Pl.* iv. 148. *Boiss. Fl. Or.* v. 167. *Baker in Journ. Linn. Soc.* xvii. 437, ubi in series 2 facile pro sectionibus habendas distribuuntur: 1. Antheræ oblongæ, medio dorso affixæ, versatiles. *Bieb. Cent. Pl. Ross. t.* 50. *Bot. Mag. t.* 3690. *Regel, Gartenfl. t.* 952 (*Bulbocodium*), 1057. 2. Antheræ longe lineares, juxta basin affixæ, suberectæ, demum leviter recurvæ. *Red. Lil. t.* 25. *Brot. Phytogr. Lusit. t.* 50 (*Colchicum*). *Bot. Mag. t.* 6012.

TRIBUS XVI. ANGUILLARIEÆ.

149. **Burchardia,** *R. Br. Prod.* 272.—Perianthium explanatum, deciduum; segmenta distincta, subæqualia, primum basi circa filamentum conduplicata, sub anthesi plana, patentia. Stamina 6, ima basi segmentorum affixa iisque breviora, filamentis basi complanatis superne filiformibus; antheræ oblongæ, prope basin introrsum affixæ, versatiles, loculis a latere subextrorsum dehiscentibus. Ovarium sessile, prominenter 3-quetrum, 3-loculare, in stylum brevem 3-quetrum desinens; styli rami 3, breviter lineares, recurvi, introrsum stigmatosi; ovula in loculis numerosa. Capsula ovoideo-3-quetra, apice pyramidata, breviter septicide dehiscens. Semina ∞, angulata, brunnea, testa tenui appressa; embryo in albumine cartilagineo juxta hilum parvus.—Rhizoma brevissimum, fibris radicalibus more generum bulbosorum fasciculatis carnosulis. Caulis ebulbosus, erectus, simplex v. parce ramosus. Folia pauca, 1–2 infra medium caulis longe linearia cum vaginis continua, 1–2 superiora parva brevia. Flores ad apicem caulis v. ramorum ∞, pedicellati, in umbellam bracteis brevibus linearibus involucratam dispositi.

Species 1, Australiana. *Benth. Fl. Austral.* vii. 33.

150. **Androcymbium,** *Willd. in Gesellsch. Naturf. Fr. Berlin Mag.* ii. 21, *t.* 2.—Perianthium marcescens, persistens; segmenta subæqualia, distincta, unguibus erectis linearibus canaliculatis v. fere convolutis, lamina erecto-patente lanceolata plana v. basi concava 2-auriculataque, intus ad insertionem staminis varie glandulifera v. nectarifera.

Stamina 6, ad basin laminarum affixa iisque breviora v. longiora, filamentis filiformibus ima basi sæpe incrassatis; antheræ oblongæ, inter lobos basales subintrorsum affixæ, demum versatiles, loculis a latere dehiscentibus. Ovarium sessile, 3-loculare; styli 3, distincti, filiformes, stigmatibus parvis; ovula in loculis numerosa. Capsula subglobosa ovoidea v. oblonga, 3-sulca, chartacea v. membranacea, septicide dehiscens. Semina globosa, opaca, testa brunnea appressa; embryo in albumine duro juxta hilum parvus.—Cormus hypogæus, tunicatus, tunicis sæpius in vaginas caulem stipantes productis. Folia ad apicem caulis brevis pro maxima parte hypogæi conferta v. parum dissita, basi plus minus dilatata, sæpe colorata, inflorescentiam capituliformem involucrantia et fere includentia, 1–2 exteriora interdum longissime linearia. Flores intra folia floralia sæpius plures, sessiles v. breviter pedicellati, singuli bractea membranacea sæpe colorata stipati.

Species enumeratæ 13, Africæ australis et regionis Mediterraneæ incolæ. *Baker in Journ. Linn. Soc.* xvii. 441.

Genus in sectiones 2 sequentes commode dividitur:—

1. *Cymbanthes.* Perianthii segmentorum lamina basi concava, sæpe 2-auriculata. Stamina segmentis æquilonga v. longiora. Species 11, quarum una Abyssinica, cæteræ Austro-Africanæ. *Jacq. Ic. Rar. t.* 452. *Cav. Ic. t.* 587, *f.* 1; 588, *f.* 1. *Bot. Mag. t.* 641. *Sweet, Brit. Fl. Gard. t.* 165 (*ic. plures sub Melanthio*). CYMBANTHES, *Salisb. in Trans. Hort. Soc.* i. 329, *absque char.*

2. *Erythrostictus.* Perianthii segmentorum lamina plana. Stamina segmentis multo breviora. Species 2, regionis Mediterraneæ incolæ. ERYTHROSTICTUS, *Schlecht. in Linnæa*, i. 90. *Lange, Pl. Nov. Hisp. t.* 34.

151. **Wurmbea,** *Thunb. Nov. Gen.* 18, *t.* 1.—Perianthium subcampanulatum v. fere a basi expansum, persistens, tubo breviter cylindraceo v. late cyathiformi; lobi tubo longiores, subæquales, patentes, basi sæpius plicis transversis instructi. Stamina 6, basi loborum affixa iisque breviora, filamentis filiformibus v. basi dilatatis; antheræ ovatæ, introrsum affixæ, loculis a latere subextrorsum dehiscentibus. Ovarium sessile, 3-loculare, apice 3-lobum, lobis in stylos distinctos breviter v. longe filiformes desinentibus; ovula in loculis ∞. Capsula apice 3-loba, breviter septicide dehiscens. Semina ∞, subglobosa, brunnea, testa appressa; embryo in albumine cartilagineo juxta hilum parvus.—Bulbus seu cormus tunicatus. Caulis simplex, sæpius brevis. Folia pauca, lineari-lanceolata v. rarius ovato-lanceolata, cum vagina laxa continua. Flores in spica terminali breviter pedunculata subsessiles, ebracteati.

Species 7, Africæ australis et Australiæ incolæ. *Kunth, Enum. Pl.* iv. 159. *Baker in Journ. Linn. Soc.* xvii. 435. *Benth. Fl. Austral.* vii. 27. *Andr. Bot. Rep. t.* 221. *Bot. Mag. t.* 694, 1291 (*Melanthium*).

Genera duo sequentia vix a *Wurmbea* distincta.

152. **Bæometra,** *Salisb. in Trans. Hort. Soc.* i. 330, *absque char.* (Kolbea, *Schlecht. in Linnæa*, i. 80. Jania, *Schult. Syst.* vii. 98, 1528.)—Perianthium persistens v. demum sub fructu deciduum, toro dilatato insertum; segmenta distincta, basi erecta unguibus circa filamentum convolutis, superne anguste oblonga, patentia, subæqualia. Stamina 6, prope basin segmentorum affixa iisque breviora, filamentis filiformibus; antheræ oblongo-lineares, introrsum affixæ, loculis a latere extrorsum dehiscentibus. Ovarium sessile, oblongum, prominenter 3-quetrum, 3-loculare; styli 3, brevissimi, recurvi, introrsum stigmatosi; ovula in loculis numerosa. Capsula angusta, prominenter 3-quetra, septicide dehiscens. Semina ∞, subglobosa, plus minus angulata, testa appressa; embryo in albumine cartilagineo juxta hilum parvus.—Bulbus seu cormus tunicatus. Caulis erectus, simplex. Folia lanceolata v. angusta, approximata, cum vagina continua, superiora ad vaginas reducta pauca dissitaque. Flores ad apicem caulis v. pedunculi terminalis pauci, subsessiles, in spica brevi dispositi v. interdum solitarii, erecti, ebracteati. Capsulæ erectæ, in speciminibus nostris pollicares v. longiores.

Species 1, austro-Africana. *Kunth, Enum. Pl.* iv. 162. *Baker in Journ. Linn. Soc.* xvii. 446. *Jacq. Ic. Rar. t.* 450. *Bot. Mag. t.* 767 (*Melanthium*).

153. **Dipidax,** *Salisb. in Trans. Hort. Soc.* i. 330, *absque char.* (Melanthium, *Kunth, Enum. Pl.* iv. 155.)—Perianthium demum deciduum; segmenta distincta, oblonga, patentia, prope basin ad marginem utrinque glandula nectarifera instructa, unguibus circa filamentum convolutis. Stamina 6, ima basi segmentorum affixa, iisque breviora; antheræ parvæ, oblongæ, introrsum affixæ, loculis a latere extrorsum dehiscentibus. Ovarium sessile, 3-sulcum, fere 3-lobum, 3-loculare; styli 3, basi contigui at distincti, breviter filiformes, superne introrsum stigmatosi; ovula in loculis numerosa. Capsula turbinata truncataque v. ovoideo-oblonga, 3-loba, lobis seu carpellis marginibus interioribus connexis maturitate septicide solvendis introrsum dehiscentibus. Semina ∞, ovoidea v. subglobosa, rugulosa v. læviuscula, brunnea, testa appressa; embryo juxta hilum oblongus, albumine cartilagineo 3–4-plo brevior.—Bulbus seu cormus tunicatus. Caulis erectus, simplex. Folia prope basin caulis pauca, conferta, late v. anguste lanceolata, cum vagina brevi continua, addito sæpe uno alterove sub inflorescentia. Flores in spica terminali plures, subsessiles, rarius ad unum reducti, ebracteati.

Species 2, Africæ australis incolæ. *Baker in Journ. Linn. Soc.* xvii. 446. *Jacq. Ic. Rar. t.* 451. *Bot. Mag. t.* 558. *Lodd. Bot. Cab. t.* 978; (*ic. omnes sub Melanthio*).

154. **Anguillaria,** *R. Br. Prod.* 273.—Flores sæpe polygamo-dioici. Perianthium explanatum, persistens; segmenta distincta, subæqualia, patentia, supra basin transverse glandulosa v. nuda. Stamina 6, hypogyna v. ima basi segmentis adnata iisque multo breviora, filamentis basin versus dilatatis cæterum filiformibus; antheræ infra medium v. juxta basin introrsum affixæ, ovatæ v. oblongæ, loculis a latere subextrorsum dehiscentibus. Ovarium sessile, 3-quetrum, 3-loculare; styli 3, a basi distincti v. brevissime connati, breviter filiformes, superne introrsum stigmatosi; ovula in loculis ∞ (6–12). Capsula 3-quetra, obtusa v. vertice depressa, loculicide dehiscens. Semina ∞, globosa, brunnea, testa tenui appressa; embryo in albumine carnoso solido juxta hilum brevis, obovoideus v. oblongus.—Bulbus seu cormus parvus, tunicatus. Caulis humilis, simplex. Folia pauca, secus caulem dissita, linearia, vaginis brevibus latis fere inflatis. Flores plures, in spica terminali subsessiles, v. interdum ad unum terminalem reducti, ebracteati.

Species 2, Australianæ. *Benth. Fl. Austral.* vii. 29. *Endl. Iconogr. t.* 3.

155. **Ornithoglossum,** *Salisb. Parad. Lond. t.* 54. (Lichtensteinia, *Willd. in Gesellsch. Naturf. Fr. Berlin Mag.* ii. 19, *t.* 1. Cymation, *Spreng. Syst.* ii. 142.)—Perianthium persistens; segmenta distincta, linearia v. lineari-lanceolata, sub anthesi patentissima v. reflexa, supra basin glandula v. macula nectarifera instructa. Stamina 6, basi segmentorum affixa iisque breviora, filamentis crassiuscule filiformibus; antheræ oblongæ, introrsum mediofixæ, loculis a latere subextrorsum dehiscentibus. Ovarium sessile, oblongum v. ovoideum, 3-sulcum, 3-loculare; styli 3, a basi distincti; ovula in loculis ∞ (10–20). Capsula ovoidea v. oblonga, obtusa, subinflata, tardius loculicide dehiscens. Semina ∞, subglobosa v. compressiuscula, testa crassiuscula adnata; embryo in albumine cartilagineo juxta hilum parvus.—Cormus in rhizomate tuberoso parvus, tunicatus. Caulis simplex, erectus. Folia caulina lanceolata v. angusta, cum vagina continua, superiora floralia in bracteas lineares abeuntia. Flores longe pedicellati, nutantes, ad axillas foliorum floralium v. bractearum solitarii, in racemo laxo terminali sæpius pauci.

Species v. varietates insigniores 2, Africæ australis incolæ. *Kunth, Enum. Pl.* iv. 162. *Baker in Journ. Linn. Soc.* xvii. 448. *Andr. Bot. Rep.* 233 (*Melanthium*). *Bot. Mag. t.* 994 (*Melanthium*). *Sweet, Brit. Fl. Gard. t.* 131.

156. **Iphigenia,** *Kunth, Enum. Pl.* iv. 212. (Notocles, *Salisb. Gen. Pl. Fragm.* 54.)—Perianthium explanatum, post anthesin caducissimum; segmenta distincta, linearia v. anguste oblonga, æqualia, patentia, plana. Stamina 6, hypogyna, perianthio pluries breviora, filamentis complanatis sæpius latis; antheræ breviter oblongæ, introrsum supra basin affixæ, versatiles, loculis a latere subextrorsum dehiscentibus. Ovarium sessile,

3-loculare; styli 3, basi brevissime connati, lineares, recurvi, superne introrsum stigmatosi; ovula in loculis numerosa. Capsula ovoidea v. oblonga, obtusa v. truncata, 3- v. 6-sulca, loculicide dehiscens. Semina subglobosa, brunnea, strophiolo parvo (v. 0?), testa tenui appressa; embryo in albumine carnoso juxta hilum parvus, obovoideus v. oblongus.—Bulbus seu cormus parvus, tunicatus. Caulis simplex, erectus. Folia pauca, secus caulem dissita, sessilia, linearia v. anguste lanceolata, floralia minora, in bracteas parvas lineares abeuntia. Flores longe pedicellati, erecti, ad apicem caulis v. in axillis superioribus solitarii.

Species 4, Indiæ orientalis, Australiæ, Novæ Zelandiæ, Madagascariæ et Africæ tropicæ incolæ. *Baker in Journ. Linn. Soc.* xvii. 450. *Wall. Pl. As. Rar. t.* 259 (*Anguillaria*).

Tribus XVII. Narthecieæ.

157. ? **Nietneria,** *Klotzsch in Rich. Schomb. Reise Brit. Gui.* 1066, *absque char.*—Perianthium persistens, tubo campanulato ovario adnato; lobi erecti, oblongi, subæquales, demum rigiduli, interiores paullo tenuiores latioresque. Stamina 6, basi loborum affixa iisque parum breviora, filamentis crassiuscule filiformibus; antheræ ovatæ, erectæ, basifixæ, loculis a latere subintrorsum dehiscentibus. Ovarium basi tubo perianthii adnatum, superne liberum pyramidatum, apice in stylum brevem attenuatum, 3-loculare; stigma terminale, parvum, subcapitatum; ovula ad basin partis liberæ loculorum numerosa, fasciculata. Capsulæ pars libera loculicide dehiscens, valvis erectis persistentibus. Semina numerosa, parva, inappendiculata, oblonga, testa tenui appressa striata; embryo in albumine carnoso minutus? (in seminibus examinatis non deteximus).—Rhizoma breve. Folia ad basin caulis disticha, linearia, sæpe falcata, rigidula, vaginis equitantibus, caulina interdum 1–2, inferioribus minora. Flores ad apicem caulis in cymam laxe trichotomam nunc fere corymbosam nunc angustam dispositi, flavi?, pedicellis erectis rigidulis. Bracteæ minutæ v. 0.

Species 1, in monte Roraima Guianæ obvia, *Rob. Schomburgk, coll.* 2, *n.* 667; *Rich. Schomburgk, n.* 1009; *Appun n.* 1107, nuperque a Rio Janeiro a *Glazioua* recepta sub n. 12212.

Planta foliis et colore omnino *Narthecii*; semina *Metanarthecii*, ab utroque genere differt inflorescentia ramosiore et ovario semiinfero. Klotzsch *Hæmodoraceis* refert, sed semina nequaquam conveniunt.

158. **Narthecium,** *Mœhr. in Act. Acad. Nat. Cur.* vi. (1742), 384, *t.* 5. (Abama, *Adans. Fam.* ii. 47.)—Perianthium marcescens, persistens; segmenta distincta, rotato-patentia, subæqualia, rigidula, linearia, tenuiter 5-nervia. Stamina 6, hypogyna, perianthio subbreviora, filamentis dense lanatis; antheræ erectæ, lineares, basifixæ, demum tortæ, loculis a latere subintrorsum dehiscentibus. Ovarium lata basi sessile, 3-sulcum, 3-loculare, apice in stylum breviter columnarem attenuatum, stigmate parvo; ovula in parte inferiore loculorum numerosa. Capsula anguste oblonga, breviter acuminata, loculicide dehiscens. Semina numerosa, ascendentia, oblonga, testa tenui pallida striata apice basique in appendiculam linearem hyalinam producta; embryo albumine carnoso 3–4-plo brevior.—Rhizoma reptans, caule a basi cæspitosa v. ramosa breviter incurvo-ascendente dein erecto. Folia ad basin caulis disticha, equitantia, linearia, sæpe falcata, rigidula, striata. Racemus terminalis, simplex v. rarissime ramulo uno alterove brevi instructus, strictus. Flores flavi, pedicellis brevibus erectis ad bracteas solitariis, haud raro bracteola lineari instructis.

Species 4, inter se valde affines, regionum temperatarum hemisphærii borealis incolæ. *Kunth, Enum. Pl.* iii. 362. *Baker in Journ. Linn. Soc.* xv. 350. *Red. Lil. t.* 218 (*Abama*). *Reichb. Ic. Fl. Germ. t.* 421. *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 30. *Buchenau in Bot. Zeit.* 1859, 161, *t.* 7. *Bot. Mag. t.* 1505.

159. **Metanarthecium,** *Maxim. in Bull. Acad. Imp. Sc. Petersb.* xi. 438; *Mel. Biol.* vi. 213.—Perianthium persistens; segmenta a basi libera, linearia, superne patula,

æqualia v. exteriora paullo angustiora, obscure 1-nervia. Stamina 6, infra medium segmentorum affixa iisque paullo breviora, filamentis glabris filiformibus v. basi leviter dilatatis; antheræ breviter oblongæ, dorsifixæ, loculis a latere subintrorsum dehiscentibus. Ovarium lata basi sessile, ovoideum, 3-loculare; stylus columnaris, stigmate parum incrassato 3-dymo; ovula in loculis numerosa. Capsula 6-sulcata, loculicide dehiscens. Semina numerosa, parva, ovoidea, inappendiculata, pallida, testa tenui appressa striata; embryo in albumine carnoso prope hilum minutus, ovoideus.—Rhizoma breve, horizontale, fibris tenuibus numerosis instructum. Folia radicalia, oblonga v. oblanceolata, acuta, luteo-viridia. Scapus aphyllus, simplex v. sub inflorescentia ramulo unico instructus. Racemus spiciformis, densiflorus, bracteis parvis linearibus. Flores flavo-virescentes, suberecti, pedicellis brevibus ad bracteas solitariis prope basin 1-bracteolatis.

Species 1, Japonica. *Baker in Journ. Linn. Soc.* xv. 285.

160. **Chamælirium,** *Willd. in Gesellsch. Naturf. Fr. Berlin Mag.* ii. 18. (Ophiostachys, *Red. Lil. t.* 464. Dasurus, *Salisb. Gen. Pl. Fragm.* 51. Diclinotrys, *Raf. Neogen.* 3.)—Flores dioici. Perianthium marcescens, persistens; segmenta distincta linearia, subæqualia. Stamina in fl. ♂ 6, libera, perianthio subæqualia v. paullo longiora, filamentis filiformibus, in fl. ♀ ad staminodia parva ananthera reducta; antheræ parvæ, ovoideo-globosæ, loculis distinctis a latere subextrorsum dehiscentibus. Ovarium in fl. ♀ sessile, ovoideum, costatum, integrum, 3-loculare; styli 3, distincti v. vix basi connati, lineares, recurvi, introrsum stigmatosi; ovula in loculis ∞ (6–12). Capsula obovoidea, membranacea, apice breviter loculicide dehiscens. Semina ∞, oblonga, compressiuscula, pallida, testa tenui nucleo appressa apice basique v. interdum circumcirca in alam hyalinam producta; embryo cylindraceus, albumine carnoso 2–3-plo brevior.—Rhizoma horizontale, crassum, subnodosum, fibris radicalibus tenuibus, caule erecto simplici. Folia radicalia petiolata, obovalia v. oblonga, membranacea, caulina angustiora, gradatim minora, inferiora petiolata, superiora sessilia, summa parva distantia. Racemus terminalis, simplex, cylindraceus, spiciformis, ebracteatus, ♂ densus, ♀ laxior. Flores parvi, flavi, breviter pedicellati v. subsessiles.

Species 1, boreali-Americana. *Kunth, Enum. Pl.* iv. 176. *Baker in Journ. Linn. Soc.* xvii. 468. *Linn. Amœn. Acad.* iii. *t.* 1, *f.* 2 (*Veratrum*). *Jacq. Ic. Rar. t.* 453 (*Helonias, male*). *Bot. Mag. t.* 1062 (*Helonias*).
Ovarium interdum abnorme 4-merum evadit sed rarissime, semel tantum observavimus.

161. **Chionographis,** *Maxim. in Bull. Acad. Imp. Sc. Petersb.* xi. 435; *Mel. Biol.* vi 209.—Perianthium (persistens?); segmenta distincta v. vix basi in annulum connata, superiora 2, 3 v. 4 linearia, petaloidea, erecta v. patentia, subæqualia, 4, 3 v. 2 inferiora minima, lineari-filiformia v. obsoleta. Stamina 6, ima basi segmentorum affixa iisque pluries breviora, filamentis brevibus crassis; antheræ fere 2-globosæ, loculis distinctis a latere (subextrorsum?) dehiscentibus. Ovarium sessile, subglobosum, obtuse 3-lobum, 3-loculare; styli 3, inter lobos contigui, breves, recurvi, introrsum stigmatosi; ovula in loculis 2. Capsula . . .—Rhizoma breve, crassum, fibris radicalibus tenuibus, caule erecto tenui simplici. Folia radicalia sessilia v. petiolata, lata v. oblonga, caulina minora, anguste lanceolata, sessilia. Spica terminalis, dense cylindracea v. laxa. Flores numerosi, parvi, albi, sessiles, ebracteati.

Species v. varietates insignes 2, Japonicæ. *Baker in Journ. Linn. Soc.* xvii. 469. *Bot. Mag. t.* 6310.

162. **Xerophyllum,** *Mich. Fl. Bor. Amer.* i. 210.—Perianthium marcescens, persistens; segmenta distincta, oblonga v. lanceolata, subæqualia, patentia. Stamina 6, hypogyna, perianthio longiora, filamentis plus minus complanatis apice subulatis; antheræ ovatæ v. oblongæ, introrsum juxta basin affixæ, loculis subextrorsum dehiscentibus. Ovarium sessile, 3-sulcum, obtusum, 3-loculare; styli 3, breviter filiformes, recurvi, superne introrsum stigmatosi; ovula in loculis 2–4 (nos semper 4 invenimus), a basi erecta. Capsula subglobosa v. breviter oblonga, 3-sulca, loculicide dehiscens. Semina in loculis

sæpius 2, erecta, oblonga, introrsum angulata, pallide brunnea, testa tenui appressa rarius apice brevissime producta; embryo in albumine carnoso prope hilum parvus, oblongus, nunc minimus.—Rhizoma breve, crassum, lignosum. Caulis erectus, elatus, simplex. Folia radicalia v. ad basin caulis conferta, longe linearia, rigidula, margine scabra, caulina sparsa, sæpe numerosa et multo minora tenuioraque, quaquaversa, basi sæpe breviter membranaceo-dilatata nec vaginata, summa in bracteas setaceas gradatim abeuntia. Flores albi, in racemo terminali numerosi, longiuscule pedicellati, racemo primum dense pyramidato v. oblongo, demum valde elongato.

Species distinguit S. Watson 3, a Bakero omnes in unam junctas, per Americam borealem late dispersas. *S. Wats. in Proc. Amer. Acad.* xiv. 284. *Baker in Journ. Linn. Soc.* xvii. 467. *Pursh, Fl. Amer. Sept. t.* 9 (*Helonias*). *Bot. Mag. t.* 748 (*Helonias*). *Bot. Reg. t.* 1613.

163. **Hewardia,** *Hook. Ic. Pl. t.* 858.—Perianthium explanatum, diu persistens; segmenta ima basi in tubum breviter turbinatum connata, cæterum libera, lanceolata, subæqualia, patentia. Stamina 3, basi segmentorum interiorum affixa iisque multo breviora, filamentis brevibus basi complanatis; antheræ longe oblongæ, sagittatæ, introrsum prope basin affixæ, loculis extrorsum dehiscentibus. Ovarium intra tubum perianthii sessile, ima basi subcontractum, perianthio vix brevissime adnatum, apice in stylum attenuatum, 3-loculare; stylus abbreviatus, ramis 3 brevibus recurvis introrsum stigmatosis; ovula in loculis numerosa. Capsula (immatura) oblonga, 3-sulca, loculicide dehiscens?. Semina . . .—Rhizoma breve. Folia radicalia, angusta, rigida, disticha, ad basin caulis equitantia. Caulis erectus, simplex, vaginis paucis complicatis spathiformibus instructus, cæterum aphyllus. Spathæ 2 summæ approximatæ, pedicellum floris unici terminalis includentes. Perianthium majusculum, fusco-purpureum.

Species 1, Tasmanica. *Benth. Fl. Austral.* vii, 25.

Genus pluribus notis *Irideas* in mentem revocat, sed stamina segmentis interioribus nec exterioribus opposita et ovarium superum. Capsulæ dehiscentia adhuc incerta.

164. **Heloniopsis,** *A. Gray in Mem. Amer. Acad. ser.* 2, vi. 416. (Sugerokia, *Miq. in Ann. Mus. Lugd. Bat.* iii. 144.)—Perianthium explanatum, persistens; segmenta distincta v. vix basi connata, oblonga v. angusta, subæqualia, patentia, tenuiter 3-nervia. Stamina 6, prope basin segmentorum affixa iisque paullo longiora, filamentis filiformibus; antheræ lineares, introrsum inter lobos basales affixa, loculis extrorsum dehiscentibus. Ovarium sessile, basi leviter contractum, obtuse sub-3-lobum, 3-sulcum, 3-loculare; stylus inter lobos ovarii elongatus, indivisus, stigmate capitato dilatato; ovula in loculis numerosissima, conferta. Capsula profunde 3-loba, lobis seu carpidiis stellato-divergentibus, introrsum rima longitudinali dehiscentibus. Semina numerosa, linearia, pallida, testa tenui adnata apice basique (v. ex A. Gr. in *H. pauciflora* basi tantum) in appendicem linearem hyalinam producta; embryo in albumine carnoso prope hilum parvus, oblongus v. cylindraceus.—Rhizoma breve, horizontale, fibris radicalibus tenuibus. Folia radicalia, petiolata, oblonga v. lanceolata, vaginis basi scariosis latiusculis imbricatis. Scapus e fasciculo foliorum erectus, simplex, vaginis pluribus scariosis instructus, cæterum aphyllus. Flores ad apicem scapi solitarii v. pauci, majusculi, subnutantes, pedicellis brevibus approximatis nec umbellatis. Bracteæ minimæ.

Species editæ 4, Japonicæ v. Formosianæ, non tamen omnes bene distinctæ. *Baker in Journ. Linn. Soc.* xvii. 459. *Thunb. Ic. Pl. Jap.* iv. *t.* 4 (Scilla).

165. **Helonias,** *Linn. Gen. n.* 458.—Perianthium explanatum, persistens; segmenta distincta v. vix ima basi connata, subæqualia, patentia, tenuiter 3-nervia. Stamina 6, hypogyna v. ima basi segmentorum affixa iisque paullo longiora, filamentis filiformibus; antheræ ovatæ, inter lobos basales subintrorsum affixæ, loculis a latere subextrorsum dehiscentibus. Ovarium lata basi affixum, ovoideum, 3-sulcum, apice breviter obtuseque 3-lobum; styli 3, inter lobos ovarii breves v. brevissimi, distincti v. breviter connati, recurvi, introrsum stigmatosi; ovula in loculis numerosa. Capsula profunde 3-loba, lobis seu carpellis divaricatis rotundis introrsum rima dehiscentibus.

Semina sæpius numerosa, pallida, testa tenuiter membrancea adnata apice basique in appendicem hyalinam producta; embryo in albumine carnoso prope hilum parvus, oblongo-cylindraceus.—Rhizoma breve, tuberosum. Folia radicalia, oblonga, in petiolum brevem contracta. Scapus e fasciculo foliorum sublateralis, squamis pluribus ad basin imbricatis, secus scapum paucis dissitis. Racemus terminalis, densus, cylindraceus v. oblongus. Flores parvuli, numerosi, breviter pedicellati, ebracteati.

Species 1, boreali-Americana. *Kunth, Enum. Pl.* iv. 174. *Baker in Journ. Linn. Soc.* xvii. 467. *Red. Lil. t.* 13. *Andr. Bot. Rep. t.* 352. *Bot. Mag. t.* 747. *Lodd. Bot. Cab. t.* 961.

166. **Tofieldia,** *Huds. Fl. Angl.* 157 (*ed.* 2). (Heriteria, *Schrank, Baier. Fl.* i. 133, 629. Hebelia, *Gmel. Fl. Bad.* ii. 117.)—Perianthium persistens; segmenta distincta v. ima basi brevissime connata, oblonga v. angusta, subæqualia, sub anthesi patentia. Stamina 6, hypogyna v. seriei interioris ima basi segmentis adhærentia, perianthio parum breviora v. longiora, filamentis filiformibus v. vix complanatis; antheræ ovatæ, inter lobos basales subextrorsum affixæ, versatiles, loculis introrsum dehiscentibus. Ovarium sessile, ovoideum, apice 3-lobum, lobis in stylos brevissimos recurvos apice introrsum stigmatosos desinentibus; ovula in loculis ∞. Capsula 3-loba, septicide 3-partibilis, carpellis introrsum dehiscentibus. Semina ∞, breviter v. longe oblonga, subangulata, pallida, testa tenui appressa; embryo in albumine carnoso juxta hilum minimus.—Caulis e rhizomate brevi v. repente erectus. Folia radicalia v. ad basin caulis conferta, breviter linearia, subdisticha, in caule cæterum perpauca parva v. 0. Flores parvi, in spica terminali subsessiles v. breviter pedicellati, ad axillas bractearum minimarum solitarii v. terni, interdum basi intra bracteam bracteola lata hyalina truncata v. 3-loba stipati v. fere involuti.

Species ad 14, quarum 1 v. 2 Andinæ, cæteræ per regiones temperatas montanas et boreales hemisphærii borealis late dispersæ. *Kunth, Enum. Pl.* iv. 165. *Baker in Journ. Linn. Soc.* xvii. 485. *Sm. in Trans. Linn. Soc.* xii. 235, *t.* 8. *Reichb. Ic. Fl. Germ. t.* 420. *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 31. *Red. Lil. t.* 256, 324. *Hook. Fl. Bor. Amer. t.* 191. *Bot. Mag. t.* 3859.

Genus a nonnullis in tria dividitur, speciebus typicis ad illas limitatis quibus flores ad bracteas solitarii, et TRIANTHA, *Nutt. Gen. N. Amer. Pl.* i. 235; *Baker in Journ. Linn. Soc.* xvii. 490, distinguitur floribus ad bracteas ternis, character tamen non constans videtur. Inter species huc relatas, *T. glabra*, Nutt., insignis est filamentis crassis perianthium æquantibus apice brevissime acutis diu persistentibus, antheris caducissimis. In *T. pubente*, Ait., semina apice appendice lineari hyalina terminata et funiculus arillo lineari-subulato hyalino a semine libero instructus. In *T. glutinosa*, Pers. et in *T. occidentali*, S. Wats. quæ vix a *T. glutinosa* distincta, semina apice breviter appendiculata et funiculus arillo maximo membranaceo-hyalino semen laxe involvente instructus. *T. japonica*, Miq., ex icone a Bakero citato forte a *T. glutinosa* non diversa.

ISIDROGALVIA, *Ruiz et Pav. Fl. Per. et Chil.* iii. 69, *t.* 302, est *T. falcata*, Willd., e Colombia et Guiana, cui associanda *T. sessiliflora*, Hook. Ic. Pl. t. 691, species habitu rigido insignes. Flores ad bracteas solitarii, perianthii segmentis quam in cæteris speciebus longioribus rigidis; styli sub anthesi brevissimi, alte coaliti. Semina immatura tamen vidimus apice appendiculata, funiculo (an semper?) arillo filiformi ei *T. pubentis* simili instructo.

167. ? **Petrosavia,** *Beccari in Nuov. Giorn. Bot. Ital.* iii. 7, *t.* 1.—Perianthium persistens; segmenta ima basi connata, patentia, 3 exteriora interioribus minora angustioraque. Stamina 6, basi segmentorum affixa iisque breviora, filamentis filiformibus; antheræ ovatæ, dorsifixæ, loculis introrsum dehiscentibus. Ovarium sessile, e carpellis 3 basi tantum connatis apice contractis, stigmatibus sessilibus terminalibus subcapitatis introrsum obliquis; ovula in carpellis ∞. Fructus e carpellis distinctis (ex icone basi breviter connatis) stellato-divaricatis folliculiformibus, rima longitudinali introrsum dehiscentibus. Semina numerosa, ovato-elliptica, 7–9-costata, integumento celluloso-membranaceo hyalino cincta, testa crustacea brunnea; albumine ? cartilagineo-oleoso; embryo ab auctore non detectus.—Planta in radicibus parasitica, ebulbosa, aphylla. Caulis tenuis, simplex, erectus, squamis numerosis parvis plus minus setaceo-acuminatis instructus, superioribus in bracteas setaceas abeuntibus. Racemus terminalis, simplex, brevis, sub

anthesi fere corymbiformis. Flores parvi, longe pedicellati, ad bracteas solitarii. (*Char. ex ic. et descr. Beccarii.*)

Species 1, Borneensis, a nobis non visa. Genus ut videtur *Tofieldiæ* affine.

168. **Pleea,** *Mich. Fl. Bor. Amer.* i. 247, *t.* 25.—Perianthium persistens; segmenta distincta, lineari-lanceolata, subæqualia, rigidula, patentia. Stamina 6–12, hypogyna v. vix ima basi segmentis adhærentia, iis vix breviora, filamentis filiformibus apice tenuissimis; antheræ nunc breviter oblongæ nunc fere lineares, infra medium dorsifixæ, loculis introrsum dehiscentibus. Ovarium sessile, apice sub-3-fidum, 3-loculare; styli 3, in lobos ovarii distincti, breves, mox recurvi, stigmatibus parvis; ovula in loculis ∞. Capsula septicide 3-partibilis, carpellis introrsum dehiscentibus. Semina parva, anguste oblonga, subteretia, recta v. curvula, testa tenui appressa, apice vix brevissime appendiculata v. nuda, funiculo arillo filiformi a semine libero instructo; embryo in albumine carnoso juxta hilum minimus.—Caules e rhizomate nodoso erecti, juncei. Folia radicalia pauca, longiuscule linearia, rigidula, caulina 1–2, longe vaginata, radicalibus minora. Spica simplex. Flores intra bracteas solitarii, pedicellati, erecti. Bracteæ rigide spathaceæ, inferiores acuminatæ, superiores muticæ, omnes rhachin pedicellosque arcte amplectentes.

Species 1, Carolinæ incola. *Kunth, Enum. Pl.* iv. 173. *Red. Lil. t.* 248. *Bot. Mag. t.* 1956.

Tribus XVIII. Uvularieæ.

169. **Schelhammera,** *R. Br. Prod.* 273. (Parduyna, *Salisb. Gen. Pl. Fragm.* 58.)—Perianthium explanatum, deciduum; segmenta distincta, subæqualia, basi in alabastro conduplicata, demum patentia, plana, 5-nervia. Stamina 6, basi segmentorum affixa iisque breviora, filamentis basi incrassatis v. applanatis apice filiformibus; antheræ breviter oblongæ, erectæ, introrsum juxta basin affixæ, loculis a latere subextrorsum dehiscentibus. Ovarium sessile, 3-quetrum, 3-loculare; stylus filiformis, 3-fidus, ramis recurvis superne introrsum stigmatosis; ovula in loculis ∞ (4–6). Capsula subglobosa, 3-sulca, vertice depressa, carnosula, loculicide dehiscens. Semina irregulariter ovoideo-globosa, late strophiolata, pallide brunnea, testa tenui appressa; embryo in albumine solido juxta hilum minutus.—Caules e rhizomate repente humiles, sæpius basi ramosi, foliati, ascendentes, basi 1-vaginati. Folia sessilia, ovata v. lanceolata, membranacea. Flores ad apices ramorum solitarii v. plures in umbellam sessilem dispositi, pedicellis filiformibus. Bracteæ parvæ v. 0.

Species 2, Australiæ orientalis incolæ. *Benth. Fl. Austral.* vii. 31. *Bot. Mag. t.* 2712.

170. **Kreysigia,** *Reichb. Iconogr. Exot.* iii. 11, *t.* 229. (Tripladenia, *Don in Proc. Linn. Soc.* 1839, 46.)—Perianthium explanatum, deciduum; segmenta distincta, subæqualia, in alabastro conduplicata, sub anthesi patentissima, plana, prope basin glanduloso-appendiculata. Stamina 6, ima basi segmentorum affixa iisque breviora, filamentis filiformibus v. leviter complanatis; antheræ oblongo-lineares, prope basin dorsifixæ, loculis introrsum affixis a latere extrorsum dehiscentibus. Ovarium sessile, 3-quetrum, 3-loculare; stylus a basi brevissima 3-fidus, ramis linearibus recurvis superne introrsum stigmatosis; ovula in loculis ∞ (2–4). Capsula subglobosa, carnosula, 3-sulca, loculicide dehiscens. Semina strophiolata (*Don*).—Caulis e rhizomate brevi nodoso erectus, simplex, foliatus, basi præter vaginas 1–2 nudus. Folia alterna, ovato-lanceolata, cordato-amplexicaulia. Flores mediocres, rosei, axillares, vix nutantes, pedunculo tenui medio sæpius 1-2-bracteolato ibidemque in pedicellos 2 1-floros diviso, rarius simplici 1-floro v. ∞-floro.

Species 1, Australiæ orientalis incola. *Benth. Fl. Austr.* vii. 32. *Bot. Mag. t.* 3905. *Lodd. Bot. Cab. t.* 1511 (*Schelhammera*).

Genus habitu *Streptopodi* accedit, sed antheræ extrorsum dehiscentes et fructus capsularis. Embryonem extra albumen locatum descripsit Don, quod tamen ulterius probandum; semina jam a capsula delapsa in omnibus speciminibus a nobis visis.

171. **Uvularia,** *Linn. Gen. n.* 412, *pro parte.*—Perianthium campanulatum, deciduum; segmenta distincta, erecta v. superne patentia, exteriora intus basi foveolata. Stamina 6, hypogyna v. basi leviter segmentis adhærentia iisque breviora, filamentis filiformibus v. leviter complanatis; antheræ lineares, erectæ, prope basin introrsum affixæ, loculis a latere extrorsum dehiscentibus, connectivo ultra loculos in acumen breve producto. Ovarium breviter stipitatum v. rarius subsessile, 3-quetrum, 3-loculare; stylus filiformis, superne in ramos 3 lineares introrsum stigmatosos divisus; ovula in loculis ∞ (ad 4), lateraliter affixa. Capsula ovoidea v. obovoideo-truncata, 3-angulata v. fere 3-alata, loculicide dehiscens. Semina (immatura) subglobosa, nigra, strophiolo magno squamiformi; embryo (ex Kunthio) albumine carnoso-corneo inclusus, cylindraceo-oblongus.—Caulis e rhizomate repente v. horizontali crassoque erectus, basi nudus junior vaginis paucis scariosis mox evanidis stipatus, superne foliatus parum ramosus. Folia alterna, sessilia v. perfoliata, ovata v. lanceolata. Flores ad apices ramulorum solitarii v. gemini, pedicellis longiusculis recurvis penduli. Ramuli floriferi 1-foliati, sæpe ramo excurrente oppositifolii apparent.

Species ex Bakero 5, a S. Watsonio ad 4 reducuntur, Americæ borealis incolæ. *Kunth, Enum. Pl.* iv. 200. *Baker in Journ. Linn. Soc.* xvii. 461. *Red. Lil. t.* 184. *Sm. Exot. Bot. t.* 49 *ad* 52. *Bot. Mag. t.* 955, 1112, 1402. *Lodd. Bot. Cab. t.* 1260, 1262. *Sweet, Brit. Fl. Gard. ser.* 2, *t.* 21.

S. Wats. in Proc. Amer. Acad. xiv. 268, 269, genus in 2 dividit: UVULARIA, foliis perfoliatis, capsula sessili apice lata obtusissima v. truncata, angulis parum prominentibus, et OAKESIA, foliis sessilibus, capsula plus minus stipitata apice rotundata, angulis valde prominentibus fere 3-alata.

√ 172. **Gloriosa,** *Linn. Gen. n.* 413. (Methonica, *Juss. Gen.* 48. Clinostylis, *Hochst. in Flora,* 1844, 26.)—Perianthium marcescens, persistens; segmenta a basi distincta, angusta, subæqualia, patentissima v. reflexa, superne v. fere a basi undulata v. crispa, rarius subplana. Stamina 6, hypogyna, segmentis parum breviora, filamentis filiformibus; antheræ lineares, introrsum mediofixæ, versatiles, loculis a latere subextrorsum dehiscentibus. Ovarium sessile, oblongum, 3-loculare; stylus elongatus, filiformis, ramis 3 brevibus v. longiusculis superne introrsum stigmatosis; ovula in loculis numerosa. Capsula obovoidea v. oblonga, coriacea, subcarnosa, loculicide dehiscens. Semina subglobosa, in speciminibus nostris immatura, ex Gærtnero et Redouteo testa laxa intus spongiosa, embryo in albumine duro cylindraceus.—Rhizoma tuberosum. Caulis elatus, scandens, foliosus, superne sæpe ramosus. Folia sparsa, interdum opposita v. 3-natim verticillata, sessilia, oblongo-lanceolata, acumine in cirrum spiralem producto. Pedicelli in axillis superioribus longi, 1-flori, apice sub anthesi reflexi. Flores speciosi, plus minus rubri.

Species 3, per Africam et Asiam inter tropicos late dispersæ. *Kunth, Enum. Pl.* iv. 275. *Baker in Journ. Linn. Soc.* xvii. 457. *Gærtn. Fruct. t.* 18. *Red. Lil. t.* 26. *Andr. Bot. Rep. t.* 129. *Wight, Ic. t.* 2047. *Klotzsch in Peters, Reise Mosamb. Bot. t.* 54, 55. *Bot. Reg. t.* 77. *Fl. des Serres, t.* 865.

Gærtner embryonem reduplicatum describit, quod in nulla specie *Liliacearum* observavimus.

173. **Sandersonia,** *Hook. Bot. Mag. t.* 4716.—Perianthium persistens, urceolato-globosum, subinflatum, basi foveolis 6 extus in gibbos v. calcaria brevissima prominentibus instructum, ore leviter contracto brevissime sinuato-6-lobo. Stamina 6, hypogyna, perianthio multo breviora, filamentis filiformibus; antheræ oblongæ, introrsum mediofixæ, versatiles, loculis extrorsum dehiscentibus. Ovarium sessile, ovoideo-oblongum, 3-loculare; stylus breviter filiformis, 3-fidus, ramis recurvis apice introrsum stigmatosis; ovula in loculis sat numerosa. Fructus . . .—Rhizoma tuberosum. Caulis suberectus, simplex, foliatus. Folia lanceolata, acumine interdum in cirrum brevem desinente

superiora floralia caulinis similia v. summa minora. Flores speciosi, aurantiaci, nutantes, pedicellis axillaribus solitariis ebracteatis.

Species 1, Natalensis. *S. littonioides*, Welw., characteres omnino *Littoniæ* nec *Sandersoniæ* præbet.

174. **Littonia,** *Hook. Bot. Mag. t.* 4723.—Perianthium campanulatum; segmenta fere a basi distincta, suberecta, æqualia, oblongo-lanceolata, carinata, basi intus ad latera foveolæ 2-callosa. Stamina 6, hypogyna, perianthio breviora, filamentis filiformibus; antheræ oblongæ, prope basin introrsum affixæ, loculis a latere extrorsum dehiscentibus. Ovarium sessile, obtusissimum, 3-sulcum, facile 3-partibile, 3-loculare; stylus breviter filiformis, 3-fidus, ramis recurvis, stigmatibus parvis terminalibus; ovula in loculis numerosa. Fructus . . .—Rhizoma tuberosum. Caulis flexuosus, scandens, simplex, foliatus. Folia inferiora 3–5-natim subverticillata, superiora subopposita v. sparsa, lanceolata, acuminata, in cirrum brevem sæpe producta. Flores speciosi, aurantiaci, nutantes, pedicellis brevibus ad axillas solitariis ebracteatis.

Species 2, altera Natalensis, altera Angolensis, *L. Welwitschii*, nob. (*Sandersonia littonioides*, Welw.; Baker in Trans. Linn. Soc. Bot. i. 262).

175. ? **Walleria,** *Kirk in Trans. Linn. Soc.* xxiv. 497, *t.* 52.—Perianthii tubus brevissimus, campanulatus; lobi multo longiores, oblongi, patentes, subæquales, 5-nerves. Stamina 6, ad faucem affixa, lobis breviora, filamentis brevissimis; antheræ lineares, erectæ, basi v. juxta basin affixæ, loculis apice poro v. rima brevi dehiscentibus. Ovarium tubo perianthii subinclusum at liberum, lata basi affixum, 3-loculare; stylus filiformis, stigmate parvo; ovula in loculis ∞. Fructus junior subglobosus, obtusissimus, carnosulus, maturus ignotus.—Rhizoma tuberosum v. horizontale. Caulis erectus, simplex, foliatus. Folia sessilia, lanceolata v. linearia, infima minima, floralia caulinis superioribus similia. Flores cærulei, erecti v. cernui, pedicellis axillaribus solitariis infra medium bracteolatis 1-floris v. rarius 2-floris.

Species editæ v. varietates insignes 3, Africæ tropicæ incolæ. *Baker in Journ. Linn. Soc.* xvii. 498, *et in Trans. Linn. Soc. Bot.* i. 262.

Genus ab auctoribus *Conanthereis* relatum, longe tamen differt habitu, inflorescentia, ovario et verisimiliter fructu, hoc tamen seminibusque ignotis, affinitates dubiæ remanent.

176. **Tricyrtis,** *Wall. Tent. Fl. Nep.* 61, *t.* 46. (Compsoa, *Don, Prod. Fl. Nep.* 50. Compsanthus, *Spreng. Syst. Cur. Post.* 137.)—Perianthium campanulatum; segmenta a basi distincta, lanceolata, exteriora basi saccata, interiora plana, omnia cæterum æqualia, basi erecta, superne patentia. Stamina 6, hypogyna, filamentis complanatis in tubum longe conniventibus v. cohærentibus superne patentibus; antheræ oblongæ, introrsum affixæ, loculis extrorsum dehiscentibus. Ovarium oblongum, 3-quetrum, 3-loculare; stylus columnaris, sub-3-queter, ramis 3 recurvo-patentibus apice 2-fidis introrsum elevato-papillosis; ovula in loculis numerosa, obovoidea. Capsula anguste oblonga, prominenter 3-quetra, septicide dehiscens. Semina numerosa, ovata v. orbiculata, plana, testa laxiuscula ∞-nervi venulisque transversis reticulata; embryo in albumine carnoso juxta hilum minimus, obovoideus.—Rhizoma breviter repens. Caulis erectus, sub inflorescentia simplex, foliatus. Folia alterna, ovata v. oblonga, basi contracta subsessilia v. cordato-amplexicaulia. Inflorescentia terminalis v. in axillis superioribus laxe dichotoma, erecta. Flores pauci, majusculi, longiuscule pedicellati, perianthio intus sæpe eleganter maculato. Bracteæ parvæ, herbaceæ, v. 0. Capsulæ erectæ, sæpe ultrapollicares.

Species 5, Himalayæ, Japoniæ et Chinæ incolæ. *Baker in Journ. Linn. Soc.* xvii. 463. *Bot. Mag. t.* 4955, 5355, 6544. *Regel, Gartenfl. t.* 613.

177. **Disporum,** *Salisb. in Trans. Hort. Soc.* i. 331, *absque char.*; *Don, Prod. Fl. Nep.* 50. (Drapieza, *Blume, Enum. Pl. Jav.* 8.)—Perianthium deciduum, anguste campanulatum; segmenta distincta, erecta v. superne patentia, subæqualia, basi nunc angusta

tenuia, nunc plus minus foveolata saccata v. breviter calcarata. Stamina 6, hypogyna v. ima basi segmentis adhærentia, iis subæqualia v. breviora, filamentis nunc filiformibus v. leviter complanatis, nunc infra medium late membranaceo-dilatatis; antheræ lineares, infra medium introrsum affixæ, loculis a latere subextrorsum dehiscentibus. Ovarium sessile v. basi contractum, subglobosum v. obovoideum, 3-loculare; stylus filiformis v. columnaris, in ramos 3 brevissimos v. longiores recurvos introrsum stigmatosos divisus; ovula in loculis 2 rarius 4–6, basi medio v. fere apice lateraliter affixa. Bacca subglobosa, indehiscens. Semina (excepto *D. trachycarpo*) pauca, ovoideo-globosa, testa brunnea appressa; embryo in albumine corneo juxta hilum parvus, oblongus.—Caules e rhizomate repente v. horizontali erecti, parce ramosi, foliati, basi nudi nisi vaginis paucis scariosis mox evanidis stipati. Folia alterna, sessilia v. brevissime petiolata, ovata v. lanceolata, membranacea, dense multinervia, v. inter nervos dissitos reticulato-venulosa. Flores ad apices ramulorum solitarii v. gemini, rarius ∞ umbellati, pedicellis recurvis penduli.

Species ad 12, Americæ borealis et Asiæ tropicæ montanæ v. centralis necnon Japoniæ incolæ. *Baker in Journ. Linn. Soc.* xiv. 588. *Wall. Pl. As. Rar. t.* 269. *Wight, Ic. t.* 2048, 2049. *Royle, Ill. Bot. Himal. t.* 96. *Hook. Fl. Bor. Amer. t.* 189. *Bot. Mag. t.* 916, 1490. (*Ic. plur. sub Uvularia.*)

PROSARTES, *Don in Trans. Linn. Soc.* xviii. 531; *Baker in Journ. Linn. Soc.* xiv. 586; *S. Wats. in Proc. Amer. Acad.* xiv. 270, species continet Americanas ab Asiaticis typicis fide auctoris distinctas ovulis ab apice pendulis nec a basi ascendentibus. In *D.* (*Prosarte*) *trachycarpo* tamen, medio lateraliter affixa sunt, quod etiam observavimus in specie una Himalayense. Habitus et characteres cæteri omnes in utraque serie conformes.

TRIBUS XIX. MEDEOLEÆ.

178. **Clintonia,** *Rafin. in Journ. Phys.* lxxxix. 102, *non Lindl.* (Xeniatrum, *Salisb. Gen. Pl. Fragm.* 58.)—Perianthium deciduum; segmenta distincta, oblonga lanceolata v. basi angustata, subæqualia, erecto-patentia. Stamina 6, segmentis prope basin affixa iisque breviora v. longiora, filamentis filiformibus; antheræ oblongæ, introrsum medio v. infra medium affixæ, loculis a latere subextrorsum dehiscentibus. Ovarium sessile, 3-loculare; stylus columnaris v. crassiuscule filiformis, apice sæpe incrassatus, stigmate terminali plus minus dilatato v. obscure 3-lobo; ovula in loculis 2 in *C. umbellata*, in aliis speciebus usque ad 12. Bacca globosa v. ovoideo-oblonga, indehiscens. Semina 2–∞, ovoidea v. obtusangula, testa appressa brunnea v. pallida; embryo in albumine solido juxta hilum minutus.—Caules e rhizomate repente erecti v. ascendentes, simplices, sæpe tenuiter pilosi. Folia ad basin v. prope basin caulis pauca, conferta, obovato-oblonga v. late lanceolata, basi plus minus in petiolum v. in vaginam contracta, membranacea, addito rarius altero in medio caule sessili. Flores parvuli v. majores, ad apicem caulis umbellati, exinvolucrati, umbella in *C. uniflora*, Kunth, ad flores 1–2 reducta, additis interdum in aliis speciebus paucis infra umbellam sparsis. Bracteæ parvæ, lineares, caducæ v. 0.

Species 6, quarum 2 Asiaticæ, Himalayæ, Sibiriæ v. Japoniæ incolæ, cæteræ boreali-Americanæ. *Kunth, Enum. Pl.* v. 156. *Baker in Journ. Linn. Soc.* xiv. 583. *Ait. Hort. Kew. ed.* 1, *t.* 6 (*Dracæna*). *Andr. Bot. Rep. t.* 206 (*Dracæna*). *Desf. in Ann. Mus. Par.* ix. *t.* 8 (*Smilacina*). *Bot. Mag. t.* 1155, 1403 (*Smilacina*). *Middend. Reise, Bot. t.* 30. *Hook. Fl. Bor. Amer. t.* 190 (*Smilacina*).

179. **Scoliopus,** *Torr. Bot. Whipple Exped.* 89 (145), *t.* 22.—Perianthium deciduum; segmenta distincta, 3 exteriora lato-lanceolata, patentia, 3 interiora linearia, erecta. Stamina 6, hypogyna, perianthio breviora, filamentis filiformibus; antheræ oblongæ, prope basin affixæ, loculis a latere (subextrorsum?) dehiscentibus. Ovarium sessile, oblongum, angulis 3 prominentibus, apice in stylum attenuatum, 1-loculare, placentis 3 parietalibus non prominentibus; stylus breviter filiformis, ramis 3 filiformibus recurvis introrsum stigmatosis; ovula in quaque placenta ∞. Fructus (ex S. Wats.) tenuiter membranaceus, 3-queter, irregulariter ruptus. Semina ∞, oblonga, pallida, teretia v. leviter angulata, inappendiculata, testa appressa, rhaphe anguste alata; embryo in albumine

carnoso juxta hilum minimus, subglobosus.—Rhizoma breve, fibris radicalibus dense fasciculatis carnosulis. Caulis brevis, erectus, basi vaginis vetustis stipatus nec bulbosus. Folia ad apicem caulis 2, opposita, ovata v. late oblonga, venis nonnullis cæteris majoribus percursa, sessilia v. in petiolum brevem contracta. Pedicelli ∞, rarius ad 1 v. 2 reducti, inter folia conferti, longi, recurvi, 1-flori.

Species 2, Americæ borealis incolæ. *S. Wats. in Proc. Amer. Acad.* xiv. 272. *Regel, Gartenfl. t.* 834 (*male*).

180. **Medeola,** *Linn. Gen. n.* 455. (Gyromia, *Nutt. Gen. N. Amer. Pl.* i. 238.)—Perianthium marcescens, demum deciduum; segmenta distincta, subæqualia, per anthesin reflexo-patentia. Stamina 6, hypogyna, perianthio vix breviora, filamentis leviter complanatis; antheræ oblongæ, prope basin affixæ, loculis a latere mox extrorsum dehiscentibus. Ovarium sessile, ovoideo-globosum, 3-loculare; styli 3, distincti, filiformes, superne crassiores, recurvi, introrsum stigmatosi, demum divaricati; ovula in loculis ∞ (ad 6). Bacca globosa, indehiscens, pulposa. Semina ∞, ovoidea, pallide brunnea, testa crassiuscule membranacea; embryo in albumine carnoso fere cartilagineo minutus.—Rhizoma crassum, horizontale. Caulis erectus, basi vaginis nonnullis hyalinis mox evanidis stipatus. Folia in medio caule in verticillo unico 6–9, subsessilia, ovali-oblonga, acuminata, membranacea, venis paucis subramosis, venulis reticulatis. Flores in umbella terminali ∞, sæpius pauci, foliis floralibus 3 quam caulina brevioribus latioribusque involucrati. Pedicelli filiformes, recurvi, foliis breviores.

Species 1, boreali-Americana. *Kunth, Enum. Pl.* iv. 277. *Baker in Journ. Linn. Soc.* xiv. 583. *Barton, Medic. Bot. t.* 38. *Bot. Mag. t.* 1316.

181. **Trillium,** *Linn. Gen. n.* 456.—Perianthium persistens; segmenta distincta, patentia, 3 exteriora tenuiter herbacea, viridia v. rarius colorata, 3 interiora petaloidea sæpius majora minus patentia v. interdum recurva. Stamina 6, ima basi segmentorum affixa, iisque breviora, filamentis brevibus leviter complanatis; antheræ lineares, erectæ, basifixæ, obtusæ v. apice recurvæ, loculis ad latera connectivi subdissitis a latere dehiscentibus. Ovarium lata basi sessile, ovoideum v. subglobosum, 3-loculare; stylus alte 3-fidus v. a basi 3-partitus, ramis a basi incrassata linearibus superne recurvis introrsum stigmatosis; ovula in loculis numerosa. Bacca globosa v. ovoidea, sæpe 3-costata, indehiscens. Semina ovoidea, a latere strophiolo pulposo adnata; embryo in albumine carnoso minimus, globosus, ab hilo parum distans.—Rhizoma breve, crassum, descendens v. horizontale, cicatricibusque vaginarum vetustarum annulatum. Caulis simplex, erectus, basi vaginis paucis brevibus scariosis stipatus. Folia 3, ad apicem caulis verticillata, lata, subsessilia v. longiuscule petiolata, 3–5-nervia et reticulato-pennivenia. Flos unicus, inter folia sessilis v. pedicellatus, erectus cernuus v. reflexus, violaceus luridus albus v. virescens.

Species ad 12, Americæ borealis et Asiæ extratropicæ ab Himalaya usque ad Japoniam incolæ. *Kunth, Enum. Pl.* v. 121. *S. Wats. in Proc. Amer. Acad.* xiv. 273. *Red. Lil. t.* 133, 134. *Royle, Ill. Bot. Himal. t.* 93. *Hook. Fl. Bor. Amer. t.* 192. *Kell. in Proc. Calif. Acad.* ii. 50, *t.* 2. *Smith, Spicil. t.* 4. *Salisb. Parad. Lond. t.* 1, 35. *Willd. Hort. Berol. t.* 35. *Reichb. Iconogr. Exot. t.* 29. *Bot. Mag. t.* 40, 470, 855, 954, 1027, 3002, 3097, 3250, 6449. *Sweet, Brit. Fl. Gard. t.* 212. *Lodd. Bot. Cab. t.* 875, 1232, 1349. *Maund, Botanist, t.* 138.

Trillidium, *Kunth, Enum. Pl.* v. 120, est *T. Govanianum,* Wall., perianthii segmentis omnibus angustis coloratis, quod etiam observatur in *T. viridescente,* Nutt., ab A. Grayio ad varietatem *T. sessilis,* Linn., reducto. Esdra, *Salisb. Gen. Pl. Fragm.* 60, est ipsum *T. sessile.* Delostylis, *Raf. in Journ. Phys.* lxxxix. 102, est *T. cernuum,* Linn.

182. **Paris,** *Linn. Gen. n.* 500.—Perianthium persistens; segmenta distincta, in quaque serie 4–6, exteriora patentissima, herbacea, ovata v. cuneata, interiora linearia v. subulata, interdum valde elongata, v. rarius obsoleta. Stamina tot quot segmenta (8–12), ima basi segmentorum affixa v. subhypogyna, filamentis brevibus leviter complanatis; antheræ lineares, erectæ, basifixæ, connectivo ultra loculos interdum longe producto,

loculis a latere dehiscentibus. Ovarium lata basi sessile, subglobosum, vertice depressum, 4–5-loculare v. placentis vix centrum attingentibus sub-1-loculare ; styli v. styli rami 4–5, lineari-filiformes, erecti, apice recurvi, superne v. fere a basi introrsum stigmatosi ; ovula in loculis ∞. Bacca indehiscens, v. capsula carnosula demum loculicide dehiscens. Semina subglobosa, testa nunc tenui appressa leviter rugulosa nec striata, nunc crassa pulposa ; embryo in albumine duro prope hilum minutus.—Rhizoma repens. Caulis simplex, basi vagina scariosa mox emarcida stipatus. Folia 4–∞, ad apicem caulis verticillata, sessilia v. petiolata, lanceolata v. ovata, tenuiter 3-nervia et reticulato-venulosa. Flos unicus, inter folia pedicellatus, erectus, virescens.

Species editæ 6, forte ad 3 v. 4 reducendæ, Europæ et Asiæ temperatæ v. montanæ incolæ. *Kunth, Enum. Pl.* v. 115. *Gærtn. Fruct. t.* 83. *Red. Lil. t.* 226. *Hayne, Arzneigew.* iii. *t.* 7. *Reichb. Ic. Fl. Germ. t.* 430. *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 58. *Ledeb. Ic. Fl. Ross. t.* 16. *Wall. Pl. As. Rar. t.* 126. *Hook. f. Ill. Himal. Pl. t.* 24.

Demidovia, *Hoffm. Hort. Mosq.* 1808, *ex Ledeb. Fl. Ross.* iv. 121, est *P. incompleta*, Bieb., perianthii segmentis interioribus parvis v. obsoletis.

Euthyra, *Salisb. Gen. Pl. Fragm.* 61, est *P. polyphylla*, Sm. ; species Himalayana, capsula carnosula demum in valvas 4–5 coriaceas dehiscente, seminibus bacciformibus rubris, testa crassa pulposa.

Tribus XX. Veratreæ.

183. **Melanthium,** *Linn. Gen. n.* 454. (Leimanthium, *Willd. in Gesellsch. Naturf. Fr. Berlin, Mag.* ii. 24.)—Flores polygami. Perianthium persistens, explanatum ; segmenta distincta, obovata v. oblonga, subæqualia, ∞-nervia, basi præsertim in fl. ♂ distincte unguiculata, rotato-patentia. Stamina 6, unguibus segmentorum affixa, perianthio breviora, filamentis breviter filiformibus ; antheræ parvæ, subglobosæ, introrsum affixæ, loculis confluentibus, polline emisso extrorsum explanatæ, orbiculato-peltatæ. Ovarium sessile, basi contractum, a perianthio liberum v. vix adhærens, 3-loculare, apice brevissime 3-lobum, lobis in stylos breves apice introrsum stigmatosos desinentibus; ovula in loculis ∞. Capsula membranacea, septicide in carpella 3 introrsum aperta secedens. Semina ∞, oblonga, testa tenui appressa circumcirca in alam amplam membranaceam expansa ; embryo . . .—Rhizoma brevissimum, fibris radicalibus fasciculatis carnosulis. Caulis erectus, foliatus, basi sæpe leviter incrassatus et reliquiis fibrosis vaginarum stipatus, vix tamen vere bulbosus. Folia nunc longa, basi longe angustata, nunc ovata longeque petiolata. Panicula terminalis, laxe pyramidata, floribunda, bracteis parvis. Flores ochroleuci v. virescentes, quam in *Veratro* longius pedicellati. Perianthii segmenta sæpius nec semper supra unguem glandulis seu foveolis 2 nectariferis instructa.

Species 3, boreali-Americanæ. *Baker in Journ. Linn. Soc.* xvii. 474. *S. Wats. in Proc. Amer. Acad.* xiv. 276. *Torr. Fl. New York, t.* 134 (*Leimanthium*). *Bot. Mag. t.* 985 (*Helonias*).

Linnæus species 3 heterogenas in *Melanthio* inclusit, inter quas planta Gronoviana, *M. virginicum*, Linn., bene a Bakero et S. Watsonio pro typica habetur, cum *M. latifolio*, Desv. Kunth has species ad *Zygadenum* refert, et nomen Linnæanum pro *M. ciliato*, Linn., retinuit, quod *Dipidax*, Salisb. *M. sibiricum*, Linn., ad *Zygadenum* pertinet.

184. **Veratrum,** *Linn. Gen. n.* 1144.—Flores polygami. Perianthium persistens, late campanulatum v. explanatum ; segmenta ima basi præsertim in fl. ☿ in tubum brevissime turbinatum connata, cæterum oblonga, patentia, subæqualia, basi parum contracta, ∞-nervia. Stamina 6, basi segmentorum affixa iisque parum v. multo breviora, filamentis filiformibus; antheræ parvæ, subglobosæ, introrsum affixæ, loculis confluentibus, polline emisso extrorsum explanatæ, orbiculato-peltatæ. Ovarium ovoideum, ima basi leviter contractum et perianthii tubo brevissime adhærens, apice brevissime 3-lobum, lobis in stylos breves apice introrsum stigmatosos desinentibus ; ovula in loculis sæpius numerosa. Capsula septicide in carpella 3 introrsum aperta secedens. Semina oblonga, testa tenui appressa circumcirca in alam amplam oblique oblongam expansa ; embryo juxta hilum cylindraceus, albumine 3-plo saltem brevior.—Rhizoma crassum, fibris

radicalibus fasciculatis carnosulis. Caulis erectus, validus, foliatus, basi sæpe leviter incrassatus et reliquiis fibrosis vaginarum stipatus, vix tamen vere bulbosus. Folia sæpius lata, plicato-venosa, in vaginam amplam contracta nec distincte petiolata, summa rarius fere omnia angusta. Flores purpurascentes viriduli v. albidi, in panicula terminali numerosi, breviter pedicellati. Folia floralia sub ramis superioribus herbacea, mox in bracteas parvas abeuntia, bracteis sub pedicellis parvis v. minutis. Capsulæ nunc erectæ, nunc reflexæ.

Species 8 v. 9, Europæ, Asiæ Rossicæ et Americæ borealis incolæ. *Kunth, Enum. Pl.* iv. 185. *Baker in Journ. Linn. Soc.* xvii. 469 (*excl. V. parvifloro*). *Jacq. Fl. Austr. t.* 335, 336. *Reichb. Ic. Fl. Germ. t.* 422, 423. *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 32. *Red. Lil. t.* 416, 447. *Hayne, Arzneigew.* xiii. *t.* 26. *Bot. Mag. t.* 963 *et t.* 1096 (*Helonias*).

Acedilanthus, *Trautv. in Middend. Reise, Fl. Ochot.* 94, *t.* 28, est *V. Maackii, Regel, Fl. Ussur.* 169, *t.* 11, *f.* 8 *ad* 14, species foliis angustis insignis, sed ex Maximowiczio in litt. vix a *V. nigro*, Linn., bene distincta; habitu *Melanthio* accedit sed perianthium certe *Veratri*. *V. Hofmeisteri*, Klotzsch in Waldem. Reise, est *Smilacina pallida*, Royle.

185. **Stenanthium,** *A. Gray in Ann. Lyc. N. York*, iv. 119.—Flores polygami. Perianthium anguste v. late campanulatum, persistens; segmenta basi in tubum brevissimum turbinatum connata, dein erectiuscula, superne patentia, angusta v. lanceolata, acuminata, 3–7-nervia, eglandulosa. Stamina 6, basi segmentorum affixa iisque 2–4-plo breviora, filamentis filiformibus; antheræ parvæ, subglobosæ, introrsum affixæ, loculis confluentibus, polline emisso extrorsum explanatæ, orbiculato-peltatæ. Ovarium ovoideum, ima basi leviter contractum et tubo perianthii adnatum, 3-loculare, apice in stylum contractum v. brevissime 3-lobum; styli subulati v. breves, lobos ovarii terminantes v. breviter connati, superne recurvi, apice introrsum stigmatosi; ovula in loculis ∞ (6–16). Capsula ovoideo-oblonga, apice conica, septicide in carpella 3 introrsum dehiscentia partibilis. Semina sæpius pauca, oblonga, angulata, angulis interdum angustissime subalatis; embryo in albumine carnoso prope hilum nunc minutus subglobosus, nunc cylindraceus albumine 2–3-plo brevior.—Bulbus tunicatus. Caulis erectus, elatus, inflorescentia excepta simplex. Folia radicalia v. ad basin caulis longa, linearia v. lineari-lanceolata, secus caulem perpauca minora v. 0. Flores albidi virescentes v. atropurpurei, nunc in racemum laxum parum ramosum dispositi, nunc in panicula pyramidata numerosissimi minoresque, pedicellati, sæpius nutantes. Bracteæ parvæ lineares v. minutæ.

Species 5, quarum una Asiæ boreali-orientalis (ins. Sachalin), cæteræ Americæ borealis incolæ. *Kunth, Enum. Pl.* iv. 189. *Baker in Journ. Linn. Soc.* xvii. 483. *S. Wats. in Proc. Amer. Acad.* xiv. 277. *F. Schmidt, Reise, Amurl. Bot. t.* 4. *Bot. Mag. t.* 1599 (*Helonias*). *Regel, Gartenfl. t.* 1035.

Genus vix a *Zygadeno* distinctum.

186. **Zygadenus,** *Mich. Fl. Bor. Amer.* i. 213, *t.* 22 (*errore* Zigadenus).—Flores hermaphroditi v. polygami. Perianthium expansum, persistens; segmenta interdum (nec semper) basi in tubum brevissimum turbinatum connata, cæterum distincta, subæqualia, plana, rotato-patentia, basi sæpe glandulis foveolisve nectariferis 2 distinctis v. in unam confluentibus instructa. Stamina 6, basi segmentorum affixa iisque paullo breviora, filamentis filiformibus v. rigidulis circa stylum conniventibus apice recurvis; antheræ parvæ, subglobosæ, introrsum affixæ, loculis confluentibus, polline emisso extrorsum explanatæ, orbiculato-peltatæ. Ovarium ovoideum, basi sæpius leviter contractum et perianthii tubo dum adsit breviter adhærens, apice v. alte 3-lobum, lobis in stylos rigidulos v. filiformes apice recurvos introrsum stigmatosos desinentibus; ovula in loculos ∞, sæpius numerosa. Capsula ovoidea v. oblonga, acuminata, septicide in carpella 3 introrsum dehiscentia plus minus secedens. Semina oblonga v. fere linearia, sæpe curvula, brunnea v. nigricantia, testa laxiuscula angulata; embryo in albumine carnoso prope hilum parvus, nunc minimus.—Rhizoma horizontale absque bulbo, v. bulbus tunicatus. Caulis erectus,

infra inflorescentiam simplex. Folia radicalia v. ad basin caulis conferta, longe linearia, secus caulem perpauca minora v. 0. Racemus terminalis, simplex v. paniculato-ramosus.

Species ad 12, quarum una Sibirica, cæteræ Americæ borealis incolæ, usque ad Mexicum extensæ. *Kunth, Enum. Pl.* iv. 194. *S. Wats. in Proc. Amer. Acad.* xiv. 278. *Baker in Journ. Linn. Soc.* xvii. 479. Icones citatæ sæpe sub *Heloniade.*

Genus a diversis botanicis varie extensum v. in genera 3 v. 4 divisum, in integrum servatum bene limitatur et sectiones 3 satis distinctas præbet:—

1. *Euzygadenus.* Rhizoma crassum, horizontale, bulbo 0. Folia rigidula. Panicula ramosa. Perianthii segmenta basi glandulis v. foveolis 2 distinctis instructa. Species unica, typica, boreali-Americana. *Red. Lil. t.* 461. *Bot. Mag. t.* 1703. *Lodd. Bot. Cab. t.* 1330.

2. *Anticlea.* Bulbus tunicatus. Panicula ramosa v. rarius racemus simplex, laxissimus, floribus longe pedicellatis. Perianthii segmenta basi glandulis plus minus in unam confluentibus instructa. Huc species Sibirica, cum 8 ex America boreali. *Linn. Amœn. Acad.* ii. *t.* 4. *Bot. Mag. t.* 1680. *ot. Reg.* 1838, *t.* 67. *Saund. Ref. Bot. t.* 354. ANTICLEA, *Kunth, Enum. Pl.* iv. 191. *Baker in Journ. Linn. Soc.* xvii. 481. MONADENUS, *Salisb. Gen Pl. Fragm.* 51.

3. *Amianthium.* Bulbus tunicatus. Racemus simplex, dense floribundus. Perianthii segmenta obscure 1-glandulosa v. eglandulosa. Species 2 v. 3, boreali-Americanæ. *Jacq. Ic. Rar. t.* 419 (*Anthericum*). *Bot. Mag. t.* 803, 1540. *Lodd. Bot. Cab. t.* 998. AMIANTHIUM, *A. Gray in Ann. Lyc. N. York,* iv. 121, nomen in AMIANTANTHIUM mutatum, *Kunth, Enum. Pl.* iv. 179. CHITONIA, *Salisb. Gen. Pl. Fragm.* 51, genus verisimiliter ad *Z. Nuttallii,* A. Gray, conditum.

Baker in Journ. Linn. Soc. xvii. 478, *Amianthium* restrixit ad species orientales, occidentalem ad *Zygadenum* refert. S. Watson nuper *Amianthium* ad *Z. muscætoxicum* solum reduxit.

187. **Schœnocaulon,** *A. Gray in Ann. Lyc. N. York,* iv. 127. (Asagræa, *Lindl. Bot. Reg.* 1839, *t.* 33. Sabadilla, *Brandt in Hayne, Arzneig.* xiii. *t.* 27.)—Perianthium persistens; segmenta distincta, subæqualia, anguste lanceolata v. linearia, erecto-patentia, basi foveola seu macula nectarifera unica instructa. Stamina 6, hypogyna, segmentis longiora, filamentis crassiuscule filiformibus erectis; antheræ parvæ, subglobosæ, basi introrsum affixæ, loculis confluentibus, polline emisso extrorsum explanatæ orbiculato-peltatæ. Ovarium ovoideum, basi leviter contractum, a perianthio liberum, apice breviter 3-lobum, 3-loculare, lobis in stylos breves apice introrsum stigmatosos desinentibus; ovula in loculis ∞ (4–8). Capsula ovoidea v. oblonga, acuminata, septicide in carpella 3 introrsum dehiscentia partibilis. Semina oblonga, sæpe curvula, angulata, interdum acuminata, nigra v. fusca, testa crassiuscula laxa; embryo prope hilum oblongus, albumine carnoso 3–4-plo brevior.—Bulbus sæpius angustus, fibroso-tunicatus. Folia radicalia, longe linearia. Scapus simplex, elatus, aphyllus. Flores parvuli, in spica terminali longa densa subsessiles, filamentis cum perianthii segmentis diu persistentibus. Bracteæ parvæ.

Species enumeratæ 5, regionis Mexicano-Texanæ incolæ. *Baker in Journ. Linn. Soc.* xvii. 476. *S. Wats. in Proc. Amer. Acad.* xiv. 280. *Bentl. et Trim. Med. Pl. t.* 287.

Genus *Zygadeno* (*Amianthio*) valde affine.

ORDO CLXXIX. PONTEDERIACEÆ.

Endl. Gen. 137. Lindl. Veg. Kingd. 206.

Flores hermaphroditi, parum irregulares v. interdum regulares. *Perianthium* inferum, ab ovario liberum, corollinum, marcescens diuque persistens, tubo evoluto v. rarius 0; lobi (rarius segmenta) 6, plus minus distincte 2-seriati, inter se similes v. seriei interioris parum majores. *Stamina* 6 v. 3, tubo v. basi segmentorum inæqualiter affixa, sæpius

declinata, superioribus brevioribus magisque inclusis, inferioribus rarius perianthio sublongioribus, interdum omnia subæqualia erecta, v. unum maximum; filamenta libera, filiformia v. basi dilatata v. medio incrassata. *Antheræ* oblongæ v. rarius ovatæ, dorso v. basi affixæ, loculis 2 parallelis distinctis rima longitudinali v. rarius poro brevi introrsum dehiscentibus. *Ovarium* superum, 3-loculare placentis axilibus, v. 1-loculare placentis 3 parietalibus. *Stylus* filiformis v. columnaris, stigmate terminali parvo integro v. brevissime 3-fido, v. varie dilatato. *Ovula* nunc in loculis placentisve ∞, 2-seriatim superposita, nunc in loculo solo fertili unicum, pendula v. descendentia, anatropa. *Fructus* siccus, pericarpio membranaceo in valvas 3 medio placentiferas dehiscente, v. interdum indehiscente v. deliquescente. *Semina* ovoidea v. oblonga, testa appressa in longitudinem ∞-costata. *Albumen* plus minus farinaceum, copiosum. *Embryo* centralis, cylindraceus, albumine vix v. non brevior, extremitate radiculari hilo proxima.

Herbæ aquaticæ, erectæ v. fluitantes. Rhizoma nunc in limo horizontale fibris radicalibus tenuibus ramosis densissime confertis, nunc in caules foliatos fluitantes ad nodos radicantes plus minus productum. Caules floridi in rhizomate, v. rami floridi in caule fluitante, semper 1-foliati. Folia perfecta in rhizomate v. in caule fluitante longe petiolata, lamina natante v. emersa varie dilatata rarius angusta; folium rami floridi radicalibus simile nisi brevius petiolatum; folia submersa nunc in basi tantum caulis fluitantis v. junioris pauca v. vix ulla, nunc secus caulem fluitantem numerosa, ad petiolos lineares absque lamina reducta. Inflorescentia in caules v. ramos unifoliatos terminalis, racemiformis spiciformis rarius fasciculiformis v. subpaniculata, in vagina folii sessilis v. pedunculata; flores secus rhachin simplicem v. rarius ramosam fasciculati v. dissiti, sessiles v. breviter rarius longiuscule pedicellati. Spatha ad basin inflorescentiæ sæpius complicata erecta v. apice patens, rarius a floribus distans concava patensque; bracteæ sub floribus minutæ v. 0.

Species vix 35, in aquis dulcibus regionum calidiorum utriusque orbis imprimis Americæ vigentes, usque ad Americam borealem, Chinam et Japoniam extensæ, in Europa desunt, et in hemisphærio australi vix extra tropicos inveniuntur.

Ordo quoad flores *Liliaceis* valde affinis, habitu tamen peculiari, inflorescentia, et præsertim seminibus bene distinctus, nec formis intermediis connexus.

CONSPECTUS GENERUM.

1. PONTEDERIA. Perianthium infundibuliforme. Stamina 6, antheris versatilibus. Ovarium abortu 1-loculare, 1-ovulatum.—*Amer. bor. et austr.*

2. EICHHORNIA. Perianthium infundibuliforme. Stamina 6, antheris versatilibus. Ovarium 3-loculare, multiovulatum.—*Amer. austr., Afr. trop.*

3. HETERANTHERA. Perianthium hypocraterimorphum. Stamina 3, antheris erectis. Ovarium 1-loculare v. imperfecte 3-loculare, multiovulatum.—*Amer. bor. et austr., Afr. trop.*

4. MONOCHORIA. Perianthium tubo 0, campanulatum. Stamina 6, antheris erectis. Ovarium 3-loculare, multiovulatum.—*Asia, Australia, Afr. trop.*

1. **Pontederia,** *Linn. Gen. n.* 399. (Unisema, *Raf. in Journ. Phys.* lxxxix. 261.)—Perianthium infundibuliforme, tubo incurvo tenui v. rarius abbreviato; limbus erecto-patens, obliquus, lobis latiusculis parum inæqualibus, summo (e serie interiore) basi sæpius maculato. Stamina 6, tubo inæqualiter affixa, declinata, superiora sæpe tubo inclusa, inferiora e tubo exserta interdum perianthio longiora, filamentis filiformibus; antheræ ovatæ, dorsifixæ. Ovarium sessile, oblongum, revera 3-loculare, sed loculis 2 minimis vacuis 1-loculare apparet; stylus filiformis, brevis v. elongatus, stigmate terminali indiviso v. minute 3-fido; ovulum unicum, ab apice loculi pendulum. Fructus tubo perianthii basi incrassato sulcato-costato v. muricato inclusus, oblongus, membranaceus, indehiscens. Semen pendulum, testa tenui appressa; embryo in centro albuminis farinacei cui æquilongus, cylindraceus.—Rhizoma nunc in limo reptans, breve, nunc elongatum, fluitans, cauliforme, vaginis longis foliorum obtectum. Caules (v. rami) erecti, simplices, 1-foliati. Folia radicalia longe petiolata, caulinum brevius petiolatum,

omnia cordato-ovata rotundata v. rarius lanceolata, vagina infra petiolum longa laxa. Inflorescentia terminalis composita denseque cylindracea, rarius subsimplex racemiformis, supra folium caulinum sessilis v. e vagina pedunculata, basi spatha complicata inclusa. Flores sæpius secus rhachin fasciculato-congesti, numerosi, rarius pauci subdissiti, sessiles v. vix brevissime pedicellati. Bracteæ minutæ v. 0.

Species 7 v. 8, omnes Americanæ, boreales v. australes. *Kunth, Enum. Pl.* iv. 123. *Seub. in Mart. Fl. Bras.* iii. i. 93. *Schlecht. Ponted.* 26. *Red. Lil. t.* 72. *Torr. Fl. N. York, t.* 131. *Bot. Mag. t.* 1156. *Lodd. Bot. Cab. t.* 613.

Reussia, *Endl. Gen.* 139 (icone citata nunquam edita), characteres omnino *Pontederiæ* præbet, exceptis floribus majoribus in inflorescentia paucioribus iis *Eichhorniæ* accedentibus, et staminibus brevioribus, superioribus tubo inclusis. Huc pertinent *Pontederia lagoensis*, Warm. in Vidensk. Meddel. Kjobenh. 1871, 323, t. 6, f. 1 ad 8, quæ verisimiliter eadem ac *Reussia triflora*, Endl., et *P. Schomburgkiana*, Klotzsch in Schomb. Reise Guiana, iii. 1118 (*Eichhornia subovata*, Seub.), jam a Solms-Laubachio in herb. Kew. ad *Reussiam* relata.

2. **Eichhornia,** *Kunth, Enum. Pl.* iv. 129.—Perianthium infundibuliforme, tubo breviusculo v. elongato tenuique; limbus erecto-patens, plus minus obliquus, lobis parum inæqualibus latiusculis v. latis, summo (e serie interiore) basi sæpe maculato. Stamina 6, tubo inæqualiter affixa, declinata, superiora omnino inclusa, inferiora magis exserta, perianthio tamen breviora, filamentis filiformibus v. basi leviter complanatis; antheræ oblongæ, prope basin dorsifixæ. Ovarium sessile, 3-loculare; stylus filiformis, stigmate terminali parum dilatato v. brevissime 3- v. 6-fido; ovula in loculis numerosa. Capsula tubo marcescenti perianthii inclusa, ovoidea oblonga v. linearis, pericarpio membranaceo loculicide dehiscente (v. deliquescente?). Semina numerosa, ovoidea, ∞-costata, utrinque obtusa; embryo in centro albuminis farinacei eo vix brevior, cylindraceus.—Herbæ aquaticæ, caule v. rhizomate fluitante ad nodos radicante, vaginis foliorum laxis obtecto; rami (v. caules) floriferi 1-foliati. Folia in caule juniore infima immersa linearia absque lamina, pleraque tamen longe petiolata, lamina natante v. emersa obovata rotundata cordata v. rarius lanceolata. Inflorescentia intra vaginam folii sessilis v. pedunculata, simpliciter sub-spicato-racemosa v. rarius paniculata. Spatha nunc sub inflorescentia complicata ei *Pontederiæ* similis, nunc minor, in medio pedunculo v. intra vaginam folii floralis recondita.

Species enumeratæ 11 v. 12, in aquis dulcibus Americæ australis et Africæ tropicæ vigentes, nonnullæ tamen ad varietates *E. azureæ* reducendæ. *Mart. Nov. Gen. et Sp.* i. 9, *t.* 4 (*Pontederia*). *Seub. in Mart. Fl. Bras.* iii. i. 89, *t.* 11. *Schlecht. Ponted. in Abhandl. Naturf. Gesellsch. Halle*, vi. 28, *cum ic. Bot. Mag. t.* 2932 (*Pontederia*), 5020, 6487.

Genus quodammodo polymorphum, non tamen in plura bene dividendum. In speciebus typicis, *E. azurea* affinibusque, folia obovata v. rotundata, petiolo interdum vesiculoso-inflato, inflorescentia densa vix in vagina pedunculata, floribus pluribus speciosis, perianthii tubo haud longo. In *E. tricolore*, Seub., folia longe petiolata cordata, inflorescentia pedunculata laxe paniculata, perianthii tubo longo tenui. In *E. natante*, Solms-Laub. in herb. Kew. (*Pontederia natante*, Beauv. Fl. Ow. et Ben. ii. 18, t. 68), ex Africa tropica, habitus potius *Heterantheræ*; caules fluitantes tenues, foliis submersis linearibus sæpe numerosis, emersis cordato-ovatis v. reniformibus interdum subpeltatis; flores solitarii v. in spica 2–3 parvuli, tubo perianthii longo tenui, quare Schlechtendahl, Ponted. 26, pro genere Leptosomus proposuit. In *E. caracasana* (Cabanisia, *Klotzsch in Herb. Berol.*; *Schlecht. Ponted.* 28), cujus rami soli 1-foliati floridi adsunt, folii lamina elongata angusta, flores in vagina plures, fasciculati, parvuli, tubo perianthii ut in *E. natante* longo tenui. Huc etiam refert Schlechtendahl *Eichhorniam Schultesianam*, Seub. (*Pontederiam paradoxam*, Mart.), quæ ex charactere dato evidenter *E. caracasanæ* affinis, vix tamen eadem species, nam spatha v. folii vagina ovata dicitur, dum in *E. caracasana* elongata est, et vix petiolo terminali latior.

3. **Heteranthera,** *Ruiz et Pav. Prod.* 9, *t.* 2; *Fl. Per. et Chil.* i. 43, *t.* 71. (Leptanthus, *Mich. Fl. Bor. Amer.* i. 24, *t.* 5. Buchosia, *Vell. Fl. Flum.* 33; *Ic.* i. *t.* 80.)—Perianthium hypocraterimorphum, tubo tenui cylindraceo; lobi angusti, patentes, subæquales v. 2–3 parum majores. Stamina 3, fauci affixa, filamentis filiformibus v. medio

incrassatis, uno sæpius cæteris longiore minusque incrassato, rarius omnibus subæqualibus; antheræ ovatæ v. oblongæ, una sæpius majore v. heteromorpha, erectæ, basifixæ, loculis introrsum dehiscentibus. Ovarium 1-loculare, placentis 3 parietalibus parum prominulis v. plus minus intrusis, ovarium imperfecte vix perfecte in loculos 3 dividentibus; stylus filiformis, stigmate parvo v. oblique incrassato dentatoque; ovula in quaque placenta ∞, 2-seriata. Capsula oblonga v. linearis, perianthio emarcido tenui inclusa, membranacea, in valvas 3 medio placentiferas dehiscens. Semina parva, ovoidea, ∞-costata.—Rhizoma nunc in limo breve, nunc sæpius in caulem foliatum submersum brevem v. elongatum fluitantemque productum. Folia nunc omnia submersa linearia absque lamina, nunc omnia v. pleraque longe petiolata, lamina ovata cordata v. reniformi natante v. emersa. Caules v. rami floriferi more ordinis 1-foliati, in speciebus lineari-foliis tamen brevissimi, folio ad axillam folii caulinis sessili eique simili. Spatha angusta, nunc flores 1–3 includens, nunc spicam interrupte ∞-florem exserens. Flores cærulei albidi v. pallide flavescentes, quam in cæteris generibus sæpius minores tenuioresque.

Species nobis adsunt 8, quarum una Africæ tropicæ incola, cæteræ omnes Americanæ, boreales v. australes. *Kunth, Enum. Pl.* iv. 119. *Seub. in Mart. Fl. Bras.* iii. i. 87. *Torr. Fl. N. York, t.* 132. *Bot. Mag. t.* 6192.

Species pleræque, foliis lamina natante v. emersa præditis, habitu *Eichhorniæ natanti* accedunt, inter illas tamen *H. spicata, Presl, Symb. t.* 10, a qua *H. peduncularis*, Benth., vix differt, insignis est floribus in spica elongata secus rhachin dissitis; stamina minus inæqualia quam in speciebus typicis. Species 3, foliis omnibus submersis linearibus absque lamina, inter se pluribus notis differunt. In *H. graminea*, Vahl (Torr. Fl. N. York, t. 133, Hook. Exot. Fl. t. 94. SCHOLLERA, Schreb. Gen. Pl. 785, charactere valde manco, genus ad hanc speciem limitatum a Willd. in Gesellsch. Nat. Fr. Berl. N. Schrift. iii. 438, et serius ab A. Grayio acceptum), spatha tenuis sæpius 1-flora, perianthii tubus valde elongatus, et stamina omnia æqualia, v. unum vix cæteris majus. In *H. zosteræfolia*, Mart. Nov. Gen. et Sp. i. t. 3, habitus, folia et inflorescentia omnino *H. gramineæ*, spatha 1- rarius 2–3-flora, sed perianthii tubus minus elongatus, et stamen unum cæteris multo majus. In *H. Seubertiana*, Solms-Laub. in herb. Kew. (*Eichhornia graminea*, Seub.), caulis foliatus brevior, foliis tamen omnibus linearibus submersis, spica elongata floribus dissitis *H. spicatæ*, et stamen unum cæteris conspicue majus.

4. **Monochoria,** *Presl, Rel. Hænk.* i. 127.—Perianthium campanulatum, tubo 0; segmenta distincta, subæqualia. Stamina 6, basi segmentorum affixa v. fere hypogyna, perianthio breviora, filamentis basi hyalino-dilatatis, omnia æqualia v. sæpius unum majus, filamento margine uno latere dente aucto; antheræ oblongæ, erectæ, basifixæ, loculis poro terminali mox in rimam longitudinalem continuato dehiscentibus. Ovarium sessile, ovoideum, 3-loculare; stylus filiformis, stigmate parum dilatato minute 3-lobo; ovula in loculis numerosa. Capsula oblonga, membranacea, loculicide dehiscens. Semina numerosa, ovoidea, utrinque obtusa, ∞-costata; embryo in centro albuminis farinacei eo vix brevior, cylindraceus.—Rhizoma in limo breve, rarius in caulem submersum breviter productum. Caules seu rami florentes 1-foliati, cum foliis radicalibus in rhizomate cæspitosi. Folia radicalia longa, caulinum brevius, petiolata, lamina sagittata cordato-ovata v. lanceolata. Racemus nunc intra vaginam folii caulini sessilis, brevissimus, floribus numerosis longiuscule pedicellatis fasciculiformis, nunc longior, laxiusculus v. fere spiciformis, pedicellis brevissimis. Spatha complicata, ad basin racemi v. intra vaginam ad basin pedunculi.

Species ad 6, Indiæ orientalis, Chinæ, Japoniæ, Archipelagi Malayani, Australiæ et Africæ tropicæ incolæ. *Kunth, Enum. Pl.* iv. 132. *Benth. Fl. Austral.* vii. 72. *Reg. Fl. Ussur. t.* 12. *Roxb. Corom. Pl. t.* 110, 111. *Symes, Emb. Ava, t.* 23. *Andr. Bot. Rep. t.* 490 (*ic. plures sub Pontederia*).

LIMNOSTACHYS, *F. Muell. Fragm. Phytogr. Austral.* i. 24, est *M. cyanea*, F. Muell., species Australiana, staminibus æqualibus v. uno parum tantum majore.

Ordo CLXXX. **PHILYDRACEÆ.**

Endl. Gen. 132. Lindl. Veg. Kingd. 186.

Flores hermaphroditi, irregulares. *Perianthium* inferum, ab ovario liberum, corollinum, marcescens diuque persistens, tubo 0; segmenta 4, 2-seriata, exteriorum posticum æstivatione anticum includens, interiora exterioribus alterna multo minora (staminodia petaloidea, *Lindl.*). *Stamen* 1, ima basi segmenti antici affixum v. fere hypogynum; filamentum complanatum, basi sæpe cum segmentis interioribus breviter connatum. *Anthera* 2-locularis, loculis adnatis distinctis rectis parallelisque v. curvis contortisve, rima longitudinali dehiscentibus. *Ovarium* superum, 3-loculare placentis axilibus, v. 1-loculare placentis parietalibus. *Stylus* filiformis, stigmate terminali parvo v. dilatato indiviso. *Ovula* in quaque placenta v. loculo numerosa, anatropa. *Capsula* ovoidea v. oblonga, loculicide dehiscens, valvis 3 medio placentiferis. *Semina* numerosa, minima, ovoidea v. oblonga, testa appressa, indumento exteriore tenui in nucleo mox evanido basi sæpe in appendicem parvam persistente. *Albumen* laxe carnosum, subfarinaceum. *Embryo* albumine inclusus, eo parum v. rarius subdimidio brevior, cylindraceus, rectus, radicula hilo proxima.

Herbæ erectæ, terrestres. Folia linearia v. ensiformia, radicalia v. ad basin caulis conferta, sæpe disticha, caulina pauca, minora. Flores intra bracteas breviter spathaceas solitarii, sessiles, secus rhachin simplicem inflorescentiæ v. ramos paniculæ plus minus dissiti.

Species 4, Australiæ, Archipelagi Malayani, Asiæ orientalis v. insularum maris Pacifici incolæ. Ordo parvus, nulli arcte affinis; cum *Commelineis* comparatur, sed semina longe distant.

CONSPECTUS GENERUM.

1. Philydrum. Folia ensiformia. Spica longa, indivisa. Antherarum loculi subglobosi, primum fere reniformes, mox valde contorti. Ovarium imperfecte 3-loculare.—*Australia, Archip. Malay., Asia or.*

2. Pritzelia. Folia pauca, linearia. Spica tenuis, indivisa. Antherarum loculi a basi reflexa recurvo-erecti. Ovarium perfecte 3-loculare.—*Australia austro-occid.*

3. Helmholtzia. Folia ensiformia. Panicula longa floribunda. Antherarum loculi oblongi, recti.—*Australia* (*ins. Pacif.?*).

1. **Philydrum,** *Banks ex Gærtn. Fruct.* i. 62, *t.* 16. (Garciana, *Lour. Fl. Cochinch.* 14.) —Perianthii segmenta exteriora lata, ∞-nervia, interiora multo minora, libera v. vix basi cum filamento connata. Stamen perianthio parum brevius; anthera terminalis, connectivo leviter incrassato, loculis 2, primum globoso-subreniformibus, mox valde flexuoso-contortis. Ovarium 1-loculare, placentis 3 parietalibus longe intrusis sed inter se liberis divaricato-2-lobis, lobis introrsum ovulis numerosissimis obtectis. Capsula 3-valvis. Semina numerosissima, minima, oblonga, subspiraliter striata, sæpius minute papilloso-tuberculata, chalaza pulvinata fusca, basi circa funiculum pallide appendiculata.—Caulis erectus, subramosus, lana albida præsertim in inflorescentia plus minus vestitus. Folia infra medium caulis ensiformia, disticha, vaginis equitantibus, superiora gradatim in bracteas abeuntia. Spica longa, interrupta, simplex, bracteis brevibus vaginantibus dissitis. Flores flavi, intra bracteas sessiles, solitarii v. rarius gemini.

Species 1, Australiæ orientalis, Archipelagi Malayani et Asiæ orientalis usque ad Chinam incola. *Benth. Fl. Austral.* vii. 73. *Caruel in DC. Monogr. Phanerog.* iii. 2. *Guillem. Ic. Pl. Austral. t.* 5. *Bot. Mag. t.* 783. De seminum structura cfr. *Schleid. et Vog. in Nov. Act. Nat. Cur.* xix. *t.* 40, *f.* 1 *ad* 6; *Griff. Ic. Pl. Asiat. t.* 269, 270.

2. **Pritzelia,** *F. Muell. Descr. Pap. Pl.* i. 13. (Hetæria, *Endl. Gen. Pl.* 133, *non Blume.* Philydrella, *Caruel in Nuov. Giorn. Bot. Ital.* x. 91; *in DC. Monogr. Phanerog.*

iii. 4.)—Perianthii segmenta exteriora lata, ∞-nervia, interiora multo minora, ad medium cum filamento connata. Stamen perianthio multo brevius, filamento lato plano; antheræ loculi contigui, paralleli, basi reflexi, dein abrupte recurvo-erecti, nec torti. Ovarium perfecte 3-loculare, placentis axilibus, ovulis numerosissimis. Capsula 3-valvis. Semina numerosissima, minima, ovoidea, inappendiculata, testa lævi v. tenuissime recteque striata, chalaza non incrassata.—Caulis e rhizomate parvo lanato, simplex, tenuis, glaber. Folia pauca, anguste linearia. Spica simplex, bracteis breviter vaginantibus, junioribus distiche imbricatis, sub anthesi dissitis. Flores intra bracteas solitarii, sessiles.

Species 1, Australiæ austro-occidentalis incola. *Benth. Fl. Austral.* vii. 74.

Caruel nomen Muellerianum rejecit ob genera tria homonyma prius edita, nulla tamen a botanicis accepta sunt; *Pritzelia*, Walp., est *Trachynema*; *Pritzelia*, Klotzsch, ad *Begoniam* reducitur; et *Pritzelia*, Schauer, nomine tantum in Flora 1842 signata, ab ipso auctore sub nomine *Scholtziæ* in Linnæa, xvii. edita fuit.

3. **Helmholtzia**, *F. Muell. Fragm. Phyt. Austral.* v. 202.—Perianthii segmenta exteriora ovato-lanceolata, tenuissime ∞-nervia, posticum nervis 2 prope margines validioribus percursum, interiora multo minora, vix brevissime cum filamento connata. Stamen perianthio brevius, filamento brevissimo plano; anthera longior, oblonga, erecta, loculis parallelis rectis. Ovarium perfecte 3-loculare, placentis axilibus, ovulis numerosissimis. Capsula subglobosa, 3-sulca, pericarpio crassiusculo demum loculicide dehiscente. Semina numerosissima, parva, oblonga, quam in *Philydro* paullo longiora angustioraque, sæpe leviter curva, striis tenuibus rectis, rhaphe sæpius prominente.—Caulis erectus, infra inflorescentiam simplex. Folia subradicalia, longa, ensiformia, vaginis brevibus equitantibus. Flores albi, quam in *Philydro* minores, secus ramos paniculæ terminalis pyramidatæ sessiles, numerosi. Bracteæ lanceolatæ, acuminatæ, sub floribus patentes eosque vix excedentes. Capsula villosa.

Species 2, altera Australiana, altera e seminibus verisimiliter in insulis maris Pacifici lectis in hortis educta. *Benth. Fl. Austral.* vii. 75. *Caruel in DC. Monogr. Phanerog.* iii. 5. *Bot. Mag. t.* 6056 (*Philydrum*).

Ordo CLXXXI. **XYRIDEÆ.**

Endl. Gen. 123. Lindl. Veg. Kingd. 187.

Flores hermaphroditi, parum irregulares. *Perianthium* inferum, corollinum, simplex v. duplex. *Sepalum* unicum, maximum, petaloideum, corollam involvens, caducissimum, v. 0 (nisi pro sepalis exterioribus bracteolas haberes). *Corollæ* tubus tenuis, brevis v. elongatus; lobi 3, æquales, patentes, lati, tenerrimi. *Stamina* perfecta 3, prope basin loborum affixa iisque breviora; filamenta brevia, filiformia. *Antheræ* oblongæ, dorsifixæ, loculis 2 parallelis v. basi divergentibus rima longitudinali dehiscentibus; staminodia 3, lobis corollæ alterna v. 0. *Ovarium* sessile, 1-loculare v. imperfecte 3-loculare, placentis 3 a basi ovarii erectis v. sæpius plus minus parietibus adnatis. *Stylus* terminalis, indivisus v. in ramos 3 apice stigmatiferos plus minus divisus. *Ovula* in quaque placenta ∞, pauca v. numerosa, 2-seriata, orthotropa. *Capsula* corollæ tubo marcescente inclusa, inter placentas in valvas 3 dehiscens. *Semina* ∞, ovoidea, hilo basilari, apice tuberculo parvo coronata, testa appressa, in longitudinem striata. *Albumen* farinaceum (v. laxe carnosum ?). *Embryo* ad apicem albuminis sub tuberculo terminale parvus, lenticularis v. late turbinatus.

Herbæ perennes v. rarius annuæ cæspitosæ. Folia radicalia, rosulata v. conferta, quaquaversa v. disticha, linearia v. rarius lineari-lanceolata. Scapi erecti, sæpius juncei, simplices, aphylli, rarius vaginis paucis v. basi folio unico instructi. Flores in capitulo terminali globoso ovoideo v. rarius cylindraceo conferti, sub bracteis coriaceis v. rigidis

imbricatis solitarii subsessiles, basi bracteolis 2 lateralibus oppositis rigidis v. scariosis complicato-carinatis (a plerisque botanicis pro sepalis exterioribus habendis) stipati, corollæ limbo solo v. etiam tubo partim exserto. Capsula semper sub bracteis imbricatis occulta.

Species infra 50, per regiones calidiores utriusque orbis late dispersæ.

Ordo parvus sed bene distinctus, nulli arcte accedens. Seminum structurâ fere *Restiacearum*, sed perianthio corollino, ovulis plurimis sæpe numerosis, aliisque notis longius distat. *Commelinaceis* convenit ovulis orthotropis, sed perianthium semina et habitus longe diversa.

CONSPECTUS GENERUM.

1. Xyris. Sepalum petaloideum latum, caducissimum. Stylus basi inappendiculatus, superne 3-fidus, ramis apice stigmatiferis.—*Utriusque orbis reg. calid.*

2. Abolboda. Sepalum petaloideum deest. Stylus prope basin appendicibus 3 linearibus reflexis instructus, apice stigmatoso sæpius fimbriato erecto sub-3-fido. Bracteæ quam in *Xyride* sæpius pallidiores, laxius imbricatæ.—*Amer. trop.*

1. **Xyris,** *Linn. Gen. n.* 64.—Sepalum petaloideum latissimum, plus minus distincte 3-nerve, in alabastro compresso sæpe 2-carinatum, facie postica medio 1-nervi, antice marginibus semet late obtegentibus corollam arcte involvens. Corollæ tubus brevis v. longiusculus, lobi ovati. Staminodia sæpius 3, inter lobos affixa, breviter filiformia, penicillo pilorum moniliformium v. antheridia difformi coronata, v. rarius deficientia. Stylus filiformis, inappendiculatus, superne 3-fidus, ramis apice stigmatiferis. Cætera ordinis.—Folia radicalia linearia, rigida v. graminea, cæspitosa v. disticha. Scapi inter folia juncei, nudi v. basi folio unico vagina longa lamina brevi instructi. Capitulum globosum ovoideum v. rarius hemisphæricum v. breviter cylindraceum, bracteis sæpius obtusis rigidis arcte imbricatis.

Species descriptæ ad 40, per regiones calidiores utriusque orbis late dispersæ, nonnullæ tamen ad varietates reducendæ. *Kunth, Enum. Pl.* iv. 2. *Benth. Fl. Austral.* vii. 76. *Seub. in Mart. Fl. Bras.* iii. i. 214, *t.* 22 *ad* 29. *Rudge in Trans. Linn. Soc.* x. *t.* 15. *Willd. Phytogr. t.* 1. *Labill. Pl. Nov. Holl. t.* 10. *Endl. Iconogr. t.* 13. *Ruiz et Pav. Fl. Per. et Chil. t.* 71. *Bot. Mag. t.* 1158. *Lodd. Bot. Cab. t.* 205.

Endlicher, Gen. Pl. 124, sectionem *Pomatoxyris* proposuit ad *X. operculatam*, Br., affinesque, capsula apice indurato circumscisse deciduo basi tantum 3-valvi, et Seubert species cæteras in sectiones 2 distribuit ad placentas alte v. vix parietibus adnatas, characteres tamen valde incerti et nequaquam habitu diverso comitati. *X. involucrata*, Nees (*X. asterocephala*, Seub.), tamen et verisimiliter *X. Hystrix*, Seub., species Americanæ tropicæ, magis differunt capitulo hemisphærico v. demum vix globoso, bracteis numerosissimis acutis, exterioribus foliaceo-productis vacuis involucrum formantibus.

Schismaxon, *Steud. Pl. Lechl. in Bot. Zeit.* 1856, 391, est *X. subulata*, R. et Pav., v. species ei valde affinis.

2. **Abolboda,** *Humb. et Bonpl. Pl. Æquin.* ii. 109, *t.* 114. (Chloerum, *Willd. ex Link in Spr. Jahrb.* iii. 74, *absque char.*)—Sepalum petaloideum *Xyridis* (an semper?) deest. Corollæ tubus tenuis, lobi ovati. Staminodia (in *A. grandi*, Griseb.) 3, inter lobos affixa, tenuissime filiformia, fere capillaria, nuda, in aliis speciebus deesse videntur. Ovarium oblongo-3-quetrum, apice obtusum acutum v. breviter cupulatum 6-dentatumque, 1-loculare, placentis 3 a basi erectis liberis v. plus minus parietibus adnatis v. inter se breviter connatis; stylus longiusculus, prope basin v. infra medium appendicibus 3 linearibus recurvis v. reflexis instructus, apice in stigmata 3 brevia erecta sæpe fimbriata divisus. Ovula, fructus et semina ordinis.—Folia radicalia, linearia v. interdum lineari-lanceolata. Scapi nunc omnino *Xyridis*, rigidi nudi v. basi 1-foliati, nunc medium versus vaginis 2 suboppositis, inferiore superiorem amplectente, v. vaginarum paribus 2–3 inter se distantibus instructi. Capitula sæpius pallidiora quam in *Xyride*; bracteæ variant in capitulo latiusculo laxe imbricatæ v. in capitulo angusto appressæ.

Species in herbariis adsunt 7 v. 8, non omnes tamen accurate examinatæ, omnes ex America tropica. *Kunth, Enum. Pl.* iv. 25. *Seub. in Mart. Fl. Bras.* iii. i. 222, *t.* 30.

A. Aubletii, Kunth, Enum. Pl. iv. 28, descriptione ex verbis Aubletii (*Xyris americana*, Aubl. Pl. Gui. i. 40, t. 14) excerpta, est verisimiliter species vera *Xyridis*, bractea bracteolisque pro calyce descriptis; stylus 3-fidus *Xyridis* nec *Abolbodæ*. Specimina Purdieana, a Grisebachio Fl. Brit. W. Ind. 526 descripta, folia setaceo-filiformia ab Aubletio depicta ostendunt; sepalum, staminodia et stylus omnino *Xyridis*. Specimina Spruceana et Schomburgkiana dubie ad *A. Aubletii* relata, videntur potius ad *X. subulatam*, Ruiz et Pav., pertinere.

Ordo CLXXXII. **MAYACEÆ.**

Lindl. Veg. Kingd. 189.

Flores hermaphroditi, regulares. *Perianthium* inferum, duplici serie 3-merum; exterius calycinum e sepalis 3 distinctis lanceolatis, æstivatione subvalvatis v. angustissime imbricatis uno subexteriore; interius corollinum, e petalis 3 distinctis obovatis rotundatisve subæqualibus patentibus, æstivatione late imbricatis in alabastro semet late involventibus. *Stamina* 3, hypogyna; filamenta breviter filiformia, erecta. *Antheræ* erectæ, basifixæ, oblongæ, sub-4-gonæ, loculis 2 parallelis intus in locellos 2 subdivisis, vertice demum breviter dehiscentibus v. in tubum breviter cylindraceum (deciduum?) conniventibus. *Ovarium* lata basi sessile, superum, 1-loculare, placentis 3 parietalibus. *Stylus* filiformis, indivisus, stigmate parvo terminali integro (v. brevissime 3-fido?). *Ovula* in quaque placenta ∞, 2-seriata, orthotropa. *Capsula* calyce staminibusque diu persistentibus cincta, ovoidea, pericarpio membranaceo, in valvas 3 medio placentiferas plus minus distincte dehiscens. *Semina* ovoidea v. globosa, hilo basilari, apice tuberculo parvo terminata, testa in longitudinem striata sæpiusque tuberculoso-rugosula. *Albumen* farinaceum (v. laxe carnosulum?). *Embryo* ad apicem albuminis ab hilo remotus, sub tuberculo leviter prominens, lenticularis v. subturbinatus.

Herbæ tenues, in uliginosis humidisve prostratæ v. reptantes v. in aquis dulcibus fluitantes, caulibus undique foliatis ramosis. Folia breviter lineari-filiformia, crebra, quaquaversa. Pedicelli 1-flori, in axillis solitarii, basi bractea tenuiter membranacea sæpeque bracteolis 2 parvis hyalinis stipati, v. ad apices ramorum plures conferti, bracteis membranaceis subhyalinis in capitulum ovoideum imbricatis.

Species enumeratæ ad 7, plures inter se valde affines, omnes Americanæ, boreales v. australes.

Ordo genere unico constans, a variis auctoribus cum *Xyrideis* et cum *Commelinaceis* ob ovula orthotropa et albumen farinaceum comparatur, a prioribus differt calyce perfecto et staminibus, a *Commelinaceis* ovario et seminibus, ab utroque ordine habitu peculiari. Antheræ fere *Rapateacearum*, sed ovula, semina et habitus longe diversa.

1. **Mayaca,** *Aubl. Pl. Gui.* i. 42, *t.* 15. (Syena, *Schreb. Gen. Pl.* 39. Biaslia, *Vandelli, Fl. Lusit. et Bras. Specim.* 4, *t.* 1, *f.* 2. Coletia, *Vell. Fl. Flum.* 32, *Ic.* i. *t.* 79.)—Genus unicum. Character ordinis.

Species uti supra ad 7, omnes Americanæ. *Kunth, Enum. Pl.* iv. 31. *Schott et Endl. Meletem.* 23, *t.* 3. *Seub. in Mart. Fl. Bras.* iii. i. 227, *t.* 31.

Ordo CLXXXIII. COMMELINACEÆ.

Endl. Gen. 124. Lindl. Veg. Kingd. 188. C. B. Clarke, Monogr. in DC. Monogr. Phanerog. iii. 115.

Flores regulares v. parum irregulares, hermaphroditi v. hinc inde abortu masculi. *Perianthium* inferum, duplici serie 3-merum rarissime 2-merum; exterius calycinum, e sepalis 3 distinctis v. rarius basi connatis, æstivatione imbricatis, uno exteriore sæpe paullo latiore; interius corollinum, e petalis 3 distinctis v. rarius unguibus in tubum tenuem connatis, æstivatione valde imbricatis. *Stamina* 6 v. abortu pauciora, hypogyna v. ad faucem corollæ affixa, nunc omnia perfecta, nunc 3 perfecta, 3 v. pauciora ad staminodia varie reducta v. deficientia; filamenta filiformia v. basi complanata, in pluribus generibus pilis moniliformibus barbata. *Antheræ* basifixæ, nunc oblongæ v. ovatæ, loculis 2 parallelis contiguis introrsum rima longitudinali v. apice poro dehiscentibus, nunc connectivo varie dilatato heteromorphæ, loculis sejunctis. *Ovarium* superum, sessile v. rarius breviter stipitatum, 3- v. interdum 2-loculare. *Stylus* terminalis, filiformis v. columnaris, indivisus; stigma terminale, sæpius parvum, capitatum pulvinatum v. penicillatum, integrum v. 3-dymum, rarius brevissime 3-fidum. *Ovula* in quoque loculo solitaria v. pauca, specie 1-seriatim v. rarius distincte 2-seriatim superposita, axi lateraliter affixa, orthotropa. *Fructus* capsularis, pericarpio crustaceo membranaceo v. rarius carnosulo, in valvas medio septiferas loculicide dehiscens, v. pericarpio fragili v. succulento indehiscens. *Semina* in loculis solitaria v. pauca, arcte contigua, 1-seriatim superposita, rarius plura 2-seriata, loculum sæpius arcte implentia, faciebus contiguis truncata, latere interiore hilo parvo v. lineari affixa, latere exteriore squamella parva intra foveolam adnata embryostega dicta instructa, testa cæterum varie rugosa. *Albumen* copiosum, farinaceum. *Embryo* sub embryostega marginalis v. parum intrusus, parvus v. breviter horizontalis, ab hilo semper remotus sæpiusque fere oppositus.

Herbæ sæpissime perennes, basi sæpius repentes radicantes v. rhizomate brevi instructæ. Caules procumbentes ascendentes v. erecti. Folia in vaginas cylindraceas v. breves sessilia v. breviter petiolata, sæpius membranacea, venis a costa centrali parum prominente divergentibus v. fere a basi subparallelis; floralia polymorpha sæpe spathacea v. ad bracteas reducta. Inflorescentia primaria centripeta, flores tamen sæpius in cymas simplices v. 2-fidas dispositi, unilateraliter sessiles v. pedicellati, centrifuge evolvuntur. Cymæ variæ, nunc elongatæ scorpioideæ v. sub anthesi rectæ, nunc rhachi brevissima in receptaculum contracta fasciculiformes, nunc spatha complicata inclusæ solitariæ v. geminæ, nunc numerosæ varie paniculatæ, in paucis generibus ad florem unicum reductæ v. irregulares. Bracteæ intra cymam floribus singulis oppositæ, sæpius parvæ minimæ v. obsoletæ, rarius herbaceæ distiche imbricatæ. Seminum forma sæpius e numero in loculo v. in serie evenit, si solitaria hemisphærica sunt v. semi-elliptica, si plura superius semipyramidatum, inferius obpyramidatum, intermedia plus minus quadrata, faciebus contiguis semper planis.

Species vix ultra 300, per regiones calidiores utriusque orbis late dispersæ, fere omnes tropicæ v. subtropicæ, perpaucæ usque ad Chinam et Japoniam extensæ, cæterum in Asia temperata uti in Europa desunt; in Australia extratropica una sola in regione austro-occidentali reperitur, in Africa australi paucæ, in America boreali nonnullæ, inter tropicos undique frequentes.

In hoc ordine Monographiam accuratam Clarkei fere in omnibus secuti sumus, characteribus essentialibus tamen semper in speciminibus probatis. Genera pleraque naturalia sunt et bene definita; tribus forte nimis artificiales, meliores tamen non occurrunt. Ordo totus optime limitatus, nec cum ullo alio generibus intermediis junctus.

CONSPECTUS GENERUM.

Tribus I. Pollieæ. Fructus indehiscens, pericarpio nunc crustaceo fragili nunc succulento v. carnoso. Cætera *Commelinearum*, excepta *Polliæ* sectione *Lamprocarpo*, cui stamina perfecta 6,

1. POLLIA. Panicula terminalis, simplex, laxe thyrsoidea v. brevis densaque, cymis secus rhachin primum scorpioideis mox rectis. Pericarpium crustaceum, nitidum, fragile.—*Asia trop. et or., Australia.*

2. PALISOTA. Paniculæ 1–2, anguste thyrsoideæ, dense cylindraceæ v. elongatæ laxioresque, cymis secus rhachin simplicem numerosis scorpioideis. Pericarpium succulentum v. carnosum. —*Afr. trop.*

3. ATHYROCARPUS. Habitus *Commelinæ*. Cymæ 2-fidæ in spatha complicata inclusæ. Pericarpium crustaceum, nitidum, fragile.—*Amer. trop.*

Tribus II. Commelineæ. Capsula loculicide dehiscens. Stamina 3 perfecta, staminodia 3 v. pauciora.

4. COMMELINA. Spathæ in quoque pedunculo solitariæ, latæ, complicatæ v. turbinato-cucullatæ. Cyma sæpius 2-fida, intra spatham inclusa. Antherarum loculi paralleli, contigui. Ovarium 3-loculare, loculis 2 anticis 1–2-ovulatis, postico 1-ovulato v. vacuo v. deficiente.—*Utriusque orbis reg. calid.*

5. POLYSPATHA. Spathæ secus pedunculum seu ramos plures, dissitæ, reflexæ, complicatæ. Cyma fasciculiformis, spatha inclusa. Antherarum loculi paralleli, contigui. Ovarium 2-loculare, loculis 1-ovulatis.—*Afr. trop.*

6. ANEILEMA. Cymæ parvæ, laxe paniculatæ. Antherarum loculi paralleli, contigui. Ovarium 2–3-loculare, loculis sæpius 2–∞-ovulatis. Rarius cymæ more *Commelinæ* spatha inclusæ, ovarii loculis ∞-ovulatis.—*Utriusque orbis reg. calid.*

7. COCHLIOSTEMA. Folia maxima. Paniculæ magnæ, coloratæ, bracteis amplis cymisque scorpioideis secus rhachin simplicem oppositis v. 3–4-natim verticillatis. Antherarum connectivum varie petaloideum, loculi gyris numerosis spiraliter torti.—*Andes Ecuadorenses.*

Tribus III. Tradescantieæ. Capsula loculicide dehiscens. Stamina (excepta *Callisia*) 6, rarius 5, omnia perfecta; staminodia 0.

8. BUFORRESTIA. Pedunculi axillares, irregulariter pauciflori, floribus ad bracteas parvas solitariis v. 2–3-nis. Antherarum loculi paralleli, contigui. Ovarium 3-loculare, loculis 4–∞-ovulatis.—*Afr. trop.*

9. FORRESTIA. Cymæ in capitula globosa sessilia e basi vaginarum erumpentia confertæ. Petala distincta. Antherarum loculi paralleli, contigui. Ovarium 3-loculare, loculis 2-ovulatis v. loculo postico 1-ovulato.—*Asia et Afr. trop.*

10. COLEOTRYPE. Cymæ in capitula globosa sessilia e basi vaginarum erumpentia confertæ. Petalorum ungues in tubum tenuem connati. Antheræ et ovarium *Forrestiæ*.—*Afr. austr.-or., Madagasc.*

11. CYANOTIS. Cymæ scorpioideæ, bracteis sæpius falcatis 2-seriatim imbricatis, rarius cymæ fasciculiformes intra vaginas foliorum sessiles, v. pedunculi tenues 1–pauci-flori. Corolla sæpissime basi tubulosa. Capsulæ loculi 2-spermi, semine altero erecto basifixo, altero pendulo apice affixo.—*Asiæ et Africæ reg. calid.*

12. STREPTOLIRION. Caulis volubilis, alte scandens, foliis cordatis. Inflorescentia terminalis, laxe breviterque thyrsoidea, cymis scorpioideis secus rhachin simplicem paucis. Antherarum loculi connectivum latum transversum marginantes. Ovarium 3-loculare, loculis 2-ovulatis.—*Himalaya.*

13. CARTONEMA. Inflorescentia terminalis, longe centripetim spiciformis, floribus singulis secus rhachin subsessilibus, bractea bracteolaque angustis stipatis. Antherarum loculi paralleli, contigui. Ovarium 3-loculare, loculis 2-ovulatis.—*Australia.*

14. FLOSCOPA. Panicula terminalis, brevis, densa, sessilis, ramis seu cymis a basi secundifloris nec scorpioideis. Antherarum loculi sæpissime paralleli, contigui. Ovarium 2-loculare, loculis 1-ovulatis.—*Utriusque orbis reg. calid.*

15. DICHORISANDRA. Inflorescentia terminalis v. rarius in scapo laterali subradicali, laxe breviterque thyrsoidea. Antherarum loculi paralleli, contigui, *poro terminali dehiscentes.* Ovarium 3-loculare, loculis 2–5-ovulatis. Capsulæ pericarpium succulentum.—*Amer. trop.*

16. TINANTIA. Cyma terminalis, pedunculata, ramis 2–3 longiusculis a basi secundifloris.

Antherarum loculi connectivum latiusculum marginantes. Ovarium 3-loculare, loculis 2–5-ovulatis.—*Amer. trop.*

17. TRADESCANTIA. Cymæ, rhachi brevissima in receptaculum contracta, fasciculiformes, intra basin foliorum floralium complicatorum sessiles v. varie paniculatæ. Antherarum loculi sæpissime connectivum latiusculum marginantes. Ovarium 3-loculare, loculis 2-ovulatis.—*Amer. bor. et austr.*

18. CALLISIA. Stamina 3 v. 1. Herbæ teneræ. Cymæ fasciculiformes, nunc intra spathas complicatas sessiles, antherarum loculis connectivo latiusculo disjunctis, nunc parvæ laxe paniculatæ, antherarum loculis parallelis contiguis. Ovarium 2–3-loculare, loculis 2-ovulatis.—*Amer. trop.*

19. SPIRONEMA. Cymæ dense capituliformes, globosæ, secus ramos longos paniculæ rigidæ sessiles, distantes. Stamina exserta; antherarum connectivum latum planum, fere hyalinum, cordatum, auriculis loculiferis. Ovarium 3-loculare, loculis 2-ovulatis.—*Mexico.*

20. CAMPELIA. Pedunculi laterales, simplices v. 2–3-fidæ; spathæ in pedunculo geminæ, complicatæ; cymæ fasciculiformes intra spathas sessiles. Antherarum connectivum 2-fidum, lobis linearibus reflexis extremitate loculiferis. Ovarium 2–3-loculare, loculis 2-ovulatis.—*Amer. trop.*

21. SAUVALLEA. Herba tenera. Spathæ terminales, complicatæ, 1-floræ. Antherarum loculi oblongi, connectivo parvo sejuncti, primum paralleli penduli, demum divaricati. Ovarium 2-loculare, loculis 2-ovulatis.—*Cuba.*

22. RHOEO. Caulis brevis, robustus, foliis longis confertis. Pedunculi laterales, simplices v. 2–3-fidæ. Spathæ geminæ, complicatæ, cymbiformes, cymas sessiles densissime multifloras includentes. Antherarum loculi connectivum latum marginantes. Ovarium 3-loculare, loculis 1-ovulatis.—*Amer. centr.*

23. LEPTORHOEO. Herba tenera, ramosa. Cymæ minimæ, fasciculiformes, in pedunculis filiformibus solitariæ. Antherarum loculi connectivum latiusculum marginantes. Ovarium 3-loculare, loculis 1-ovulatis.—*Amer. trop.*

24. ZEBRINA. Caulis procumbens v. scandens, ramosus. Spathæ terminales, geminæ, latæ, complicatæ, cymas sessiles fasciculiformes includentes. Calyx laxe tubulosus, 2–3-fidus. Corollæ tubus longus, tenuis; lobi patentes. Antherarum loculi connectivo lato transverso v. divaricato-2-lobo sejuncti. Ovarium 3-loculare, loculis 1–2-ovulatis.—*Mexico, Texas.*

25. WELDENIA. Folia caulem brevem terminantia, conferta, cymam sessilem dense fasciculiformem involucrantia. Calyx longe tubulosus, spathaceo-fissus, apice 2–3-fidus. Corollæ tubus longissimus; lobi patentes. Antheræ lanceolatæ, loculis connectivo angusto separatis. Ovarium 3-loculare, loculis ∞-ovulatis.—*Mexico, Amer. centr.*

TRIBUS I. POLLIEÆ.

1. **Pollia,** *Thunb. Gen. Nov.* i. 11.—Sepala distincta, persistentia, tenuia, lata. Petala minora, distincta, obovata, subæqualia. Stamina perfecta 3 v. 6, declinata, filamentis filiformibus nudis; antheræ ovatæ, loculis parallelis; staminodia interdum 3 loco staminum superiorum, brevia, antheridiis parvis. Ovarium 3-loculare, loculis 2–∞-ovulatis. Fructus globosus v. ovoideus, indehiscens at siccus, pericarpio nitido sæpius cyaneo fragili. Semina angulata, dorso plana, testa firma brunnea lævi; embryo hilo fere oppositus.—Herbæ perennes, caulibus a basi repente ascendentibus v. sæpius erectis interdum robustis. Folia majuscula. Panicula terminalis, laxe thyrsoidea v. brevis densaque. Cymæ secus rhachin simplicem sparsæ, simplices, pedunculatæ v. fere a basi florentes, primum scorpioideæ, demum rectæ, floribus breviter pedicellatis. Bracteæ sub cymis interdum subfoliaceæ, intra cymam parvæ v. 0.

Species 14, Australiæ, Archipelagi Malayani, Indiæ orientalis et Asiæ orientalis usque ad Chinam et Japoniam incolæ. *C. B. Clarke in DC. Monogr. Phanerog.* iii. 121; *Commel. et Cyrt. Beng. t.* 29, 30 (*Aclisia*), 32, 33. *Bauer, Ill. Pl. Nov. Holl. t.* 6 (*Aneilema*). *Wight, Ic. t.* 2068 (*Aclisia*).

Genus naturale, inflorescentia et fructu facile distinctum etsi characteribus artificialibus sæpe generici valoris nuncupatis in sectiones 3 dividitur:—

1. *Lamprocarpus,* staminibus omnibus perfectis, ovarii loculis ∞- (5–∞-) ovulatis. LAMPROCARPUS, *Blume in Schult. Syst.* vii. 1615, 1726.

2. *Aclisia*, staminibus perfectis 3, ovarii loculis ∞-ovulatis. ACLISIA, *E. Mey.*; *Presl, Rel. Hænk.* i. 137, *t.* 25.

3. *Phæocarpa*, C. B. Clarke, staminibus perfectis 3, ovarii loculis 2-ovulatis. Species una, Assamica.

2. **Palisota**, *Reichb. Consp.* 59, *nomen tantum*; *Endl. Gen.* 125. (Duchekia, *Kostel. Med. Pharm. Fl.* i. 213.)—Sepala petalaque distincta, subæqualia, concoloria, patentia, sepalo extimo paullo majore magisque concavo. Stamina perfecta 3, filamentis linearibus nudis; antheræ oblongæ, una sæpius paullo diversa filamento longiore, loculis parallelis; staminodia 2 v. 3, breviter filiformia, pilis longis moniliformibus penicillata. Ovarium sessile, 3-loculare, loculis 2–8-ovulatis, postico sæpe minore interdum vacuo. Fructus ovoideus, carnosulus v. baccatus, nec nitidus, indehiscens. Semina in loculis pauca, 1–2-seriatim superposita, quadrata v. pyramidata, testa lævi v. parum rugosa; embryo horizontalis.—Caulis nunc brevissimus, nunc elongatus validus. Folia ad apicem caulis conferta, vaginis imbricatis sæpe longe pilosis, lamina ampla. Pedunculi in fasciculo foliorum 1–2, paniculam anguste thyrsoideam, nunc dense oblongam v. cylindraceam, nunc elongatam laxioremque ferentes. Flores parvuli, numerosi, in cymis simplicibus scorpioideis secus rhachin simplicem pedicellatis dispositi, in cyma sessilibus v. brevissime pedicellatis. Bracteæ sub cymis nunc ovatæ subimbricatæ diu persistentes, nunc caducissimæ minimæ v. 0. Baccæ nunc coccineæ, nunc cæruleæ.

Species 8, Africæ tropicæ incolæ, a Clarkeo in sectiones 2 distributæ:—1. *Monostichos*, ovarii loculis anticis 2- rarius 3-ovulatis, seminibus 1-seriatis. 2. *Distichos*, ovarii loculis anticis 6–∞-ovulatis, seminibus 2-seriatis. *C. B. Clarke in DC. Monogr. Phanerog.* 130, *t.* 5, *f.* 3, 4. *Beauv. Fl. Ow. et Ben. t.* 15 (*Commelina*). *Bot. Mag. t.* 5318.

3. **Athyrocarpus**, *Schlecht. Linnæa*, xxvi. 454. (Phæosphærion, *Hassk. in Flora*, 1866, 212.)—Sepala distincta, ovata, viridula, patentia, extimo paullo latiore. Petala majora, distincta, obovato-rotundata, uno brevissime, 2 paullo longius, unguiculatis. Stamina perfecta 3, filamentis filiformibus; antheræ oblongæ, loculis parallelis, uno majore loculis basi divaricatis; staminodia 2–3, antheridiis hastato-triangularibus. Ovarium sessile, 3-loculare, loculis anticis 2-ovulatis, postico 1-ovulato. Capsula globosa, pericarpio sicco nitido fragili cæterum indehiscente. Semina loculos arcte implentia, testa rugosa v. foveolata; embryo transversus, ab hilo remotus.—Herbæ ramosæ, debiles, *Commelinis* simillimæ. Pedunculi in vaginis foliorum superiorum oriundi, sæpe cum ramulo ex eadem vagina excurrente laterales apparent, spatham latam complicatam ferentes. Cymæ intra spatham 2-fidæ, scorpioideæ. Flores in cyma brevissime pedicellati, 2–3 inferiores sæpe perfectæ, superiores v. interdum fere omnes masculi v. steriles. Capsulæ cyaneæ purpurascentes v. candidæ.

Species 3, Americæ tropicæ incolæ, a Guiana et Peruvia usque ad Mexicum extensæ. *C. B. Clarke in DC. Monogr. Phanerog.* iii. 135 (*Phæosphærion*). *Red. Lil. t.* 472 (*Commelina*).

Schlechtendahl l. c. characterem generis accurate dedit et dubie tantum ei associavit *Commelinam pallidam*, Willd., cujus fructus ignotus fuit, quæque fructu excepto ab *Athyrocarpo* non differt nisi notis minoribus a Schlechtendahlio bene indicatis. Hasskarl in Commel. Ind. 8, nomen Schlechtendahlii ad genus spurium transtulit, e floribus *Commelini pallidi* cum fructu *Athyrocarpi*, fictum.

TRIBUS II. COMMELINEÆ.

4. **Commelina**, *Linn. Gen. n.* 62. (Erxlebia *et* Hedwigia, *Medic. in Rœm. et Ust. Mag.* x. 124. Ananthopus, *Raf. Fl. Ludov.* 20.)—Sepala membranacea, extimo sæpius minore, 2 interioribus distinctis v. breviter connatis. Petala majora, latiora, quorum impar lateralibus brevius nunc brevissime unguiculatum. Stamina perfecta sæpius 3, filamentis filiformibus; antheræ oblongæ, una sæpius majore, loculis parallelis contiguis; staminodia 3 v. 2, antheridiis heteromorphis. Ovarium ad normam 3-loculare, loculis 2 anticis 1–2-ovulatis rarissime vacuis, postico 1-ovulato v. interdum vacuo v. omnino deficiente. Capsula sicca, interdum æqualiter 3-locularis, loculicide dehiscens, loculus

posticus tamen sæpe indehiscens remanet v. septicide secedens v. abortivus v. omnino deest; rarissime loculi antici vacui connatique ligulam formant persistentem a postico deciduo solutam. Semina loculos implentia, si solitaria ellipsoidea, si gemina arcte superposita, faciebus contiguis planis, hilo lineari, testa firma sæpius nigra v. fusca varie reticulata foveolata v. rugosa; embryo horizontalis, embryostega laterali.—Herbæ ramosæ, caule debili v. rarius valido basi sæpe repente, ascendente v. erecto. Folia ovata lanceolata v. linearia, in vaginis laxis sessilia v. brevissime petiolata. Pedunculi in axillis superioribus tenues v. brevissimi, spatham late complicatam acuminatam v. interdum turbinatam v. cucullatam ferentes, interdum pedunculi plures ad apicem rami fasciculati v. subcapitati, spatha in quoque pedunculo semper solitaria. Cyma intra spatham 2-fida, ramo utroque v. uno tantum scorpioideo ∞-floro, inferiore tamen interdum ad stipitem nudum reducto. Flores cærulei flavescentes v. rarius albi, parvuli, pedicellati, succedanei, e spatha sigillatim exserti, superiores in ramo ∞-floro masculi decidui, inferiores 1–3 fertiles, pedicello post anthesin recurvo capsulam intra spatham maturescentes.

Species enumerat C. B. Clarke 88, bene notas, per regiones calidiores utriusque orbis late dispersas, in America tam boreali quam australi in Africa tota et in Asia tropica frequentes, in Asia usque ad Chinam et Japoniam extensæ, in Australia tropica et subtropica inveniuntur, in Europa desunt. *Kunth, Enum. Pl.* iv. 35. *Gærtn. Fruct. t.* 15. *C. B. Clarke in DC. Monogr. Phanerog.* iii. 138; *Commel. et Cyrtandr. Beng. t.* 1 *ad* 13. *Webb, Phytogr. Canar. t.* 238, 239. *Wight, Ic. t.* 2065, 2066. *Ruiz et Pav. Fl. Per. et Chil. t.* 72, 73 *f. a. Seub. in Mart. Fl. Bras.* iii. i. *t.* 36, 37. *Jacq. Ic. Rar. t.* 293, 294. *Red. Lil. t.* 206, 207, 359, 390. *Willd. Hort. Berol. t.* 87. *Andr. Bot. Rep. t.* 399. *Reichb. Iconogr. Exot. t.* 142 *ad* 144, 151. *Schlecht. Hort. Hal. t.* 7. *Link, Kl. et Otto, Ic. Sel. t.* 30. *Bot Mag. t.* 1431, 2644, 3047. *Lodd. Bot. Cab. t.* 1553. *Sweet, Brit. Fl. Gard. t.* 3. *Saund. Ref. Bot. t.* 166. *Regel, Gartenfl. t.* 104, 592.

Genus habitu insigniter homomorphum, difficillime in sectiones naturales dividitur. Kunth series 2 distinxit ad spatham a basi apertam complicatamque, v. marginibus basi plus minus connatis turbinatam v. cucullatam. Hasskarl genera nonnulla separavit ad fructus variationes definita. C. B. Clarke genus in integrum restoravit, *Athyrocarpo* solo excepto, et sectiones 6 sequentes proposuit, characteribus carpologicis bene limitatas, sed forte nimis artificiales:—

1. *Eucommelina.* Ovarii loculi 2 antici 2-ovulati, posticus 1-ovulatus. Capsulæ loculi antici loculicide dehiscentes, posticus indehiscens v. demum dehiscens ab anticis sæpe septicide secedens.

2. *Heterocarpus.* Ovula loculorum anticorum sæpius imperfecta v. abortiva rarius semina perfecta maturantia, cætera *Eucommelinæ.*

3. *Dissecocarpus.* Ovarii loculi 2, 2-ovulati, postico deficiente v. rarius rudimentario v. parvo sterilique.

4. *Trithyrocarpus.* Ovarii loculi 3, 1-ovulati. Capsula æqualiter 3-locularis, loculicide 3-valvis.

5. *Heteropyxis.* Ovarii loculi 3, 1-ovulati. Capsulæ loculi 2 antici loculicide dehiscentes, posticus indehiscens, septicide secedens.

6. *Spathodithyros.* Ovarii loculi 2, 1-ovulati, dorsali deficiente. Capsula æqualiter 2-locularis, loculicide 2-valvis.

TRITHYROCARPUS, *Hassk. Commel. Ind.* 24, capsula 3-loculari, loculis 1-spermis, includit sectiones *Trithyrocarpum* et *Heteropyxidem*, Clarke. COMMELINA a Hasskarlio reducta fuit ad species capsula 3-loculari loculis 2 2-spermis tertio 1-spermo, et includit *Eucommelinam* cum speciebus nonnullis *Heterocarpi*, Clarke. SPATHODITHYROS, *Hassk. Commel. Ind.* 10, capsula 2-loculari, loculis 1-ovulatis et DISSECOCARPUS, *Hassk. l. c.* 9, pro sectionibus a Clarkeo accipiuntur.

HETEROCARPUS, *Wight, Ic.* vi. 29, *t.* 2067, genus propositum fuit ad species 2 Peninsulæ Indiæ orientalis, altera floribus cæruleis, altera floribus flavis, quibus loculus posticus solus in ovario ovulum unicum includit, et in fructu septicide secedit et indehiscens remanet; loculi 2 antici, sub anthesi minuti vacuique, post anthesin clausi, cum axi fructus ligulam formant persistentem linearem, a Wightio infeliciter podocarpium dictam. C. B. Clarke in sectione sua *Heterocarpo* species plures Africanas addidit, loculis anticis ut n *Eucommelina* 2-ovulatis, ovulis tamen mox abortientibus uno rarissime semen perfectum formante. Capsula in his 2-valvatim dehiscit, loculo postico fertili valvæ posticæ adnato.

Absque fructu sectiones Clarkei v. genera Hasskarlii nequaquam distinguendæ sunt, nisi 3 priores ovarii loculis anticis 2-ovulatis subgenus *Didymoon*, Clarke, formantes, a 3 posterioribus, loculis

omnibus 1-ovulatis seu subgenere *Monoon*, Clarke. Hæc etiam differentia etsi (*Heterocarpo*, Wight, excepto) constans, potius artificialis quam naturalis est.

Lechea, *Lour. Fl. Cochinch.* 60, planta chinensis botanicis recentoribus ignota, a Kunthio dubie ad *Commelinam* refertur; character auctoris minime convenit, et genus valde dubium remanet.

5. **Polyspatha**, *Benth. in Hook. Nig. Fl.* 543.—Sepala distincta, navicularia, extimo latiore. Petala distincta, sepalis majora, 2 longe tertium brevius unguiculata. Stamina perfecta 3, filamentis filiformibus; antheræ oblongæ, subæquales v. uno majore, loculis parallelis contiguis; staminodia 3, tenuissime filiformia, antheridiis minimis. Ovarium sessile, 2-loculare, loculis 1-ovulatis. Capsula ovoidea, obtusa, nitida, 2-locularis, loculicide dehiscens. Semina loculos implentia, elliptica, hilo lineari laterali, testa crassiuscula ab embryostega laterali depressa subradiatim sulcato-rugosa.—Herba debilis, elatiuscula, caulibus a basi reptante ascendentibus v. erectis simplicibus. Folia majuscula, in vaginam brevissime petiolata. Spathæ complicatæ, quam in *Commelina* minores nec acuminatæ, secus pedunculos simplices v. paniculæ ramos paucos plures, sæpius numerosæ, dissitæ, sessiles, arcte reflexæ. Flores intra spathas plures, pedicellati, fasciculati, cymæ rhachi vix evoluta; bracteæ parvæ, latæ.

Species 1, Africæ tropicæ incola. *C. B. Clarke in DC. Monogr. Phanerog.* iii. 194, *t.* 3.

6. **Aneilema**, *R. Br. Prod.* 270. (Anilema, *Kunth, Enum. Pl.* iv. 64. Aphylax, *Salisb. in Trans. Hort. Soc.* i. 271, *absque char.*)—Sepala libera, membranacea, viridia v. subpetaloidea, exteriore sæpius latiore. Petala obovalia, æqualia, brevissime v. 2 paullo longius unguiculata. Stamina perfecta 3 v. interdum 2, filamentis filiformibus glabris barbatisve; antheræ ovatæ v. oblongæ, una interdum paullo majore v. minore; staminodia 2–4, antheridiis varie difformibus, rarissime perfectiora minima antheris parvis polliniferis. Ovarium sessile, 3-loculare v. interdum 2-loculare, loculis 2–∞ v. (in *Dictyospermo*) 1-ovulatis. Capsula loculicide dehiscens. Semina in loculis solitaria v. 1-seriata, rarius 2-seriata, in quaque serie faciebus contiguis complanatis arcte superposita, testa firma interdum ossea rugosa v. foveolata; embryo horizontalis, ab hilo remotus.—Herbæ perennes, debiles v. rarius robustæ, caulibus ascendentibus v. erectis simplicibus v. ramosis. Folia sæpius sparsa, interdum omnia radicalia v. sub inflorescentia conferta. Pedunculi sæpius terminales v. in axillis superioribus, simplices v. ramosi; cymæ simplices, unilaterales, secus pedunculum v. ramos nunc breves confertæ, nunc tenues longe pedicellatæ, paniculam laxam formantes, bracteis parvis rarius herbaceis vaginantibusque; in paucis speciebus cymæ singulæ pauciforæ intra bracteas complicatas inflorescentiam fere *Commelinæ* præbent.

Species fere 60, regionum calidiorum utriusque orbis incolæ, pleræque tamen gerontogeæ, in Asia usque ad Chinam et Japoniam extensæ, in Australia tropica et subtropica plures, in Africa numerosa, in America tropica paucæ. *C. B. Clarke in DC. Monogr. Phanerog.* iii. 195.

Genus a Hasskarlio in genera plura, a Clarkeo in sectiones 5 sequentes ad capsulam divisum, quæ bene limitatæ videntur, etsi non semper naturales:—

1. *Euaneilema.* Capsula 3-locularis, 3-valvis, seminibus in quoque loculo 1-seriatim superpositis. *C. B. Clarke, Commel. et Cyrt. Beng. t.* 14 *ad* 22 *et t.* 31 (*Aclisia*). *Wight, Ic. t.* 2072 *ad* 2077. *Hook. Exot. Fl. t.* 204. *Reichb. Iconogr. Exot. t.* 136 (*Commelina*). Prionostachys, *Hassk. in Flora*, 1866, 212.

Murdannia, *Royle, Illustr. Bot. Himal.* 403, *t.* 95, f. 3, est *A. scapiflorum*, Wight, foliis omnibus radicalibus, scapo florido aphyllo basi paucivaginato cujus tamen characteres omnino *Euaneilematis*, et in specie affini *A. Loureiri*, Hance, caulis florens 1–2-foliatus, et bracteæ cymas includentes herbaceæ sunt, complicatæ, fere spathaceæ.

In *A. pauciflоro*, Wight, affinibusque nonnullis, cymæ in ramo perpaucæ, foliis floralibus complicatis inclusæ inflorescentiam *Commelinæ* simulantes, sed ovarii loculi ∞-ovulati *Aneilematis*.

A. Thomsoni, Clarke, insignis est capsula acuminata 9 lin. longa.

2. *Dichæspermum.* Capsula 3-locularis, 3-valvis, seminibus in quoque loculo 2-seriatim superpositis. *C. B. Clarke, Commel. et Cyrt. Beng. t.* 27, 28. Dichæspermum, *Wight, Ic.* vi. 31, *t.* 2078. Sectio formas 2 inflorescentia valde diversas includit. In *A. Hamiltoniano*, Wall. (*D. Blumei*, Hassk.), et in *A. ochraceo*, Dalz. (*D. repente*, Wight), cymæ paucæ bracteis complicatis spathaceis

omnino *Commelinæ* inclusæ, floribus in priore cæruleis, in hac flavescentibus. In *A. Kœnigii*, Wall. (*D. lanceolato*, Wight), et in *A. paniculato*, Wall. (*D. juncoide*, Wight), cymæ parvæ laxe paniculatæ ad normam generis.

3. *Dictyospermum.* Capsula 3-locularis, 3-valvis, ovarii loculis 1-ovulatis. *C. B. Clarke, Commel. et Cyrt. Beng. t.* 23 *ad* 25. *Seem. Fl. Vit. t.* 96. DICTYOSPERMUM, *Wight, Ic.* vi. 29, *t.* 2069 *ad* 2071. RHOPALEPHORA, *Hassk. in Bot. Zeit.* 1864, 58. PILETOCARPUS, *Hassk. in Flora*, 1866, 212.

4. *Amelina.* Capsula 2-locularis, 2-valvis, apice truncata, 2-cornuta. *Beauv. Fl. Ow. et Ben. t.* 38 (*Commelina*). AMELINA, *C. B. Clarke, Commel. et Cyrt. Beng. t.* 26.

5. *Lamprodithyros.* Capsula 2-locularis, 2-valvis, apice rotundata. *Beauv. Fl. Ow. et Ben. t.* 87 (*Commelina*), 104. BAUSCHIA, *Seub. in Vid. Meddel. Nat. Foren. Kjöbenh.* 1872, 123. LAMPRODITHYROS, *Hassk. in Peters, Mossamb. Reise, Bot.* 529. *Kotschy, Pl. Tinn. t.* 23.

7. **Cochliostema,** *Lemaire, Illustr. Hortic.* vi. *Misc.* 70 *et t.* 217.—Calyx subfalcato-oblongus, sepalis distinctis crassiuscule petaloideis. Petala distincta, obovato-oblonga, tenuia, fimbriato-ciliata, uno paullo angustiore longioreque. Stamina perfecta 3, filamentis brevissimis latis basi connatis cum connectivis petaloideis continuis; antheræ intermediæ loculi 2 distincti horizontaliter divaricati gyris pluribus in spiram torti, connectivo brevi dorso in appendicem planam brevem latam margine papilloso-ciliatam producto; antherarum lateralium connectivi petaloidei basi cucullati, margine interiore loculum unicum gyris numerosis in spiram tortum ferentes, ultra loculum in appendicem longam erectam angustatam producti; staminodia 2, brevissima, penicillo denso pilorum moniliformium coronata. Ovarium 3-loculare, loculis ∞- (10–14-) ovulatis. Capsula anguste oblonga, breviter acuminata, 3-locularis, loculicide dehiscens. Semina oblongo-quadrata, 2-seriatim superposita, hilo parvo; embryo sub embryostega laterali minimus. —Herba robusta, subacaulis. Folia radicalia conferta, pluripedalia, oblongo-lanceolata, basi late vaginantia. Paniculæ ad axillas erectæ, magnæ, coloratæ. Bracteæ secus pedunculum simplicem oppositæ v. 3–4-*natim verticillatæ*, amplæ, candidæ v. purpurascentes. Cymæ breviter simpliciterque scorpioideæ, ad axillas bractearum longe pedunculatæ. Flores speciosi, in cyma pedicellati, sepalis roseo-purpureis, petalis cæruleis.

Species 1, Andium Ecuadoriæ incola. *C. B. Clarke in DC. Monogr. Phanerog.* iii. 231. *Masters in Journ. Linn. Soc.* xiii. 204, t. 4. *Bot. Mag. t.* 5705. *Fl. des Serres, t.* 1837–9. Genus tam habitu quam staminibus in ordine distinctissimum.

TRIBUS III. TRADESCANTIEÆ.

8. **Buforrestia,** *C. B. Clarke in DC. Monogr. Phanerog.* iii. 233, *t.* 6, 7.—Sepala distincta, lanceolata, rigida, striata, persistentia. Petala distincta, obovata, subæqualia. Stamina 6, omnia perfecta, hypogyna, filamentis filiformibus nudis; antheræ ovoideæ v. subglobosæ, loculis parallelis contiguis. Ovarium sessile, oblongum, 3-loculare, loculis ∞- (4–10-) ovulatis. Capsula oblonga, acuta, loculicide dehiscens. Semina in loculis ∞, quadrata, 1-seriatim superposita, testa lævi v. tuberculato-rugosa; embryo brevis, sub embryostega laterali horizontalis.—Herbæ robustæ v. tenues, basi radicantes, ramosæ, caulibus erectis simplicibus. Folia mediocria. Pedunculi in axillis superioribus solitarii v. fasciculati, simplices v. parce ramosi. Flores secus pedunculum pedicellati, vix secundi, intra bracteas parvas solitarii v. (in *B. Mannii*) 2–3-ni.

Species 3, Africæ tropicæ incolæ. E speciebus Clarkeanis excludimus *B. tenuem*, quæ ob inflorescentiam capitatam sessilem et ovarii loculos 2-ovulatos ad *Forrestiam* transferenda.

9. **Forrestia,** *A. Rich. Sert. Astrolab.* 1, *t.* 1. (Amischotolype, *Hassk. in Flora* 1863, 391.)—Sepala distincta, colorata v. subherbacea, concavo-carinata, parum inæqualia. Petala distincta, obovalia, sepalis subæquilonga, subæqualia. Stamina 6, omnia perfecta, filamentis filiformibus superne barbatis; antheræ ovoideæ, loculis parallelis contiguis. Ovarium sessile, ovoideum, 3-loculare, loculis 2-ovulatis v. postico 1-ovulato. Capsula subgloboso-3-quetra v. oblonga, 3-locularis, loculicide dehiscens. Semina in loculis 2 superposita, v. abortu solitaria, oblonga, testa plus minus rugosa, hilo lineari; embryo sub

embryostega laterali horizontalis.—Herbæ a basi repente sæpius robustæ, glabræ v. villosæ, caulibus erectis simplicibus vaginis foliorum sæpe obtectis. Folia sæpius ampla, vaginis tubulosis post folia delapsa persistentibus. Inflorescentiæ dense capitatæ, globosæ, ad axillas subsessiles, e basibus vaginarum erumpentes laterales apparent, e cymis densissime confertis constantes, floribus ipsis sessilibus. Bracteæ sæpius floribus breviores.

Species 7, quarum una Africæ tropicæ, cæteræ Indiæ orientalis v. Archipelagi Malayani incolæ, una usque ad Formosam extensa. *C. B. Clarke in DC. Monogr. Phanerog.* iii. 235; *Commel. et Cyrt. Beng. t.* 41, 42. *Bot. Mag. t.* 5425.

Clarke genus ad species Asiaticas limitavit, quibus addimus *F. tenuem* ex Africa tropica, a Clarkeo dubie ad *Buforrestiam* relatam, sed ovarii loculi 2-ovulati et inflorescentia peculiaris omnino *Forrestiæ*, Clarkeo ipso assentiente.

10. **Coleotrype**, *C. B. Clarke in DC. Monogr. Phanerog.* iii. 238, *t.* 8.—Sepala distincta, anguste lanceolata, concavo-carinata. Corollæ tubus tenuis, cylindraceus, calycem superans; lobi obovato-orbiculati, subæquales, patentes. Stamina 6, omnia perfecta, fauci affixa, lobis breviora, filamentis filiformibus barbatis; antheræ ovoideæ, subæquales, loculis parallelis contiguis. Ovarium sessile, ovoideum, 3-loculare, loculis 1–2-ovulatis. Capsula ovoideo-3-quetra, loculicide dehiscens. Semina in loculis solitaria v. 2 superposita, oblongo-linearia, hilo subbasilari.—Herbæ basi repentes ramosæ, caulibus ascendentibus simplicibus. Foliorum vaginæ sæpius breves. Inflorescentiæ capituliformes, ad axillas foliorum sessiles, e basi vaginarum erumpentes, floribus quam in *Forrestia* paucioribus sessilibus, bracteis sæpe flores æquantibus stipatis.

Species 3, Africæ austro-orientalis et Madagascariæ incolæ. Genus *Forrestiæ* valde affine, differt imprimis corollæ tubo evoluto.

11. **Cyanotis**, *Don. Prod. Fl. Nep.* 45. (Tonningia, *Neck. Elem.* iii. 165. Zygomenes, *Salisb. in Trans. Hort. Soc.* i. 271, *absque char.*)—Sepala lanceolata, carinata, basi sæpius connata, subæqualia. Petala subæqualia, unguibus medio in tubum connatis v. rarius a basi distincta exunguiculata, laminis patentibus suborbiculatis. Stamina 6, omnia perfecta, subæqualia, hypogyna v. unguibus petalorum adnata, filamentis filiformibus superne sæpissime barbatis interdumque sub apice incrassatis; antheræ oblongæ, loculis parallelis. Ovarium sessile, 3-loculare, loculis 2-ovulatis, ovulo altero ascendente altero pendulo. Capsula 3-locularis, loculicide dehiscens. Semina in loculis sæpius 2, altero ascendente juxta basin affixo, altero pendulo juxta apicem affixo, testa firma foveolata rugosa v. rarius lævi; embryo in extremitate ab hilo remota horizontalis.—Herbæ sæpius debiles, repentes v. ascendentes, ramosæ. Folia varia, parva v. mediocria. Flores in sectione normali in cymas scorpioideas simplices breves densasque, axillares v. terminales, sessiles v. pedunculatas dispositi, bracteis subfoliaceis falcatis secundis 2-seriatim imbricatis arcte inclusi, petalis solis cum staminibus exsertis; in sectionibus 2 et 3 inflorescentia abnormis.

Species ad 30, regionum calidiorum orbis veteris incolæ. *C. B. Clarke in DC. Monogr. Phanerog.* iii. 240; *Commel. et Cyrt. Beng. t.* 35 *ad* 39. *Roxb. Corom. Pl. t.* 107, 108. *Wight, Ic. t.* 2082 *ad* 2089. *A. Rich. Fl. Abyss. t.* 98. *Kotschy, Pl. Tinn. t.* 22 (*Zygomenes*). *Jacq. Hort. Vind. t.* 137. *Bot. Mag. t.* 1435, 5471. (*Ic. veteres pleræque sub Tradescantia.*)

Genus a Clarkeo in sectiones 3 inflorescentia bene distinctas dividit, quarum 1, *Eucyanotis*, species plerasque continet. Inflorescentia qualis supra descripta, habitu cæterum vario.

2. *Ocreæfolia.* Caules ascendentes, foliis angustis. Flores ad axillas foliorum caulinorum fasciculati, intra vaginam sessiles, bracteis angustis calycibus capsulisque intra vaginam demum sæpe inflatam occultis, corolla sola tubo longo tenui cum staminibus e vagina exserta. Species 2.

3. *Dalzellia.* Caules florentes procumbentes v. repentes tenuesque. Folia parvula, cordato-ovata v. lanceolata. Pedunculi in axillis superioribus v. ad apices ramulorum tenues, sæpius breves, 1-flori v. laxe pauciflori, rarius flores plures confertos ferentes, nec scorpioidei. Flores parvi. Bracteæ variæ. Species 4, inter quas Dalzellia, *Hassk. in Flora*, 1865, 593, est *C. vivipara*, Dalz., rhizomate crasso, foliis radicalibus lanceolatis, caulinis parvis. Belosynapsis, *Hassk. in Flora*, 1871, 259 (Erythrotis, *Hook. f. Bot. Mag. t.* 6150), est *C. Kewensis*, C. B. Clarke, foliis in caule

prostrato confertis distichis ovato-cordatis summis sub floribus diminutis, species insignis petalis a basi distinctis nec unguiculatis. Sectio tota a genere differt habitu et inflorescentia, sed ovulis seminibusque arcte connectitur.

12. **Streptolirion,** *Edgew. in Trans. Linn. Soc.* xx. 90, *t.* 2.—Sepala distincta, oblonga, subæqualia. Petala distincta, angusta, fere linearia. Stamina 6, omnia perfecta, hypogyna, filamentis filiformibus superne barbatis; antheræ transversæ, loculis connectivum latum medio subconstrictum oblique marginantibus. Ovarium 3-loculare, loculis superposite 2-ovulatis. Capsula membranacea, loculicide dehiscens. Semina in loculis 2, superposita, lateraliter affixa, superius infra medium, inferius supra medium; embryo sub embryostega laterali horizontalis.—Caulis ramosus, volubilis, alte scandens. Folia longe petiolata, cordato-ovata, acuminata. Inflorescentia ad apices ramulorum breviter laxeque thyrsiformis, folio florali sub inflorescentia subsessili. Cymæ scorpioideæ, simplices, secus pedunculum simplicem parum distantes, singulæ ad axillam bracteæ ovato-lanceolatæ breviter pedunculatæ. Flores in cyma breviter pedicellati.

Species 1, Himalayana. *C. B. Clarke in DC. Monogr. Phanerog.* iii. 261; *Commel. et Cyrt. Beng.* *t.* 40. *Wight, Ic. t.* 2081.

13. **Cartonema,** *R. Br. Prod.* 271.—Sepala distincta, herbacea, lanceolata, subæqualia. Petala distincta, late obovata v. orbiculata, subæqualia, marcescentia, persistentia. Stamina 6, omnia perfecta, hypogyna, filamentis brevibus nudis basi interdum dilatatis; antheræ oblongæ, loculis parallelis contiguis apice rima brevi demum altius fissa v. interdum usque ad basin rima dehiscentibus. Ovarium sessile, 3-loculare, loculis 2-ovulatis. Capsula loculicide dehiscens. Semina in loculis 2, superposita, hilo parvo laterali, testa laxiuscula reticulata; embryo sub embryostega laterali minutus.—Herbæ perennes, plus minus pubescentes, rhizomate brevi crasso. Caulis erectus, simplex. Folia radicalia v. inferiora conferta, longe angusteque linearia, secus caulem breviora sparsa. Inflorescentia terminalis, longiuscule spiciformis, simplex v. parce ramosus, floribus secus pedunculum v. ramos subsessilibus approximatis v. dissitis. Bracteæ subquoque flore angustæ, acuminatæ, cum bracteola minore in pedicello brevissimo.

Species 5 v. 6, Australianæ, characteres tamen specifici ulterius probandi. *C. B. Clarke in DC. Monogr. Phanerog.* iii. 262. Species unica extratropica, *C. phylidroides*, F. Muell., ex Australia austro-occidentali, a Clarkeo cum *C. spicato*, Br., e regione tropica jungitur, nobis tamen bene distincta videtur. Nonnullæ inter species tropicas inter se nimis affines sunt et melius notæ verisimiliter ad varietates reducendæ. Genus a toto ordine differt inflorescentia. Stamina iis *Dichorisandræ* accedunt.

14. **Floscopa,** *Lour. Fl. Cochinch.* 192. (Dithyrocarpus, *Kunth, Enum. Pl.* iv. 76.)—Sepala distincta, obovata v. oblonga, concava, subæqualia. Petala distincta, obovata, plana, sessilia v. 2 brevissime unguiculata. Stamina 6 v. rarius uno deficiente 5, omnia perfecta, hypogyna, filamentis filiformibus nudis; antheræ ovatæ, loculis parallelis contiguis, rarius (fide Seubertii) 3 staminum breviorum loculis connectivo lato separatis. Ovarium basi contractum v. brevissime stipitatum, 2-loculare, loculis 1-ovulatis. Capsula sæpius breviter stipitata, compressiuscula v. didyma, 2-locularis, pericarpio crustaceo nitido, loculicide dehiscens. Semina in loculis solitaria, hemisphærica, hilo laterali, testa ab embryostega laterali depressa radiato-striata v. lævi; embryo horizontalis.—Caules a basi radicante ramosa ascendentes v. erecti, simplices. Folia mediocria v. rarius ampla. Flores parvuli, in paniculam terminalem brevem densam sæpius glanduloso-villosam conferti, ramis paniculæ seu cymis simplicibus v. vix ramosis a basi secundifloris nec scorpioideis, floribus singulis breviter pedicellatis. Bracteæ minutæ v. 0.

Species 11, per regiones calidiores utriusque orbis late dispersæ. *C. B. Clarke in DC. Monogr. Phanerog.* iii. 265; *Commel. et Cyrt. Beng. t.* 34. *Roxb. Corom. Pl. t.* 109 (*Tradescentia*). *Beauv. Fl. Ow. et Ben. t.* 93 (*Aneilema*). *Wight, Ic. t.* 2079, 2080 (*Dithyrocarpus*). *Seub. in Mart. Fl. Bras.* iii. i. *t.* 35 (*Dithyrocarpus*).

15. **Dichorisandra,** *Mikan, Del. Fl. et Faun. Bras. t.* 3. (**Stickmannia,** *Neck. Elem.* iii. 171.)—Sepala distincta, ovata v. oblonga, viridia v. colorata, subæqualia. Petala distincta, sepalis latiora, subæqualia. Stamina 6, v. uno deficiente 5, omnia perfecta, filamentis brevibus erectis nudis; antheræ anguste oblongæ, erectæ, filamentis sæpius longiores, loculis parallelis contiguis poro terminali dehiscentibus. Ovarium sessile, 3-loculare, loculis ∞ (4–5- rarius 2–3-) ovulatis. Capsula 3-locularis, loculicide dehiscens, pericarpio crassiusculo in vivo pulposo. Semina in loculis pauca 'arillo subpulposo laxo tecta,' subglobosa v. angulata, hilo lineari; embryo sub embryostega laterali parvus.—Herbæ perennes, caulibus erectis v. ascendentibus sæpe ramosis. Folia mediocria v. ampla, in vaginis sessilia v. petiolata, vaginis sæpe caulem obtegentibus rarius dissitis. Panicula breviter thyrsoidea, supra folia ultima sessilis v. breviter pedunculata, rarius infra folia lateralis v. in scapo radicali aphyllo; ramuli secus pedunculum seu rhachin simplicem breves, floribus pedicellatis secundis vix tamen scorpioideis.

Species 28, Americæ tropicæ imprimis Brasiliæ incolæ, nonnullæ forte inter se nimis affines. *C. B. Clarke in DC. Monogr. Phanerog.* iii. 272. *Aubl. Pl. Gui. t.* 12 (*Commelina.*) *Nees et Mart. in Nov. Act. Nat. Cur.* xi. *t.* 1. *Seub. in Mart. Fl. Bras.* iii. i. *t.* 32, 33. *Bot. Mag. t.* 2721, 4733, 4760, 6165. *Lodd. Bot. Cab. t.* 1196, 1440. *Regel, Gartenfl. t.* 569, 593. *Fl. des Serres, t.* 1711.

Genus staminibus et capsula in ordine facile distinctum.

16. **Tinantia,** *Scheidw. in Allgem. Gartenz.* 1839, 365.—Sepala distincta, viridia, membranacea, subæqualia. Petala distincta, obovata, subæqualia. Stamina 6, omnia perfecta, filamentis filiformibus plus minus barbatis; antherarum loculi connectivum latiusculum marginantes, obliqui; stamina 3 interdum cæteris minora antheris parum heteromorphis. Ovarium sessile, 3-loculare, loculis superposite 2–5-ovulatis. Capsula 3-locularis, loculicide dehiscens. Semina in loculis 1-seriatim superposita, hilo laterali, testa rugosa v. scabra; embryo sub embryostega laterali hilo oppositus.—Herbæ erectæ, foliis mediocribus v. amplis. Pedunculus terminalis, additis rarius 1–3 in axillis superioribus. Cyma in pedunculo terminalis, e ramis 1–3 fere a basi floridis secundis, primum scorpioideis sed jam sub anthesi rectis. Flores secus ramos pedicellati, bracteis parvis ovatis.

Species 3, Americæ tropicæ incolæ. *C. B. Clarke in DC. Monogr. Phanerog.* iii. 285. *Jacq. Ic. Rar. t.* 354. *Red. Lil. t.* 239. *Cav. Ic. t.* 74. *Ruiz et Pav. Fl. Per. et Chil. t.* 272, *f. a. Bot. Mag. t.* 1340. *Bot. Reg. t.* 1403. *Lodd. Bot. Cab. t.* 1300. (*Ic. pleræque sub Tradescantia*).

Genus *Tradescantiæ* valde affine, differt imprimis inflorescentia, cymarum rhachi semper evoluta nec ut in *Tradescantia* in receptaculum contracta. Species communis, *T. fugax*, Schiedw., differt insuper ovarii loculis 3–5-ovulatis, in cæteris speciebus tamen 2-ovulati sunt more *Tradescantiæ*.

17. **Tradescantia,** *Linn. Gen. n.* 398. (**Ephemerum,** *Mœnch, Meth.* 237.)—Sepala distincta, concava, subæqualia, viridia v. colorata. Petala distincta, obovata v. orbiculata, subæqualia. Stamina 6, omnia sæpius perfecta, subæqualia v. alterna breviora, filamentis barbatis v. nudis; antherarum loculi sæpius connectivo lato sejuncti, ad margines obliqui, demum interdum connectivo plicato parallele approximati (rarius connectivo angusto contigui?); antheræ staminum breviorum interdum heteromorphæ. Ovarium 3-loculare, loculis superposite 2-ovulatis. Capsula 3-locularis, loculicide dehiscens. Semina in loculis 2, superposita, hilo laterali breviter lineari, testa reticulato-rugosa sæpius ab embryostega radiatim sulcata; embryo sub embryostega laterali horizontalis, hilo oppositus.—Herbæ perennes, basi radicantes, caulibus simplicibus v. ramosis diffusis ascendentibus v. erectis. Folia varia. Cymæ simplices, ob rhachin brevissimam ad receptaculum reductam fasciculiformes, falso umbellæ dictæ, nunc intra basin foliorum floralium complicatorum v. concavorum sessiles sæpe geminæ, nunc (parvifloræ) in panicula densa confertæ v. in panicula tenui laxa longe pedunculatæ. Flores in cyma plus minus pedicellati, numerosi v. pauci, more ordinis centrifuge evoluti, rarissime solitarii.

Species ad 32, omnes Americanæ, boreales v. tropicæ. *C. B. Clarke in DC. Monogr. Phanerog.* iii. 287. *Gærtn. Fruct. t.* 15. *Cav. Ic. t.* 75. *Red. Lil. t.* 94, 95. *Jacq. Ic. Rar. t.* 355. *Vent. Jard. Cels. t.* 24. *Barton, Fl. N. Amer. t.* 41. *H. B. et K. Nov. Gen. et Sp. t.* 672, 673. *Ruiz et*

Pav. Fl. Per. et Chil. t. 272, *f. b.* *Vell. Fl. Flum. Ic.* iii. *t.* 152 *ad* 154. *Seub. in Mart. Fl. Bras.* iii. i. *t.* 34. *Lehm. in Nov. Act. Nat. Cur.* xiv. *t.* 48. *Mart. Ausw. Merkw. Pfl. t.* 7. *Schlecht. Hort. Hal. t.* 11. *Link et Otto, Ic. Pl. Rar. t.* 7. *Hook. Ic. Pl. t.* 654, 665. *Bot. Mag. t.* 105, 1597, 1598, 2935, 3291, 3501, 3546, 5188. *Bot. Reg. t.* 1055; 1840, *t.* 34, 42. *Lodd. Bot. Cab. t.* 1513, 1560.

Inflorescentia generis primo aspectu polymorpha apparet, nam cymæ densissimæ intra folia floralia sessiles *T. virginicæ* affiniumque, habitum præbent longe ab illo *T. geniculatæ* affiniumque, quibus cymæ minimæ in panicula tenui laxa pedunculatæ, revera tamen in toto genere conformis est, cymæ nempe ob rhachin in receptaculum brevissimum contractam fasciculiformes sunt simplices v. 2-fidæ, flores semper unilaterales secundique centrifuge evolvuntur, nec centripetim quaquaversi ut in umbella vera. Inflorescentia cæterum specierum plurium inter illam *T. virginicæ* et *T. geniculatæ* plus minus intermedia sectiones ad hunc characterem definire prohibet. Clarke species plerasque in sectiones 2 melius definitas sed minime naturales distribuit: 1. *Eutradescantia*, staminibus subæqualibus antheris consimilibus; et 2. *Descantaria*, staminibus 3 brevioribus antheris plus minus dissimilibus; et sectionem tertiam *Monantham* addidit pro specie unica tenella Mexicana a nobis non visa, pedunculis 1-floris axillaribus terminalibusque.

Hasskarl aliique genera sequentia proposuerunt ad species varias a Clarkeo rite ad *Tradescantiam* restitutas.

KNOWLESIA, *Hassk. Commel. Ind.* 5, est *T. spicata*, Knowles et Westc. Fl. Cab. iii. 133, t. 124, a Clarkeo inter varietates *T. virginicæ* inclusa.

MANDONIA, *Hassk. in Flora*, 1871, 260, nomen ab auctore in *Œsterr. Bot. Zeitschr.* 1872, 147 in SKOFITZIAM mutatum, est *T. ambigua*, Mart., species *T. virginicæ* affinis.

DESCANTARIA, *Schlecht. in Linnæa*, xxvi. 140, et DISGREGA, *Hassk. Commel. Ind.* 6, genera potius indicata quam definita, ad sectionem *Descantariam*, C. B. Clarke pertinent.

HETERACHTHIA, *Kunze in Bot. Zeit.* 1850, 1, includit *T. pulchellam* et *T. gracilem*, H. B. et K.; species sunt teneræ, procumbentes, foliis parvis, floribus parvulis, cymis pedunculatis, antherarum connectivo transversim elongato quasi divaricato-2-lobo, lobis apice loculiferis; a Clarkeo in *Eutradescantia* includuntur.

PYRRHEIMA, *Hassk. in Flora*, 1869, 366; *C. B. Clarke in DC. Monogr. Phanerog.* iii. 271, est *T. fuscata*, Lodd. Bot. Cab. t. 374; Bot. Mag. t. 2330; Bot. Reg. t. 482, species habitu insignis, humilis sed robusta, pilis rufis dense vestita, cymis fasciculiformibus inter folia sessilibus v. breviter pedunculatis. Generice distincta fuit ob ovula a Kunthio in quoque loculo 4–5 2-seriata dicta, sed hic latet error, nam capsulæ loculi a variis auctoribus 2-spermi dicuntur, et in speciminibus nostris florentibus ovarii loculos semper ut in *Tradescantia* 2-ovulatos invenimus.

18. **Callisia,** *Linn. in Læfl. Itin.* 305; *Gen. n.* 63.—Sepala distincta, latiuscula v. anguste oblonga, viridula v. subscariosa, subæqualia. Petala distincta, obovalia v. oblonga, subæqualia. Stamina 3, v. ad unum reducta, omnia perfecta, filamentis filiformibus nudis; antherarum loculi connectivo lato sejuncti, v. connectivo angustissimo paralleli contigui. Ovarium sessile, 2–3-loculare, loculis 2-ovulatis. Capsula globoso-3-quetra v. 2-dyma, 3- v. 2-locularis, loculicide dehiscens. Semina sub-3-gona, hilo minuto laterali, testa lævi rugosa v. ab embryostega laterali radiato-striata.—Herbæ teneræ, repentes, caulibus ascendentibus simplicibus v. superne paniculato-ramosis. Flores parvi, cymis ob rhachin brevissimam in receptaculum contractam fasciculiformibus, singuli in cyma pedicellati. Bracteæ nunc lineares scariosæ, nunc minimæ v. 0.

Species 4, Americæ tropicæ incolæ. *C. B. Clarke in DC. Monogr. Phanerog.* iii. 309.

Genus in sectiones 2 vix non pro generibus distinctis habendas dividitur:—

1. *Hapalanthus.* Cymæ intra spathas seu folia floralia complicata sessiles, bracteis linearibus. Antherarum loculi, more *Tradescantiæ* sejuncti, connectivum latissimum marginantes. Stylus longiuscule filiformis. *Ruiz et Pav. Fl. Per. et Chil. t.* 73, *f. b.* HAPALANTHUS, *Jacq. Stirp. Amer.* 11, *t.* 11.

2. *Leptocallisia.* Cymæ tenuiter pedunculatæ, in paniculam laxam e folio florali exsertam dispositæ, bracteis brevissimis v. 0. Antherarum loculi oblongi, paralleli, contigui, connectivo angustissimo v. vix ullo. *Lam. Illustr. t.* 35. *Bot. Mag. t.* 4849 (*Tradescantia*).

19. **Spironema,** *Lindl. in Bot. Reg.* 1840, *Misc.* 26, *t.* 47.—Sepala distincta, oblongo-lanceolata, subscariosa, subæqualia. Petala distincta, late oblonga, subæqualia. Stamina

6, omnia perfecta, filamentis filiformibus fere capillaribus in alabastro valde flexuosis demum longe exsertis; antherarum connectivum latum, cordatum, planum, fere hyalinum, loculis auriculis basalibus affixis. Ovarium sessile, 3-loculare, loculis 2-ovulatis. Fructus . . .—Herba robusta, rhizomate repente v. stolonifero, caulibus foliatis brevibus crassis. Folia oblongo-lanceolata, in vaginis subimbricatis sessilia. Panicula elata, rigida, ramis paucis longis divaricatis v. recurvis. Florum cymæ dense capituliformes, globosæ, secus ramos paniculæ sessiles, distantes, bracteis paleaceis capitulum non v. vix superantibus stipatæ. Flores in cyma numerosi, subsessiles v. brevissime pedicellati, bracteis lanceolatis scariosis intermixti.

Species 1, Mexicana. *C. B. Clarke in DC. Monogr. Phanerog.* iii. 313. *Lindb. in Act. Soc. Sc. Fenn.* x. *t.* 4.

20. **Campelia,** *L. C. Rich. Demonstr. Bot. ou Anal. Fr.* 46, *nomen tantum pro* Zanonia *substitutum.* (Zanonia, *Cram. Enum.* 75 *ex Schult. Syst.* vii. 1179. Gonatandra, *Schlecht. Linnæa,* xxiv. 659.)—Sepala distincta, in pedicellum turbinato-incrassatum decurrentia, concava, exterius carinatum. Petala distincta, late orbiculata. Stamina 6, hypogyna v. seriei interioris basi segmentis adnata, filamentis filiformibus superne barbatis; antherarum connectivum 2-fidum, lobis linearibus reflexis extremitate loculiferis. Ovarium sessile, 3- rarius 2-loculare, loculis 2-ovulatis. Capsula calyce oblique aucto crassiusculo inclusa, pedicello carnoso incrassato fulta, pericarpio membranaceo, loculicide dehiscens, sæpe tamen abortu 1–2-sperma. Semina fere hemisphærica, hilo lineari, testa rugosa v. ab embryostega obscure radiata; embryo sub embryostega laterali parvus, horizontalis. —Herba robusta. Folia majuscula, oblongo-lanceolata, acuminata. Pedunculi e vaginis foliorum inferiorum v. delapsorum erumpentes, elongati, simplices v. superne in ramulos 2–3 divisi, aphylli. Vaginæ sub ramulis scariosæ. Spathæ (v. folia floralia) ad apicem pedunculi v. ramulorum 2, herbaceæ, complicatæ, acuminatæ, divaricato-patentes v. reflexæ. Cymæ rhachi brevissima fasciculiformes, intra spatham sessiles, bracteis parvis. Flores in cyma pedicellati.

Species 1, in America tropica late dispersa. *C. B. Clarke in DC. Monogr. Phanerog.* iii. 314. *Gærtn. Fruct. t.* 15 (*Commelina Zanonia*). *Red. Lil. t.* 192 (*Commelina*). *Nees et Mart. in Nov. Act. Nat. Cur.* xi. *t.* 1, *f.* 4. *Vell. Fl. Flum. Ic.* iii. *t.* 151 (*Tradescantia*). *Regel, Gartenfl. t.* 833.

21. **Sauvallea,** *Wright in Sauv. Fl. Cub.* 156.—Sepala distincta, subæqualia, exterius carinatum. Petala distincta, lata, subæqualia. Stamina 6, omnia perfecta, filamentis filiformibus inferne barbatis; antherarum loculi oblongi, apice connectivo parum dilatato affixi, primum penduli paralleli, demum divaricati. Ovarium 2-loculare, loculis 2-ovulatis, ovulo altero ascendente altero descendente. Fructus . . .—Caules debiles, procumbentes v. reptantes, ramosi, ramis florentibus breviter ascendentibus. Folia parvula, late ovata, in vaginis brevibus subsessilia, interdum basi cordata. Spatha terminalis, lata, complicata, vix acuminata. Flos in spatha unicus, breviter pedicellatus, vix e spatha exsertus.

Species 1, Cubensis. *C. B. Clarke in DC. Monogr. Phanerog.* iii. 315.

Genus habitu *Callisiam repentem* referens, sed adhuc imperfecte notum. A *Callisia* certe differt floribus in spatha solitariis, staminibus perfectis 6, et (si rite observatæ) antheris.

22. **Rhoeo,** *Hance in Walp. Ann.* iii. 659.—Sepala distincta, ovata, subæqualia, subpetaloidea. Petala paullo majora, distincta, subæqualia. Stamina 6, hypogyna, omnia perfecta, filamentis filiformibus barbatis; antherarum loculi connectivum latum marginantes, obliqui. Ovarium sessile, 3-loculare, loculis 1-ovulatis. Capsula perianthio persistente marcescente nec aucto stipata, loculicide dehiscens. Semina in capsula 1–3, fere hemisphærica, hilo lineari, testa valde rugosa; embryostega in fundo foveolæ latæ lateralis.—Caules breves, robusti. Folia longa, conferta, subtus sæpe violacea. Pedunculi breves, simplices v. 2–3-fidi, in axillis inferioribus v. vaginis defoliatis solitarii, vagina laxa lata instructi. Spathæ in pedunculo terminales, sæpius geminæ, horizontales, complicatæ, fere cymbiformes, flores numerosos densissime cymosos includentes. Pedicelli breves, perianthiis solis exsertis. Capsulæ parvæ, spatha inclusæ.

Species 1, Americæ centralis incola?, olim ex ore Mosquito in Jamaicam allata, unde in hortis variis tam Asiæ et Africæ quam Europæ et Americæ transmissa, jamdiu ornamenti gratia culta. Specimina sylvestria in herbariis nostris desunt. *C. B. Clarke in DC. Monogr. Phanerog.* iii. 316. *Lhér. Sert. Angl. t.* 12. *Sm. Ic. Pict. t.* 10. *Red. Lil. t.* 168. *Bot. Mag. t.* 1192, 5079. *Saund. Ref. Bot. t.* 48. (*Ic. omnes sub Tradescantia.*)

23. **Leptorhoeo,** *Hemsl.*; *C. B. Clarke in DC. Monogr. Phanerog.* iii. 317.—Sepala distincta, ovata, subæqualia, viridia. Petala paullo majora, distincta, ovata, subæqualia. Stamina 6, hypogyna, omnia perfecta, filamentis filiformibus nudis; antherarum loculi curvuli, connectivum latum marginantes. Ovarium sessile, 3-loculare, loculis 1-ovulatis. Capsula ovoidea, loculicide dehiscens. Semina in loculis solitaria, a dorso complanata, subquadrata, hilo parvo centrali, testa foveolato-rugosula, embryostega dorsali.—Herba tenera, ramosa, radicans, habitu fere *Callisiæ* sect. *Leptocallisiæ*. Folia parvula, lanceolata. Pedunculi filiformes, axillares terminalesque, cymam parvam fasciculiformem ferentes, rhachi brevissima v. rarius breviter evoluta. Bractea sub cyma interdum complicata spathiformis, sæpius tamen parva; bracteæ in cyma minimæ, membranaceæ, subhyalinæ. Flores minimi, tenuiter pedicellati. Capsulæ parvæ.

Species 1, Americæ tropicæ incola, a Brasilia usque ad Mexicum extensa.

24. **Zebrina,** *Schnitzl. in Bot. Zeit.* 1849, 870.—Calyx membranaceus, tubulosus, superne 3-fidus, v. 2-fidus lobo altero latiore 2-nervi. Corollæ tubus tenuis, calyce longior; lobi ovati, patentes, subæquales. Stamina 6, fauci affixa, omnia perfecta, filamentis filiformibus nudis v. barbatis; antherarum connectivum transversum, quasi divaricato-2-lobum, lobis angustis brevibusve extremitate loculiferis. Ovarium ovoideum, 3-loculare, loculis 1–2-ovulatis. Capsula subgloboso-3-quetra, sæpe stipite recurvo e basi perianthii lateraliter exserta, loculicide dehiscens. Semina in loculis solitaria, fere hemisphærica, hilo parvo oblongo, testa rugulosa, embryostega laterali.—Herbæ laxe decumbentes scandentes v. pendulæ, ramosæ. Folia ovato-lanceolata. Spathæ in pedunculo terminali geminæ, complicatæ, sæpe inæquales, latiusculæ. Cymæ in spathis sessiles, fasciculiformes, pauci- v. multi-floræ, bracteis parvis. Flores parvuli, breviter pedicellati. Adest etiam interdum flos solitarius in axilla folii caulini.

Species 2, regionis Mexicano-Texanæ incolæ. *C. B. Clarke in DC. Monogr. Phanerog.* iii. 317. *Dcne. in Rev. Hortic.* 1855, 141, *cum ic.*

25. **Weldenia,** *Schult. in Flora,* 1829, 3, *t.* 1. (Lampra, *Benth. Pl. Hartw.* 95.)—Calyx membranaceus, longe laxeque tubulosus, sæpius spathaceo-fissus, apice breviter 3-fidus. Corollæ tubus tenuis, calyce multo longior; lobi lati, patentes, subæquales. Stamina 6, fauci v. sub apice tubi affixa, filamentis breviter filiformibus nudis; antheræ erectæ, oblongo-lanceolatæ, loculis linearibus connectivum parum dilatatum marginantibus. Ovarium ovoideum, loculis ∞- (ad 6-) ovulatis. Capsula . . .—Radix tuberosa, fasciculata (*Schiede*). Caulis brevis, simplex, basi vaginis 1–2 laxissimis instructus. Folia ad apicem caulis ∞, conferta, calyces duplo superantia, circa flores quasi involucrum formantia. Florum cyma densissime fasciculiformis, inter folia sessilis. Calyces sessiles, 1½-pollicares v. paullo longiores. Corollæ tubus 3–3½-pollicaris.

Species 1, in summis montibus Mexici et Americæ centralis rarissime lecta. Nos specimen unicum Hartwegianum vidimus. *C. B. Clarke in DC. Monogr. Phanerog.* iii. 319. *Hook. Ic. Pl. t.* 1236 (*Lampra*).

Ordo CLXXXIV. **RAPATEACEÆ.**

Endl. Gen. 131 (Juncacearum genus). Lindl. Veg. Kingd. 187 (Xyridacearum genus). Kœrnicke, Monogr. der Rapateaceen, in Linnæa, xxxvii. 417.

Flores hermaphroditi, regulares. *Perianthium* inferum, duplici serie 3-merum, exterius calycinum, interius corollinum. *Calycis* tubus hyalinus, interdum brevissimus v. vix ullus; lobi paleacei, rigiduli, lanceolati, acuti, æstivatione convoluto-imbricati. *Corollæ* tubus sæpius hyalinus, cylindraceus; lobi late ovati, patentes, petaloidei, æstivatione late convoluti. *Stamina* 6, fauci affixa, corolla breviora, erecta; filamenta brevia, sæpius brevissima. *Antheræ* lineares, basifixæ, obtuse sub-4-gonæ, introrsum sulcatæ, basi saltem 4-locellatæ, locellis superne confluentibus, apice poro unico introrsum obliquo v. rima brevi (rarissime poro duplici?) dehiscentibus. *Ovarium* superum, sessile, corollæ tubo inclusum, obtusum retusum v. 3-lobum, perfecte v. interdum imperfecte 3-loculare. *Stylus* terminalis v. inter lobos ovarii affixus, crassiuscule filiformis, indivisus, stigmate terminali parvo indiviso vix v. non incrassato. *Ovula* in quoque loculo solitaria v. pauca (interdum usque ad 8), a fundo erecta, v. axi lateraliter affixa, anatropa. *Capsula* sessilis, basi sæpe pericarpio membranaceo indivisa, superne sæpe latior v. interdum a basi lata, pericarpio (excepto *Spathantho*) rigidulo, in valvas 3 medio septiferas dehiscens. *Semina* ubi nota ovoidea oblonga v. subglobosa; testa crassiuscula lævis v. minute reticulato-striata, apice interdum in appendicem breviter conicam v. mitræformem albidam celluloso-subspongiosam producta. *Albumen* copiosum, farinaceum. *Embryo* lenticularis, prope hilum albumini applicitum.

Herbæ perennes, sæpe paludosæ sæpiusque robustæ, rhizomate crasso brevi. Folia radicalia, vaginis sæpius distiche imbricatis conduplicatis longis angustisque v. latissimis crassisque, lamina late lineari lanceolata v. oblonga, sæpius longa, acuminata, basi petiolata v. in vaginam sessili; costa parum prominula, venis lateralibus tenuibus subparallelis, interdum venulis transversis numerosis minimis reticulato-connexis. Scapus inter folia erectus, simplex, nudus, v. basi vagina interdum laminam brevem ferente stipatus. Flores (excepto *Spathantho*) in capitulo terminali globoso v. latiusculo sessiles, v. in una specie breviter pedicellati, singuli bracteolis numerosis imbricatis persistentibus perianthii tubum occultantibus involucrum *Compositarum* simulantibus stipati. Corolla post anthesin citissime evanescit, calycis lobi conniventes convolutique e bracteolis exserti usque ad fructus maturitatem persistunt. Bracteæ capitulum involucrantes sæpissime 2, oppositæ, parum inæquales, basi latæ, acuminatæ, interdum herbaceæ, persistentes, nunc membranaceæ mox evanescentes, v. rarius omnino deesse videntur. In *Spathantho* capitulum spiciforme, secundum, bractea unica spathacea erecta inclusum.

Species ad 20 Brasilianæ v. Guianenses, parum intra fines Venezuelæ extensæ.

Ordo parvus, olim sub nomine *Rapateæ* inter genera *Juncaceis* affinia inclusus, insigniter tamen differt inflorescentia, perianthio, staminibus et seminibus. Ab ordinibus præcedentibus albumine farinaceo donatis distinguitur imprimis ovulis anatropis, embryone juxta hilum lenticulari. Semina iis *Flagellariearum* accedunt, sed habitus perianthium etc. longe distant.

CONSPECTUS GENERUM.

* *Flores in capitulo globoso v. compresso plures, singuli bracteolis imbricatis arcte stipati.*

1. Cephalostemon. Bracteolæ basi appressæ, acumine setaceo v. pungente instructæ. Ovula in loculis solitaria, a basi erecta. Antheræ ultra loculos anticos breviter productæ, ibidem rima introrsum dehiscentes, inappendiculatæ.—*Brasilia*, *Guiana*.

2. Rapatea. Bracteolæ undique appressæ, obtusæ. Ovula in loculis solitaria, a basi erecta. Antheræ ultra loculos anticos breviter productæ, appendicula cochleata instructæ, poro intra basin appendiculæ dehiscentes. Bracteæ involucrantes herbaceæ.—*Bras. bor.*, *Guiana*.

3. Saxofridericia. Bracteolæ *Rapateæ*. Ovula in loculis 2-∞, lateraliter rarius fere a

basi affixa. Antheræ ultra loculos anticos breviter productæ, inappendiculatæ, poro v. rima obliqua dehiscentes. Bracteæ involucrantes membranaceæ, latæ.—*Bras. bor.*, *Guiana.*

4. STEGOLEPIS. Bracteolæ *Rapateæ.* Ovula in loculis 2–∞ rarius solitaria, axi lateraliter affixa. Antheræ apice nec productæ nec appendiculatæ, poro obliquo dehiscentes. Bracteæ involucrantes tenuiter membranaceæ, mox evanescentes v. 0.—*Guiana.*

5. SCHŒNOCEPHALIUM. Bracteolæ *Rapateæ.* Ovula in loculis 2. Antheræ apice nec productæ nec appendiculatæ, poro duplici dehiscentes. Bracteæ involucrantes deflexæ, pro maxima parte occultæ.—*Brasilia bor.*

** *Flores unilateraliter spicati, intra spatham erectam complicatam sessiles, densissime conferti.*

6. SPATHANTHUS. Bracteolæ lineares, subæquales, laxæ, calcyce parum breviores. Ovarium *alte* 3-*lobum*, ovulis in quoque lobo 2. Capsula 1-sperma, lobis 2 ovarii immutatis ad basin capsulæ persistentibus.—*Guiana.*

1. **Cephalostemon,** *Rob. Schomb. Rapat. und Saxofrid.* 9, *charactere quoad stylum falso.*—Calycis tubus hyalinus; lobi rigide paleacei, e bracteolis exserti. Corollæ tubus hyalinus, lobi lati. Antheræ apice postice ultra locellos anticos productæ, ibidem rima brevi antice dehiscentes, inappendiculatæ. Ovarium latum, apice retusum, vix perfecte 3-loculare; ovula in loculis solitaria, a basi erecta. Capsula lata, ima basi brevissime indivisa, fere ad basin in valvas 3 coriaceas loculicide dehiscens. Semina 3 v. abortu pauciora, erecta, ovoidea, apice appendice albida papilloso-subspongiosa mitræformi coronata.—Herbæ perennes. Folia radicalia, graminea v. longe linearia. Scapus elatus v. brevis, basi vagina longa interdum laminam brevem ferente stipata. Flores in capitulo terminali plures, sessiles, singuli bracteolis numerosis basi ovatis imbricatis appressis superne setaceo-acuminatis v. in acumen lanceolatum pungensque attenuatis stipati. Bracteæ sub capitulo involucrantes 2, herbaceæ, lineari-lanceolatæ, floribus paullo longiores.

Species 4, Brasiliæ et Guianæ incolæ. *Kœrn. in Linnæa* xxxvii. 443, quarum 2 solæ nobis notæ, bracteolis longe setaceo-acuminatis. *C. gracilis*, Schomb. (*Rapatea gracilis*, Pœpp. et Endl. Nov. Gen. et Sp. t. 168, analysi ex Kœrn. quoad stylum erronea), bracteolis ut in prioribus setaceo-acuminatis, et *C. squarrosa*, Kœrn. (*Rapatea squarrosa*, Kunth), bracteolis in acumen lanceolatum pungens attenuatis, nobis ignotæ sunt, hæc ex Kœrnickio sectionem bene distinctam format.

2. **Rapatea,** *Aubl. Pl. Gui.* i. 305, *t.* 118. (Mnasium, *Schreb. Gen. Pl.* 214.)—Calycis tubus hyalinus, lobi rigide paleacei, lanceolati, acuti, convoluto-imbricati. Corollæ tubus hyalinus; lobi lati. Antheræ postice ultra loculos anticos in collum breve, apice appendice erecta cochleata instructum productæ, poro intra basin cochleæ dehiscentes. Ovarium sessile, imperfecte 3-loculare; ovula in loculis solitaria, a basi erecta. Capsula obovoidea v. clavata, basi pericarpio tenui indivisa, supra medium v. fere ad basin in valvas 3 coriaceas loculicide dehiscens. Semina oblonga, obtusa, subteretia, inappendiculata.—Herbæ e rhizomate crasso robustæ, v. humiles. Folia radicalia, elongata v. lanceolata, longe petiolata v. in vaginam complicatam subsessilia. Scapus elatus v. brevis, nudus. Flores in capitulo sessiles, v. (in *R. paludosa*) breviter pedicellati, singuli bracteolis numerosis imbricatis appressis obtusiusculis ab infimis ovatis gradatim longioribus stipati. Bracteæ capitulum involucrantes 2, herbaceæ, a basi lata longe acuminatæ.

Species 5 (v. 6?), Guianæ et Brasiliæ borealis incolæ. *Kœrn. in Linnæa*, xxxvii. 461. *Seub. in Mart. Fl. Bras.* iii. i. 127, *t.* 17. *Desv. in Ann. Sc. Nat. ser.* 1, xiii. *t.* 4.

R. Friderici-Augusti, Schomb. Rapat. und Saxofr. 11, t. 1, ex ic. et descr., nobis eadem videtur ac *R. paludosa*, Aubl.

3. **Saxofridericia,** *Rob. Schomb. Rapatea Friderici-Augusti und Saxofridericia regalis*, 4*to*, *Braunschweig*, 1845, 13, *t.* 2.—Calycis tubus hyalinus; lobi rigide paleacei, lanceolati, acuti, convuluto-imbricati. Corollæ tubus hyalinus; lobi lati. Antheræ ultra loculos anticos breviter productæ nec distincte appendiculatæ, apice poro v. rima obliqua unica dehiscentes. Ovarium sessile, imperfecte v. perfecte 3-loculare; ovula in loculis ∞ (2–8),

axi lateraliter affixa, 1–2-seriatim superposita, v. rarius ad basin loculi conferta. Capsula obovoidea v. clavata, basi interdum pericarpio tenui indivisa, superne v. interdum usque ad basin in valvas 3 coriaceas loculicide dehiscens. Semina . . .—Herbæ robustæ, rhizomate crasso. Folia radicalia, longa, petiolata v. in vagina sessilia. Scapus elatus, sub capitulo sæpius incrassatus. Flores in capitulo sessiles, singuli bracteolis numerosis imbricatis appressis acutis ab infimis ovatis gradatim longioribus, stipati. Bracteæ capitulum involucrantes 2, a basi lata acuminatæ, membranaceæ, facileque fissæ, v. in *S. regali* subherbaceæ, iis *Rapateæ* similiores.

Species nobis adsunt 5, Guianæ v. Brasiliæ borealis incolæ, *Kœrn. in Linnæa,* xxxvii. 452, in sectiones 2 distribuendæ :—

1. *Normales.* Folia longissima, coriacea, basi angustata nec petiolata, inermia. Ovula in *S. regali* et in specie altera inedita in quoque loculo 6–∞, 2-seriata, in tertia specie 2, fere a basi erecta.

2. *Acrotheca,* Kœrn. l. c. 456. Folia petiolo longo margine utrinque aculeato fulta, lamina chartacea inter venas longitudinales venulis transversis numerosis parallelis eleganter reticulata. Bracteolæ angustæ. Ovula in loculis 2 superposita, v. 4 2-seriata. Species 2, a Kœrnickio l. c. fusius descriptæ.

4. **Stegolepis,** *Klotzsch ex Kœrn. in Linnæa,* xxxvii. 480.—Calycis tubus brevis, hyalinus ; lobi rigide paleacei, e bracteolis exserti. Corollæ tubus hyalinus, lobi lati. Antheræ apice inappendiculatæ, poro unico introrsum obliquo dehiscentes. Ovarium obovoideum, obtusum, 3-loculare ; ovula in quoque loculo 2–8, 1–2-seriatim superposita, axi lateraliter affixa, rarius ad unum reducta, sæpe tamen plura mox abortiva. Capsula (ubi nota) basi pericarpio tenui indivisa, superne latior in valvas 3 coriaceas loculicide dehiscens. Semina . . .—Folia radicalia, longa, angusta, nunc basi in vaginam latam crassam complicatam abrupte dilatata, nunc cum vagina angustiore continua. Scapi nudi v. basi vagina brevi stipati. Flores in capitulo globoso plures v. numerosi, sessiles, singuli bracteolis numerosis imbricatis appressis ab infimis ovatis gradatim longioribus stipati. Bracteæ capitulum involucrantes 2, tenuissime membranaceæ, mox evanescentes v. sub floribus occultæ v. interdum ut videtur omnino desunt.

Species 3 v. 4, Guianenses. In specie typica, *S. guianensi,* Kl., flores cum bracteolis majusculi, ovula ex Kœrn. in loculis ad 4, in floribus pluribus a nobis examinatis a vermibus destructa fuerunt. Bracteæ sub capitulo florente sæpissime nullæ apparent, in uno specimine tamen reliquias nonnullas parvas vidimus. In *S. æmulante* (genus MONOTREMA, *Kœrn. in Linnæa,* xxxvii. 475), flores cum bracteolis multo minores, in capitulo numerosi, ovula in loculis solitaria (lateraliter nec basi affixa) v. interdum 2, et bracteæ tenuiter membranaceæ sub capitulo florente sæpius nec semper persistentes. In specie tertia inedita, quoad capitula inter *S. guianensem* et *S. æmulantem* media, ovula in loculis 2 superposita, et bracteæ sub capitulo deesse videntur. *Monotrema flavum,* Kœrn., e Venezuela, nobis ignotum est.

5. **Schœnocephalium,** *Seub. in Mart. Fl. Bras.* iii. i. 130, *t.* 18, 19.—Calycis tubus 0, sepala libera, paleacea, e bracteolis exserta. Corollæ tubus brevis, lobi lati. Antheræ apice inappendiculatæ, poro duplici dehiscentes. Ovarium obconicum, 3-loculare ; ovula in quoque loculo 2, superposita (*Kœrn.*), collateralia (*Seub.*). Capsula ovoidea, in valvas 3 loculicide dehiscens. Semina in quoque loculo 2, exappendiculata v. appendice obliqua pugioniformi instructa.—Folia radicalia, disticha, linearia v. lanceolata, vaginis conduplicatis. Scapi nudi ? v. basi vagina stipati. Flores in capitulo globoso sessiles, bracteolis numerosis imbricatis appressis obtusis ab infimis ovatis gradatim longioribus. Bracteæ capitulum involucrantes 2, deflexæ, sub floribus pro maxima parte occultæ. (*Char. ex Seubertio et Kœrnickio.*)

Species 2, Brasiliæ borealis incolæ, a nobis non visæ, et quoad characteres nonnullos in speciminibus perfectis ulterius probandæ. *Kœrn. in Linnæa,* xxxvii. 483. Genus evidenter *Stegolepidi* valde affine.

6. **Spathanthus,** *Desv. in Ann. Sc. Nat. ser.* 1, xiii. 45, *t.* 4.—Calycis tubus brevissimus v. 0 ; sepala late lanceolata, paleacea bracteolas non v. vix superantia. Corollæ

tubus cylindraceus; lobi ovati, patentes. Antheræ apice inappendiculatæ, superne sæpius incurvæ, poro unico obliquo dehiscentes. Ovarium alte 3-lobum, 3-loculare; stylus inter lobos affixus; ovula in quoque loculo 2, erecta v. ascendentia. Fructus abortu 1-locularis, 1-spermus, pericarpio membranaceo vix demum dehiscente, ovarii lobis cæteris abortientibus immutatis ad basin lobi fertilis persistentibus. Semen oblongum, obtusum, inappendiculatum, teres, testa crassiuscula tenuissime striato-rugosula; albumen et embryo normalia.—Folia radicalia, disticha, longa, coriacea, in petiolum contracta, basi in vaginam longam angustam complicatam dilatata. Scapi axillares, nudi, apice cum spatha erecta complicata acuminata continui. Flores intra spatham sessiles, densissime conferti, in spicam unilateralem dispositi, margines spathæ non v. vix superantes. Bracteolæ numerosæ, lineares, laxæ, subæquilongæ et vix sepalis breviores.

Species 1, Guianensis. *Kœrn. in Linnæa,* xxxvii. 488. *Seub. in Mart. Fl. Bras.* iii. i. *t.* 18, *f.* 2. *Rudge, Pl. Gui. t.* 11 (*Mnasium*).

Mnasium sphærocephalum, Rudge, l. c. t. 12, ex ordine excludendum, est *Thurnia,* Hook. f., infra ad calcem *Juncacearum* descripta.

Ordo CLXXXV. FLAGELLARIEÆ.

Endl. Gen. 131 (Juncacearum genus).

Flores hermaphroditi v. dioici, regulares. *Perianthium* inferum, ab ovario liberum, persistens, tubo 0; segmenta 6, distincta, parva, sub-2-seriatim imbricata, parum inæqualia, sicca v. subpetaloidea. *Stamina* 6, hypogyna v. basi segmentis breviter adhærentia; filamenta libera, filiformia. *Antheræ* ovatæ v. oblongæ, basifixæ, erectæ, loculis 2 parallelis introrsum rima longitudinali dehiscentibus. *Ovarium* superum, 3-loculare. *Stylus* brevis ramis 3 stigmatosis v. stigmata 3 distincta, linearia v. depressa. *Ovula* in loculis solitaria, anatropa, axi lateraliter affixa. *Fructus* succulentus v. drupaceus, parvus, indehiscens, loculis v. pyrenis 3 v. abortu 2 v. 1. *Semina* ovoidea globosa v. hemisphærica, lateraliter affixa, testa membranacea v. crassiuscula. *Albumen* copiosum, farinaceum. *Embryo* lenticularis, prope hilum albumini appressus.

Caules elati, validi v. scandentes, foliati. Folia sæpe longa, tenuiter multivenia, v. prominenter plicato-venosa. Panicula terminalis, sæpius ampla, ramosissima, supra folia subsessilis, floribus numerosis parvis secus ramulos sessilibus sæpe fasciculatis. Bracteæ ad basin ramulorum paniculæ interdum lanceolatæ, sub floribus minutæ v. 0.

Species 6 v. forte 7 v. 8, regionum calidiorum orbis veteris incolæ.

Ordo parvus, interdum *Juncaceis* relatus, v. cum *Astelia* genere *Liliacearum* comparatus, sed seminum structura ei *Rapateacearum* subsimilis, cum neutro ordine jungere sinit.

CONSPECTUS GENERUM.

1. Flagellaria. Flores hermaphroditi. Perianthium (parvum) subpetaloideum. Drupa 1-sperma rarius 2-sperma, endocarpio osseo. Caulis scandens. Folia tenuiter multivenia, acumine in cirrum spiralem desinente.—*Reg. trop. Asiæ, Africæ, Australiæ, et in ins. maris Pacifici.*

2. Joinvillea. Flores hermaphroditi. Perianthii segmenta sicca, acuta. Drupa sæpius 3-pyrena. Caulis erectus. Folia plicato-venosa, acumine recto.—*Archip. Malay., ins. maris Pacifici.*

3. Susum. Flores dioici. Perianthii segmenta sicca, obtusa. Bacca 1-3-sperma. Caulis erectus. Folia tenuiter multivenia, sæpius transverse venulosa, acumine recto.—*Zeylania, Archip. et Penins. Malay.*

1. **Flagellaria,** *Linn. Gen. n.* 450.—Flores hermaphroditi. Perianthii segmenta ovata, obtusiuscula, subpetaloidea. Stylus alte v. fere ad basin divisus in ramos stigmatosos 3 subintegros v. 2-partitos. Drupa parva, subglobosa v. ovoidea, exocarpio

tenui succulento, endocarpio osseo 1-spermo, rarius didymo 2-loculari 2-spermo. Semen globosum v. ovoideum, testa membranacea appressa.—Caulis alte scandens, uti tota planta glaber, vaginis foliorum obtectus. Folia elongata, contigue tenuiterque multinervia, basi supra vaginam rotundata, apice in cirrum spiraliter tortum desinentia. Flores parvi, secus ramos paniculæ terminalis dense fasciculati v. breviter spicati. Bracteæ parvæ, squamiformes.

Species 2, altera per regiones calidiores orbis veteris late dispersa, altera foliis multo majoribus, floribus tamen multo minoribus, ins. Viti incola, a *F. plicata*, Hook. f., quæ *Joinvillea*, bene distincta. *Kunth, Enum. Pl.* iii. 369. *Red. Lil. t.* 257. *Schnitzl. Ic.* i. *t.* 51 *b.*

2. **Joinvillea,** *Gaud. Voy. Bonite, t.* 39, 40, *absque char.*—Flores hermaphroditi. Perianthii segmenta rigidula, acuta. Styli 3, distincti, lineares v. brevissimi, a basi stigmatosi, indivisi. Drupa parva, subglobosa, 2–3-sulca, exocarpio succulento, endocarpio osseo 2–3-pyreno, 2–3-spermo. Semina subglobosa v. ovoidea, testa membranacea appressa.—Caulis erectus, elatus, robustus, vaginis foliorum usque ad inflorescentiam obtectus. Folia longa, insigniter plicato-venosa, acumine longiusculo recto nec cirrifero, basi angustata. Flores parvi, secus ramos paniculæ amplæ sessiles, fasciculati v. solitarii. Bracteæ minimæ v. 0.

Species 2 v. 3, Archipelagi Malayani v. insularum maris Pacifici usque ad Novam Caledoniam incolæ. *Hook. f. in Hook. Kew Journ.* vii. 200, *t.* 6 (*Flagellariæ* sect. *Chortodes*). *Seem. Fl. Vit.* 315 (*Flagellaria*).

3. **Susum,** *Blume* ; *Schult. Syst.* vii. 95 *et* 1493.—Flores dioici. Perianthii segmenta sicca, ovato-orbiculata, obtusa, concava, subæqualia, valde imbricata. Fl. ♂ : Stamina circa ovarii rudimentum clavato-3-gonum v. 6-gonum, basi perianthii segmentis adnata iisque longiora. Fl. ♀ : Staminodia parva v. 0. Stigmata 3, in ovario sessilia, lata, adnata, in discum pulvinatum sub-3-dymum connata, v. parum prominula. Bacca vix drupacea, indehiscens, pericarpio succulento, endocarpio membranaceo 3-loculari. Semina in loculis v. abortu in fructu solitaria, orbiculata fere hemisphærica v. late ovalia, a dorso compressa, media facie interiore ad hilum concava, testa crassiuscula ; embryo ordinis. —Caulis erectus, robustus. Folia radicalia 2–8-pedalia, petiolata, caulina minora fere sessilia, omnia lanceolata, acumine recto nec cirrifero, tenuiter multivenia, venulis minimis transversis reticulata. Flores parvi, secus ramulos paniculæ amplæ sessiles, subfasciculati. Bracteæ minimæ v. 0.

Species ut videtur 2, inter se tamen parum distinctæ, altera Archipelagi et Peninsulæ Malayanæ incola, altera Zeylanica. *Thw. Enum. Pl. Zeyl.* 340.

Hanguana, *Blume, Enum. Pl. Jav.* 15, a Lindleyo ad *Asteliam* relata, et supra p. 781, sub hoc genere dubie memorata, est, ex specimine Javensi a Kurzio determinato, *Susi anthelmintici*, Bl., planta fœminea.

Ordo CLXXXVI. **JUNCACEÆ.**

Endl. Gen. 130. Lindl. Veg. Kingd. 191.

Flores hermaphroditi v. dioici, regulares. *Perianthium* inferum, ab ovario liberum, persistens, tubo 0 v. plus minus evoluto, segmenta v. lobi 6, plus minus distincte 2-seriata, omnia v. præsertim seriei exterioris sicca, glumacea hyalina scariosa v. rigida, in quaque serie leviter imbricata v. exteriora subvalvata, seriei interioris rarius subpetaloidea etsi parva. *Stamina* sæpius 6, basi segmentorum v. loborum affixa v. hypogyna, 3 seriei interioris rarius deficientibus ; filamenta libera, filiformia v. basi complanata. *Antheræ* ovatæ oblongæ v. lineares, nunc dorsifixæ versatiles, nunc basifixæ erectæ, loculis 2 parallelis introrsum rima longitudinali v. rarius apice poro dehiscentibus *Ovarium* superum, 1- v.

3-loculare, placentis variis. *Stylus* nunc subulatus v. filiformis, stigmate terminali parvo, v. superne in ramos 3 stigmatosos divisus, nunc a basi v. fere a basi in ramos v. stylos distinctos introrsum stigmatosos divisus. *Ovula* anatropa v. fere anatropa, nunc in loculis v. in placentis parietalibus ∞, 2-seriata, nunc in quoque loculo solitaria, v. in ovario uniloculari 3 erecta. *Fructus* capsularis, in valvas 3 loculicide v. inter placentas dehiscens, rarius valvis septicide fissis demum 6-valvis apparet. *Semina* ∞ v. rarius solitaria, ovoidea globosa angulata v. rarissime compressa; testa tenuis v. crassiuscula, pallida v. nigra nec nitida, sæpe varie striata, integumento exteriore tenuissime membranaceo hyalino cum funiculo continuo, interdum nucleum involvente et ultra nucleum in appendicem caudiformem rarius fere lageniformem producto, sæpe tamen mox evanescente in semine maturo haud apparet, v. ab initio non evoluto; in *Thurnia* semina omnino abnormia. *Albumen* copiosum, carnosum, nunc durum, nunc sæpius laxum, vix tamen vere farinaceum. *Embryo* ab hilo parum distans, parvus sæpius minutus, rarius cylindraceus dimidiumque albuminis superans.

Rhizoma sæpius perenne, nunc brevissimum v. reptans, nunc in caudicem erectum lignosum simplicem v. rarius ramosum interdum elatum productum, rarius herba annua cæspitosa. Caules v. scapi e rhizomate v. caudice sæpius simplices erecti basi tantum foliati, rarius ramosi undique foliati vaginis obtecti. Folia sæpius in rhizomate ad basin caulis v. ad apicem caudicis conferta, linearia, graminea v. teretia, interdum omnia ad vaginas breves reducta, v. secus caulem plura brevia patentia. Flores sæpius parvi, fasciculati, rarius majores solitarii, fasciculis varie in capitula spicas v. paniculas irregulariter compositas dispositi, v. in *Dasypogone* et *Thurnia* flores in capitulo globoso v. oblongo densissime conferti. Bracteæ sub fasciculis parvæ scariosæ, inferiores rarius majores foliaceæ nec spathaceæ, sub floribus singulis parvæ scariosæ additis sæpissime bracteolis 1–3 in pedicello ipso, v. in *Dasypogone* et *Kingia* bracteæ sub floribus in capitulo globoso denso imbricatæ.

Species vix 200, generum 2 typicorum per orbem terrarum latissime dispersæ, generum cæterorum fere omnes australes, Australasiæ, Africæ australis, Americæ antarcticæ v. Andium Americæ australis incolæ, genere *Thurnia* solo Americæ tropicæ proprio.

Ordo polymorphus, inter *Liliaceas* et *Restiaceas* quasi medium tenens, semina priorum, perianthium potius *Restiacearum*.

CONSPECTUS GENERUM.

Tribus I. Xeroteæ. Perianthii segmenta glumacea v. scariosa, v. seriei interioris petaloidea parva. Antheræ dorsifixæ, versatiles.

* *Flores dioici. Styli v. rami stigmatosi a basi distincti v. vix ima basi connati.*

1. Xerotes. Rhizoma brevissimum v. repens. Caules foliati, breves v. longiores, interdum ramosi. Inflorescentia varie paniculata capitata v. dense spiciformis. Ovarium 3-loculare, loculis 1-ovulatis.—*Australia, Nov. Caledonia.*

** *Flores hermaphroditi. Stylus filiformis, stigmate parvo.*

2. Chamæxeros. Folia radicalia. Flores in scapo brevi paniculati v. fasciculati. Ovarium 3-loculare, loculis 1-ovulatis.—*Australia austro-occid.*

3. Acanthocarpus. Caules foliati, sæpe ramosi. Flores in fasciculo terminali parvi, Ovarium 3-loculare, loculis 1-ovulatis. Capsula muricata.—*Australia austro-occid.*

4. Xanthorrhœa. Folia in rhizomate brevi v. in caudice lignoso erecto sæpe elongato conferta, longe linearia. Inflorescentia in pedunculo terminali cylindracea spiciformis floribus densissime confertis. Perianthii segmenta distincta. Ovarium 3-loculare, loculis pauciovulatis.—*Australia.*

5. Dasypogon. Folia ad apicem caudicis lignosi conferta, longa. Flores in capitulo terminali dense conferti, bracteis imbricatis. Perianthii segmenta seriei exterioris connata, seriei interioris distincta. Ovarium 1-loculare; ovula in centro 3, erecta, quorum 2 sæpissime abortiva.—*Australia austro-occid.*

Tribus II. Calectasieæ. Flores majusculi v. magni, perianthii segmentis v. lobis rigidis interdum coloratis. Antheræ erectæ, basifixæ. Stylus subulatus, stigmate parvo.

6. KINGIA. Folia ad apicem caudicis lignosi conferta, linearia. Flores in capitulo terminali dense conferti, bracteis squarrosis. Perianthii segmenta distincta. Ovarium 3-loculare, loculis 1-ovulatis.—*Australia austro-occid.*

7. BAXTERIA. Flores intra folia radicalia dense cæspitosa solitarii, sessiles. Perianthii segmenta distincta, longa, angusta, erecta. Ovarium 3-loculare, loculis 1-ovulatis.—*Australia austro-occid.*

8. CALECTASIA. Caules foliati, ramosi, foliis brevibus. Flores ad apices ramorum solitarii, sessiles. Perianthium hypocraterimorphum, lobis patentibus rigidis coloratis. Ovarium 1-loculare; ovula in centro 3, erecta.

Tribus III. Eujunceæ. Perianthii segmenta glumacea, distincta. Antheræ erectæ, basifixæ. Stylus superne 3-fidus, v. styli (v. rami stigmatosi) 3 a basi distincti.

* *Flores mediocres v. majusculi, in pedunculo v. scapo solitarii.*

9. DISTICHIA. Caules breves, dense foliati, cæspitosi v. pulvinati. Flores dioici. Ovarium 1-loculare v. fere 3-loculare, multiovulatum.—*Andes Americæ australis.*

10. ROSTKOVIA. Caules in rhizomate conferti, juncei, 1-foliati. Flores hermaphroditi. Ovarium 1-loculare, multiovulatum.—*Amer. antarct. et andin., Nov. Zel.*

** *Flores parvi, fasciculati v. segregati, fasciculis floribusve varie paniculatis capitatisve.*

11. JUNCUS. Caules cæspitosi v. in rhizomate repente conferti, aphylli v. paucifoliati. Folia radicalia v. ad vaginas reducta, teretia v. linearia. Ovarium 1-loculare v. plus minus perfecte 3-loculare, placentis loculisve ∞-ovulatis. Stylus superne 3-fidus.—*Orbis utriusque reg. temp. frigid. v. calid.*

12. LUZULA. Caules cæspitosi. Folia radicalia v. in caule pauca, linearia, graminea. Ovarium 1-loculare; ovula in centro 3, erecta. Stylus superne 3-fidus.—*Orbis utriusque reg. temp. frigid. v. mont.*

13. PRIONIUM. Folia ad apicem caudicis erecti lignosi conferta. Ovarium 3-loculare, loculis 2- v. pauci-ovulatis. Styli 3, distincti. Embryo dimidium albuminis superans.—*Afr. austr.*

*** *Genus anomalum. Flores densissime globoso- v. oblongo-capitati.*

14. THURNIA. Folia radicalia longe linearia. Ovarium 3-loculare, loculis 1-∞-ovulatis. Styli v. stigmata linearia 3, distincta. Semina longe lineari-fusiformia, albumine tegmine brunneo induto ab apice nuclei cavi pendulo.—*Guiana.*

GENERA EXCLUSA.

ASTELIA, Banks, a Lindleyo *Juncaceis* relata, supra inter **Liliaceas** includitur.

RAPATEA, Aubl., et SPATHANTHUS, Desv., ad ordinem distinctum **Rapateaceas** pertinent.

SUSUM, Blume, et FLAGELLARIA, Linn., ad ordinem distinctum **Flagellarieas** pertinent.

REILIA, Steud. Syn. Pl. Glum. ii. 311, ab auctore inter *Xerotetem* et *Baxteriam* collocata, est verisimiliter *Eryngii* species, ad **Umbelliferas** pertinens, charactere pessimo, squamis hyalinis flores obtegentibus pro sepalis descriptis.

TRIBUS I. XEROTEÆ.

1. **Xerotes**, *R. Br. Prod.* 259. (Lomandra, *Labill. Pl. Nov. Holl.* i. 92, *t.* 119, 120.) —Flores dioici. Fl. ♂: Perianthii segmenta nunc omnia subæqualia distincta v. ad medium connata, nunc sæpius exteriora distincta tenuia scariosa v. hyalina, interiora basi subconnata fere petaloidea. Stamina 6, 3 segmentis interioribus affixa, 3 alterna subhypogyna, v. tubo affixa, omnia perianthio breviora, filamentis breviter filiformibus; antheræ dorsifixæ, versatiles, basi v. utrinque usque ad filamenti insertionem 2-lobæ, loculis introrsum dehiscentibus. Ovarii rudimentum parvum v. 0. Fl. ♀: Perianthium sæpius quam in mare rigidius, segmentis distinctis æqualibus. Staminodia parva clavata v. 0. Ovarium sessile, 3-loculare; stylus brevissimus v. vix ullus, stigmatibus v. lobis stigmatosis 3 brevibus recurvis; ovula in loculis solitaria, lateraliter affixa. Capsula subglobosa, perianthio emarcido stipata v. involuta, coriacea, lævis nitensque v. transverse rugosa, rarius in longitudinem striata, loculicide dehiscens. Semina ovoidea oblonga v.

subglobosa, interdum obtusangula, testa pallida v. brunnea adnata; embryo in albumine duriusculo oblongus v. linearis, ab hilo parum remotus, nunc minimus, rarius tertiam partem albuminis superans.—Caules in rhizomate brevissimo v. repente cæspitosi, simplices v. ramosi. Folia nunc ad basin caulis conferta longa linearia rigida, nunc breviora secus ramos sparsa vaginis ramum obtegentibus. Inflorescentiæ terminales v. ad basin foliorum radicalium. Flores parvuli, masculi sæpius fasciculati, fasciculis rarius floribus singulis secus rhachin simplicem v. ramos paniculæ sessilibus, floribus in fasciculo sessilibus v. pedicellatis; inflorescentia fœminea interdum masculæ similis, sæpius tamen ad capitulum unicum globosum densumque reducta; rarius flores utriusque sexus in capitula dense globosa v. in spicam longam cylindraceam dispositi.

Species ad 30, omnes Australianæ, quarum una etiam in Nova Caledonia reperta. *Benth. Fl. Austral.* vii. 94. *F. Muell. Fragm. Phytogr. Austral.* xi. 23. *Thunb. Diss. Drac. f.* 1, 2 (*Dracæna*). *Brongn. in Duperr. Voy. Bot. t.* 35. *Bot. Reg.* 1839, *t.* 3. *Lodd. Bot. Cab. t.* 798.

Genus in Fl. Austral. in sectiones 5 dividitur:—

1. *Euxerotes.* Florum ♂ fasciculi v. flores singuli secus rhachin simplicem v. ramosam racemosi v. paniculati, inflorescentia ♀ similis nisi simplicior. Perianthii segmenta distincta v. interiora in fl. ♂ breviter connata. Folia in rhizomate v. caule brevissimo dense conferta, inflorescentia terminali. Species 18.

2. *Cephalogyne.* Florum ♂ fasciculi secus rhachin simplicem sæpius plures sessiles, perianthio ad medium æqualiter 6-lobo. Florum ♀ capitula solitaria sessilia v. brevissime pedunculata, perianthio æqualiter 6-partito. Caules sæpe elongati foliatique præsertim in fœmineis, inflorescentia terminali v. in axillis superioribus. Species 7.

3. *Schœnoxeros.* Caules steriles juncei, aphylli, basi paucivaginati; floriferi brevissimi, aphylli, florum capitulis 2–3, in masculis fœmineisque subsimilibus. Species 2.

4. *Typhopsis.* Folia in caule brevi conferta, elongata. Florum capitula utriusque sexus in scapo aphyllo pauca globosa v. breviter cylindracea, bracteis multifidis in massam lanosam confertis. Species 1.

5. *Macrostachya.* Folia in caule brevi conferta, elongata. Florum fasciculi utriusque sexus in spicam longam angustam dense cylindraceam conferti. Species 1.

Nomen generis Labillardieri jure prioritatis gaudet, sed Brownianum jam diu ab omnibus botanicis acceptum non hodie rejiciendum est.

2. **Chamæxeros,** *Benth. Fl. Austral.* vii. 110.—Flores hermaphroditi (v. polygami?). Perianthii segmenta distincta, subæqualia v. exteriora interioribus paullo latiora rigidioraque. Stamina 6, quorum 3 basi segmentis interioribus affixa, 3 subhypogyna, omnia perianthio breviora, filamentis filiformibus; antheræ ovatæ, dorsifixæ, versatiles, loculis introrsum dehiscentibus. Ovarium 3-loculare; stylus filiformis, stigmate parvo; ovula in loculis solitaria, lateraliter affixa. Capsula lævis?, matura ignota.—Caules cæspitosi, habitus *Euxerotetis.* Folia in rhizomate conferta, longe linearia, rigida, plana v. subteretia, margine sæpius scarioso-lacerata. Scapi florentes breves, aphylli. Flores parvuli, secus ramos paniculæ pyramidatæ fasciculati, v. in capitulum ovoideo-globosum conferti. Bracteæ latiusculæ, scariosæ.

Species 2, Australiæ austro-occidentalis incolæ. Genus tam *Xeroteti* quam *Acanthocarpo* valde affine. F. Mueller, Fragm. Phytogr. Austral. xi. 24 cum *Acanthocarpo* jungit, sed habitus longe differt et fructus junior minime echinatus apparet.

3. **Acanthocarpus,** *Lehm. Pl. Preiss.* ii. 274.—Flores hermaphroditi. Perianthii segmenta distincta, æqualia, tenuia, fere hyalina, centro opaca. Stamina 6, quorum 3 basi segmentis interioribus affixa, 3 subhypogyna, omnia perianthio breviora; antheræ ovatæ, dorsifixæ, versatiles, basi 2-lobæ, loculis introrsum dehiscentibus. Ovarium sessile, 3-loculare, in stylum brevem desinens, stigmate parvo; ovula in loculis solitaria, lateraliter affixa. Capsula globosa, muricata, loculicide dehiscens. Semina fere globosa, obtusangula, lateraliter affixa, testa tenui appressa; embryo in albumine duro breviter linearis, leviter curvus, obliquus.—Caules e rhizomate breviter horizontali lignoso rigidi, ramosissimi, undique foliati. Folia breviter linearia, rigidula, patentia, vaginis ramos

obtegentibus. Flores parvuli, ad apices ramulorum capitati v. fasciculati, fasciculis sessilibus demum ramulo excurrente lateralibus. Bracteæ scariosæ, floribus breviores.

Species 1, Australiæ austro-occidentalis incola. *Benth. Fl. Austral.* vii. 111.

4. **Xanthorrhœa,** *Sm. in Trans. Linn. Soc.* iv. 219.—Perianthii segmenta distincta, exteriora glumacea, concava v. apice fere cucullata, 3–5-nervia, margine subscariosa, interiora tenuiora sæpius 5-nervia, basi erecta, ultra exteriora protrusa, laminis patentibus hyalinis v. petaloideis. Stamina 6, hypogyna, v. seriei interioris basi segmentis brevissime adnata, omnia perianthio longiora, filamentis basi leviter incrassatis v. complanatis; antheræ oblongæ v. rarius ovatæ, integræ, medio dorso affixæ, loculis introrsum dehiscentibus. Ovarium sessile, 3-loculare, in stylum subulatum desinens, stigmate parvo capitato v. 3-sulco; ovula in loculis pauca. Capsula ovoidea v. acuminata, perianthio persistente stipata, coriacea, nitida, loculicide dehiscens. Semina in loculis 1–2, erecta, ovata v. oblonga, complanata, anguste marginata, testa nigra subcrustacea opaca; embryo in albumine carnoso fere cartilagineo transversus, linearis, rectus v. curvulus.—Rhizoma nunc brevissimum, sæpius tamen in caudicem lignosum erectum interdum arborescentem productum. Folia in rhizomate v. ad apicem caudicis conferta, longe linearia, rigida, fragilia, basibus dilatatis imbricatis diu persistentibus. Pedunculus terminalis, elongatus. Flores parvuli, numerosi, in spica terminali longa cylindracea densa conferti, singuli intra bracteam parvam bracteolis pluribus stipati. Caudex sæpe gummi fusco v. flavo copiose scatens.

Species 11, Australianæ. *Benth. Fl. Austral.* vii. 112. *Bot. Mag. t.* 4722 (*ic. in Fl. des Serres, t.* 868 *iterata*), 6075, 6297.

5. **Dasypogon,** *R. Br. in Flind. Voy.* ii. 608, *t.* 8.—Perianthii segmenta sicca v. glumacea, exteriora basi in tubum connata, superne ovata, interiora a basi distincta, angusta, exteriora non superantia. Stamina 6, hypogyna v. vix basi segmentis adhærentia iisque longiora, filamentis crassiuscule filiformibus; antheræ oblongæ, integræ, medio dorso affixæ, loculis introrsum dehiscentibus. Ovarium sessile, 1-loculare v. imperfecte 3-loculare; stylus filiformis, stigmate parvo; ovula in centro ovarii 3, erecta, quorum 2 sæpe jam sub anthesi parva abortiva. Fructus globosus, indehiscens, tubo perianthii exterioris incrassato induratoque inclusus, et fere adnatus. Semen globosum, erectum, testa membranacea; embryo in albumine carnoso juxta hilum erectus, linearis.—Caudex lignosus, erectus, brevis v. 1–2-pedalis, simplex v. ramosus. Folia ad apicem caudicis conferta, longa, angusta, patentia, rigidula, scabro-denticulata, vaginis latis imbricatis in caudice diu persistentibus. Pedunculus terminalis, rigide setosus. Flores in capitulo globoso terminali dense conferti, intra bracteas sessiles. Bracteæ imbricatæ, basi latæ, exteriores sæpe longiuscule acuminatæ; bracteolæ 0.

Species 2, Australiæ austro-occidentalis incolæ. *Benth. Fl. Austral.* vii. 117.

TRIBUS II. CALECTASIEÆ.

6. **Kingia,** *R. Br. in King, Voy.* ii. 535, *t.* C.—Perianthii segmenta distincta, æqualia, erecta, glumacea, sericea, extus pilosa. Stamina 6, hypogyna v. seriei interioris brevissime segmentis adhærentia, perianthio longiora, filamentis filiformibus; antheræ basifixæ, erectæ, lineares, loculis introrsum dehiscentibus. Ovarium sessile, 3-loculare; stylus filiformis, stigmate parvo 3-dentato; ovula in loculis solitaria, erecta. Fructus bracteis perianthioque persistentibus involutus, 3-queter, indehiscens. Semina erecta, sæpe abortu solitaria, testa membranacea; embryo 'subglobosus in ipsa basi seminis situs semi-immersus, nec albumine omnino inclusus' (*R. Br.*).—Caudex lignosus, erectus. Folia ad apicem caudicis conferta, linearia, rigida, elongata. Pedunculi v. scapi inter folia plures, bracteis vaginantibus brevibus latis laxe imbricatis obtecti. Flores in capitulo globoso terminali sessiles, bracteis perianthiorumque segmentis apice squarrosis.

Species 1, Australiæ austro-occidentalis incola. *Benth. Fl. Austral.* vii. 119.

Semina matura non vidimus, ex descriptione Brownii ab omnibus *Juncaceis* differunt embryonis situ. Embryo in icone citata non delineatur.

7. **Baxteria,** *R. Br.*; *Hook. Lond. Journ.* ii. 492, *t.* 13 *ad* 15.—Perianthii segmenta distincta, subæqualia, longa, angusta, erecta, rigida. Stamina 6, basi segmentorum affixa iisque breviora, filamentis rigidis leviter complanatis; antheræ longe lineares, erectæ, basifixæ, basi brevissime 2-lobæ, loculis introrsum dehiscentibus. Ovarium sessile, 3-loculare; stylus subulatus, rigidus, stigmate parvo; ovula in loculis solitaria, erecta. Capsula obovoidea, vertice plana, a basi sursum in valvas 6 dehiscens, septis in axi persistentibus, valvisque ipsis ad apicem axis diu adhærentibus horizontaliter patentibus. Semina (a nobis non visa) globosa.—Folia in rhizomate brevi lignoso dense cæspitosa, longe linearia, basi in vaginas latas dilatata. Flores inter folia sessiles, singuli foliis 1–2 bracteisque vaginantibus pluribus stipati, perianthio longo rigido (ultra 2-pollicari) insignes.

Species 1, Australiæ austro-occidentalis incola. *Benth. Fl. Austral.* vii. 120.

8. **Calectasia,** *R. Br. in Flind. Voy.* ii. 609, *t.* 9.—Perianthium hypocraterimorphum, tubo cylindraceo v. superne leviter ampliato; lobi subæquales, patentes, lanceolati, rigidi, colorati. Stamina 6, ad basin loborum affixa iisque breviora, filamentis breviter filiformibus; antheræ lineares, erectæ, basifixæ, basi breviter 2-lobæ, loculis apice poro rarius in rimam brevem continuo dehiscentibus. Ovarium brevissime stipitatum, angustum, 1-loculare; stylus filiformis, stigmate parvo terminali; ovula 3, a basi loculi erecta. Fructus siccus, oblongus, subfusiformis, indehiscens, 1-spermus, perianthii tubo inclusus, pericarpio membranaceo ∞-costato apice lævi. Semen oblongum, testa membranacea; embryo juxta basin albuminis carnosi parvus.—Caules in rhizomate sæpius plures fasciculati, tenuiter lignosi, ramosissimi, undique foliati. Folia linearia, brevia, patentia, vaginis ramos obtegentibus. Flores ad apices ramulorum solitarii, sessiles, bracteis breviter foliaceis cincti.

Species 1, Australiæ australis et occidentalis incola, quoad foliorum florumque magnitudinem variabilis et a nonnullis in species 2 v. 3 divisa. *Benth. Fl. Austral.* vii. 120. *Endl. Iconogr. t.* 38. *Bot. Mag. t.* 3834.

TRIBUS III. EUJUNCEÆ.

9. **Distichia,** *Nees et Meyen in Pl. Meyen.* 128. (Goudotia, *Dcne. in Ann. Sc. Nat. ser.* 3, iv. 84, *t.* 4. Agapatea, *Steud. Pl. Lechl. Exs. et in Bot. Zeit.* 1856, 391, *nomen tantum*. Oxychloe, *Philippi, Fl. Atacam.* 52, *t.* 6.)—Flores dioici. Fl. ♂: Perianthii segmenta linearia, erecta, rigidula, subæqualia. Stamina 6, hypogyna, perianthio breviora, filamentis brevissimis; antheræ lineares, erectæ, basifixæ, apiculatæ v. nudæ, loculis introrsum dehiscentibus. Ovarii rudimentum parvum, stylo filiformi 3-fido. Fl. ♀: Perianthii segmenta ovata oblonga v. late linearia, scariosa v. hyalina, ovarium circumdantia. Staminodia (an semper?) 0. Ovarium sessile v. brevissime stipitatum, 1-loculare v. imperfecte 3-loculare, placentis 3 parietalibus parum v. valde prominentibus interdum basi in medio loculo connatis; stylus subulatus, parte indivisa sæpius brevi, ramis stigmatosis linearibus longiusculis interdum crassis; ovula in loculis ∞. Capsula oblonga, obtusa v. acutiuscula, coriacea, nitida, apice demum (an semper?) breviter dehiscens. Semina ovoidea v. obovoidea, integumento exteriore albo molli mox evanido, testa dura castanea; embryo in basi albuminis carnosi v. duriusculi parvus nunc minimus.—Caules breves, dense cæspitosi, pulvinati, foliis distichis v. undique imbricatis obtecti. Flores in axillis summis (v. ad apices ramorum?) solitarii, masculi pedicellati folia superantes, fœminei subsessiles v. brevissime pedicellati. Bracteæ breves, squamiformes, sub flore ♀ 1–3, sub flore ♂ deesse videntur.

Species ad 6, in uliginosis montium altiorum Andium Americæ australis vigentes, usque ad limites

nivium æternarum extensæ. Buchenau in *Abhandl. Naturw. Vereins Bremen*, iv. 124 (*Agapatea*); vi. 368 (*Oxychloe*), *et* 369 (*Distichia*), *t.* 3.

Genus habitu et floribus solitariis dioicis facillime distinctum, in sectiones 2 sequentes dividitur:—

1. *Goudotia*, foliis stricte distichis, vaginis complicatis acuminatis v. in laminas breves erectas attenuatis. Huc pertinent *D. tolimensis* (*Goudotia tolimensis*, Dcne.), *D. muscoides*, Nees et Meyen, et *D. filamentosa*, Buchen.

2. *Oxychloe*, foliorum vaginis latis concavis undique imbricatis, laminis linearibus. Huc *D. andina* (*Oxychloe andina*, Philippi), *D. clandestina*, Buchen., et species tertia adhuc inedita in Bolivia prope La Paz a Pentlandio lecta, cui pertinere videntur specimina e Cordillera Maûle a Germaino recepta sub nomine falso *D. brevifoliæ*, Phil.

Characteres a Buchenavio indicati, e substantia perianthii ♀ et e numero bractearum, valde incerti videntur.

10. **Rostkovia**, *Desv. Journ. Bot.* i. (1808) 324, *t.* 12.—Perianthii segmenta distincta, linearia v. lineari-lanceolata, erecta, rigida, margine sæpe scariosa, parum v. conspicue inæqualia. Stamina 6, hypogyna, perianthio breviora, filamentis brevissimis, antheræ lineares, erectæ, basifixæ, apice breviter appendiculatæ v. nudæ, loculis introrsum dehiscentibus. Ovarium sessile, 1-loculare, placentis 3 parietalibus; stylus subulatus, superne in ramos stigmatosos 3 lineares divisus; ovula in placentis numerosa. Capsula subglobosa ovoidea v. oblonga, coriacea, nitida, superne in valvas 3 medio placentiferas divisa. Semina numerosa, parva, testa nunc crassa laxa inappendiculata, nunc apice basique in appendiculam linearem hyalinam producta; embryo parvus nunc minimus, prope basin albuminis laxe carnosi.—Caules in rhizomate breviter ramoso cæspitosi, v. secus rhizoma horizontale conferti, juncei, 1-foliati, additis sæpe vaginis nonnullis infra folium. Folia linearia v. teretia. Pedunculus terminalis, flore unico quam in cæteris *Eujunceis* majore, bracteis 1–3 squamiformibus v. una alterave foliaceo-acuminata stipato.

Species 3, Americæ antarcticæ et Andinæ et Novæ Zelandiæ incolæ. *Hook. f. Fl. Antarct.* i. 81, *t.* 47.

In specie typica, *R. magellanica*, capsula globosa v. breviter ovoidea, semina inappendiculata, testa crassa nitida nec tamen crustacea. Marsippospermum, *Desv. Journ. Bot.* i. (1808) 328, *t.* 12; *Hook. Ic. Pl. t.* 533, species 2 includit, capsula nunc ovoidea quam in *R. magellanica* parum longiore, nunc oblonga duplo saltem majore, et seminibus testa tenuiore apice basique appendiculata, et Buchenau in Abhandl. Naturwiss. Vereins Bremen vi. 373, duo genera iterum distinxit, seminum tamen eadem diversitas observatur in *Junco*, et genus in integrum servatum naturalissimum est. Differentiæ habitus a Buchenavio indicatæ minores sunt quam in *Junco*, e.g. inter *J. bufonium* et *J. acutum*.

11. **Juncus**, *Linn. Gen. n.* 437, *pro parte*.—Perianthii segmenta distincta, glumacea, lanceolata v. oblonga, margine interdum scariosa, subæqualia v. interiora paullo latiora. Stamina 6, v. 1–3 interiorum deficientibus pauciora, hypogyna v. interiora basi segmentis affixa, perianthio breviora, filamentis filiformibus v. basi dilatatis; antheræ oblongæ v. lineares, erectæ, basifixæ, basi integræ v. breviter 2-lobæ, loculis introrsum dehiscentibus. Ovarium sessile, nunc 1-loculare placentis 3 parietalibus parum v. valde prominentibus, nunc placentis in centro contiguis v. connatis imperfecte v. perfecte 3-loculare; stylus filiformis, superne (sæpius ad medium) in ramos stigmatosos 3 filiformes sæpe spiraliter tortos divisus; ovula in quaque placenta ∞. Capsula in valvas medio placentiferas dehiscens, v. rarius placentæ a valvis solutæ erectæ, lineares, v. in columnam centralem cohærentes. Semina parva, ovoidea, testa minute striata reticulata v. transverse lineolata, integumento exteriore laxo membranaceo-hyalino cum funiculo continuo nunc parvo mox evanido v. obsoleto, nunc semen includente et in appendicem terminalem linearem producto (seminibus tunc 2-caudatis dictis); embryo parvus, sæpius minutus, juxta basin albuminis carnosi.—Herbæ perennes v. rarius annuæ, caulibus cæspitosis v. in rhizomate repente confertis, infra inflorescentiam simplicibus. Folia radicalia v. prope basin caulis pauca, linearia v. sæpius teretia, nunc omnia ad vaginas breves reducta. Flores parvi, in

fasciculis seu cymulis parvis 2-fidis sæpius conferti; cymulis fasciculis v. floribus singulis nunc in capitulo denso sessilibus, nunc in panicula simplici v. composita inæqualiter pedunculatis, inflorescentia tota ad apicem caulis v. scapi bracteis 1–3 foliaceis stipata; interdum vero bractea erecta teres caulem continuat et inflorescentia lateralis apparet. In speciebus nonnullis folia cum bracteis intus septis transversis instructa quasi articulata apparent.

Species enumerat Steudel 196, verisimiliter ad dimidium reducendas, per orbem terrarum latissime dispersas; in uliginosis locisque humidis regionum temperatarum frigidarumque necnon in arenosis maritimis copiose crescunt, sed etiam inter tropicos inveniuntur. *Kunth, Enum. Pl.* iii. 315. *Steud. Syn. Pl. Glum.* ii. 295. *Engelm. in Trans. Acad. Sc. St. Louis*, ii. 424. *Buchenau in Abhandl. Naturwiss. Ver. Bremen*, iv. 416, *t.* 5 *ad* 11; vi. 363, 376, *t.* 3, 4; *Krit. Verz. Juncaceen, Bremen*, 1880, 1. *Sm. Ic. Ined. t.* 55; *Spicil. t.* 3. *Cav. Ic. t.* 296. *Host, Gram. Austr.* iii. *t.* 80 *ad* 85, 88 *ad* 93; iv. *t.* 97. *Reichb. Ic. Fl. Germ. t.* 391 *ad* 416. *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 29. *Jacq. Fl. Austr. t.* 221. *Trim. Journ. Bot.* 1873, *t.* 128. *Seub. Fl. Azor. t.* 4. *f.* 1. *Desf. Fl. Atl. t.* 91, 92. *Dur. Expl. Alg. t.* 43. *Ten. Fl. Nap. t.* 227. *Bory et Chaub. Exped. Morée, t.* 11. *Dcne. in Jacquem. Voy. Bot. t.* 172. *Klotzsch in Pr. Waldem. Reise, Bot. t.* 97, 98. *Hook. Ic. Pl. t.* 714. *Hook. f. Fl. Antarct. t.* 46; *Fl. Tasm. t.* 134.

Species plures fere cosmopolitanæ quam maxime variabiles sunt, et difficillime characteribus certis distinguendæ v. ordinandæ. Seminum variationes, ab Engelmannio l. c. optime illustratæ, cum aliis characteribus minime conveniunt, et sectiones nullæ definitæ adhuc propositæ sunt. Engelmann tamen series 3 imprimis ad habitum bene distinguit:—

1. *Junci genuini*, caule aphyllo basi vaginis aphyllis v. rarius folium ipso cauli simile gerentibus.

2. *Junci graminifolii*, caule nudo v. foliato, foliis planis v. semiteretibus canaliculatisque v. rarius subteretibus.

3. *Junci articulati*, caule foliato, foliis teretibus v. compressiusculis, intus septis transversis instructis specie articulatis.

Buchenau divisionem primariam petit a præsentia v. absentia *prophyllarum*, i.e. bractearum sub floribus hyalino-scariosarum, character tamen nobis valde incertus videtur. Bracteas in perplurimis speciebus 2 vidimus sub quoque flore, nunc immediate sub flore, nunc in medio pedicello quarum infera vacua, superior sæpe rudimentum floris fovet et haud raro adest tertia, uti bene observavit Engelmann, l. c. 426.

TENAGEIA, *Reichb. Ic. Fl. Germ.* ix. 22, *t.* 416, pro genere frustra proponitur absque charactere.

CEPHALOXYS, *Desv. Journ. Bot.* i. 1808, 324, *t.* 11, est *J. repens*, Mich., capsulæ valvis demum interdum septicide fissis.

12. **Luzula**, *DC. Fl. Fr.* iii. 158. (Juncoides, *Adans. Fam.* ii. 47. Leucophoba, *Ehrh. Phytophyl. n.* 73; *Beitr.* iv. 148. Luciola, *Sm. Engl. Fl.* ii. 177.)—Perianthii segmenta distincta, glumacea, acuta, margine sæpe scariosa, subæqualia. Stamina 6, hypogyna v. interiora basi segmentis affixa, perianthio breviora, filamentis filiformibus; antheræ oblongæ v. lineares, erectæ, basifixæ, basi emarginatæ, loculis introrsum dehiscentibus. Ovarium sessile, 1-loculare; stylus filiformis, superne (sæpius ad medium) in ramos stigmatosos 3 filiformes divisus; ovula in fundo loculi 3, erecta, placentæ centrali brevissimæ v. vix prominulæ affixa. Capsula nitidula, in valvas 3 intus medio costatas nec nisi ima basi cum placentis connexas dehiscens. Semina 3, valvis alterna v. abortu pauciora, erecta, globosa v. ovoidea, testa minute reticulato-striata, integumento exteriore tenuissime hyalino-membranaceo, maturitate nucleo arcte appresso v. omnino evanescente, interdum ultra nucleum in appendicem fere lageniformem producta; embryo juxta basin albuminis laxe carnosi v. subfarinacei minutus.—Herbæ perennes, sæpius cæspitosæ. Folia graminea, radicalia v. in caule pauca, sæpe pilis tenuibus mollibus ciliata. Flores parvi, in fasciculis parvis conferti v. segregati, fasciculis v. floribus singulis in umbellam seu paniculam inæqualiter irregulariterque compositam interdum ad capitulum subglobosum v. spiciforme contractam dispositis, singuli ad axillam bracteæ scariosæ sessiles v. brevissime pedicellati, bracteolisque 1–2 brevibus latis scariosis stipati.

Species ad 26 (apud Steudelium 56) per regiones temperatas frigidasque imprimis hemisphærii borealis late dispersæ, etiam in montibus inter tropicos obviæ, in hemisphærio australi paucæ.

Kunth, Enum. Pl. iii. 296. *Steud. Syn. Pl. Glum.* ii. 290. *Bicheno in Trans. Linn. Soc.* xii. 329, *t.* 9. *E. Mey. in Linnæa*, xxii. 383. *Buchenau in Abhandl. Naturw. Ver. Bremen*, vi. 413. *Host, Gram. Austr.* iii. *t.* 86, 87, 94 *ad* 100; iv. *t.* 98 *ad* 100 (*Juncus*). *Reichb. Ic. Fl. Germ. t.* 375 *ad* 390. *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 28. *Trim. Journ. Bot.* 1872, *t.* 122. *Webb, Phytogr. Canar. t.* 235 *ad* 237. *Seub. Fl. Azor. t.* 4, *f.* 2. *Hook. f. Fl. Antarct. t.* 48. *H. B. et K. Nov. Gen. et. Sp.* vii. *t.* 697.

13. **Prionium,** *E. Mey. in Linnæa*, vii. 130.—Perianthii segmenta subæqualia, rigidula, glumacea, lanceolata, margine tenuia, subscariosa. Stamina 6, hypogyna, perianthio subæquilonga, filamentis filiformibus; antheræ oblongo-lineares, erectæ, basifixæ, loculis a latere dehiscentibus. Ovarium sessile, 3-loculare; styli rami stigmatosi v. stigmata a basi distincti, lineares, recurvi; ovula in loculis pauca (sæpius 2), a basi ascendentia. Capsula ovoidea, loculicide dehiscens. Semina in loculis sæpius abortu solitaria, ovoideo-oblonga, inappendiculata, testa appressa; embryo cylindraceus, albumine carnoso parum v. subdimidio brevior.—Caudex e rhizomate repente erectus, lignosus, pluripedalis, simplex v. 2-fidus, basibus foliorum vetustorum plus minus obtectus. Folia ad apicem caudicis conferta, longa, linearia, basi in vaginas imbricatas dilatata. Panicula inter folia pedunculata, ampla, composita, floribunda. Bracteæ sub ramis primariis longe vaginatæ, rigidæ, lamina breviter foliacea erecta, sub ramis secundariis parvæ, sub florum fasciculis breviter squamiformes, scariosæ. Flores parvi, fere *Junci*, fasciculati, sessiles v. brevissime pedicellati, fasciculis in ramis ultimis paniculæ terminalibus lateralibusque.

Species 1, Africæ australis incola. *Hook. Kew Journ.* ix. 173, *t.* 4. *Bot. Mag. t.* 5722.

Albumen ab E. Meyero farinaceum dictum fuit, nos in seminibus pluribus examinatis semper carnosum invenimus.

14. **Thurnia,** *Hook. f. in Hook. Ic. Pl. t.* 1407, 1408.—Perianthii segmenta 6, distincta, sub ovario sine ordine inserta, membranacea, lineari-oblanceolata, acuta v. obtusa, inæquilonga, 1-nervia, persistentia. Stamina 6, sub ovario inserta, perianthio multo longiora, filamentis filiformibus compressis flexuosis; antheræ lineares, obtusæ, basifixæ, erectæ, loculis a latere dehiscentibus. Ovarium anguste fusiforme, 3-loculare, membranaceum, vertice coriaceo in stigmata 3 filiformia obtusa introrsum papillosa attenuato; ovula basin versus loculorum solitaria v. plura, angulo interiori funiculis brevibus v. elongatis affixa, ascendentia, anatropa. Capsula elongato-oblanceolata, 3-gona, stigmatibus coronata, 3-locularis, loculicide 3-valvis, 3-sperma, septis valvisque infra apices coriaceos tenuissime membranaceis. Semina elongata, anguste fusiformia, obtuse 3-gona, testa crasse cartilagineo-fibrosa, superne in spinam gracilem pungentem retrorsum hispidulam oblique attenuata, inferne longe rigideque producta, nucleo cavo, albumine farinaceo, integumento coriaceo brunneo induto ab apice cavitatis pendulo elongato-ellipsoideo cæterum omnino libero; embryo axilis, fusiformis, extremitate inferiore albuminis immersus radicula infera.—Herbæ robustæ, glaberrimæ, scapigeræ, cyperoideæ. Folia elongata, coriacea, a basi vaginante enervi gradatim angustata 1-nervia, marginibus lævibus v. spinuloso-serratis. Scapus erectus, robustus, obtuse 3-gonus. Flores in capitula solitaria globosa v. oblonga, longe foliaceo-bracteata, densissime conferta, in receptaculo spongioso sessilia v. crassiuscule stipitata, stipite cum basi perianthii continuo; capitula florentia antheris velata, fructifera apicibus coriaceis capsularum horrida. Bracteæ sub floribus singulis perianthii segmentis similes nisi minores.

Species 2, Guianæ britannicæ incolæ, altera *T. sphærocephala*, Hook. f. (*Mnasium sphærocephalum*, Rudge, Pl. Gui. t. 12), marginibus foliorum spinuloso-serratis, campos savannah dictos incolita; altera *T. Jenmani*, Hook. f., locis fluvio inundatis viget.

Genus singulare, foliis *Cyperi*, inflorescentia *Dasypogonis*, perianthio staminibusque *Sparganii*, seminibusque ab omnibus nobis notis longe diversis. Testæ fabrica et forma pericarpium potius quam testam simulat, et achenium rigidum armatum *Compositarum* quodammodo revocat.

Ordo CLXXXVII. **PALMÆ.**

Endl. Gen. 244. Lindl. Veg. Kingd. 134. Mart. Hist. Nat. Palm. 1823–1850. Nipaceæ et Phytelephusieæ, Brongn.

Flores parvi v. minuti raro majusculi, regulares, hermaphroditi monoici v. dioici, interdum polygami. *Perianthium* duplex, in serie trimerum, coriaceum carnosulum v. membranaceum, rarius glumaceum, in fl. ♀ sæpissime post anthesin auctum. *Sepala* 3, distincta v. connata, in fl. ♂ sæpissime parva, æstivatione aperta v. imbricata, in fl. ♀ sæpius rotundata v. reniformia, late imbricata. *Petala* 3, distincta v. connata, æstivatione in fl. ♂ valvata, rarius imbricata; in fl. ♀ convolutivo-imbricata, rarius apice v. in toto valvata, interdum in urceolum 3-lobum v. truncatum confluentia. *Stamina* in fl. ♂ et ☿ plerumque 6, 2-seriatim sepalis petalisque opposita, rarius plura (usque ad 50) fundo perianthii v. tubo corollæ inserta, sæpissime inclusa; staminodia in fl. ♀ 0, v. squamæformia subulata v. in annulum aut cupulam connata, rarissime antheris cassis instructa; filamenta libera v. connata, subulata v. filiformia, rarissime complanata, apicibus præfloratione rectis v. infractis. *Antheræ* lineares oblongæ v. sagittatæ, rarissime biglobosæ, basi v. dorso affixæ, erectæ v. versatiles, 2-loculares, loculis introrsum rarissime lateraliter v. extrorsum dehiscentibus; pollen ellipsoideum v. subsphæricum in paucissimis echinulatum. *Ovarium* liberum, ovoideum oblongum v. globosum, in fl. ♂ rudimentarium v. 0, ima basi 1-loculare v. perfecte v. imperfecte 3- rarius 4–7-loculare, integrum v. 3-lobum v. e carpellis 3 distinctis v. basi connatis. *Stylus* 0 v. brevissimus, rarius elongatus, rarissime gracilis et rectus v. flexuosus; stigmata 3, sessilia, brevia, erecta v. recurva, apice v. introrsum papillosa, subulata v. n paucis elongata. *Ovula* in carpellis solitaria et erecta v. angulo interiori basi lata affixa, et subhorizontalia v. pendula, anatropa v. hemi-anatropa. *Fructus* perianthio plus minus (interdum insigniter) aucto stipatus, siccus baccatus v. drupaceus, stigmatum stylive reliquiis terminalibus excentricis lateralibus v. basilaribus, 1- rarius 2-plurilocularis et -spermus, rarius e carpellis 1–3 distinctis 1-spermis; exocarpium sæpius fibris percursum; endocarpium membranaceum crustaceum ligneum v. lapideum, intus læve v. rugosum et rapheos seminis ramis notatum, in *Cocoineis* foveis 3 æquidistantibus quarum 2 loculis effœtis respondent perfossum. *Semina* loculis endocarpii conformia, libera v. endocarpio adhærentia, hilo basilari v. laterali; testa albumini arctissime adhærens; raphe brevis v. elongata, sæpe endocarpio adhærens, interdum semen circumambiens, ramis numerosis et directione variis, simplicibus ramulosis v. reticulatis interdum supra testam diffusis. *Albumen* corneum v. cartilagineum, non raro oleosum, solidum v. cavum v. vertice v. latere insculptum, æquabile v. ruminatum, sulcis radiatis v. irregularibus simplicibus v. ramosis testæ materia farctis. *Embryo* parvus, conoideus trochlearis v. cylindraceus, in foveola propria juxta albuminis peripheriam immersus, sæpius hilo latere dorsali proximus, rarius lateralis v. apicalis.

Plantæ solitariæ v gregariæ, habitu peculiari, arborescentes v. frutescentes, pleræque perennes et polycarpicæ, paucæ monocarpicæ, monocarpicarum aliæ inflorescentia terminali semel florent, aliæ inflorescentia axillari semel v. seriatim ab apice deorsum florent; radix primaria cito evanida, caudice basi radiculas plurimas cylindraceas simplices v. ramosas epigæas v. hypogæas emittente. Caudex gracilis v. robustus, elatus mediocris v. humilis, non raro soboliferus, simplex, rarissime dichotome ramosus, erectus v. ope uncarum longissime scandens, annulatus v. cicatricatus, inermis v. aculeis sæpius nigris compressis armatus. Folia terminalia v. apicem versus caudicis elongati gracilis remota, pro planta magna, interdum maxima, primum integra, cito palmatim v. pinnatim secta v. rarissime bipinnatisectim fissa; segmenta discreta v. plus minus confluentia, vernatione marginibus induplicatis v. reduplicatis, apicibus acuminatis 2-fidis laciniatis v. præmorsis, costa sæpius valida, nervis parallelis in apicem convergentibus v. flabellatim divaricatis; rhachis in foliis pinnatisectis dorso convexa, facie carinata, lateribus exsculptis segmentis sulco

insertis; petiolus subcylindraceus, v. antice concavus v. canaliculatus, rarius plano-convexus, v. biconvexus, apice in foliis flabelliformibus sæpe in unguem brevem productus, basi in vaginam brevem v. elongatam clausam v. apertam dilatatus; vagina marginibus sæpe late v. anguste fibrosis v. vagina tota demum in fibras soluta, ore obliquo simplici v. in ligulam v. ocream producto. Inflorescentia (*spadix* dicta) v. interfoliacea et longe pedunculata, v. infrafoliacea et breviter pedunculata, v. subsessilis, nunc hippuriformis rachi brevi ramisque elongatis æquilongis pendulis, nunc rachi elongata ramis flabellatim v. paniculatim dispositis. Spathæ variæ, nunc numerosæ tubulosæ pedunculum v. pedunculum et ramos spadicis vaginantes, v. sæpius 2–4 pedunculo insertæ, quarum inferiores incompletæ vaginæformes, coriaceæ v. membranaceæ; superior sæpe multo major, cymbiformis, coriacea v. lignosa, spadicem fere maturum includens, demum ventre longitudinaliter rupta, persistens, integra v. 2-partita. Flores cum spadice articulati v. continui, non raro cavis ramorum v. foveolis e bracteis connatis formatis immersi, solitarii v. sæpius in speciebus monoicis 3-ni intermedio ♀, v. inferiores in spadice v. ramo spadicis 3-ni, superiores solitarii v. bini ♂; bracteæ sub quovis flore v. grege florum solitariæ, cum rhachi continuæ, interdum spathelliformes coriaceæ membranaceæ v. 0; bracteolæ sub quovis flore sæpius 2-næ, distinctæ et squamiformes v. in cupulam connatæ, non raro bracteæ et bracteolæ confusæ v. omnino deficientes. Fructus varius.

Species enumeratæ ad 1100, permultæ imperfecte cognitæ, pluresque in Africa et America centrali, Madagascaria, insulisque maris Pacifici adhuc latent. Palmæ fere omnes tropicæ, pleræque Americanæ, pauciores Asiaticæ et Australianæ, paucissimæ Africanæ. Inter genera extratropica *Chamærops* gradum borealem 44° in Europa, *Nannorhops* gradum 34° in Asia, et *Sabal* 36° in America attingunt. In regionibus temperatis hemisphærii australis *Phœnix* in Africa ad grad. 34°, invenitur; *Rhopalostylis* in Nova Zelandia ad grad. 44°; et *Jubæa* in Chili ad grad. 37°.

Ordo bene limitatus nullo arcte affinis, suadente R. Brownio *Xeroteti* et *Flagellariæ* accedit, sed a priore differt fructu nunquam capsulari, a posteriore albumine; ab ambobus habitu, foliis, inflorescentia, indole seminis e embryone. Limites subtribuum et generum *Arecearum* valde incertæ sunt, et omnes denuo in vivo scrutandæ. Labores Martii, H. Wendlandii et Scheffèri multum attulerunt, perplura tamen adhuc dubia remanent, et in omnibus seriebus florum seminum et habitus cognatio accuratius definienda. De dispositione generum et specierum confer H. Wendland in Kerchove de Deterghem 'Les Palmiers,' Tableau indiquant la Classification, p. 128; et Index général des noms et synonymes des espèces connues, p. 230–258; et in Bull. Soc. Bot. France, viii. 429. Drude in Bot. Zeit. 1877; et in Petermann, Geograph. Mittheil. 1878. De anatomia et morphologia, confer Martius, Hist. Nat. Palm. vol. i., et Mohl, Vermischte Schriften Botanischen Inhalts, Tubingen, 1845.

FORMÆ ABNORMES.

Folia bipinnatisecta in *Caryota*.

Perianthium reductum v. deformatum in *Thrinace*, *Hemithrinace*, et in fl. ♀ *Nipæ*.

Sepala petala longe superant in fl. ♂ *Nengæ*.

Petala prælonga in *Phytelephantis* flore ♀.

Antherarum loculi discreti, penduli in *Geonoma*; discreti et insigniter torti in *Orbignya*.

Stylus capillaris in *Washingtonia*; stigmata filiformia in *Phytelephante*; stigma infundibulare in *Thrinace* et *Hemithrinace*.

Fructus syncarpium globosum in *Nipa* et *Phytelephante*; pericarpium tessellato-muricatum in *Sommiera*, *Manicaria*, *Teysmannia* et *Phytelephante*.

TRIBUUM SUBTRIBUUMQUE CONSPECTUS (exceptis neglectis).

Tribus I. Areceæ. Folia pinnatisecta, segmentis discretis v. in laminam apice bifidam integram v. laciniatam confluentibus, vernatione reduplicatis. Flores monoici v. dioici. Semina umbilicata, raphe ventrali, embryone dorsali.

A. *Petala fl. ♀ imbricata v. apicibus tantum valvatis, rarissime in toto valvata.*

* *Spadices infrafoliacei.*

† *Stigmata in fructu terminalia. Ovarium integrum, 1-loculare.*

Subtribus 1. Euareceæ. *Fl. ♂ asymmetrici, sepalis sæpius parvis haud imbricatis.—Gerontogeæ.*

Subtribus 2. Ptychospermeæ. *Fl. ♂ symmetrici, sepalis sæpius rotundatis late imbricatis.—Gerontogeæ.*

†† *Stigmata in fructu sæpissime excentrica v. lateralia. Ovarium integrum v. 3-lobum.*

Subtribus 3. Oncospermeæ. *Spathæ 2. Fl. ♂ symmetrici v. asymmetrici. Ovarium integrum. Foliorum segmenta acuminata.—Amphigeæ.*

Subtribus 4. Iriarteeæ. *Spathæ numerosæ. Spadices juniores corniformes. Fl. ♂ symmetrici. Ovarium integrum. Foliorum segmenta cuneata.—Neogeæ.*

Subtribus 5. Wettonieæ. *Spathæ numerosæ. Spadices clavatæ. Ovarium alte 3-lobum, stigmatibus magnis. Foliorum segmenta cuneata.—Neogeæ.*

** *Spadices sæpissime interfoliacei.*

† *Stigmata in fructu terminalia, rarius basilaria.*

Subtribus 6. Linospadiceæ. *Spadix simplex, floribus monoicis cavis immersis. Ovarium 1-loculare.—Gerontogeæ.*

Subtribus 7. Ceroxyleæ. *Spadix paniculatim ramosus, floribus dioicis pedicellatis. Ovarium 3-loculare. Fructus globosus. Foliorum segmenta acuminata.—Neogeæ.*

Subtribus 8. Malortieæ. *Spadix subdigitatim ramosus, floribus monoicis non immersis. Ovarium imperfecte 3-loculare. Fructus elongatus. Folia varia.—Neogeæ.*

†† *Stigmata in fructu lateralia v. basilaria, rarius terminalia.*

Subtribus 9. Iguanureæ. *Spathæ 2. Flores omnes v. inferiores 3-ni, non immersi. Ovarium integrum, 1–3-loculare.—Gerontogeæ.*

Subtribus 10. Chamædoreæ. *Spathæ numerosæ. Spadices inter- et infrafoliacei. Flores sæpissime dioici, non immersi, ebracteati et ebracteolati, perianthio carnosulo v. coriaceo. Ovarium integrum, 3-loculare.—Neogeæ et ins. Africanæ.*

Subtribus 11. Geonomeæ. *Spathæ 1, 2, v. plures. Flores monoici v. dioici, cavis immersi, compressi, perianthio glumaceo. Ovarium integrum, 3-loculare, stylo sæpe elongato terminali v. laterali.—Neogeæ, paucæ gerontogeæ.*

B. *Petala fl. ♀ per totam fere longitudinem valvata.*

Subtribus 12. Caryotideæ. *Spadices interfoliacei; spathæ 2 v. plures. Ovarium integrum, 3-loculare.—Gerontogeæ.*

(Areceæ dubiæ affinitatis: MANICARIA, LEOPOLDINIA, NIPA, PHYTELEPHAS.)

Tribus II. Phœniceæ. Folia pinnatisecta, segmentis acuminatis vernatione induplicatis. Spadices interfoliacei; spatha solitaria. Flores dioici. Ovarii carpella 3, distincta, unum tantum maturans, stigmate terminali. Semen ventre profunde sulcatum, umbilicatum, embryone dorsali.—*Gerontogeæ.*

Tribus III. Corypheæ. Folia vernatione flabellatim plicata, orbicularia semi-orbicularia v. cuneata, fissa, segmentis induplicatis. Spadices interfoliacei; spathæ numerosæ. Flores sæpius hermaphroditi. Ovarium integrum v. 3-lobum, 3-loculare, ovulis erectis. Fructus carpella 1–3, distincta, pericarpio non squamoso. Semina hilo punctiformi, raphe ventrali.—*Gerontogeæ et Neogeæ.*

Tribus IV. Lepidocaryeæ. Folia pinnatisecta v. flabellatim plicata, segmentis vernatione reduplicatis. Spadices terminales v. axillares; spathæ numerosæ. Flores polygamo-monoici. Ovarium integrum, perfecte v. imperfecte 3-loculare. Fructus pericarpium squamis nitidis deorsum imbricatis loricatum. Semina umbilicata, raphe dorsali, embryone ventrali.

Subtribus 1. Calameæ. *Folia pinnatisecta. Ovarium imperfecte 3-loculare.—Gerontogeæ.*

Subtribus 2. Raphieæ. *Folia pinnatisecta. Ovarium perfecte 3-loculare.—Neogeæ et Africanæ.*

Subtribus 3. Mauritieæ. *Folia flabelliformia.—Neogeæ.*

Tribus V. Borasseæ. Folia orbicularia, fissa, segmentis flabellatim plicatis vernatione induplicatis. Spadices interfoliacei; spathæ numerosæ, vaginantes. Flores dioici. Ovarium integrum, 3-loculare, ovulis ascendentibus. Fructus varius. Semina hilo diffuso.—*Gerontogeæ.*

Tribus VI. Cocoineæ. Folia pinnatisecta, segmentis vernatione reduplicatis. Spadices interfoliacei. Spathæ 2 v. plures. Flores sæpissime in eodem spadice monoici, inferiores 3-ni intermedio ♀. Ovarium 1–7-loculare. Fructus 1–7-locularis, stigmatibus terminalibus, endocarpio lignoso 3–7-poroso. Semen endocarpio adhærens, hilo diffuso, embryone poro opposito.—*Neogeæ.*

Subtribus 1. Bactrideæ. *Palmæ aculeatæ. Fructus 1-spermus, endocarpio medio v. supra medium 3-poroso.—Gerontogeæ.*

Subtribus 2. Elæideæ. *Palmæ inermes. Stamina monadelpha. Fructus 1–3-spermus, endocarpio supra medium 3-poroso.—Neogeæ et Africanæ.*

Subtribus 3. Eucocoineæ. *Palmæ inermes. Stamina libera. Fructus 1–∞-spermus, endocarpio supra basin 3-poroso.—Neogeæ.*

CONSPECTUS GENERUM.

Tribus I. Areceæ. Folia pinnatisecta, segmentis discretis v. in laminam apice 2-fidam plus minusve confluentibus, marginibus basi recurvis, vernatione reduplicatis. Spadices inter- v. infra-foliacei, simplices v. ramosi. Spathæ 2 v. plures. Flores monoici v. dioici, nunquam hermaphroditi, inferiores in spadice v. ramis spadicis sæpissime 3-ni intermedio ♀. Fl. ♂: petala semper valvata. Fl. ♀: petala sæpius imbricata, v. e basi convolutivo-imbricata, apicibus breviter v. longe valvatis v. conniventibus. Carpella 3, sæpissime in ovarium 1–3-loculare symmetricum rarius 3-lobum confluentia, carpella rarissime fere libera; stigmata 3, parva, rarius majuscula; ovulum parietale, plus minusve pendulum, rarius basilare et erectum. Fructus 1–3-spermus, stigmatibus terminalibus excentricis lateralibus v. basilaribus. Semina libera v. secus raphem v. tota endocarpio adhærentia, hilo punctiformi orbiculari v. lineari, raphe ventrali.

Excepta: Petala per totam longitudinem valvata in flore ♀ *Oreodoxæ*, in speciebus nonnullis *Chamædoreæ*, in *Gaussia*, *Hyophorbe*, et in subtribu *Caryotidearum*.

Subtribus 1. Euareceæ. *Flores in eodem spadice infra-foliaceo monoici, sæpissime 3-ni intermedio ♀. Fl. ♂ asymmetrici, sepalis sæpius parvis v. minutis, rarius latis et imbricatis. Fl. ♀, petala basi v. tota convolutivo-imbricata, apicibus rotundatis v. acutatis et conniventi-valvatis. Ovarium integrum, stigmatibus terminalibus sessilibus minutis. Fructus symmetricus, stigmatibus terminalibus. Palmæ inermes. Foliorum vagina elongata, cylindracea. Spathæ 2, rarius 3.*

* *Ovulum basilare, erectum.*

✓ 1. ARECA. Fl. ♂ minuti, in ramis spadicis numerosi, solitarii v. 2-ni. Stamina 3 v. 6. Fl. ♀ multo majores, basin versus ramorum solitarii. Albumen ruminatum.—*Asia trop., Nov. Guinea, Austral. trop.*

2. MISCHOPHLŒUS. Flores inferiores in ramis spadicis 3-ni, intermedio ♀ masculis minore, spiraliter dispositi. Stamina 9. Stigmata distincta. Albumen ruminatum.—*Archip. Malay.*

3. PINANGA. Flores 3-ni, intermedio ♀, di-hexastiche dispositi. Stamina numerosa. Stigmata confluentia. Albumen ruminatum.—*Asia trop.*

4. KENTIA. Flores 3-ni, intermedio ♀, tetrastiche dispositi. Stamina 6. Fl. ♀: Petala sepalis multo longiora apicibus valvatis. Albumen æquabile. Foliorum segmenta acuminata; spadicis ramuli acute 4-goni.—*Nov. Guinea.*

** *Ovulum parietale, plus minusve pendulum.*

† *Flores in ramis spadicis tetrastiche dispositi.*

5. HYDRIASTELE. Flores 3-ni, intermedio ♀. Stamina 6. Fl. ♀: Petala sepalis haud longiora, apicibus imbricatis. Albumen æquabile. Foliorum segmenta apice fissa.—*Nov. Guinea, Austral. trop.*

6. ADELONENGA. Fl. ♀: Sepala et petala conformia. Albumen ruminatum. Foliorum segmenta præmorsa.—*Nov. Guinea.*

7. GRONOPHYLLUM. Fl. ♀: Petala sepalis multo longiora, apicibus valvatis. Albumen ruminatum. Foliorum segmenta præmorsa.—*Nov. Guinea.*

8. NENGELLA. Fl. ♂: Sepala minuta; stamina 6, filamentis brevissimis. Fl. ♀: Petala sepalis duplo longiora, supra medium valvata. Albumen æquabile. Foliorum segmenta longe acuminata.—*Archip. Malay., Nov. Guinea.*

†† *Flores in ramis spadicis spiraliter dispositi.*

9. KENTIOPSIS. Fl. ♂: Sepala triangulari-orbicularia, late imbricata. Stamina numerosa,

filamentis brevibus. Fl. ♀: Petala brevia, apicibus valvatis. Foliorum segmenta apice attenuata, obtusa v. dentata.—*Nov. Caledonia.*

10. VEITCHIA. Fl. ♂: Sepala chartacea, basi connata. Fl. ♀ *masculis multo majores*; petala sepalis inclusa. Foliorum segmenta apice attenuata, oblique truncata.—*Ins. Pacific.*

11. HEDYSCEPE. Fl. ♂: Sepala anguste lanceolata. Stamina 9–12, filamentis elongatis. Fl. ♀: Petala sepalis conformia, apicibus valvatis. Foliorum segmenta acuminata.—*Ins. Lord Howe.*

12. NENGA. Fl. ♂: Sepala angusta, *petala longe superantia.* Stamina 6, antheris erectis. Fl. ♀: Sepala et petala consimilia, late imbricata. Foliorum segmenta apice attenuata, oblique 2–3-fida.—*Archip. Malay.*

13. LOXOCOCCUS. Fl. ♂: Sepala rotundata, imbricata. Stamina 9–12, filamentis elongatis. Fl. ♀: Petala apice valvata. Foliorum segmenta apice oblique præmorsa.—*Zeylania.*

14. ACTINORHYTIS. Fl. ♂: Sepala late imbricata. Stamina 24–30, filamentis apice inflexis. Fl. ♀: *masculis multo majores;* petala sepalis paullo longiora, apicibus valvatis. Foliorum segmenta acuminata, oblique dentata.—*Archip. Malay.*

15. ARCHONTOPHŒNIX. Fl. ♂: Sepala parva, carinata, imbricata. Stamina 9–24, filamentis apice inflexis. Fl. ♀: Sepala et petala consimilia. Foliorum segmenta attenuata, acuminata, v. apice 2-dentata.—*Australia.*

16. RHOPALOSTYLIS. Fl. ♂: Sepala subulato-lanceolata, haud imbricata. Stamina 6–12, filamentis apice inflexis. Fl. ♀: Petala brevia, apice valvata. Foliorum segmenta acuminata.—*Ins. Norfolk, Nov. Zeland.*

17. DICTYOSPERMA. Fl. ♂: Sepala parva, acuta. Stamina 6, filamentis apice inflexis. Fl. ♀: Petala sepalis paullo longiora. Foliorum segmenta acuminata.—*Ins. Mascarens.*

Subtribus 2. Ptychospermeæ. *Flores in eodem spadice infrafoliaceo monoici, 3-ni intermedio ♀ v. superiores solitarii et 2-ni ♂, spiraliter dispositi. Fl. ♂ symmetrici; sepala orbiculata, concava, sæpe basi gibba, late imbricata. Fl. ♀, petala tota convolutivo-imbricata, v. apicibus conniventi-valvatis. Ovarium 1- rarissime 2–3-loculare, ovulo parietali, stigmatibus terminalibus minutis. Fructus symmetricus, stigmatibus apicalibus. Palmæ inermes. Foliorum vagina sæpius elongata cylindracea. Spathæ* 2–3.

Excepta: Fructus stigmata paullo excentrica in *Cyphophœnice.*

(Vide quoque 30 ŒNOCARPI species, et 31 JESSENIAM in Subtribu 4.)

* *Albumen ruminatum.*

18. PTYCHOSPERMA. Fl. ♂: Stamina 20–30, antheris versatilibus. Foliorum segmenta late præmorsa.—*Archip. Malay., Nov. Guinea, Australia.*

19. RHOPALOBLASTE. Fl. ♂: Stamina 6, antheris versatilibus. Foliorum segmenta acuminata.—*Archip. Malay.*

** *Albumen æquabile.*

20. CYRTOSTACHYS. Fl. ♂: Stamina 6–15, antheris versatilibus. Foliorum segmenta apice attenuata integra v. oblique 2-dentata.—*Archip. Malay.*

21. DRYMOPHLŒUS. Fl. ♂: Stamina numerosa, antheris versatilibus. Foliorum segmenta oblique præmorsa.—*Ins. Molucc. ad ins. Pacif.*

22. CYPHOPHŒNIX. Fl. ♂: Stamina 6, antheris versatilibus. Pericarpium crassum, granulatum, intus fibrosum, semine tereti. Foliorum segmenta apice angustata.—*Nov. Caledonia.*

Subtribus 3. Oncospermeæ. *Flores in eodem spadice infrafoliaceo monoici, spiraliter dispositi, inferiores v. omnes 3-ni, intermedio ♀. Fl. ♂ symmetrici v. asymmetrici, sepalis parvis v. latiusculis. Fl. ♀: Petala convolutivo-imbricata, apicibus conniventi-valvatis. Ovarium integrum, 1-loculare v. 3-loculare loculis 2 effœtis, stigmatibus minutis. Fructus sæpissime globosus, 1-spermus, stigmatibus excentricis lateralibus v. basilaribus. Palmæ inermes v. armatæ, foliorum vagina brevi v. elongata. Spathæ* 2.

Excepta: Spadix florens *Jesseniæ* interfoliaceus. Petala fl. ♀ *Oreodoxæ* valvata, basi connata. Fructus *Jesseniæ* et specierum *Œnocarpi* stigmatibus terminalibus.

* *Fl. ♂ symmetrici, sepalis latis late imbricatis. Fructus stigmata excentrica v. lateralia, v. in* Cyphophœnice *subterminalia.*

23. PTYCHANDRA. Stamina numerosa, 1-seriata. Pericarpium fibrosum. Semen globosum, albumine ruminato. Foliorum segmenta infra apicem attenuatum 1-dentata.—*Ins. Molucc.*

24. Clinostigma. Stamina 6 v. 12. Perianthium ♀ post anthesin auctum. Pericarpium grumosum et fibrosum. Semen globosum, rapheos ramis a hilo radiantibus, albumine æquabili. Palmæ robustæ, foliorum segmentis præmorsis.—*Australia, Ins. Pacific.*

25. Cyphokentia. Stamina 6 v. 12. Perianthium ♀ post anthesin immutatum. Pericarpium grumosum, endocarpio crustaceo. Semen subglobosum v. oblongum, rapheos ramis a hilo ascendentibus, albumine æquabili. Palmæ robustæ. Foliorum segmenta apice attenuata.—*Nov. Caledonia.*

26. Cyphosperma. Stamina 6. Perianthium post anthesin auctum. Pericarpium tenue, coriaceo-crustaceum. Semen angulatum v. tuberculatum, albumine æquabili. Foliorum segmenta apice præmorsa, fissa.—*Nov. Caledonia.*

27. Microkentia. Stamina 6. Perianthium post anthesin immutatum. Pericarpium crustaceum. Semen globosum, albumine æquabili. Palmæ arundinaceæ, foliorum segmentis acuminatis.—*Nov. Caledonia.*

** *Fl. ♂ sæpius asymmetrici, sepalis parvis v. angustis, haud v. leviter imbricatis. Fructus stigmata lateralia v. basilaria.*

† *Petala libera. Ovulum parietale.*

28. Oncosperma. Fl. ♂: Sepala parva, acuta. Stamina 6–12, antheris erectis. Albumen ruminatum. Palmæ armatæ, foliorum segmentis acuminatis.—*Asia trop.*

29. Euterpe. Fl. ♂; Sepala varia. Stamina 6, antheris versatilibus. Fructus globosus stigmatibus excentricis v. lateralibus. Palmæ inermes, foliorum segmentis acuminatis, vagina elongata cylindracea; spadix scopiformis v. paniculatim ramosus, rachi elongata ramis erecto-patentibus.—*Amer. trop.*

30. Œnocarpus. Fl. ♂: Sepala parva, acuta, valvata. Stamina 6, antheris versatilibus. Fructus ovoideus stigmatibus apicalibus, v. globosus stigmatibus basilaribus. Palmæ inermes v. armatæ; foliorum vagina brevi inflata aperta, segmentis acuminatis; spadicis hippuriformis rhachi brevi ramis elongatis pendulis simplicibus.—*Amer. trop.*

31. Jessenia. Fl. ♂: Sepala minuta. Stamina 9–20, antheris versatilibus. Fructus ellipsoideus, stigmatibus terminalibus; albumen ruminatum. Foliorum vagina brevis, aperta, segmenta acuminata; spadix *Œnocarpi, florens interfoliaceus.*—*Amer. trop.*

32. Acanthophœnix. Fl. ♂: Sepala parva, orbicularia. Stamina 6 v. plura, antheris versatilibus. Fructus minutus, stigmatibus lateralibus v. subbasilaribus; albumen ruminatum. Palmæ elatæ, spinosæ, foliorum segmentis acuminatis.—*Ins. Mascarens.*

†† *Fl. ♀, petala libera. Ovulum basilare, erectum.*

33. Hyospathe. Fl. ♂: Sepala parva, basi connata. Stamina 6. Ovarium 3-loculare. Fructus stigmatibus basilaribus; albumen æquabile. Palmæ inermes, arundinaceæ, foliorum segmentis obliquis longe acuminatis.—*Brasil. bor.*

34. Prestoea. Fl. ♂: Calyx minutus, 3-lobus. Stamina 6, antheris magnis. Ovarium 1-loculare. Fructus stigmatibus infra-apicalibus; albumen ruminatum. Palma gracilis, foliorum vagina brevi, segmentis liberis et confluentibus acuminatis.—*Ind. Occ.*

††† *Fl. ♀: Petala basi connata, superne valvata.*

35. Orbodoxa. Fl. ♂: Sepala minuta, scariosa; stamina 6–12. Ovarium 3-loculare. Fructus curvus, stigmatibus subbasilaribus. Palmæ inermes; foliorum segmentis apice attenuatis 2-fidis.—*Amer. trop.*

Subtribus 4. Iriarteeæ. *Flores in eodem spadice (juniore corniformi) infrafoliaceo monoici, omnes v. inferiores 3-ni intermedio ♀, spiraliter dispositi. Fl. ♂ subsymmetrici; sepala orbicularia, concava, late imbricata. Ovarium 3-loculare, stigmatibus minutis terminalibus; ovulum parietale. Fructus 1-spermus, globosus v. ovoideus, stigmatum situs varius. Palmæ inermes, foliorum segmentis cuneatis plicato-nervosis, nervis subtus prominentibus. Spathæ plures vaginantes.*—Genera omnia potius pro subgeneribus v. sectionibus *Iriarteæ* habenda.

36. Iriartea. Stamina 9–15. Fructus stigmata terminalia v. subterminalia. Embryo dorsalis. Foliorum segmenta quaquaversa.—*Amer. trop.*

37. Socratea. Stamina numerosa. Fructus stigmata subterminalia. Embryo subterminalis. Foliorum segmenta quaquaversa.—*Bras. bor.*

38. DICTYOCARYUM. Stamina 6. Fructus stigmata basilaria. Embryo basilaris. Foliorum segmenta quaquaversa.—*Bras. bor., Nov. Grenada.*

39. IRIARTELLA. Stamina ad 15. Fructus stigmata basilaria. Embryo subterminalis. Foliorum segmenta bifaria.—*Brasil. bor.*

Subtribus 5. Wettenieæ. *Flores dioici v. in diversis spadicibus infrafoliaceis monoici, spiraliter dispositi. Fl. ♂ asymmetrici. Fl. ♀: Petala imbricata v. valvata. Ovarium alte 3-lobum, 3-loculare; stylus inter lobos brevis v. elongatus, stigmatibus magnis elongatis. Fructus stigmata basilaria. Palmæ inermes, foliorum segmentis dimidiato-cuneatis v. lanceolatis, vagina brevi; spathæ plures.*

40. CATOBLASTUS. Fl. ♂: Sepala libera; stamina 9–15, antheris magnis. Fl. ♀: Petala libera, elongata, apicibus valvatis; stylus brevis. Fructus carpella ellipsoidea. Palma inermis, foliorum segmentis cuneatis.—*Bras. bor., Venezuela.*

41. WETTENIA. Fl. ♂: Sepala libera; petala elongata; stamina 12–16, antheris magnis. Fl. ♀: Petala libera, elongata; stylus filiformis. Fructus obpyramidatus.—Palmæ inermes, foliorum segmentis dimidiato-lanceolatis.—*Andes.*

Subtribus 6. Linospadiceæ. *Flores in eodem spadice interfoliaceo simplicissimo (v. in* Gigliolia *ramoso) monoici, in alveolis v. urceolis spiraliter dispositis 3-ni intermedio ♀ v. superiores sparsi ♂. Fl. ♂ symmetrici; sepala rotundata, late imbricata. Fl. ♀: Petala imbricata; ovarium 1-loculare, stigmatibus minutis (in* Gigliolia *crassiusculis) terminalibus. Fructus symmetricus, 1-spermus, stigmatibus apicalibus. Palmæ inermes. Foliorum vagina brevis v. elongata, aperta. Spathæ 1 v. 2.*

42. CALYPTROCALYX. Fl. ♂: Stamina numerosa, antheris versatilibus dorsifixis. Fl. ♀: Staminodia 6–∞; ovulum parietale; albumen ruminatum. Foliorum segmenta acuminata.—*Amboyna, Austral. trop.*

43. BACULARIA. Fl. ♂: Stamina 6, 10, 12, antheris erectis basifixis, connectivo dilatato. Fl. ♀: Staminodia ∞; ovulum parietale; albumen æquabile. Foliorum segmenta præmorsa. —*Australia.*

44. LINOSPADIX. Fl. ♂: Stamina 6–9, antheris versatilibus dorsifixis. Fl. ♀: Staminodia 6–9; stigmata majuscula; ovulum parietale; albumen æquabile. Foliorum segmenta acuminata.—*Nov. Guinea.*

45. HOWEA. Fl. ♂: Stamina perplurima, antheris erectis basifixis. Fl. ♀: Staminodia 0; ovulum erectum; albumen æquabile. Foliorum segmenta acuminata.—*Ins. Lord Howe.*

Genus anomalum.

46. GIGLIOLIA. Flores in eodem spadice interfoliaceo gracili digitatim ramoso monoici, subdistiche dispositi, sparsi, inferiores rarius 3-ni intermedio ♀. Fl. ♂: Calyx tubulosus, 3-gonus. Fl. ♀ masculis multo majores. Ovarium 1-loculare, ovulo subbasilari, stigmatibus terminalibus crassis. Fructus elongatus, cylindraceo-ovoideus. Palmæ arundinaceæ, spatha 1, longissima. —*Borneo.*

Subtribus 7. Ceroxyleæ. *Flores dioici v. in diversis spadicibus interfoliaceis paniculatim ramosis monoici, breviter pedicellati, solitarii, bracteati, ebracteolati, perianthio coriaceo. Fl. ♂: subsymmetrici; calyx 3-dentatus. Fl. ♀: Petala subvalvata. Ovarium 3-loculare, integrum, stigmatibus parvis sessilibus. Fructus globosus, 1-spermus, stigmatibus basilaribus v. terminalibus. Palmæ inermes, foliorum segmentis acuminatis.*

47. CEROXYLON. Stamina 9–15. Fructus stigmatibus basilaribus.—*Andes.*

48. JUANIA. Fructus stigmatibus terminalibus.—*Ins. Juan Fernandez.*

Subtribus 8. Malortieæ. *Flores in eodem spadice interfoliaceo subdigitatim ramoso monoici, 3-ni intermedio ♀, spiraliter dispositi. Fl. ♂ subsymmetrici; sepala rotundata, late imbricata. Fl. ♀: Petala imbricata; ovarium incomplete 3-loculare, stigmatibus minutis terminalibus; ovula 3, septis incompletis adnata. Fructus symmetricus, 1-spermus, stigmatibus terminalibus. Palmæ nanæ v. mediocres, inermes. Spathæ 2. Foliorum vagina brevis.*

49. MALORTIEA. Stamina 6 v. 12. Foliorum segmenta confluentia.—*Amer. cent.*

50. REINHARDTIA. Stamina numerosa. Foliorum segmenta libera, acuminata.—*Mexico.*

Subtribus 9. Iguanureæ. *Flores in eodem spadice interfoliaceo ramoso monoici, omnes v. inferiores 3-ni intermedio ♀, spiraliter dispositi. Fl. ♂: Sepala orbicularia v. reniformia, late imbricata.*

Fl. ♀: Petala imbricata; ovarium 1–3-loculare, stigmatibus minutis terminalibus, ovulis parietalibus v. basilaribus. Fructus parvus, 1-spermus, stigmatibus excentricis lateralibus v. basilaribus. Palmæ inermes v. armatæ.—Spathæ 2.

* *Stigmata in fructu excentrica v. lateralia.*

51. HETEROSPATHA. Stamina 6, antheris versatilibus. Ovarium 1-loculare. Albumen ruminatum. Palma inermis, foliorum segmentis acuminatis.—*Amboyna.*

52. NEPHROSPERMA. Stamina numerosa, antheris brevibus apici filamenti crassi adnatis. Ovarium 1-loculare. Albumen ruminatum. Palma armata, foliorum segmentis acuminatis.—*Ins. Seychelles.*

** *Stigmata in fructu basilaria v. subbasilaria.*

53. IGUANURA. Stamina 6–9, antheris versatilibus. Ovarium 1–3-loculare. Albumen varium. Palmæ inermes, foliorum segmentis præmorsis.—*Archip. Malay.*

54. STEVENSONIA. Stamina 15–20, antheris lineari-oblongis versatilibus. Ovarium 1-loculare. Fructus ovoideus, endocarpio lævi. Albumen ruminatum. Palma armata, foliorum segmentis in laminam bifidam confluentibus.—*Ins. Seychelles.*

55. VERSCHAFFELTIA. Stamina 6, filamentis brevibus, antheris didymis. Ovarium 1-loculare. Fructus globosus, endocarpio intus sulcato. Albumen ruminatum. Palma armata, foliorum segmentis in laminam 2-fidam confluentibus.—*Ins. Seychelles.*

56. DYPSIS. Stamina 6, antheris didymis. Ovarium 3-loculare. Albumen ruminatum. Palmæ nanæ, inermes, foliorum segmentis acuminatis apice fissis.—*Madagascar.*

57. PHLOGA. Stamina 6, antheris didymis. Foliorum segmenta pseudo-verticillata, lanceolata, caudato-attenuata, basi nodoso-incrassata.—*Madagascar.*

58. SOMMIERA. Stamina 6, antheris versatilibus. Fructus crasse corticatus, tessellatim verrucosus; albumen æquabile. Palmæ humiles, inermes, foliorum segmentis in laminam 2-fidam confluentibus.—*Nov. Guinea.*

Subtribus 10. Chamædoreæ. *Flores dioici, v. in diversis spadicibus inter- v. infra-foliaceis, rarius in eodem spadice monoici (nunquam 3-ni) ebracteati et ebracteolati, varie dispositi. Fl. ♂: Calyx minutus; stamina 3 v. 6. Fl. ♀: Petala imbricata v. valvata; ovarium 3-loculare, stigmatibus minutis terminalibus. Fructus varius, stigmatibus basilaribus. Palmæ inermes. Spathæ numerosæ, vaginantes.*

* *Flores dioici v. in diversis spadicibus monoici, spiraliter dispositi.*

59. CHAMÆDOREA. Spadices infra- v. inter-foliacei. Fl. ♂: Stamina 6. Fl. ♀: Petala valvata v. leviter imbricata. Fructus carpella 1 v. 2–3, libera, globosa; albumen æquabile.—*Mont. Amer. trop.*

** *Flores in eodem spadice monoici, in acervulos elongatos dispositi.*

60. SYNECHANTHUS. Spadix interfoliaceus. Fl. ♂: Stamina 3 v. 6. Fl. ♀: Petala convolutivo-imbricata. Fructus ellipsoideus, 1-spermus; albumen æquabile. Palmæ inermes, spadicis ramis gracillimis, foliorum segmentis acuminatis.—*Amer. cent.*

61. GAUSSIA. Spadix interfoliaceus. Fl. ♀: Petala valvata. Fructus carpella 1–3, parva; albumen æquabile. Palmæ inermes, foliorum segmentis acuminatis.—*Cuba.*

62. HYOPHORBE. Spadix infrafoliaceus. Fl. ♂: Stamina 6. Fl. ♀: Petala valvata. Albumen æquabile. Palmæ robustæ, inermes, foliorum segmentis acuminatis.—*Ins. Mascarens.*

*** *Flores in eodem spadice monoici, sparsi, solitarii v. 2-ni.*

63. ROSCHERIA. Spadix interfoliaceus. Fl. ♂: Stamina 6. Fl. ♀: Petala imbricata. Albumen ruminatum. Palma spinosa, foliorum segmentis apice 2-fidis.—*Ins. Seychelles.*

Subtribus 11. Geonomeæ. *Flores dioici v. in diversis spadicibus monoici, sæpissime in cavis spiraliter dispositis solitarii, v. 3-ni intermedio ♀, perianthio glumaceo. Fl. ♂ asymmetrici, a dorso compressi; petala basi in stipitem connata. Fl. ♀: Petala imbricata; ovarium 3-loculare, stylo terminali laterali basilari v. 0, stigmatibus minutis. Fructus parvus, 1-spermus, styli cicatrice v. stigmatibus basilaribus. Palmæ inermes. Spathæ 1 v. 2, rarius plures.*

* *Ovarii basis disco inclusa. Filamenta in columnam cupulamve connata.*

64. GEONOMA. Stamina 6, antherarum loculis disceretis elongatis pendulis. Discus liber. Stylus lateralis v. subbasilaris. Fructus globosus. Palmæ sæpius arundinaceæ.—*Amer. trop.*

65. Asterogyne. Stamina 6, antherarum loculis discretis pendulis. Discus tubo corollæ adnatus et cum eo circumscissus. Stylus terminalis. Fructus ellipsoideus. Palmæ arundinaceæ. —*Amer. cent.*

66. Calyptrogyne. Stamina 6, antheris sagittatis. Palmæ arundinaceæ. Foliorum segmenta longissime acuminata.—*Amer. trop.*

67. Welfia. Stamina ad 20, antheris elongato-subulatis. Foliorum segmenta acuminata. —*Amer. cent.*

*** Discus 0. Filamenta libera.*

68. Podococcus. *Flores cavis non immersi.* Fructus stipitatus, elongatus, supra stipitem deflexus. Palma acaulis, foliorum segmentis rhombeo-lanceolatis dentatis.—*Afr. trop. occid.*

69. Bentinckia. Fructus globosus. Palma arundinacea, foliorum segmentis acuminatis apice fissis.—*Travancor.*

Subtribus 12. Caryotideæ. *Flores in eodem v. diversis spadicibus interfoliaceis v. terminalibus monoici, solitarii v. 3-ni intermedio superiore ♀. Fl. ♀: Petala per totam longitudinem valvata. Ovarium 3-loculare, stigmatibus terminalibus v. excentricis. Fructus varius. Palmæ inermes, foliorum segmentis abrupte v. oblique præmorsis. Spathæ paucæ v. numerosæ.*

Vide etiam 35 Oreodoxa, 59 Chamædorea, 61 Gaussia, et 62 Hyophorbe.

** Spathæ numerosæ. Fl. ♂ symmetrici. Stigmata in fructu terminalia.*

70. Wallichia. Fl. ♂: Calyx tubulosus, truncatus; stamina 6. Albumen æquabile. Palmæ sæpius humiles, foliis simpliciter pinnatisectis.—*Ind. Or.*

71. Didymosperma. Fl. ♂: Calyx cupularis, 3-lobus; stamina ∞. Albumen æquabile. Palmæ humiles, foliis simpliciter pinnatisectis.—*Asia trop.*

72. Arenga. Fl. ♂: Sepala 3; stamina ∞; albumen æquabile. Palmæ monocarpicæ, foliis simpliciter pinnatisectis, segmentis linearibus basi auriculatis.—*Asia et Austral. trop.*

73. Caryota. Fl. ♂: Sepala 3; stamina ∞. Albumen ruminatum. Palmæ elatæ, foliis 2-pinnatisectis.—*Asia et Austral. trop.*

*** Spathæ 2. Fl. ♂ asymmetrici. Stigmata in fructu basilaria.*

74. Orania. Spadix ramosus. Flores 3-ni intermedio ♀. Stamina 6, antheris extrorsum dehiscentibus. Palmæ elatæ, foliis simpliciter pinnatisectis, segmentis linearibus apice oblique lobatis.—*Archip. Malay., Nov. Guinea.*

75. Sclerosperma. Spadix simplex, fusiformis. Flores densissime congesti, superiores ♂, inferiores 3-ni intermedio ♀. Stamina numerosa. Palma acaulis, foliis simpliciter pinnatisectis, segmentis late præmorsis.—*Afr. trop. occid.*

Arecеæ dubiæ affinitatis.

76. Manicaria. Flores in eodem spadice interfoliaceo simpliciter ramoso monoici, in cavis spiraliter dispositis sessiles, solitarii, superiores ♂ conferti, inferiores majores ♀ sparsi. Fl. ♂: Sepala ovato-rotundata; stamina 24–30. Fl. ♀: Petala superne forte valvata. Fructus 1–3-spermus, stigmatibus minutis terminalibus, crasse corticatus, tessellatim verrucosus. Albumen æquabile, cavum. Palma robusta, inermis, foliorum segmentis omnibus in laminam prælongam 2-fidam confluentibus, v. inferioribus discretis. Spathæ 2.—*Amer. trop.*

77. Leopoldinia. Flores minuti, in iisdem v. diversis spadicibus interfoliaceis monoici v. dioici, sparsi. Fl. ♂ symmetrici; stamina 6, antheris latis. Fl. ♀: Ovarium turbinatum, 3-loculare, stigmatibus minutis excentricis. Fructus subglobosus, basi gibbus, paullo compressus, 1-spermus, stigmatibus basilaribus, pericarpio carnoso, endocarpio fibroso, fibris crassis lignescentibus. Albumen æquabile. Palmæ inermes, foliorum segmentis acuminatis. Spathæ 2, caducæ.—*Bras. bor.*

78. Nipa. Fl. ♂ in ramulis lateralibus amentiformibus spadicis congesti, perianthio glumaceo. Fl. ♀ in apice spadicis capitati, perianthio obscuro; carpella 1-locularia, apice rima stigmatosa exarata. Syncarpium globosum. Palma prostrata, foliorum segmentis acuminatis. *Littora Asiæ et Austral. trop.*

79. Phytelephas. Fl. dioici, in spadices amentiformes densissime congesti, perianthio obsoleto. Fl. ♀ capitati; sepala 3; petala 5–10, prælonga; ovarium 4–9-loculare, stigmatibus totidem filiformibus. Syncarpium globosum. Palmæ inermes, prostratæ v. suberectæ, foliorum segmentis acuminatis.—*Peruv., Nov. Grenada.*

Tribus II. Phœniceæ. Folia pinnatisecta, segmentis discretis v. fasciculatis acutis v. acuminatis vernatione induplicatis. Spadices interfoliacei, fastigiatim ramosi. Spatha 1, coriacea, completa, compressa. Flores dioici. Stamina 6, rarissime plura. Ovarii carpella 3, distincta; stigmata sessilia; ovula erecta. Fructus carpellum 1, stigmate terminali. Semen teretiusculum, ventre profunde sulcato, hilo punctiformi; albumen æquabile; embryo subbasilaris v. dorsalis.

80. PHŒNIX. Genus unicum.—*Asia et Africa trop. et subtrop.*

Tribus III. Corypheæ. Folia orbicularia semi-orbicularia v. basi cuneata, flabellatim plicata, ambitu fissa, segmentis vernatione induplicatis. Spadices interfoliacei; spathæ numerosæ, tubulosæ, apice v. latere oblique fissæ. Flores hermaphroditi v. polygami, rarius dioici. Ovarii carpella 3, distincta v. leviter connata, rarius in ovarium integrum 3-loculare confluentia; styli breves v. elongati, distincti v. connati; ovula basilaria v. subbasilaria, erecta. Fructus carpella 1-3, distincta, globosa v. ovoidea, stylo stigmatibusve terminalibus v. basilaribus. Seminis raphe ventralis.

* *Stylus v. stigma in fructu basilaris.*

† *Petala v. corollæ segmenta leviter imbricata.*

81. CORYPHA. Flores ☿. Ovarium 3-lobum, stylo brevi. Albumen æquabile; embryo terminalis. *Palmæ monocarpicæ.—Asia trop.*

82. SABAL. Flores ☿. Ovarium 3-lobum, stylo valido elongato. Albumen æquabile, basi profunde exsculptum; embryo dorsalis. Spadicis rhachis vaginata.—*Amer. trop. et subtrop.*

83. WASHINGTONIA. Flores ☿. Ovarium 3-lobum, stylo elongato filiformi. Albumen æquabile; embryo subbasilaris. Spadicis rhachis vaginata.—*Arizona.*

†† *Petala v. corollæ segmenta valvata.*

84. NANNORHOPS. Flores polygamo-monoici. Ovarium 3-loculare, stylo brevi subulato. Albumen æquabile, ventre profunde exsculptum; embryo dorsalis. Spadicis rhachis vaginata. —*Afghanistan, Persia australis.*

85. ? TEYSMANNIA. Flores ☿. Ovarii carpella 3, distincta, stylis in unum brevem connatis. Fructus pericarpium *tessellato-muricatum.* Albumen ruminatum; embryo basilaris. Folii lamina elongata; spadicis rhachis nuda.—*Sumatra.*

** *Stylus v. stigma in fructu terminalis.*

† *Petala v. corollæ segmenta imbricata.*

86. CHAMÆROPS. Flores polygamo-dioici. Ovarii carpella libera, stigmatibus sessilibus distinctis. Albumen ruminatum; embryo dorsalis. Spadicis rami primarii basi bracteati.—*Reg. Mediterr.*

87. RHAPIDOPHYLLUM. Flores polygamo-dioici. Ovarii carpella libera, stigmatibus sessilibus distinctis. Albumen æquabile; embryo dorsalis. Spadicis rami paucibracteati.—*Carolina ad Floridam.*

88. ACANTHORHIZA. Flores ☿. Filamenta libera. Ovarii carpella distincta, stylis elongatis distinctis. Spadicis rami basi spathaceo-bracteati.—*Amer. centr.*

89. TRITHRINAX. Flores ☿. Filamenta in tubum connata. Ovarii carpella distincta, stylis elongatis distinctis. Spadicis rami vaginati.—*Brasil., Chili.*

†† *Petala v. corollæ segmenta lobive valvata.*

90. BRAHEA. Flores ☿. Ovarii carpella leviter cohærentia, stylo unico brevi 3-gono. Albumen æquabile, ventre profunde intrusum; embryo dorsalis. Spadicis rami evaginati.—*Texas, Mexico.*

91. SERENÆA. Flores ☿. Ovarii carpella basi libera, stylo unico gracili elongato. Albumen æquabile; embryo subbasilaris. Spadicis rhachis vaginata.—*Texas, Carolina, Florida.*

92. COLPOTHRINAX. Flores ☿. Ovarii carpella distincta, stylis erectis subcohærentibus. Albumen æquabile; embryo dorsalis. Spadicis rhachis nuda.—*Cuba.*

93. ERYTHEA. Flores ☿. Ovarii carpella leviter cohærentia, stylo unico brevi 3-sulcato. Albumen æquabile, ventre profunde intrusum; embryo subbasilaris. Spadicis rhachis vaginata. —*California.*

94. COPERNICIA. Flores ☿. Ovarii carpella 3, basi distincta, stylo unico brevi 3-sulcato. Albumen ruminatum, ventre convexum. Spadicis rhachis vaginata.—*Amer. trop.*

95. Pritchardia. Flores ☿. Ovarium 3-gonum v. 3-lobum, in stylum validum attenuatum. Corollæ *tubus persistens segmentis deciduis.* Albumen æquabile; embryo subbasilaris. Spadicis rhachis vaginata.—*Ins. Pacific.*

96. Licuala. Flores ☿. Ovarii carpella 3-gona, leviter cohærentia, stylo unico filiformi. Albumen æquabile, ventre profunde exsculptum; embryo dorsalis. Spadicis rhachis vaginata.—*Asia trop., Austral. trop.*

97. Livistona. Flores ☿. Ovarii carpella globosa, distincta v. leviter cohærentia, stylis brevibus distinctis v. cohærentibus. Albumen æquabile, ventre late exsculptum; embryo dorsalis. Spadicis rami nudi v. inferiores bracteati.—*Asia trop., Australia trop.*

98. Trachycarpus. Flores polygamo-monoici. Ovarii carpella distincta, stigmatibus distinctis sessilibus. Albumen æquabile, ventre sulcatum; embryo dorsalis. Spadicis rhachis vaginata.—*Himalaya, China, Japan.*

99. Rhapis. Flores dioici. *Corolla 3-dentata. Antheræ extrorsum dehiscentes.* Ovarii carpella distincta *gynophoro insidentia,* stylis brevibus distinctis. Albumen æquabile, ventre profunde exsculptum. Spadicis rhachis vaginata.—*China, Japan.*

††† *Perianthium minutum, 6-fidum v. obsoletum.*

100. Thrinax. Filamenta subulata, antheris introrsum dehiscentibus. Ovarium 1-loculare, stigmate infundibulari. Albumen sinuato-sulcatum, subruminatum; embryo apicalis. Spadicis rhachis vaginata.—*Florida, Ind. Occ.*

101. Hemithrinax. Antheræ sessiles, extrorsum dehiscentes, connectivo crasso. Ovarium 1–3-loculare, stigmate infundibulari; embryo apicalis. Spadicis rhachis nuda.—*Cuba.*

Tribus IV. Lepidocaryeæ. Folia pinnatisecta v. flabelliformia, segmentis discretis marginibus recurvis, vernatione reduplicatis, nervulis transversis distinctis. Spadices terminales v. axillares; spathæ numerosæ, distichæ, incompletæ, vaginæformes, rarius paucæ v. solitariæ. Flores hermaphroditi monoici v. dioici. Ovarium complete v. incomplete 3-loculare, stigmatibus terminalibus; ovula erecta, basilaria, anatropa. Fructus squamis deflexis rigidis nitidis tessellatim loricatus, symmetricus, stigmatibus terminalibus. Semina libera, umbilicata, raphe dorsali.—Palmæ sæpissime armatæ, non raro ope rhacheos foliorum productæ aculeatæ scandentes.

Subtribus 1. Calameæ. *Folia æqualiter pinnatisecta. Ovarium imperfecte 3-loculare.*

* *Palmæ polycarpicæ, spadicibus axillaribus.*

102. Calamus. Caudex elongatus, sæpissime scandens. Foliorum segmenta acuminata, nervis parallelis. Spathæ numerosæ, persistentes. Flores distichi v. subdistichi.—*Asia, Africa, Australia.*

103. Zalacca. Acaulis. Foliorum segmenta acuminata, nervis parallelis. Spathæ numerosæ, persistentes. Flores in ramulos amentiformes congesti.—*Ind. or., Archip. Malay.*

104. Korthalsia. Caudex elongatus, scandens. Foliorum segmenta trapeziformia, nervis flabellatis. Spathæ numerosæ, persistentes. Flores in ramulos amentiformes congesti.—*Archip. Malay., Nov. Guinea.*

105. Ceratolobus. Caudex elongatus, scandens. Foliorum segmenta rhombea, nervis flabellatis. Spatha 1, decidua.—*Archip. Malay.*

106. Pigafetta. Caudex erectus, robustus. Foliorum segmenta acuminata, nervis parallelis. Spadicis ramuli amentiformes, lanati.—*Archip. Malay., Nov. Guinea.*

** *Palmæ monocarpicæ, spadicibus axillaribus.*

107. Plectocomia. Caudex elongatus, scandens. Foliorum segmenta lanceolata, nervis parallelis. Spadicis rami spathellis distichis flores obtegentibus imbricatis instructi; spathæ numerosæ, persistentes.—*As. trop., Archip. Malay.*

*** *Palmæ monocarpicæ, spadicibus terminalibus. Foliorum rhachis non producta.*

108. Eugeissonia. Caudices brevissimi, cæspitosi. Spadices longe pedunculati, contracti. Fl. ♂: Petala elongata. Stamina ad 12.—*Archip. Malay.*

109. Metroxylon. Caudices robusti. Spadicis rami patentes, recurvi. Fl. ♂: Petala oblonga. Stamina 6. Albumen ruminatum.—*Archip. Malay., Nov. Guinea, Ins. Fiji.*

Subtribus 2. Raphieæ. *Folia pinnatisecta. Ovarium perfecte 3-loculare.*

* *Palmæ monocarpicæ, caudice robusto erecto, foliorum rhachi non producta. Spadix terminalis.*

110. Raphia. Spadicis gigantei ramuli pectinatim ramulosi, quasi articulati.—*Afric. et Amer. trop.*

** *Palmæ polycarpicæ, caudicibus elongatis scandentibus, foliorum rhachi producta. Spadix axillaris.*

111. Oncocalamus. Spadix spathis vaginatus. Flores glomerati, bracteati et bracteolati.—*Afric. trop.*

112. Eremospatha. Spadix nudus. Flores ☿, gemini, minutissime bracteati, ebracteolati. —*Afric. trop.*

*** *Palmæ monocarpicæ, caudicibus elongatis scandentibus. Spadices terminales.*

113. Ancistrophyllum. Spadix spathis vaginatus. Flores ☿, distichi, bracteati et bracteolati.—*Afric. trop.*

Subtribus 3. Mauritieæ. *Folia flabelliformia. Ovarium perfecte* 3-loculare. *Palmæ erectæ, polycarpicæ.*

114. Mauritia. Spadicis ramuli floriferi amentiformes, cylindracei, floribus densissime spiraliter confertis. Semen esulcatum.—*Amer. trop.*

115. Lepidocaryum. Spadicis ramuli floriferi breves, compressi, floribus secundis v. bifariis. Stigmata linearia. Semen sulco excavatum.—*Bras. bor.*

Tribus V. Borasseæ. Folia flabelliformia. Spadices interfoliacei; spathæ numerosæ, vaginiformes. Flores dioici; ♂ ramulis amentiformibus cylindraceis solitariis v. umbellatis spadicem terminantibus dense congesti, in foveis inter bracteas dense imbricatas immersi, perianthio glumaceo; ♀ spadice crasso inserti, magni, bracteis imbricatis immersi, perianthio crasse coriaceo. Ovarium 3-loculare, stigmatibus terminalibus. Fructus symmetricus v. asymmetricus, 1–3-pyrenus, stigmatibus terminalibus. Semina non umbilicata, endocarpio arcte adhærentia, hilo diffuso. Palmæ robustæ, inermes.

116. Borassus. Fl. ♂ in alveolis spadicis numerosi; stamina 6.—*Afr. trop., India culta.*

117. Lodoicea. Fl. ♂ in alveolis spadicis numerosi; stamina numerosa.—*Ins. Seychelles.*

118. Latania. Fl. ♂ in alveolis spadicis solitarii; stamina numerosa.—*Ins. Mascarens.*

119. Hyphæne. Fl. ♂ in alveolis spadicis solitarii; stamina 6.—*Afr. trop., Madagascar.*

Tribus VI. Cocoineæ. Folia pinnatisecta, segmentis discretis v. confluentibus vernatione reduplicatis. Spadices interfoliacei; spathæ 2. Flores sæpius in eodem spadice monoici, bracteati et bracteolati. Ovarium obovoideum, 3- rarissime pluri-loculare, stigmatibus terminalibus. Fructus symmetricus, 1- rarius pluri-locularis et -spermus, pericarpio fibroso, stigmatibus terminalibus, endocarpio osseo v. crustaceo, fossis 3 (rarissime 2 v. 4–7) quarum 3 loculis abortientibus respondent, tertia fertilis. Semen ope rapheos ramorum endocarpio plus minus arcte adhærens, hilo diffuso; albumen æquabile, oleosum. Embryo poro endocarpii oppositus.

Subtribus 1. Bactrideæ. *Palmæ aculeatæ. Fructus* 1-*spermus, endocarpio medio v. supra medium 3-poroso.*—Omnes Americanæ.

* *Corolla fl. ♀ alte gamopetala.*

120. Bactris. Fl. ♂ fœmineis minores, spadice non immersi. Endocarpium osseum. Caudex erectus, foliis terminalibus segmentis acuminatis.

121. Desmoncus. Fl. ♂ fœmineis majores, spadice non immersi. Endocarpium tenue. Caudex elongatus, scandens, foliis subremotis rhachi in funem producta, segmentis acuminatis.

122. Astrocaryum. Fl. ♂ fœmineis minores, alveolis spadicis immersi. Endocarpium osseum. Caudex erectus, foliis terminalibus, segmentis præmorsis.

** *Petala fl. ♀ basi tantum connata.*

123. Acrocomia. Fl. ♂ alveolis spadicis immersi, antheris magnis exsertis. Fl. ♀: Petala convolutivo-imbricata. Foliorum segmenta acuminata.

124. Martinezia. Fl. ♂ spadice non immersi, antheris inclusis. Fl. ♀: Petala valvata. Foliorum segmenta cuneata, præmorsa.

Subtribus 2. Elæideæ. *Palmæ inermes. Fl. ♂ spadice immersi, stamina monadelpha v. libera. Fl. ♀ polypetali. Fructus 1–3-spermus, endocarpio supra medium 3-poroso. Foliorum segmenta attenuato-acuminata.*

125. Elæis. Fl. ♂ in alveolis spadicis immersi. Foliorum segmenta acuminata.—*Afr. et Amer. trop.*

Subtribus 3. Eucocoineæ. *Palmæ inermes. Fructus 1–∞-spermus, endocarpio osseo et,* Jubæa *excepta, basin versus 3–6-poroso. Foliorum segmenta acuminata v. apice attenuata.*—Omnes, *Coco nucifera* excepta, Americanæ.

* *Spadix simplex.*

126. Diplothemium. Stamina 6–∞.

** *Spadix simpliciter ramosus.*

127. Cocos. Fl. ♂: Petala lanceolata. Stamina 6, inclusa. Fructus 1-spermus.

128. Maximiliana. Fl. ♂: Petala minuta, staminibus 6 exsertis multo minora. Fructus 1-spermus.

129. Scheelea. Fl. ♂: Petala elongato-clavata v. cylindracea; stamina 6, petalis breviora. Fructus 1–3-spermus.

130. Attalea. Fl. ♂: Petala lanceolata; stamina 10–24, inclusa, antherarum loculis connatis. Fructus 2–6-spermus.

131. Jubæa. Fl. ♂: Petala lanceolata; stamina numerosa, inclusa, antherarum loculis connatis. Fructus 1-spermus, *endocarpio medio v. paullo infra medium 3-poroso.*

132. Orbignya. Fl. ♂: Petala ovata, integra v. dentata; stamina 12–24, inclusa, antherarum loculis discretis tortis. Fructus 2–6-spermus.

GENERA DUBIA AUT IMPERFECTE COGNITA.

Acœlorrhaphe, *H. Wendl. in Bot. Zeit.* 1879, 148, *nomen tantum* (e tribu *Corypheearum*).

Bismarckia, *Hildebr. et H. Wendl. in Bot. Zeit.* 1881, 93 (e tribu *Borassearum*). Fructus obovoideus, 1-locularis cum loculis 2 rudimentariis, stigmatibus basilaribus, pericarpio crasso subspongioso fragilie extus lævi sicco rugoso, endocarpio soluto intus fasciis 3–6 verticalibus ramosis anastomosantibus costato. Semen ovoideum, profunde rugosum, albumine corneo ruminato, sulco hippocrepiformi ventre exsculpto; embryo apicalis.—*Madagascaria occidentalis.*

Chrysalidocarpus, *H. Wendl. in Bot. Zeit.* 1878, 118 (e tribu *Arecearum*). Fructus e carpello unico, ellipsoideo-turbinatus, resupinatus, stigmatibus subbasilaribus, epicarpio tenuissimo secedente, mesocarpio fibroso fibris applanatis. Semen oblongo-conicum, basi acutata, rapheos ramis ascendentibus dorso leviter anastomosantibus, albumine æquabili; embryo infra medium albuminis.—Palma inermis, stolonifera, caudicibus fasciculatis mediocribus annulatis. Folia pinnatisecta, segmentis ad 100 longe acuminatis apice 2-fidis, nervis lateralibus a costa remotis (*Hyophorbe indica* et *H. lutescens*, Hort.).—*Madagascaria.*

Diodosperma, *H. Wendl. in Bot. Zeit.* 1878, 118 (e tribu *Corypheearum*).—Semen subglobosum, aciculatum, rapheos ramis arcuato-divergentibus, albumine æquabili processu fusco crassissimo conoideo supra hilum progrediente et per totum albumen excavatum penetrante; embryo dorsalis, infra medium seminis.—*Brasilia australis.*

Medemia, *P. G. v. Würtemb. in litt. ad. H. Wendl. in Bot. Zeit.* 1881, 93 (e tribu *Borassearum*). Fructus ellipsoideus, a perianthio secedens, 1-spermus, ima basi areolis 2 parvulis lævibus interdum confluentibus notatus, stigmatum cicatrice areolis opposito, pericarpio crasso suberoso pallido nitido sicco ruguloso, endocarpio lævi albo. Semen oblongum, basi lata lateri endocarpii adhærente, testa crassa extus molliter coriacea albida intus brunnea, albumine corneo centro cavo leviter ruminato; embryo basilaris.—'Caudex simplex. Folia flabelliformia, filis paucis inter lacinias, petiolo inermi, ligula 0. Amenta ♂ gracilia, squamis totis testaceo-tomentoso-hirtulis. Carpella matura 1–3.'—*Mart.* Hyphæna Argun, *Mart. Hist. Nat. Palm.* iii. 227.—Species 2, *Nubica* et *Abyssinica.*

Micronoma, *H. Wendl. in litt.* (e subtribu *Geonomearum*). Fructus e carpello unico, drupaceus, turbinato-globosus, leviter compressus, lævis, haud apiculatus, fere resupinatus, stigmate basilari, mesocarpio tenuissime grumaceo, endocarpio vitreo-crustaceo. Semen oblique turbinato-globosum, leviter compressum, raphe circulari leviter immersa latiuscula utrinque in dorso de vertice usque ad basin ramosa, ramis patentissimis irregulariter duplicato-dichotomis, albumine æquabili; embryo basilaris juxta hilum.—*Peruvia orientalis.*

Pholidocarpus, *Blume in Schultes Syst.* vii. 1308 (e tribu *Corypheatum*). Fructus globosus v. ovoideus, mucronatus, 3–4-spermus, pericarpio tessellato intus fibroso-ligneo. Semen subglobosum, latere endocarpii insertum, hilo ovali, albumine duro ruminato; embryo basilaris. Caudex elatus, obscure annulatus. Folia *Borassi*, segmentis 4–5-partitis, petiolo aculeato.—Species 2, Archipelagi Malayani incolæ.—*Mart. Hist. Nat. Palm.* iii. 222. *Miq. Fl. Ind. Bat.* iii. 47. *Suppl.* 591, *et in Palm. Archip. Ind.* 10 (*ubi fructus* 1-*spermus dicitur*). *Beccari, Males.* i. 79. —*Rumph. Herb. Amboin.* i. 56, *t.* 12. In exemplare a. cl. Beccari misso, nervatio foliorum potius *Coryphearum* quam *Borassearum*.

Porothrinax, *H. Wendl. ex Griseb. Cat. Pl. Cub.* 221 (*Thrinax Pumilio*, Lodd.); genus est non descriptum, cujus fructus solum in herbariis exstat, albumine centro perforato margine haud ruminato.

Ravenia, *Bouché in Monatschr. Verein. Beford. Gartenb.* 1878, 197, 323, *cum ic. xylog.* 324; *Lemaire, Ill. Hortic.* xxvii. 164, *cum ic.*, est palma inermis non descripta, statu juvenili tantum nota, montium insulæ Comoro incola, suadente H. Wendlandio in litt. *Hyophorbi* proxima.

Roebelia, *Engel in Linnæa*, xxxiii. 680, *t.* 3, *f.* 5, palma Andium Colombiæ incola, inflorescentia et fructu ignotis, delenda est.

Tribus I. Areceæ.

1. **Areca,** *Linn. Gen. n.* 1225.—Flores in eodem spadice infrafoliaceo paniculatim v. simpliciter ramoso monoici, obsolete bracteati, ♂ in ramulis numerosi, solitarii v. 2-ni, distichi v. secundi, ♀ basin versus ramorum solitarii. Fl. ♂ minuti, compressi v. triquetro-compressi. Sepala parva, subtriangularia, libera v. connata, haud imbricata. Petala sepalis multo majora, oblique lanceolata, acuta v. acuminata, valvata. Stamina 3 v. 6, filamentis brevibus v. obsoletis; antheræ sagittatæ, basifixæ, erectæ. Ovarii rudimenta minuta. Fl. ♀ masculis multo majores, perianthio post anthesin aucto. Sepala orbicularia, concava, late imbricata. Petala paullo longiora, orbicularia, convolutivo-imbricata, apicibus acutatis valvatis. Staminodia minuta v. obsoleta. Ovarium ovoideum, 1-loculare; stigmata 3, sessilia, subulata, erecta v. recurva; ovulum basilare, erectum. Fructus ovoideus v. oblongus; stigmate terminali, pericarpio crasse carnoso et fibroso, endocarpio tenui testæ adhærente. Semen ovoideum v. subhemisphæricum, basi truncatum, erectum, teres, hilo basilari, rapheos ramis ascendentibus a basi ramosis reticulatis, albumine ruminato; embryo basilaris.—Palmæ inermes, humiles v. elatæ, caudicibus solitariis v. cæspitosis annulatis. Folia terminalia, æqualiter pinnatisecta, segmentis lanceolatis acuminatis plicatis marginibus basi recurvis, superioribus confluentibus bifidis v. truncatis et multifidis, rhachi trigona dorso convexa facie superne acuta, inferne petioloque concavis, vagina elongata. Spadix latus v. contractus, ramis patentibus fructiferis pendulis; spathæ 3 v. plures, caducæ, inferiore completa, superioribus sæpe bracteiformibus. Flores sæpe albi. Fructus mediocris v. majusculus, sanguineus v. croceus.

Species enumeratæ ad 24, Asiæ tropicæ, Archipelagi Malayani, Australiæ tropicæ et Novæ Guineæ incolæ. *Mart. Hist. Nat. Palm.* 169, 311 (*excl. sp.*), *t.* 102, 149. *Kunth, Enum. Pl.* iii. 183, 637 (*excl. sp.*). *Gærtn. Fruct.* i. *t.* 7, *f.* 2. *Blume, Rumph.* ii. 64, *t.* 99, 100, *f.* 1, 101, 102 A, B, C, 108; iii. *t.* 160, 163 D. *Griff. Palm. Brit. Ind.* 146, *t.* 230 (*Arecæ sect. Pinanga*). *Miq. Fl. Ind. Bat.* iii. 8 (*Arecæ sect.* 1); *Palm. Archip. Ind.* 22. *Scheff. in Natuurk. Tijdschr. Ned. Ind.* xxxii. 149 (*excl. sect. Spiranthe*); *et in Ann. Jard. Bot. Buitenz.* i. 112, 132, 144, *t.* 1 *ad* 8. *H. Wendl. et Drude in Linnæa*, xxxix. 175, *t.* 1, *f.* 1. *Drude in Bot. Zeit.* 1877, *t.* 6, *f.* 16, 17. *Beccari, Malesia*, i. 17 (*excl. subgen.* 3), 97. *Roxb. Cor. Pl. t.* 75. *Bot. Mag. t.* 6025. *Bentl. et Trim. Med. Plant. t.* 276.

Genus in sectiones 2 dividitur:—

1. *Euareca*, Scheff. in Ann. Jard. Bot. Buitenz. 114. Spadix duplicato-ramosus, axis primarius non incrassatus. Stamina 3 v. 6. Fl. ♀ distantes in ramorum basi secundi. *Arecæ* sect. *Æotheanthe*, Scheff. in Natuurk. Tijd. Ned. Ind. xxxii. 156.

2. *Balanocarpus*, H. Wendl. & Drude in Linnæa, xxxix. 176 (subgen.). Spadix simpliciter ramosus, axis primarius incrassatus. Stamina 6. Fl. ♀ in axi ipso approximati. *Arecæ* sect. *Axonianthe*, Scheff. in Natuurk. Tijd. Ned. Ind. xxxii. 156.

2. **Mischophlœus,** *Scheff. in Ann. Jard. Bot. Buitenz.* i. 115, 134, 152, *t.* 11, 12.—Flores in eodem spadice infrafoliaceo ramosissimo monoici, inferiores in ramis 3-ni inter-

medio ♀ spiraliter dispositi, superiores 2-ni ♂ subdistichi; bracteæ et bracteolæ obsoletæ. Fl. ♂ asymmetrici, compressi. Sepala in cupulam subtrigonam 3-dentatam basi elongatam connata, haud imbricata. Petala oblique ovato- v. lineari-oblonga, valvata. Stamina 9, filamentis brevibus basi connatis; antheræ lineares, basi sagittata affixæ, erectæ. Ovarii rudimentum minutum. Fl. ♀ masculis multo minores, ovoidei, perianthio post anthesin aucto. Sepala orbicularia, late imbricata. Petala paullo longiora, orbicularia, convolutivo-imbricata, apicibus acutatis valvatis. Staminodia 9, minuta. Ovarium ovoideum, 1-loculare; stigmata 3, sessilia, brevia, recurva; ovulum basilare, erectum. Fructus ovoideus, stigmatibus terminalibus, pericarpio carnoso et fibroso, endocarpio tenui. Semen globoso-ovoideum, basi truncatum, hilo basilari, rapheos ramis dorsalibus ascendentibus a basi subsimplicibus reticulatis, albumine ruminato; embryo basilaris.—Palma inermis, caudice elato annulato basi radicibus epigæis suffulto. Folia terminalia, inæqualiter pinnatisecta, segmentis lanceolatis duplicato-dentatis plurinerviis, marginibus basi recurvis, inferioribus 1-nerviis acuminatis. Spadices duplicato-ramosi, ramis patentibus, pedunculo brevi; spatha 1 completa, decidua. Flores parvi.

Species 1, Ternatensis. *Beccari, Malesia*, i. 22 (*Areca*).

3. **Pinanga**, *Blume, Rumph.* ii. 76, *t.* 87, 108 A, 109 *ad* 116.—Flores in eodem spadice infrafoliaceo simplici v. simpliciter ramoso monoici, di-hexastiche dispositi, 3-ni intermedio ♀, obsolete bracteati et bracteolati. Fl. ♂ asymmetrici, compressi v. triquetro-compressi. Sepala 3, libera v. connata, acuta, carinata, haud imbricata. Petala 3, oblique lanceolata v. ovata, acuminata, valvata. Stamina 6–∞, filamentis brevibus basi connatis; antheræ lineares, basi sagittata affixæ, erectæ. Ovarii rudimenta 0. Fl. ♀ masculis minores, late ovoidei v. globosi, perianthio post anthesin aucto. Sepala orbicularia, late imbricata. Petala orbicularia, convolutivo-imbricata, apicibus acutatis valvatis. Staminodia 6 v. 0. Ovarium ovoideum v. subturbinatum, 1-loculare; stigmata 3, brevia, crassa, confluentia; ovulum basilare, erectum. Fructus ovoideus v. ellipsoideus, stigmatibus terminalibus, pericarpio crassiusculo fibroso, endocarpio tenui interdum testæ adhærente. Semen ovoideum v. ellipsoideum, erectum, hilo basilari, rapheos ramis ascendentibus a basi subsimplicibus dein anastomosantibus, albumine ruminato; embryo basilaris.—Palmæ inermes, caudicibus solitariis v. fastigiatis v. soboliferis humilibus v. mediocribus annulatis. Folia terminalia, inæqualiter fissa v. pinnatisecta v. simplicia apice bifida, segmentis plicatis plurinerviis, inferioribus acuminatis, superioribus confluentibus, marginibus non incrassatis basi recurvis, rhachi superne acuta, inferne petioloque antice convexis, vagina elongata. Spadix sæpe parvus, interdum simplicissimus, pedunculo brevi, ramis fastigiatis v. flabellatim dispositis; spatha 1 completa, tumida v. complicato-compressa et bialata; bracteæ foveas marginantes, bracteolæ inconspicuæ. Flores inter minores. Fructus plerumque croceus v. sanguineus.

Species enumeratæ ad 25, Indiæ transgangeticæ et Archipelagi Malayani incolæ, una Deccanensis. *Mart. Hist. Nat. Palm.* iii. 183 (*Seaforthiæ sp.* 3 *ad* 10) *et* 313 (*Seaforthiæ sect. Orthostichanthe*) *t.* 158, *f.* 2, 3. *Kunth, Enum. Pl.* iii. 640 (*excl. sp.*). *Griffith, Palm. Brit. Ind.* 146, *t.* 230 C, 231, 232 A, B, C, 235 (*Arecæ sect. Anaclasmus*); *Notul.* iii. 164; *Ic. Pl. Asiat. t.* 248 (*Areca*). *Miq. Fl. Ind. Bat.* iii. 20 (*Ptychospermatis species* 1, 3, 5 *ad* 20). *Scheff. in Natuurk. Tijdsch. Ned. Ind.* xxxii. 171; *in Ann. Jard. Bot. Buitenz.* i. 115, 133, 148, *t.* 13, 14, 15, 16, *f.* 1, 17 *ad* 21. *Kurz, For. Fl.* ii. 538; *et in Journ. As. Soc. Beng.* xliii. *pars* 2, 200 (*Arecæ sp.* 5 *ad* 7), *t.* 12. *H. Wendl. et Drude in Linnæa*, xxxix. 176. *Drude in Bot. Zeit.* 1877, *t.* 5, *f.* 12, 13.

4. **Kentia**, *Blume, Rumph.* ii. 94, *t.* 106, 160.—Flores in ramulis 4-gonis ejusdem spadicis infrafoliacei fastigiatim ramosi monoici, in areolis decussatim oppositis 3-ni intermedio ♀; bracteæ bracteolæque obsoletæ. Fl. ♂ asymmetrici, compressi. Sepala parva, acuta, haud imbricata, basi connata. Petala multo majora, oblique ovato-oblonga v. lanceolata, acuminata, valvata. Stamina 6, filamentis brevibus subulatis basi connatis; antheræ lineares, erectæ, basifixæ. Ovarii rudimentum parvum. Fl. ♀ pyramidato-

trigoni, masculis multo minores. Sepala orbiculata, late imbricata. Petala multo longiora, ovato-lanceolata, acuminata, basi convolutivo-imbricata, apicibus elongatis valvatis. Staminodia obscura. Ovarium ovoideum, 1-loculare; stigmata 3, minuta, erecta, 3-gona; ovulum basilare, erectum. Fructus ellipsoideus, stigmatibus terminalibus, pericarpio fibroso, endocarpio tenui chartaceo. Semen erectum, ellipsoideum, hilo basilari, rapheos ramis paucis subsimplicibus ascendentibus arcuatis laxe reticulatis, albumine æquabili; embryo basilaris.—Palmæ inermes, caudice elato annulato. Folia terminalia, æqualiter pinnatisecta, segmentis suboppositis lineari-lanceolatis acuminatis v. 2-dentatis basi callosa insertis, marginibus basi recurvis, costa prominula subtus paleis persistentibus aucta, nervis extimis marginalibus, rhachi facie acuta, petiolo dorso convexo facie concavo, vagina cylindracea. Spadices patentes, pedunculo brevi compresso, ramis basi spathellis elongatis anguste lanceolatis auctis, ramulis elongatis pendulis gracilibus; spathæ 3, inferiore incompleta; bracteæ 3-floræ, brevissimæ, semilunares, spadici adnatæ; bracteolæ ad basin floris ♀. Flores albi. Fructus miniatus.

Species 3, Novæ Guineæ et insularum Moluccarum incolæ. *Mart. Hist. Nat. Palm.* iii. 312 (*Kentiæ sp.* 1). *Kunth, Enum. Pl.* iii. 639. *H. Wendl. et Drude in Linnæa,* xxxix. 179, 190. *Scheff. in Ann. Jard. Bot. Buitenz.* i. 126. *Beccari, Malesia,* i. 40, 98, *t.* 2, *f.* 23 *ad* 32. Ovulum a Blumeo basilare descriptum et depictum ut in speciebus a nobis scrutatis, sed genus ab auctoribus omnibus cæteris inter ea ovulo parietali locatum est. *K. exorhiza,* H. Wendl. in Seem. Fl. Vit. 269, t. 78, ovulo parietali, vix hujus generis. *K. acuminata,* Wendl. et Drude l. c. t. 2, f. 4, imperfecte nota est.

5. **Hydriastele,** *H. Wendl. et Drude in Linnæa,* xxxix. 180, 190, 208.—Flores in eodem spadice infrafoliaceo simpliciter ramoso monoici, in areolis decussatim oppositis dispositi, 3-ni intermedio ♀; bracteæ et bracteolæ obsoletæ. Fl. ♂ asymmetrici, compressi. Sepala minuta, acuta, haud imbricata. Petala ovato-lanceolata, acuminata, valvata. Stamina 6, filamentis brevibus subulatis; antheræ lineares, erectæ, basifixæ. Fl. ♀ masculis multo minores, subglobosi, perianthio post anthesin aucto. Sepala reniformia, imbricata. Petala paullo longiora, orbicularia, convolutivo-imbricata. Staminodia obsoleta. Ovarium globosum v. ovoideum, 1-loculare; stigmata 3, minuta, sessilia, patula, depressa; ovulum supra medium loculi insertum, pendulum. Fructus parvus, ellipsoideus, lævis v. costatus, stigmatibus terminalibus, pericarpio fibroso, fibris interdum in fasciculos longitudinales dispositis costas efficientibus, endocarpio tenuiter crustaceo. Semen ellipsoideum, erectum, liberum, hilo laterali, raphe tenui ramis paucis a chalaza apicali descendentibus remote reticulatis, albumine æquabili; embryo basilaris.—Palma inermis, caudice elato annulato. Folia terminalia, pinnatisecta, segmentis alternis linearibus præmorsis apice fissis, costa inferne paleis caducis conspersa, marginibus tenuibus, rhachi lateraliter compressa dorso convexa, petiolo facie concavo, vagina breviuscula. Spadices breviter lateque pedunculati, a basi ramosi, ramis elongatis pendulis gracilibus obtuse quadratis; spathæ 2 completæ, compressæ, deciduæ, inferiore ancipiti; bracteæ et bracteolæ in cupulam obscuram connatæ. Flores parvi, ♀ minuti.

Species 1, Australiæ tropicæ incola. *Benth. Fl. Austral.* vii. 138 (*Kentia Wendlandiana*).

6. **Adelonenga,** *Beccari, Malesia,* i. 26, *t.* 2, *f.* 10–17 (Nengæ *subgen.*).—Flores in eodem spadice infrafoliaceo simpliciter ramoso monoici, in areolis decussatim oppositis 3-ni, intermedio ♀, obsolete bracteati et bracteolati. Fl. ♂ asymmetrici, trigono-compressi. Sepala brevissima, triangulari-ovata, acuminata. Petala lanceolata, apice attenuata, valvata. Stamina 6, filamentis brevissimis triangularibus; antheræ lineari-lanceolatæ, apiculatæ, basifixæ, erectæ. Ovarii rudimentum inconspicuum. Fl. ♀ globosi, masculis minores, perianthio post anthesin immutato v. paullo aucto. Sepala et petala consimilia, rotundata, convolutivo-imbricata. Staminodia 3, minuta. Ovarium globoso-turbinatum, 1-loculare; stigma 3-lobum; ovulum parietale. Fructus sphæricus v. breviter ellipsoideus, apiculatus, stigmate terminali, pericarpio carnosulo intus fibroso, endocarpio crustaceo. Semen globoso-ovoideum, liberum, hilo elongato laterali, rapheos ramis axe

reticulatis semen circumambientibus, albumine ruminato; embryo basilaris.—Palmæ graciles, inermes; caudice humili annulato. Folia terminalia, æqualiter pinnatisecta, segmentis subregularibus v. interruptis lineari-lanceolatis, v. cuneatis truncatis apice laceris v. dentatis 1-∞-nerviis, marginibus basi recurvis, rhachi subtrigona v. dorso convexa et facie canaliculata petioloque obtuse 3-gono glabris v. furfuraceis, vagina valde elongata longe fissa. Spadix primum erectus, fructifer erecto-patens, ramis filiformibus flexuosis; spathæ 2 completæ, elongatæ, complanatæ; bracteæ et bracteolæ in annulum brevissimum connatæ. Flores inter minores. Fructus parvus.

Species 2, Novæ Guineæ incolæ.

7. **Gronophyllum,** *Scheff. in Ann. Jard. Bot. Buitenz.* i. 135, 153.—Flores in eodem spadice infrafoliaceo fastigiatim ramoso monoici, in areolis decussatim oppositis 3-ni intermedio ♀, v. ♂ solitarii et 2-ni, obsolete bracteati et bracteolati. Fl. ♂ asymmetrici, trigono-compressi. Sepala parva, acuta, haud imbricata. Petala ovato-lanceolata, acuminata, valvata. Stamina 6, filamentis brevibus rectis; antheræ lineares, basifixæ, erectæ. Ovarii rudimentum minutum, 3-lobum. Fl. ♀ masculis minores, perianthio post anthesin aucto. Sepala orbiculata, late imbricata. Petala longiora, basi dilatata, late imbricata, apicibus incrassatis triangularibus valvatis. Staminodia parva v. 0. Ovarium oblongum, umbonatum, 1-loculare; stigmata 3, crassa, deltoidea, erecta; ovulum parietale. Fructus parvus, pisiformis v. oblongo-ellipsoideus, stigmatibus terminalibus, pericarpio fibroso intus lævi. Semen pericarpio adhærens, globosum v. oblongum, hilo elongato laterali, rapheos ramis descendentibus laxe reticulatis, albumine ruminato; embryo basilaris.—Palmæ inermes, caudice gracili annulato. Folia terminalia, æqualiter pinnatisecta, segmentis cuneatis 1–3-nerviis truncatis apice erosis v. laceris multinerviis, summis confluentibus, marginibus basi recurvis, nervis extimis marginalibus, rhachi 3-gona dorso inferne convexa petioloque teretiusculo v. inferne canaliculato furfuraceis, vagina valde elongata longe fissa. Spadix breviter pedunculatus, ramis gracilibus pendulis; spathæ completæ 3, elongatæ, complanatæ, caducæ; bracteæ et bracteolæ in annulum brevissimum connatæ. Flores inter minores. Fructus parvus.

Species 4, Novæ Guineæ et insularum Celebes incolæ. *Beccari, Malesia,* i. 28, 98, *t.* 2, *f.* 1–22 (*Nengæ subgen. Gronophyllum*).

8. **Nengella,** *Beccari, Malesia,* i. 32, *t.* 1.—Flores in eodem spadice infrafoliaceo simplici monoici, in areolis decussatim oppositis 3-ni intermedio ♀, bracteati et 2-bracteolati. Fl. ♂ asymmetrici. Sepala minuta, ovata, acuta, haud imbricata. Petala oblique ovato-lanceolata, acuminata, valvata. Stamina 6, filamentis rectis subulatis; antheræ lineares, basifixæ, erectæ. Ovarii rudimenta minuta. Fl. ♀ elongato-pyramidati, masculis minores, perianthio post anthesin paullo aucto. Sepala orbiculata, late imbricata. Petala longiora, basi concava late imbricata, supra medium ovato-lanceolata acuta valvata. Staminodia 3 v. 0. Ovarium globoso-ovoideum, basi abrupte contractum, 1-loculare; stigmata 3, brevia, confluentia, recurva; ovulum elongatum, parietale, pendulum. Fructus elongatus, rectus v. lente curvus, stigmatibus terminalibus, pericarpio parce fibroso, endocarpio tenuissimo. Semen elongato-conicum, erectum, endocarpio arcte adnatum, raphe inconspicua ramis gracilibus longitudinalibus subliberis, albumine æquabili; embryo basilaris.—Palmæ humiles, inermes, caudicibus arundinaceis annulatis. Folia terminalia, æqualiter pinnatisecta v. flabelliformia et furcata, segmentis superioribus truncatis multinerviis erosis v. fissis, inferioribus lineari-lanceolatis longe acuminatis, marginibus basi recurvis, rhachi et petiolo trigonis et cum vagina valde elongata longe fissa furfuraceo-scaberulis. Spadix gracilis, pendulus, subflexuosus; spathæ 2 completæ, elongatæ, membranaceæ, complanatæ, deciduæ; bracteæ et bracteolæ squamiformes. Flores fructusque parvi.

Species 2 v. 3, Archipelagi Malayani et Novæ Guineæ incolæ. *Griff. Palm. Brit. Ind.* 156, *t.* 232, f. 2 (*Areca paradoxa*). Habitus et stigmata *Pinangæ,* sed ovulum certe infra apicem loculi pendulum.

9. **Kentiopsis**, *Brongn. in Comptes Rend. Acad. Sc. Par.* lxxvii. 398.—Flores in eodem spadice infrafoliaceo fastigiatim ramoso monoici, spiraliter dispositi, inferiores 3-ni intermedio ♀, superiores solitarii v. 2-ni ♂, brevissime bracteati et bracteolati. Fl. ♂ asymmetrici, late trigono-compressi. Sepala late triangulari-rotundata, acuta, concava, imbricata. Petala lata, oblique ovata, obtusa, coriacea, valvata. Stamina numerosa, fasciculata, filamentis brevibus subulatis basi connatis; antheræ lineari-elongatæ, basi sagittatæ, dorsifixæ, erectæ, ovarii rudimentum 0. Fl. ♀ masculis minores, pyramidato-globosi, perianthio crasse coriaceo, post anthesin valde aucto. Sepala orbicularia, subacuta, valde concava, late imbricata. Petala paullo longiora, basibus latissimis concavis convolutivo-imbricatis, apicibus abrupte angustatis acutis valvatis. Staminodia 0. Ovarium globoso-ovoideum, basi valde contractum, 1-loculare; stigma crassum, conoideum, apice 3-lobum, lobis trigonis erectis; ovulum parietale. Fructus ellipsoideus v. ovoideus, rostratus v. vertice rotundato, stigmate terminali, pericarpio crasso fibroso, endocarpio crustaceo intus lævi. Semen globosum v. ellipsoideum, erectum, liberum, hilo elongato verticem seminis attingente, rapheos ramis reticulatis semen totum involventibus, albumine duro æquabili; embryo basilaris.—Palmæ inermes, caudice elato robusto annulato. Folia terminalia, æqualiter pinnatisecta, segmentis lineari-ensiformibus apice attenuatis obtusis v. dentatis valde coriaceis, costa valida, nervis prominulis, marginibus angulato-incrassatis basi recurvis, costa robusta obtuse 3-gona v. quadrata faciebus planis, petiolo et vagina non visis. Spadices magni, crassi, ramis elongatis robustis; spathæ non descriptæ; bracteæ et bracteolæ in cupulam brevem areolam marginantes connatæ. Flores inter majores. Fructus mediocris v. magnus.

Species 3 examinavimus Novo-Caledonicas, a Museo Parisiensi receptas:—1. *K. olivæformis*, Brongn., rhachi folii quadrata, fructu parvo umbonato (nullo modo rostrato), seminis hilo angusto, rapheosque ramis transverse reticulatis; fl. ♂ non visi. 2. *K. macrocarpa*, Brongn., rhachi folii 3-gona, fructu globoso-ellipsoideo granulato, semine globoso, hilo lato, rapheos ramis verticalibus impressis irregulariter ramosis. 3. Species diversa? sub nomine *K. macrocarpæ*, fructu magno utrinque rostrato granulato, hilo et raphe ut in No. 1. *K. divaricata*, Brongn., generice differt fl. ♂ symmetrico et aliter.

10. **Veitchia**, *H. Wendl. in Seem. Fl. Vit.* 271, *t.* 81.—Flores in eodem spadice infrafoliaceo duplicato-ramosissimo monoici, inferiores 3-ni intermedio ♀, superiores solitarii v. 2-ni superpositi ♂; bracteæ bracteolæque obsoletæ. Fl. ♂ parvi, subsymmetrici. Sepala chartacea, ovato-rotundata, concava, basi connata, marginibus superne paullo imbricatis, nervosa. Petala paullo longiora, late elliptica, ima basi connata, coriacea, valvata. Stamina 6, basi perianthii inserta, filamentis brevissimis; antheræ lineari-oblongæ, basifixæ, erectæ. Ovarii rudimentum crassum, columnare, truncatum. Fl. ♀ masculis multo majores, subrotundati, a dorso compressi, perianthio valde aucto. Sepala crasse coriacea, oblique rotundata, valde concava, late imbricata. Petala consimilia sed multo minora, convolutivo-imbricata. Staminodia 0. Ovarium late ovoideum v. subglobosum, basi valde contractum et cylindraceum, 1-loculare, in stigma conoideum tridentatum contractum dentibus trigonis erectis; ovulum parietale. Fructus magnus, ellipsoideus v. fusiformi-ovoideus et subrostratus v. subglobosus, stigmate terminali umbonatus, pericarpio lævi crasso fibroso, endocarpio tenui intus polito. Semen ovoideum, apice rotundatum v. conoideum, erectum, liberum, hilo ad verticem extenso lato, testa brunnea, rapheos ramis descendentibus prominulis laxe reticulatis, albumine denso æquabili; embryo basilaris.—Palmæ inermes, caudice elato annulato. Folia terminalia, æqualiter pinnatisecta, pinnis linearibus v. acuminatis oblique truncatis, marginibus incrassatis, costa valida. Spadix breviter crasseque pedunculatus, ramis elongatis fastigiatis basi crassis; spathæ 3? deciduæ. Florum glomeruli basin versus ramorum sparsi, superiores conferti. Fructus ad 2-pollicaris.

Species a Wendlandio indicatæ 4, Ins. Fiji et Novarum Hebridarum incolæ. Flores examinavimus *V. Storckii*, et fructus *V. Joannis*. Genus imperfecte notum.

11. **Hedyscepe,** *H. Wendl. et Drude in Linnæa*, xxxix. 178, 189, 203, *t.* 1, *f.* 4.—Flores in eodem spadice infrafoliaceo simpliciter fastigiatim ramoso monoici, spiraliter dispositi, 3-ni intermedio ♀, obscure bracteati. Fl. ♂ asymmetrici. Sepala anguste lanceolata, basi connata, haud imbricata. Petala lanceolata, striata, valvata. Stamina 9–12, filamentis lineari-subulatis; antheræ lineari-oblongæ, dorsifixæ, versatiles. Ovarii rudimentum conicum. Fl. ♀ masculis minores ?, perianthio post anthesin aucto. Sepala cordato-deltoidea, imbricata. Petala conformia, breviora, ciliata, convolutivo-imbricata apicibus valvatis. Staminodia 0. Ovarium globoso-pyramidatum, 1-loculare; stigmata sessilia; ovulum parietale. Fructus ovoideus, stigmatibus terminalibus, pericarpio crasso intus fibroso. Semen ovoideum, obtusum, hilo lato elongato exsculpto per totam longitudinem endocarpio adnatum, testa cano-fusca, rapheos ramis creberrimis primum horizontalibus dein descendentibus reticulatis, albumine æquabili; embryo basilaris.—Palma elata, inermis, caudice robusto. Folia terminalia, densa, æqualiter pinnatisecta, segmentis numerosis lineari-lanceolatis acuminatis, nervis inferioribus a margine subremotis basi recurvis, rhachi arcuata decurva. Spadix breviter pedunculatus, ramis crassis flexuosis, areolis laxis; spathæ . . . Flores mediocres. Fructus magnus.

Specie 1, insulæ Lord Howe incola. *Benth. Fl. Austral.* vii. 138 (*Kentia Canterburyana*).

12. **Nenga,** *H. Wendl. et Drude in Linnæa*, xxxix. 182.—Flores in eodem spadice infrafoliaceo fasciculatim ramoso monoici, spiraliter dispositi, 3-ni intermedio ♀, minute bracteati et bracteolati. Fl. ♂ asymmetrici, 3-gono-compressi. Sepala inæqualia, anguste subulato-lanceolata, petala longe superantia, haud imbricata. Petala oblique oblonga, longe acuminata, valvata. Stamina 6, inæqualia, filamentis subulatis; antheræ lineari-oblongæ, basifixæ, erectæ. Ovarii rudimentum minutum. Fl. ♀ globosi, masculis minores, perianthio post anthesin fere immutato. Sepala orbiculata, late imbricata. Petala consimilia, inclusa. Staminodia obsoleta. Ovarium trapezoideo-ovoideum, basi contractum, 1-loculare; stigmate crasso conico 3-fido, lobis trigonis erectis; ovulum parietale. Fructus ellipsoideus, lævis, stigmate terminali, pericarpio tenui fibroso intus lævi. Semen liberum, cylindraceo-ellipsoideum, hilo laterali elongato, rapheos ramis numerosis impressis reticulatis, albumine ruminato; embryo basilaris.—Palma elegans, inermis, caudice gracili elato annulato. Folia terminalia, æqualiter pinnatisecta, segmentis linearibus acuminatis v. oblique 2–3-fidis, marginibus basi reduplicatis, nervis primariis subtus sparse paleaceis, rhachi 3-gona, petiolo brevi, vagina cylindracea ore valde obliquo. Spadix breviter pedunculatus, ramis gracilibus pendulis; spathæ 2, inferiore completa lanceolata complicata 2-cristata, superiore incompleta persistente v. 0; bracteæ 3-floræ, bracteolæque squamiformes. Flores albidi. Fructus parvus, rubro-croceus.

Species 1, Malayana. *Scheffer in Ann. Jard. Bot. Buitenz.* i. 120, 134, 153, *t.* 9, 10. *Mart. Hist. Nat. Palm.* iii. 311, *t.* 153, *f.* 1–3 (*Areca pumila*). *Blume, Rumph.* ii. 77, *t.* 107 (*Pinanga*).

13. **Loxococcus,** *H. Wendl. et Drude in Linnæa*, xxxix. 185.—Flores in eodem spadice infrafoliaceo subsimpliciter ramoso monoici, spiraliter dispositi, 3-ni intermedio ♀, v. superiores solitarii et 2-ni ♂, minute bracteati et bracteolati. Fl. ♂ asymmetrici. Sepala 3, rotundata, subacuta, imbricata. Petala 3, multo majora, oblique ovata, valvata. Stamina 9–12, filamentis elongatis basi connatis; antheræ lineari-oblongæ, obtusæ, basi breviter biloba affixæ. Ovarii rudimentum parvum, 3-cuspidatum. Fl. ♀ masculis minores, subglobosi, perianthio post anthesin aucto. Sepala rotundata, late imbricata. Petala ovata, basi concava, imbricata, superne triangularia valvata. Staminodia obsoleta. Ovarium late ovoideum, 1-loculare; stigmata 3, minuta, sessilia, erecta; ovulum parietale, pendulum. Fructus oblique globosus, in rostrum rectum v. obliquum abrupte attenuatus, stigmatibus terminalibus, pericarpio coriaceo tenuiter fibroso intus lævi. Semen liberum, subglobosum, apice rotundatum v. acutum, basi intrusum, rugulosum, hilo elongato laterali, rapheos ramis inconspicuis, albumine profunde et creberrime

ruminato; embryo fere basilaris.—Palma haud elata, inermis, caudice annulato. Folia terminalia, æqualiter pinnatisecta, glaberrima, segmentis elongatis coriaceis apicibus oblique truncatis, marginibus incrassatis basi recurvis, costa valida, nervis tenuibus, rhachi dorso convexa facie sulcata, petiolo mediocri, vagina breviuscula. Spadix breviter crasseque pedunculatus, sanguineus, ramis patentibus crassis divaricatis, basi bractea squamiformi auctis; spathæ 2, elongatæ; bracteæ et bracteolæ parvulæ, squamiformes. Flores mediocres. Fructus diametro nucis avellanæ, lævis, atro-violaceus.

Species 1, Zeylanica. *Bot. Mag. t.* 6358.

14. **Actinorhytis,** *H. Wendl. et Drude in Linnæa,* xxxix. 184.—Flores in eodem spadice infrafoliaceo duplicato-ramoso monoici dispositi, inferiores 3-ni intermedio ♀, v. superiores ♂ solitarii et 2-ni, bracteati et 2-bracteolati. Fl. ♂ minuti, asymmetrici. Sepala orbicularia, compresso-carinata, concava, late imbricata. Petala 3, ovata, crasse coriacea, subæqualia, valvata. Stamina 24–30, in basi lata perianthii multiseriatim fasciculata, filamentis gracilibus apice inflexis; antheræ lineares, dorsifixæ, versatiles. Ovarii rudimentum parvum, subulatum, v. 0. Fl. ♀ masculis multo majores, ovoidei, perianthio post anthesin valde aucto. Sepala 3, reniformi-rotundata, late imbricata. Petala paullo longiora, basi orbicularia late imbricata, apice triangularia coriacea valvata. Staminodia 3 v. 0. Ovarium late ovoideum, 1-loculare; stigmata 3, parva, subulata, recurva; ovulum parietale, pendulum. Fructus magnus, ellipsoideus v. ovoideus, stigmatibus terminalibus, pericarpio crasso fibroso, endocarpio crustaceo. Semen magnum, globoso-ellipsoideum, endocarpio arcte adhærens, hilo lato verticem seminis attingente, rapheos ramis creberrime reticulatis, albumine profunde radiatim ruminato; embryo elongatus, basilaris.—Palma inermis, elata, caudice robusto annulato. Folia terminalia, æqualiter pinnatisecta, segmentis lineari-lanceolatis acutis, apicibus oblique dentatis, marginibus incrassatis basi recurvis, costa valida subtus paleis sparsis persistentibus aucta, rhachi valida petioloque plano-convexo furfuraceis. Spadix breviter pedunculatus, ramis pendulis flexuosis; spathæ 2, completæ, complanatæ, caducæ, inferiore elongata 2-cristata. Flores mediocres. Fructus magnus.

Species 1, Archipelagi Malayani incola. *Mart. Hist. Nat. Palm.* iii. 313 (*Seaforthia Calapparia*). *Scheff. in Ann. Jard. Bot. Buitenz.* 122, 136, 156, *t.* 22, 23. *Blume, Rumph.* ii. 68, *in Adnot. t.* 100, *f.* 2 (*Areca*). *Griff. Palm. Brit. Ind.* 150, *t.* 230 B (*Areca cocoides*).

15. **Archontophœnix,** *Wendl. et Drude in Linnæa,* xxxix. 182, 190, 211, *t.* 3, *f.* 6.—Flores in eodem spadice infrafoliaceo triplicato ramoso monoici, spiraliter dispositi, 3-ni intermedio ♀, v. ♂ solitarii et 2-ni, bracteati et obscure bracteolati. Fl. ♂ asymmetrici, trigono-compressi. Sepala 3, parva, triangulari-rotundata, carinata, imbricata. Petala 3, oblique ovato-oblonga, subacuta, valvata. Stamina 9–24, filamentis gracilibus ima basi connatis, apicibus inflexis; antheræ lineares, basi 2-fidæ, dorsifixæ, versatiles. Ovarii rudimentum styliforme. Fl. ♀ masculis minores, subglobosi, perianthio post anthesin aucto. Sepala 3, orbicularia, convolutivo-imbricata. Petala consimilia sed minora. Staminodia 6, subulata, v. 0. Ovarium trigono-ovoideum, 1-loculare; stigmata 3, minuta, recurva; ovulum parietale. Fructus parvus, globoso-ellipsoideus, stigmatibus subterminalibus umbonatus, pericarpio fibroso, fibris in vittas latas anastomosantes contextis, endocarpio tenuissimo. Semen erectum, endocarpio arcte adhærens, læve, hilo laterali elongato, rapheos ramis laxe reticulatis, albumine profunde ruminato; embryo basilaris.—Palmæ inermes, elatæ, caudice solitario robusto annulato. Folia terminalia, æqualiter pinnatisecta, segmentis lineari-lanceolatis acuminatis v. apice 2-dentatis, marginibus basi recurvis, subtus sparse paleaceis, costa prominula, nervis tenuibus, rhachi dorso convexa facie alte carinata petioloque superne canaliculato tomentellis, vagina elongata cylindracea alte fissa. Spadices breviter pedunculati, ramis ramulisque flexuosis gracilibus pendulis glabris; spathæ 2 completæ, elongatæ, complanatæ, caducæ; bractea semilunaris, spadici adnata, bracteolæ persistentes. Flores majusculi. Fructus mediocris.

Species 2, Australiæ orientalis incolæ. *Mart. Hist. Nat. Palm.* ii. 181, *t.* 105, 106, 109 (*Seaforthia*)

Muell. Fragm. Phyt. Austral. v. 47, *t.* 43, 44 (*Ptychosperma*). *Benth. Fl. Austral.* vii. 141 (*Ptychosperma, sp. n.* 2, 3). *Bot. Mag. t.* 4961 (*Seaforthia, excl. figs.* 9, 10, 11, *a Martio iteratis, quæ ad Ptychosperma elegans pertinent*).

16. **Rhopalostylis,** *H. Wendl. et Drude in Linnæa,* xxxix. 180, *t.* 1, *f.* 2.—Flores in eodem spadice infrafoliaceo v. fastigiatim ramoso monoici, spiraliter dispositi, 3-ni intermedio ♀, v. superiores solitarii et 2-ni ♂, bracteati et bracteolati. Fl. ♂ asymmetrici, 3-gono-compressi. Sepala subulato-lanceolata, haud imbricata. Petala oblique ovata, acuminata, valvata. Stamina 6, filamentis subulato-filiformibus apice inflexis ; antheræ lineares, dorsifixæ, versatiles. Ovarii rudimentum columnare. Fl. ♀ masculis minores, trigono-globosi, perianthio post anthesin aucto. Sepala rotundata, concava, late imbricata. Petala minora, vix exserta, basi cochleata late imbricata in apices triangulares valvatos repente angustata. Staminodia 0. Ovarium ovoideum, 1-loculare ; stigma sessile, conoideum, 3-fidum, segmentis 3-gonis erectis ; ovulum parietale. Fructus ellipsoideus, lævis, stigmate terminali umbonatus, pericarpio crassiusculo fibroso intus lævi. Semen ellipsoideum v. ovoideo-oblongum, erectum, liberum, hilo lato a basi ad verticem producto, rapheos ramis laxis v. creberrimis tenuissimis descendentibus reticulatis, albumine æquabili ; embryo basilaris.—Palmæ inermes, caudice mediocri annulato. Folia terminalia, æqualiter pinnatisecta, segmentis æquidistantibus numerosis anguste ensiformibus acuminatis, marginibus basi recurvis non incrassatis, costa valida, nervis utrinque 1–3, rhachi facie concava furfuracea, petiolo brevissimo, vagina elongata. Spadices breves, patentes, brevissime crasseque pedunculati, ramis subflabellatis crassiusculis densifloris ; spathæ 2 completæ, oblongæ, complanatæ, inferiore 2-alata ; bracteæ fossæ floriferæ adnatæ apicibus subulatis ; bracteolæ squamiformes. Flores mediocres. Fructus parvus v. majusculus.

Species 2, Novæ Zelandiæ et insulæ Norfolciæ incolæ. *Mart. Hist. Nat. Palm.* iii. 172, *t.* 151, 152 (*Areca*), *et* 312 (*Kentia sapida*). *Hook. f. Fl. Nov. Zel.* i. *t.* 59, 60 (*Areca*). *Drude in Bot. Zeit.* 1877, 637, *t.* 6, f. 18–21. *Bot. Mag. t.* 5139, 5735 (*Areca*).

17. **Dictyosperma,** *H. Wendl. et Drude in Linnæa,* xxxix. 181.—Flores in eodem spadice infrafoliaceo simpliciter ramoso monoici, spiraliter dispositi, 3-ni intermedio ♀ v. inferiores ♀ solitarii intermediis 3-nis, supremis solitariis v. 2-nis ♂, bracteati et bracteolati. Fl. ♂ asymmetrici, obtuse 3-goni. Sepala parva, ovata, acuta, distincta. Petala oblique ovata, obtusa, valvata. Stamina 6, filamentis breviusculis apice inflexis ; antheræ lineares, dorsifixæ, versatiles. Ovarii rudimentum elongatum, a basi conica sensim attenuatum, trifidum. Fl. ♀ masculis multo minores, subglobosi, perianthio post anthesin valde aucto. Sepala late orbicularia, imbricata. Petala paullo longiora, carnosula, orbicularia, imbricata apicibus leviter imbricatis. Staminodia 6, dentiformia. Ovarium ovoideum, 1-loculare, basi contractum ; stigma latum, 3-gonum ; ovulum parietale. Fructus olivæformis v. subglobosus, stigmate terminali, pericarpio fibroso, endocarpio tenuissimo. Semen subglobosum v. elongato-ovoideum, hilo laterali verticem attingente, rapheos ramis oblique descendentibus laxe reticulatis, albumine leviter ruminato ; embryo subbasilaris. — Palmæ inermes, graciles, caudice annulato. Folia æqualiter pinnatisecta, segmentis lineari-lanceolatis acuminatis v. 2-fidis, summis confluentibus, marginibus incrassatis basi recurvis, costa valida nervisque subtus paleis persistentibus sparsis nudisve, rhachi petioloque gracili furfuraceis trigonis facie canaliculatis, vagina elongata, integra. Spadix in pedunculo brevi glabro v. tomentoso, ramis erectis v. patulis flexuosis, inferioribus basi membranaceo-bracteatis ; spathæ 2, completæ, a dorso compressæ, caducæ, inferiore bicristata, areolis floriferis depressis magnis ; bracteæ bracteolæque squamiformes. Flores ♀ majusculi, albi v. flavescentes. Fructus furfuraceus, parvus.

Species 2 v. 3, insularum Mascarensium incolæ. *Balf. f. in Baker, Fl. Maurit.* 383. *Mart. Hist. Nat. Palm.* iii. 175, *t.* 154, 155, *f.* 2, 3 (*Areca*). *Scheff. in Natuurk. Tijd. Ned. Ind.* xxxii. 183 (*Ptychosperma album*), *et in Ann. Jard. Bot. Buitenz.* i. 122. *D. album, var. aureum,* ex exemplaribus a Horneo (Hort. Bot. Maurit. Præfect.) missis certe a *D. albo* specifice differt.

18. **Ptychosperma,** *Labill. in Mém. Instit. Par.* 1808, ix. 253. (Seaforthia, *R. Br. Prod.* 267.)—Flores in eodem spadice infrafoliaceo paniculatim ramoso monoici, spiraliter dispositi, 3-ni intermedio ♀, v. superiores solitarii et 2-ni ♂, bracteati et bracteolati. Fl. ♂ symmetrici, ovoidei v. oblongi. Sepala orbicularia, dorso carinata, gibba v. rotundata, late imbricata. Petala ovata v. oblonga, acuta, valvata. Stamina 20–30, fasciculata, filamentis brevibus v. elongatis apicibus rectis ; antheræ oblongæ v. lineares, dorso v. basin versus affixæ, versatiles. Ovarii rudimentum gracile, styliforme. Fl. ♀ masculis sæpe minores, subglobosi, perianthio post anthesin aucto. Sepala reniformia v. orbicularia, late imbricata. Petala paullo longiora, orbicularia, convolutivo-imbricata, apicibus acutatis valvatis v. subvalvatis. Staminodia 3 v. plura, minuta. Ovarium oblongum v. ovoideum ; stigmata 3, brevia, sessilia ; ovulum parietale, pendulum. Fructus ovoideus v. ellipsoideus, interdum rostratus, teres v. sulcatus, 1-locularis, stigmatibus terminalibus, pericarpio sæpius crasso fibroso, endocarpio tenui v. crustaceo lævi. Semen erectum, ovoideum v. oblongum, teres v. profunde 5-sulcatum, hilo a basi ad verticem extenso, rapheos ramis oblique descendentibus laxe reticulatis, albumine plus minusve ruminato ; embryo basilaris.—Palmæ inermes, caudice sæpius elato annulato. Folia terminalia, æqualiter pinnatisecta, segmentis linearibus v. a basi apices versus dilatatis præmorsis membranaceis plurinerviis, marginibus incrassatis basi recurvis, terminalibus confluentibus, rhachi trigona tenui, vagina elongata. Spadix patentim ramosus, ramis sæpius gracilibus ; spathæ 2 completæ, caducæ ; bracteæ et bracteolæ squamiformes. Flores parvuli v. inter minores, glomerulis sæpius sparsis. Fructus majusculus v. parvus.

Species enumeratæ ad 12, Archipelagi Malayani, Novæ Guineæ, Australiæ tropicæ et insularum Pacificarum incolæ. *Mart. Hist. Nat. Palm.* iii. 182, *t.* 128, 129 (*Seaforthia*). *Benth. Fl. Austral.* vii. 141 (*Ptychosperma, sp. n.* 4). *Seem. Fl. Vit.* 272, *t.* 82. *Scheff. in Ann. Jard. Bot. Buitenz.* i. 120, 135, 154. *Beccari, Malesia,* i. 47, 99 (*excl. sp.*). *H. Wendl. in Bot. Zeit.* 1858, 345 (*Seaforthia*). *H. Wendl. et Drude in Linnæa,* xxxix. 183, 215. *H. tenella,* H. Wendl. in Bot. Zeit. 1859, 63, est *Pinangæ* species.

19. **Rhopaloblaste,** *Scheff. in Ann. Jard. Bot. Buitenz.* i. 137, 156, *t.* 26, 27, *f.* 1.—Flores in eodem spadice infrafoliaceo paniculatim ramoso monoici, spiraliter dispositi, 3-ni intermedio ♀ v. apices versus ramorum solitarii et 2-ni ♂, minute bracteati et bracteolati. Fl. ♂ symmetrici, globosi v. ovoidei. Sepala orbicularia, concava, late imbricata. Petala ovata v. elliptica, obtusa, valvata. Stamina 6, rarissime 9, filamentis elongatis apice inflexis ; antheræ oblongæ, dorsifixæ, versatiles. Ovarii rudimentum columnare v. clavatum, truncatum. Fl. ♀ masculis majores, subglobosi, petalis post anthesin auctis. Sepala orbicularia v. reniformia, concava, late imbricata. Petala paullo longiora, orbicularia, convolutivo-imbricata, apicibus acutis valvatis. Staminodia in cupulam minutam 6-dentatam connata. Ovarium ovoideum, basi abrupte contractum, 1- rarissime 2-loculare ; stigmata 3, sessilia, subulata, recurva ; ovulum parietale, pendulum. Fructus parvulus, ovoideus, subacutus, stigmatibus terminalibus, pericarpio crassiusculo fibroso intus tenuiter crustaceo lævi. Semen ellipsoideum, liberum, erectum, hilo exsculpto a basi verticem attingente, rapheos ramis obscuris descendentibus laxe reticulatis, albumine parce radiatim ruminato ; embryo basilaris.—Palmæ inermes, caudice gracili v. robusto annulato. Folia terminalia, æqualiter pinnatisecta, segmentis alternis anguste lineari-lanceolatis acuminatis 3–5-nerviis, costa tenui subtus sparse paleacea marginibus non incrassatis basi planis v. recurvis. Spadix breviter pedunculatus, laxe ramosus, ramis patulis elongatis gracilibus ; spathæ completæ 2, caducæ, inferiore breviore 2-carinata ; bracteæ et bracteolæ squamuliformes. Flores et fructus inter minores.

Species 3 nobis notæ, Archipelagi Malayani incolæ. In *R. hexandra,* Scheff. l. c., species typica, caudex robustus, folia magna, pinnis crasse coriaceis, rhachi crassa facie plana dorso convexa lateribus profunde exsculptis ; spadices crasse pedunculati ramis robustis ; spathæ magnæ coriaceæ inferiore dense velutino-tomentosa ; flores majusculi, fructusque fere pollicaris interdum 2-spermus.

Huic indole florum et fructus valde affine est *Ptychosperma singaporense*, Beccari, Males. i. 53, caudice gracili, foliis parvis elegantissimis, pinnis membranaceis, rhachi petioloque gracillimis furfuraceis, spadicis ramis gracilibus, floribus fructuque parvis. Planta philippinensis (Cuming, No. 1476), foliis *R. singaporensis*, sed glabris, differt spadice paniculatim ramoso, ramis gracillimis. Fructus ignotus est. *Ptychosperma Drudei*, Wendl., fructum 2-spermum *Rhopaloblastis hexandræ* exhibet, cum fibris pericarpii in fasciculos longitudinales complanatos dispositis ut in *Hydriastele Wendlandiana*. *P. micranthum*, Beccari, Malesia, i. 52, species est *Rhopaloblastis* staminibus 9.

20. **Cyrtostachys**, *Blume, Rumph.* ii. 101, *t.* 120.—Flores in eodem spadice infrafoliaceo duplicato-ramoso monoici, in foveis spiraliter dispositis 3-ni intermedio ♀, bracteati et bracteolati. Fl. ♂ symmetrici. Sepala rotundata, late imbricata. Petala valvata. Stamina 6 v. 12–15, exserta, filamentis basi connatis fere triadelphis, apicibus inflexis; antheræ versatiles. Ovarii rudimenta 3, subulata. Fl. ♀ ovoidei, perianthio post anthesin modice aucto. Sepala orbicularia, concava, late imbricata. Petala duplo longiora, suborbicularia, convolutivo-imbricata, apicibus acutatis valvatis. Staminodia in cupulam membranaceam dentatam connata. Ovarium columnare, 1-loculare; stigmata crasse subulata, recurva; ovulum parietale, pendulum. Fructus parvus, elongato-ovoideus, stigmatibus terminalibus, pericarpio tenuiter fibroso intus lævi. Semen ellipsoideum v. subglobosum, læve, liberum, erectum, hilo basilari, raphe obsoleta ramis descendentibus laxe reticulatis, albumine æquabili; embryo basilaris.—Palmæ gregariæ, inermes, petiolis læte rubris, caudice elato gracili annulato. Folia terminalia, æqualiter pinnatisecta, segmentis linearibus rigidis apice attenuatis oblique bidentatis, marginibus incrassatis basi plicata recurvis, costa sparse paleacea, nervis utrinque binis, rhachi inferne subtetragona, superne triquetra, petiolo dorso convexo facie concavo, vagina elongata. Spadix breviter pedunculatus, rhachi compressa, ramis subalternis basi squama auctis, ramulis pendulis; spathæ 2 completæ v. 3, complanatæ, ensiformes, caducæ; bracteæ spadici coadunatæ, bracteolæ squamiformes. Flores et fructus parvuli.

Species 2, Archipelagi Malayani incolæ; altera C. Renda, *Blume l.c.*, *Mart. Hist. Nat. Palm.* iii. 316 (*Bentinckia Renda*). *Kunth, Enum. Pl.* iii. 641 (*Bentinckia*). *Scheff. in Ann. Jard. Bot. Buitenz.* 138, 159. *Miq. Fl. Ind. Bat. Suppl.* 589 (*Areca? erythropoda*); altera, *B. ceramica*, Wendl., nobis ignota est. Flores masculi a nobis non visi; stamina ex Wendlandio 6, ex Scheffero 12 ad 15.

21. **Drymophlœus**, *Zippel in Flora*, 1829 i. 185.—Flores in eodem spadice infrafoliaceo paniculatim ramoso monoici, spiraliter dispositi, 3-ni intermedio ♀, v. superne 2-ni et solitarii ♂, bracteati et bracteolati. Fl. ♂ symmetrici, ovoidei v. oblongi. Sepala orbicularia, basi rotundata v. gibba, late imbricata. Petala oblonga v. elliptica, coriacea, acuta v. obtusa. Stamina numerosa, filamentis filiformibus apice rectis; antheræ oblongæ v. lineares, dorso v. infra dorsum affixæ, versatiles. Ovarii rudimentum gracile, styliforme. Flores ♀ masculis majores, subglobosi, perianthio (sed precipue petalis) post anthesin aucto. Sepala reniformia, latissime imbricata. Petala paullo longiora, orbicularia, convolutivo-imbricata, apicibus acutatis valvatis v. subvalvatis. Staminodia minuta. Ovarium oblongum v. ovoideum, basi abrupte contractum, 1-loculare; stigmata sessilia, recurva; ovulum parietale, pendulum. Fructus ovoideus, stigmatibus terminalibus, lævis v. longitudinaliter sulcatus, pericarpio crassiusculo fibroso, endocarpio tenui v. crustaceo intus lævi. Semen ovoideum v. oblongum, teres v. 3–5-sulcatum, hilo a basi ad verticem producto, rapheos ramis paucis obscuris parce reticulatis, albumine æquabili; embryo basilaris.—Palmæ inermes, caudice gracili v. mediocri annulato. Folia terminalia, æqualiter pinnatisecta, segmentis cuneato-oblongis v. linearibus, late rarius anguste oblique præmorsis submembranaceis 3–∞-nerviis, marginibus basi recurvis, rhachi sæpe furfuracea 3-gona, vagina elongata. Spadix varius, pedunculo brevi, ramis sæpissime gracilibus; spathæ 2 v. plures, inferiore bicristata; bracteæ et bracteolæ squamiformes. Flores inter minores, glomerulis sæpius sparsis. Fructus parvus v. majusculus.

Species ad 12, Novæ Guineæ, Australiæ tropicæ et insularum Moluccarum et Pacificarum incolæ. *Mart. Hist. Nat. Palm.* iii. 186, 314 (*Seaforthia, sect. Drymophlœus*). *Blume, Rumph.* ii. 117, *t.* 83,

84, 119, iii. *t.* 156 (*Ptychosperma*). *Miq. Palm. Archip. Ind. Obs.* 24. *Griff. Palm. Brit. Ind. t.* 142 A, B (*Ptychosperma, ic. Blumei iteratæ*). *Scheff. in Ann. Jard. Bot. Buitenz.* i. 52, 138, 157. *H. Wendl. et Drude in Linnæa*, xxxix. 183., *Beccari, Malesia* i. 41, 98. Genus verisimiliter melius cum *Ptychospermate* unitum, a Beccario in sectiones 2 divisum.

1. *Actinophlœus.* Semen profunde 5-sulcatum. Folia interrupte pinnatisecta, segmentis elongatis.
2. *Eudrymophlœus.* Semen teres. Folia pinnatisecta, segmentis latis v. abbreviatis.

Ptychosperma Normanbyanum, F. Muell., est verisimiliter *Drymophlæi* species. In *D. bifido*, Beccari, spatha superior persistens apparet et irregulariter rupta. *Kentiopsis divaricata*, Brongn., ad *Drymophlœum* potius quam *Kentiopsidi* spectat; differt foliorum segmentis crasse coriaceis, apice attenuatis.

22. **Cyphophœnix**, *H. Wendl. in litt.* (*nomen*).—Flores in eodem spadice robusto infrafoliaceo paniculatim ramoso monoici, spiraliter dispositi, 3-ni intermedio ♀, bracteati et bracteolati. Fl. ♂ symmetrici, oblongo-cylindracei. Sepala crasse coriacea, orbicularia, concava, late imbricata. Petala longiora, elliptica, subacuta, coriacea, valvata. Stamina 6, filamentis filiformi-subulatis apicibus inflexis; antheræ lineari-oblongæ, dorsifixæ, versatiles. Ovarii rudimentum ovoideum v. styliforme. Fl. ♀ masculis minores, subglobosi, perianthio post anthesin aucto. Sepala orbicularia, crasse coriacea, latissime imbricata. Petala vix v. paullo longiora, orbicularia, late convolutivo-imbricata, apicibus breviter acutatis valvatis. Staminodia 3, linearia, membranacea. Ovarium anguste oblongum, 1-loculare, in stigma crassum conoideum 3-fidum lobis trigonis desinens; ovulum parietale, pendulum. Fructus elongato-ovoideus v. ellipsoideus, lente curvus, stigmate subterminali, pericarpio crasso granulato intus fibroso, endocarpio crustaceo. Semen ellipsoideum, læve, erectum, liberum, hilo minuto basilari, raphe et chalaza obscuris, ramis distinctis gracillimis patentibus dein descendentibus reticulatis, albumine æquabili; embryo basilaris.—Palmæ inermes, caudice robusto? annulato. Folia terminalia, pinnatisecta, segmentis coriaceis elongato-ensiformibus, apice angustatis, marginibus incrassatis basi plicatis recurvis, costa nervisque validis subtus sparse paleaceis, rhachi robusta latiuscula dorso leviter convexa, facie superne acuta. Spadices glabri, ramis robustis elongatis; spathæ . . . ; bracteæ breves, bracteolæ squamiformes. Flores inter minores. Fructus brunneus, mediocris.

Species 2, Novæ Caledoniæ incolæ, altera *Kentia elegans*, Brongn. in Comptes Rend. Acad. Sc. Par. lxxvii. 399. (Herb. Balansa, 3122) fructu fere recto; altera, *K. fulcita*, Brongn. l. c. (gen. novum Campecarpus, *Wendl.* in litt.), spadice valde robusto fructuque lageniforme lente curvo.

Genus a *Cyphospermate* differt fructu recto stigmatibus terminalibus, pericarpio crasso, et seminibus.

23. **Ptychandra**, *Scheff. in Ann. Jard. Bot. Buitenz.* i. 140, 160, *t.* 28, 29, *f.* 1.—Flores in eodem spadice infrafoliaceo paniculatim ramoso monoici, spiraliter dispositi, inferiores 3-ni intermedio ♀, superiores solitarii v. 2-ni ♂; bracteæ bracteolæque inconspicuæ. Fl. ♂ symmetrici, subglobosi. Sepala parva, orbicularia, coriacea, imbricata. Petala multo latiora, late ovato-cordata, obtusa, valvata. Stamina ad 34, 1-seriata, exserta, filamentis filiformi-subulatis basi connatis apice inflexis; antheræ oblongæ, dorsifixæ, versatiles. Ovarii rudimentum parvum. Fl. ♀ masculos subæquantes, subgloboso-conoidei, perianthio post anthesin parum aucto. Sepala reniformi-rotundata, late imbricata. Petala paullo longiora, orbicularia, convolutivo-imbricata, apicibus acutatis valvatis. Staminodia numerosa, dentiformia. Ovarium ovoideum, 1-loculare; stigmata sessilia, trigona; ovulum parietale. Fructus fere globosus, stigmatibus infra-apicalibus, pericarpio fibroso, endocarpio duro. Semen globosum, rapheos semine triplo brevioris ramis a chalaza radiantibus creberrime reticulatis, albumine dense ruminato; embryo . . . —Palma inermis, caudice elato solitario. Folia terminalia, æqualiter pinnatisecta, subtus glauca, segmentis lanceolatis basi et apice angustatis infra apicem 1-dentatis 3-nerviis, marginibus basi recurvis, costa nervisque subtus paleaceis, rhachi dorso convexa facie plana, vagina elongata indumento cereo albo. Spadix breviter pedunculatus, pluries ramosus, basi rufo-tomentosus, ramis crassiusculis; spathæ 2 completæ, inferiore spadice

breviore 2-cristata lanceolata lignea, apice oblique fissa, superiore cylindracea utrinque acuminata. Flores majusculi. Fructus cerasiformis.

Species 1, insularum Moluccarum incola. Fructus tantum a nobis examinatus.

24. **Clinostigma,** *H. Wendl. in Bonplandia* 1862, 196; *et in Linnæa*, xxxix. 185.—Flores in eodem spadice infrafoliaceo paniculatim ramoso monoici, spiraliter dispositi, inferiores 3-ni intermedio ♀, v. superiores solitarii et 2-ni ♂; bracteæ bracteolæque obsoletæ. Fl. ♂ symmetrici. Sepala orbicularia, basi gibba v. saccata, late imbricata. Petala paullo longiora, ovata, obtusiuscula, valvata. Stamina 6 v. 12 filamentis filiformibus apice inflexis; antheræ oblongæ v. lineari-oblongæ, dorsifixæ, versatiles. Ovarii rudimentum crassum, columnare. Fl. ♀ masculis minores, subglobosi, perianthio post anthesin parum aucto. Sepala reniformia, late imbricata. Petala paullo longiora, orbicularia, convolutivo-imbricata, apicibus acutatis subvalvatis. Staminodia 3 v. 6, linearia. Ovarium subglobosum v. turbinatum, 1- rarius 2–3-loculare; stigmata parva, crassa, trigona; ovulum parietale. Fructus globosus v. subglobosus, rarius paullo elongatus, obliquus, stigmatibus excentricis lateralibus v. subbasilaribus, 1-locularis v. 2–3-locularis loculis 2 parvis vacuis, pericarpio crassiusculo grumoso et fibroso, endocarpio membranaceo v. crustaceo. Semen globosum, rarius oblongum et curvum infra situm stigmatium affixum, hilo orbiculari, rapheos ramis ab hilo radiantibus reticulatis, albumine æquabili; embryo hilo propinquus.—Palmæ inermes, caudice elato v. humili annulato v. annulis obscuris. Folia terminalia, æqualiter pinnatisecta, segmentis subfalcato-lanceolatis basi lata insertis plicatis acuminatis (apice 2-fidis? v. oblique truncatis et dentatis?), marginibus interdum incrassatis basi vix recurvis, rachi furfuracea dorso convexa facie obtuse carinata. Spadix elongatus, ramis fructiferis elongatis crassis areolis distantibus; spathæ 2–3. Fructus parvus, maturus ruber.

Species 3 nobis notæ, una Australasica, cæteræ insularum Samoæ incolæ.—Specierum Samoæ exemplaria valde incompleta vidimus, a Rev. dom. Powell missa, altera pinnis apice bifidis, altera pinnis abrupte et late truncatis (an potius folium *Ptychospermatis* errore fructibus *Clinostigmatis* relatum). Species Australasica sectionem *Lepidorhachis*, H. Wendl. in Linnæa, xxxix. 186, 218, t. 2, f. 5 efficit, spadice perbrevi, floribus omnibus 3-nis et caudice humili. *Benth. Fl. Austral.* vii. 139 (*Kentia*).

25. **Cyphokentia,** *Brongn. in Comptes Rend. Acad. Sc. Par.* lxxvii. 399, *partim.*—Flores in eodem spadice infrafoliaceo paniculatim ramoso monoici, spiraliter dispositi, 3-ni intermedio ♀, bracteati et minute bracteolati. Fl. ♂ . . . Stamina 6 v. 12. Fl. ♀ perianthio post anthesin immutato, . . . Fructus parvus, ellipsoideus v. subglobosus, rectus v. paullo incurvus, 1-spermus, stigmatibus subbasilaribus v. lateralibus, pericarpio grumoso, endocarpio crustaceo intus polito. Semen globosum v. ellipsoideum, subbasilare, suberectum, hilo orbiculari v. oblongo, rapheos ramis dorso a hilo ascendentibus liberis dein decurvis parce anastomosantibus ad situm embryonis convergentibus, albumine corneo æquabili; embryo basilaris.—Palmæ robustæ, inermes. Folia terminalia, pinnatisecta, segmentis coriaceis elongato-ensiformibus apice angustatis, marginibus basi recurvis. Spadices validi, glabri, ramis robustis; spathæ 2, deciduæ; bracteæ breves, cum spadice continuæ; bracteolæ parvæ, breves, in cupulam brevem imbricatæ.

Species 2, Novæ Caledoniæ incolæ; altera *C. robusta*, Brongn., ramis spadicis simpliciter ramosis crassis elongatis cylindraceis, fructibus reniformi-ellipsoideis, stigmatibus paullo supra basin prominentibus, semine reniformi; altera, *C. macrostachya*, Brongn., ramis spadicis longioribus flexuosis, fructibus subglobosis, stigmatibus lateralibus, semineque fere globoso.—Genus *Clinostigmati* arcte affine, imperfecte notum.

Cyphokentiæ species aliæ Brongnartii sunt: *C. Balansæ*, a Wendlandio ad genus suum *Cyphosperma* relata; species 6 caudicibus arundinaceis sub *Microkentia*, Wendl., descriptæ; *C. Humboldtiana* et *C. bractealis*, a nobis non visæ, verisimiliter ad typum generis novi Wendlandii referendæ; et *C. vaginalis*, spathis persistentibus, nobis ignota, vix congener.

26. **Cyphosperma,** *H. Wendl. in litt.* (*nomen tantum*).—Flores in eodem spadice robusto infrafoliaceo paniculatim ramoso monoici, spiraliter dispositi, 3-ni intermedio ♀, bracteati et bracteolati. Fl. ♂ symmetrici, oblongo-cylindracei. Sepala crasse coriacea, orbicularia, concava, late imbricata. Petala subduplo longiora, elliptica, subacuta, coriacea, valvata. Stamina 6, filamentis filiformi-subulatis apicibus inflexis; antheræ lineari-oblongæ, dorsifixæ, versatiles. Ovarii rudimentum columnare, crassum, truncatum. Fl. ♀ masculis paullo minores, subglobosi, petalis post anthesin valde auctis. Sepala orbicularia v. subsphærica, crasse coriacea, latissime imbricata. Petala vix v. paullo longiora, orbicularia, late convolutivo-imbricata, apicibus breviter acutatis valvatis. Staminodia 3, brevia, linearia, membranacea, v. 0. Ovarium obovoideo-oblongum v. lageniforme, 1-loculare; stigma sessile, crassum, conoideum, 3-fidum, lobis trigonis; ovulum parietale, pendulum. Fructus parvus, globosus v. cubico-obovoideus, stigmate oblique terminali v. fere laterali, pericarpio tenui crustaceo granulato intus lævi. Semen grosse tuberculatum v. subhexagonum angulis acutis, faciebus undulatis, hilo angulo ventrali angusto a basi ad medium extenso, rapheos ramis radiantibus laxe reticulatis, albumine æquabili; embryo basilaris.—Palmæ inermes, caudice robusto? annulato. Folia terminalia, pinnatisecta, segmentis coriaceis elongato-ensiformibus apice angustato oblique præmorsodentatis basi plicatis marginibus incrassatis basi recurvis, costa nervisque validis furfuraceis v. demum glabris, rhachi robusta lata dorso leviter convexa facie canaliculata. Spadices glabri v. puberuli, ramis robustis elongatis subdistichis; spathæ . . . ; bracteæ breves; bracteolæ majusculæ, squamiformes. Flores et fructus brunnei, inter minores.

Species 2, Novæ Caledoniæ incolæ; altera *Cyphokentia Balansæ*, Brongn. in Comptes Rend. Acad. Sc. Par. lxxvii. 5, sepalis basi gibbosis fere calcaratis, fructu globoso, stigmatibus lateralibus, et semine profunde tuberculato-rugosa testa? tenui crustacea induto; altera *C. Vieillardi*, Brongn. l.c., sepalis basi rotundatis, fructu obtuse 4–5-gono, stigmate fere terminali, et semine acute angulato.

27. **Microkentia,** *Wendl. in litt.* (*nomen*).—Flores minuti, in eodem spadice infrafoliaceo gracili simpliciter v. duplicatim ramoso monoici, spiraliter dispositi, 3-ni intermedio ♀, bracteati et bracteolati. Fl. ♂ subsymmetrici. Sepala parva, ovata v. oblonga, leviter imbricata. *Petala* brevia, ovata, concava, striata, valvata. Stamina 6, filamentis filiformi-subulatis, apicibus rectis; antheræ oblongæ, dorsifixæ, versatiles. Ovarii rudimentum columnare, stigmate disciformi. Fl. ♀ masculos subæquantes, perianthio post anthesin immutato. Sepala orbicularia, late imbricata. Petala ovata, sepalis longiora, convolutivo-imbricata, apicibus acutis conniventi-valvatis. Staminodia 3 v. 6?, subulata. Ovarium ovoideum, 1-loculare; stigmata 3, sessilia; ovulum parietale, pendulum. Fructus parvulus, globosus, plus minusve obliquus v. irregularis, 1-spermus, stigmatibus excentricis v. lateralibus, pericarpio tenui grumoso v. carnosulo, endocarpio tenui subcrustaceo intus lævi. Semen stigmatibus oppositum, subglobosum, hilo orbiculari, rapheos ramis ab hilo ascendentibus ramosis reticulatis, albumine æquabili; embryo hilo proximus.—Palmæ inermes, caudice gracili arundinaceo annulato. Folia terminalia, pinnatisecta, segmentis elongato-ensiformibus acuminatis distinctis v. superioribus in laminam latam 2-fidam confluentibus, costa nervisque prominulis, marginibus incrassatis basi recurvis, rhachi petioloque gracili glabris v. atro-furfuraceis, vagina elongata integra. Spadices graciles, glabri v. atro- v. castaneo-pubescentes, ramis gracilibus densifloris; spathæ 2; bracteæ breves, cum spadice continuæ; bracteolæ breves, cupulam efformantes. Flores inconspicui. Fructus inter minimos ordinis.

Species 6, sub *Cyphokentia* sua a Brongnartio in Comptes Rend. Acad. Sc. Par. lxxvii. 5, verbis paucissimis descriptis, nempe, *C. Pancheri, Deplanchei, eriostachys, Billardieri, surculosa* et *gracilis*, omnes Novæ Caledoniæ incolæ. Genus a Wendlandio in litteris nobis indicatum, certe habitu a ceteris *Cyphokentiis* valde distinctum.

28. **Oncosperma,** *Blume, Rumph.* 96, *t.* 82, 103. (Keppleria, *Meissn. Gen. Pl.* 355; *Comm.* 266.)—Flores in eodem spadice infrafoliaceo ramoso monoici, spiraliter dispositi, inferiores 3-ni intermedio ♀, superiores solitarii v. 2-ni ♂, bracteati et minute bracteo-

lati. Fl. ♂ asymmetrici, 3-gono-compressi. Sepala parva, triangulari-rotundata, acuta, basi imbricata. Petala oblique ovata, acuta v. acuminata, valvata. Stamina 6–12, filamentis brevibus rectis v. apicibus incurvis; antheræ lineares, basi longe bifida affixæ, erectæ. Ovarii rudimentum columnare, apice fissum. Fl. ♀ masculis multo minores, oblique globosi, perianthio post anthesin modice aucto. Sepala inæqualia, rotundata, basi gibba, late imbricata. Petala paullo longiora, orbicularia, convolutivo-imbricata, apicibus acutatis subvalvatis. Staminodia 6, minuta. Ovarium late et oblique ovoideum, 1- v. 3-loculare loculis 2 altius positis; stigmata minuta; ovulum parietale, pendulum. Fructus parvus, globosus, stigmatibus lateralibus v. basilaribus, pericarpio lævi grumoso v. subfibroso, endocarpio tenuiter crustaceo. Semen globosum v. subglobosum, hilo dorsali v. subbasilari ovali v. suborbiculari marginibus incrassatis, rapheos ramis ab hilo radiantibus laxe reticulatis, albumine profunde ruminato; embryo hilo proximus.—Palmæ armatæ, stoloniferæ, caudice humili valde aculeato, aculeis elongatis rectis nigris. Folia terminalia, æqualiter pinnatisecta, segmentis æquidistantibus v. subfasciculatis ensiformibus acuminatis apice integerrimis, costa valida subtus paleacea, marginibus non incrassatis basi recurvis, rhachi furfuracea dorso convexa facie obtuse carinata, vagina elongata. Spadix breviter pedunculatus, simpliciter v. duplicato-ramosus, inermis v. aculeatus; spathæ 2 completæ, spadici æquilongæ, caducæ, ensiformes, coriaceæ, inermes v. aculeatæ, interiore 2-cristata; bracteæ fossas spadicis marginantes; bracteolæ minutæ. Flores inter minores. Fructus parvus v. mediocris.

Species 5 v. 6, Asiæ tropicæ incolæ. *Mart. Hist. Nat. Palm.* iii. 312, *t.* 150, 153, *f.* 4, 5 (*Areca horrida*). *Griff. Palm. Brit. Ind.* 146, 157, *t.* 233 B, C (*Areca, sect. Euoplus*). *Scheff. in Natuurk. Tijdschr. Ned. Ind.* xxxii. 189; *Ann. Jard. Bot. Buitenz.* i. 139, 159, *t.* 29, *f.* 3, *et t.* 30. Ovarium fide Blumei 3-loculare, fide Schefferi 1-loculare, in specie Zeylanica solum a nobis examinata 1-loculare est.

29. **Euterpe,** *Gærtn. Fruct.* i. 24 (*excl. citat. Rumphii*), *t.* 9, *f.* 3 (*E. pisifera*).—Flores in eodem spadice infrafoliaceo albo-furfuraceo fastigiatim ramoso monoici, cavis spiraliter dispositis, 3-ni intermedio ♀, v. superiores 2-ni ♂, bracteati et 2-bracteolati. Fl. ♂ subsymmetrici v. asymmetrici, ovoidei. Sepala majuscula, orbicularia v. reniformia, scariosa, late imbricata v. minuta ovata acuta. Petala oblonga v. ovato-lanceolata, basi connata, sæpius inæqualia, valvata. Stamina 6, filamentis liberis v. basi connatis apicibus rectis; antheræ oblongæ v. lineares, basi longe 2-fidæ, dorsifixæ, versatiles. Ovarii rudimentum columnare v. 3-gonum, integrum v. 3-fidum. Fl. ♀ masculis minores, ovoidei, perianthio post anthesin parum aucto. Sepala orbicularia, obtusa, concava, late imbricata. Petala longiora, orbicularia, convolutivo-imbricata, apicibus acutatis conniventibus. Staminodia 0. Ovarium ovoideum v. oblongum, basi sæpe gibbum, 3-loculare, loculis 2 minutis vacuis; stigmata minuta, sessilia, 3-gona; ovulum parietale, subglobosum, pendulum. Fructus pisiformis, stigmatibus lateralibus, pericarpio granulato tenuiter carnosulo parce fibroso, endocarpio membranaceo. Semen globosum, liberum v. endocarpio adhærens, hilo laterali lineari, rapheos ramis undique ab hilo radiantibus reticulatis, albumine æquabili v. ruminato; embryo hilo propinquus.—Palmæ graciles, elatæ, inermes, caudicibus solitariis v. fasciculatis annulatis. Folia terminalia, æqualiter pinnatisecta, segmentis anguste lineari-lanceolatis longe graciliterque acuminatis v. ensiformibus membranaceis plicatis, marginibus incrassatis basi recurvis, rhachi 3-gona inferne petioloque elongato dorso convexa facie concava, vagina valde elongata cylindracea integra. Spadix paniculatim ramosus, rhachi elongata, ramis gracilibus superioribus gradatim brevioribus sæpe furfuraceis basi incrassatis, floriferis erecto-patentibus; spathæ 2, coriaceæ v. membranaceæ, lanceolatæ, inferiore breviore apice fissa dorso 2-carinata, superiore completa, ventre fissa; bracteæ foveolas marginantes; bracteolæ ovatæ, acutæ. Flores parvi, albi, in fossis spadicis sessiles. Fructus purpureus.

Species ad 8, Americæ tropicæ et insularum Indiæ occidentalis incolæ. *Mart. Hist. Nat. Palm.* ii. 28, *t.* 28 *ad* 30; iii. 165, 309 (*excl. sp.*); *Palm. Orbign.* 8, *t.* 2, 8, 15, 17, 18. *Kunth, Enum. Pl.* iii. 177. *Drude in Mart. Fl. Bras.* iii. ii. 461, *t.* 107. *Scheff. in Natuurk. Tijdschr. Ned. Ind.* xxxii

192; *Ann. Jard. Bot. Buitenz.* 128, 130, *t.* 29, *f.* 2. *Griseb. Fl. Brit. W. Ind.* 516; *in Pl. Wright Cub.* 530. *Œrst. Palm. Centr. Amer.* (*in Vid. Meddel. Nat. Foren. Kjobenh.* 1858) 30. *Engel in Linnæa*, xxxiii. 669. *Spruce in Journ. Linn. Soc.* xi. 136. *Barb. Rodr. Enum. Palm. Nov.* 15. *Traill in Trim. Journ. Bot.* 1877, 131. *Wallace, Palm. Amaz.* 22, *t.* 7, 8. Genus male definitum. Sepala floris ♂ in *E. oleracea*, Mart. t. 29, et in *E. Catinga* fere orbicularia et late imbricata; in *E. ensiformi*, Mart. t. 31, et *E. eduli*, t. 32, minuta, ovata, acuta. Pericarpium in *E. Catinga*, Wallace, nullo modo fibrosum, sed in sicco tenuiter crustaceum, albumenque æquabile, dum in *E. oleracea* pericarpium carnosum et dense fibrosum est, albumenque ruminatum.

30. **Œnocarpus,** *Mart. Hist. Nat. Palm.* ii. 21, *t.* 22 *ad* 27; iii. 310, *et Palm. Orbign.* 12, *t.* 8, 18.—Flores in eodem spadice infrafoliaceo fastigiatim ramoso monoici, spiraliter dispositi, inferiores 3-ni intermedio ♀, superiores 2-ni ♂, obscure bracteati et bracteolati. Fl. ♂ asymmetrici. Sepala parva, ovata v. lanceolata, acuta, valvata v. basi tantum imbricata. Petala oblique ovata v. oblonga, acuta v. acuminata, valvata. Stamina 6, filamentis liberis v. basi connatis rectis v. apicibus incurvis; antheræ lineares, dorsifixæ, versatiles. Ovarii rudimentum 3-fidum. Fl. ♀ masculis minores, subgloboso-conoidei, perianthio post anthesin aucto. Sepala crasse coriacea, reniformia v. orbicularia, late imbricata. Petala longiora v. sublongiora, orbicularia, obtusa, convolutivo-imbricata. Staminodia 0 v. pauca. Ovarium ovoideum v. turbinatum, 3-loculare loculis 2 effœtis; stigmata minuta, sessilia; ovulum parietale. Fructus ovoideus ellipsoideus v. globosus, 1-locularis, stigmatibus terminalibus (v. excentricis?), pericarpio fibroso et grumoso v. carnosulo (endocarpio membranaceo?). Semen ellipsoideum v. globosum, liberum v. endocarpio adhærens, hilo parvo elongato, rapheos ramis a basi ad apicem radiantibus reticulatis, albumine æquabili fibroso v. ruminato; embryo basilaris.—Palmæ sæpius inermes et elatæ, caudicibus solitariis v. cæspitosis annulatis medio interdum ventricosis. Folia terminalia, in una specie disticha, pinnatisecta, segmentis anguste v. latiuscule ensiformibus acuminatis rigidis plicatis plurinerviis, marginibus incrassatis basi recurvis, rhachi dorso convexa lateribus profunde sulcatis ventre carinata, petiolo brevi, vagina brevi ventricosa aperta, in una specie spinosa. Spadices breviter pedunculati, hippuriformes v. scopiformes, rhachi brevi, ramis simpliciusculis crassiusculis elongatis subæquilongis pendulis, areolis vix depressis; spathæ 2, lignosæ, caducæ, inferiore breviore 2-carinata apice fissa, superiore cylindracea rostrata, ventre rupta. Flores inter minores. Fructus sæpius purpureus v. niger.

Species ad 8, Americæ tropicæ incolæ. *Kunth, Enum. Pl.* iii. 179. *Drude in Mart. Fl. Bras.* iii. ii. 465, *t.* 108. *Wallace, Palm. Amaz.* 28, *t.* 9 *ad* 11. *Karst. Fl. Colomb.* i. 111, *t.* 55. *Spruce in Journ. Linn. Soc.* xi. 139. Genus sæpe cum *Euterpe* confusum, characteres diagnostici serius scrutandi. Fructus in *Œ. utili* globosus, pericarpio tenui non fibroso, omnino ut in *Euterpe Catinga*.

31. **Jessenia,** *Karst. in Linnæa*, xxviii. 387 (*excl. citat. Endlicheri*), xxxiii. 691, *t.* 3, *f.* 6. *Fl. Colomb.* i. 197, *t.* 98.—Flores in eodem spadice interfoliaceo fastigiatim ramoso monoici, spiraliter dispositi, inferiores 3-ni intermedio ♀, superiores 2-ni v. solitarii ♂, ebracteati et ebracteolati. Fl. ♂ subsymmetrici. Sepala minuta, semi-orbicularia, carnosula, marginibus membranaceis, imbricata. Petala multo longiora, ovato-oblonga v. lanceolata, cartilaginea, valvata. Stamina 9–20, filamentis brevibus subulatis; antheræ lineares, acutæ v. apiculatæ, basi longe 2-fida insertæ, versatiles. Ovarii rudimentum 3-fidum. Fl. ♀ masculis multo minores, depresso-globosi, perianthio post anthesin valde aucto. Sepala carnosula, orbicularia, late imbricata. Petala consimilia, tenera, convolutivo-imbricata. Staminodia 0. Ovarium 3-loculare, loculis 2 effœtis; stylus brevis, stigmatibus validis; ovulum . . . Fructus ellipsoideus, stylo terminali, pericarpio carnoso fibroso et oleoso. Semen ellipsoideum, hilo laterali elongato, rapheos ramis ab hilo divergentibus numerosis inconspicuis, albumine ruminato; embryo basilaris, elongatus.—Palmæ inermes; caudice elato robusto annulato. Folia terminalia, perplurima, æqualiter pinnatisecta, segmentis confertis oppositis ensiformibus acuminatis plicatis, marginibus basi recurvis, petiolo breviusculo, vagina brevi aperta marginibus fibrosis. Spadices penduli, breviter pedunculati,

floriferi interfoliacei, fructiferi infrafoliacei, rhachi brevi, ramis elongatis; spathæ 2, fusiformes, interiore multo longiore ventre fissa. Flores mediocres. Fructus fere *Œnocarpi*.

Species 3, Americæ australis cisequatoriensis incolæ. *Drude in Mart. Fl. Bras.* iii. ii. 472, *t.* 109. *Griseb. Fl. Brit. W. Ind.* 516. *Engel in Linnæa*, xxxiii. 691. Genus ut videtur *Œnocarpo* arctissime affine, differt spadicibus dum floriferi manent interfoliaceis. Speciei Trinitensis cujus fructus ignotus, exemplum valde imperfectum tantum vidimus *Œnocarpum* omnino referens.

32. **Acanthophœnix**, *H. Wendl. in Fl. des Serres, t.* 181.—Flores in eodem spadice infrafoliaceo laxe ramoso monoici, spiraliter dense conferti, inferiores 3-ni intermedio ♀, superiores solitarii v. 2-ni ♂, bracteati et bracteolati. Fl. ♂ asymmetrici, trigono-compressi. Sepala parva, orbicularia, carinata, imbricata. Petala oblique ovata v. ovato-lanceolata, acuminata, valvata. Stamina 6 v. plura, exserta, filamentis liberis elongatis cylindraceis apicibus acutis incurvis; antheræ lineari-oblongæ v. globosæ, dorsifixæ, versatiles. Ovarii rudimentum elongato-conicum v. 2–3-fidum. Fl. ♀ masculis minores, late ovoidei, perianthio post anthesin aucto. Sepala ovato-orbicularia, concava, late imbricata. Petala sepalis æquilonga, orbicularia, striato-nervosa, convolutivo-imbricata, apicibus acutatis conniventibus. Staminodia obscura. Ovarium obovoideo-oblongum, rectum v. curvum, 1- (v. 2–3-) loculare; stigmata subapicalia; ovulum parietale, pendulum. Fructus parvulus, globosus v. oblongus, teres v. compressus, stigmatibus lateralibus v. subbasilaribus, pericarpio lævi carnosulo et tenuiter fibroso, endocarpio subcrustaceo. Semen oblongum, ascendens, hilo elliptico infra medium sito, testa brunnea, rapheos ramis paucis ab hilo radiatis et ascendentibus dein descendentibus et laxe reticulatis, albumine æquabili; embryo basilaris.—Palmæ elatæ, armatæ, caudice robusto annulato. Folia terminalia, æqualiter pinnatisecta, spinis elongatis gracilibus plus minusve armata, segmentis anguste lineari-lanceolatis acuminatis subtus paleaceis costa nervisque validis marginibus incrassatis basi recurvis, rhachi subtrigona, vagina elongata inermi v. spinosa. Spadix duplicato-ramosus, pendulus, breviter crasseque pedunculatus, glaber v. tomentosus, lævis v. spinosus, ramis gracilibus v. crassis tortuosis; spathæ 2, compressæ, deciduæ; bracteæ prominulæ margini areolæ adnatæ, crassæ, rigidæ; bracteolæ inconspicuæ. Flores rubri v. flavi. Fructus nunc grano Tritici vix longior, niger.

Species 3 v. 4, insularum Mascarensium incolæ. *Balf. f. in Baker, Fl. Maurit.* 384. *Mart. Hist. Nat. Palm.* iii. 174, *t.* 154, 155, *f.* 1 (*Areca crinita*) *et* 176, *t.* 154, 155, *f.* 2 (*A. rubra excl. descript. et ic. fructus*). Ovarium ex Martio 2–3-loculare, loculis 2 abortivis, quod non vidimus.

Deckenia, *H. Wendl. in Baker Fl. Maurit.* 385, certe est *Acanthophœnicis* species, fructibus oblongo-cylindraceis semi-pollicaribus.

33. **Hyospathe**, *Mart. Hist. Nat. Palm.* ii. 1, *t.* 1, 2.—Flores minuti, in eodem spadice infrafoliaceo simpliciter ramoso monoici, laxe spiraliter dispositi, 3-ni intermedio ♀, v. superiores 2-ni et solitarii, ebracteati et ebracteolati. Fl. ♂ asymmetrici, compressi. Sepala parva, submembranacea, ovato-rotundata, basi connata. Petala oblongo-lanceolata, acute valvata. Stamina 6, filamentis subulatis; antheræ lineari-oblongæ, basi longe bifidæ, dorsifixæ, versatiles. Ovarii rudimentum turbinatum v. columnare, obsolete 3-lobum. Fl. ♀ masculis minores, ovoidei, perianthio post anthesin vix aucto. Sepala parva, membranacea, ovata, acuta, imbricata. Petala membranacea, paullo longiora, orbicularia, subacuta, imbricata, apicibus acutatis conniventibus. Staminodia 6. Ovarium ovoideum, 3-loculare, loculis 2 effœtis; stigmata sessilia, acuta, recurva; ovulum subbasilare, erectum. Fructus parvulus, ellipsoideus v. obovoideus, stigmatibus basilaribus, pericarpio tenuiter grumoso, endocarpio membranaceo. Semen ellipsoideum, erectum, testa fusca, rapheos ramis obscuris, albumine æquabili; embryo basilaris.—Palma arundinacea, inermis, caudice annulato radicibus epigæis sustentato. Folia pauca, terminalia, irregulariter pinnatisecta, segmentis late oblique lanceolatis v. quadratis longissime acuminatis, marginibus non incrassatis basi recurvis, rhachi acuta bifaciali dorso convexa, petiolo subtereti facie canaliculata, vagina elongata. Spadices 2 v. 3, breviter pedunculati, primum erecti ramis gracilibus erectis rigidis basi incrassatis, demum penduli; spathæ

2, inferiore compressa 2-carinata, superiore fusiformi. Flores virides. Fructus purpureus.

Species 3, Brasilianæ.—*Drude in Mart. Fl. Bras.* iii. ii. 519. Sepala fl. ♂ ex Scheffero valvata, nobis potius imbricata apparent. *H. pubigera*, Griseb. et Wendl, (Fl. Brit. W. Ind. 516), minime hujus generis, differt pinnarum marginibus incrassatis, forma spadicis, sepalis fl. ♀ orbiculatis latissime imbricatis, ovario 1-loculari, stigmatibus in fructu infra-apicalibus, et albumine ruminato. Vide *Prestoeam*.

34. **Prestoea,** *Hook. f.*, *Gen. Nov.*—Flores in eodem spadice infrafoliaceo simpliciter ramoso monoici, spiraliter dispositi, 3-ni intermedio ♀, v. superiores solitarii et 2-ni ♂, ebracteati, minute bracteolati. Fl. ♂ asymmetrici. Calyx minutus, 3-lobus, lobis rotundatis obtusis. Petala oblique ovata, subacuta, valvata. Stamina 6, filamentis filiformi-subulatis; antheræ magnæ, lineari-oblongæ, dorsifixæ, basi alte 2-fidæ, versatiles. Ovarii rudimentum columnare. Fl. ♀ masculis minores, globosi, perianthio post anthesin vix aucto. Sepala reniformi-rotundata, concava, imbricata. Petala haud longiora, late ovata, subacuta, convolutivo-imbricata. Ovarium obovoideo-oblongum, 1-loculare; stigma crassum, sessile, 3-lobum, lobis 3-gonis; ovulum basilare, erectum. Fructus pisiformis, stigmate excentrico v. laterali, pericarpii tegumento externo membranaceo fragili, interno e fibris tenuibus laxe reticulatis nucleo laxe adhærentibus, endocarpio? e membrana fragili irregulari alba ad basin tantum seminis. Semen globosum, hilo laterali, raphe elongata ramis radiantibus laxe reticulatis, albumine duro parce ruminato; embryo hilo proximus.—Palma gracilis, humilis, caudice arundinaceo annulato. Folia longe graciliterque petiolata, basi pinnatisecta, segmentis superioribus in laminam oblongam 2-fidam apice laceram plicato-nervosam connatis, inferioribus angustis, costa nervisque validis, marginibus incrassatis basi recurvis, rhachi trigona puberula, petiolo dorso convexo facie sulcato, basi in vaginam fibroso-reticulatam brevem apertam dilatato. Spadices breviter pedunculati, erecto-patentes, fusco-pubescentes, rhachi crassa stricta, ramis strictis erecto-patentibus a basi incrassata ad apices graciles sensim attenuatis; spathæ 2, membranaceæ, demum laceræ, inferiore 2-dentata apice fissa, superiore longiore ventre hiante; bracteolæ cupulares. Flores inter minores. Fructus intus viridis pericarpio tenero.

Species 1 bene nota, insulæ Trinidad incola, *Hyospathe pubigera*, Griseb. et Wendl. in Fl. Brit. W. Ind. 516. Ovulum certe basilare et erectum est. Membrana fragilis basi seminis adnata singularis est, et ulterius scrutanda. *Euterpe montana*, Grah. in Bot. Mag. t. 3874, insulæ Grenadæ incola, est verisimiliter congener (ut et species ab auctoribus *Euterpi* relatæ?).

35. **Oreodoxa,** *Willd. in Mem. Acad. Berl.* 1804, 34.—Flores in eodem spadice infrafoliaceo decomposito ramoso monoici, laxe spiraliter dispositi, inferiores 3-ni intermedio ♂, superiores solitarii v. 2-ni ♂, obscure bracteati et bracteolati. Fl. ♂ subsymmetrici. Sepala minuta, late ovata, scariosa, basi imbricata. Petala subæqualia, ovata, acuta, basi connata, tenuiter coriacea, valvata. Stamina 6, 9, 12, exserta, filamentis basi petalorum adnatis brevibus late subulatis, apicibus rectis acutis; antheræ magnæ, ovato-sagittatæ, dorsifixæ, versatiles. Ovarii rudimentum subglobosum v. 3-fidum. Fl. ♀ masculis minores, subconoidei, perianthio post anthesin vix aucto. Sepala ovato- v. reniformi-rotundata, late imbricata. Corolla urceolaris, ad medium 3-loba, lobis triangularibus acutis valvatis. Staminodia 6, squamiformia, in cupulam ori corollæ adnatam connata. Ovarium subglobosum, basi gibbum, 2-loculare; stigmata sessilia, crassa, subulato-trigona; ovulum parietale, ascendens. Fructus obovoideus v. oblongo-ovoideus, curvus, 1-locularis, stigmatibus subbasilaribus, pericarpio carnoso et fibroso, endocarpio tenui. Semen oblongo-reniforme, testa endocarpio adnata, hilo latiusculo ventrali, rapheos ramis ab hilo radiantibus reticulatis, albumine æquabili; embryo subbasilaris.—Palmæ inermes, caudice solitario elato robusto cylindraceo v. medio incrassato. Folia terminalia, æqualiter pinnatisecta, segmentis anguste lineari-lanceolatis apice angustatis inæqualiter 2-fidis, costa crassiuscula subtus paleacea, marginibus non incrassatis basi recurvis, rhachi dorso convexa facie inferiore sulcata superiore acuta, petiolo semicylindraceo facie sulcato, vagina elongata. Spadix majusculus, ramulis elongatis gracilibus pendulis; spathæ 2

completæ, inferiore semicylindracea spadicem æquante, superiore ensiformi ventre fissa; bracteæ et bracteolæ squamiformes. Flores parvi, albi, glomerulis sparsis. Fructus parvus, violaceus.

Species descriptæ 5, Americæ tropicæ incolæ. *Mart. Hist. Nat. Palm.* iii. 166, 310, *t.* 156, 163. *Kunth, Enum. Pl.* iii. 181. *Griseb. Fl. Brit. W. Ind.* 517; *Cat. Pl. Cub.* 222. *Jacq. Stirp. Sel. t.* 170.

36. **Iriartea,** *Ruiz et Pav., Prod. Fl. Per. et Chil.* 149, *t.* 32, *Syst.* 298. (Deckeria, *partim, Karst. in Linnæa,* xxviii. 258; *Fl. Colomb.* 107, *t.* 53.)—Flores in eodem spadice infrafoliaceo simpliciter ramoso monoici, spiraliter dispositi, inferiores 3-ni intermedio ♀, superiores 2-ni v. solitarii ♂, ebracteati et ebracteolati. Fl. ♂ subsymmetrici. Sepala minuta, rotundata, basi gibba, vix imbricata. Petala oblique ovoidea v. triangularia, obtusa, valvata. Stamina 9–15, filamentis brevibus subulatis basi connatis; antheræ lineari-elongatæ, basifixæ, erectæ. Ovarii rudimentum obsoletum. Fl. ♀ masculis multo minores, ovoidei, perianthio post anthesin aucto. Sepala orbicularia, late imbricata. Petala vix longiora, obtusa, convolutivo-imbricata. Staminodia numerosa v. 0. Ovarium 3-loculare, loculis 2 sæpius effœtis; stigmata minuta, sessilia, 3-gona; ovula . . . Fructus oblongus v. depresso-ovoideus, 1- rarius 2-spermus, stigmatibus apicalibus v. subapicalibus, pericarpio crasso grumoso, endocarpio membranaceo. Semina solitaria et globosa, v. 2-na hemisphærica, hilo subbasilari, rapheos ramis ab hilo ascendentibus ramosis reticulatis verticem attingentibus, albumine æquabili; embryo dorsalis.—Palmæ inermes, elatæ, caudice annulato cylindraceo v. medio ventricoso, radicibus epigæis sustentato. Folia pauca, terminalia, inæqualiter pinnatisecta, segmentis quaquaversis cuneatis integris v. fissis apice erosis plicato-nervosis, marginibus basi recurvis, petiolo canaliculato, vagina cylindracea elongata. Spadices 1–3, ante anthesin corniformes et recurvæ, ramis paucis; spathæ numerosæ, inferiores minores incompletæ, superiores completæ, fissæ, coriaceæ, deciduæ. Flores parvi. Fructus 1–2-pollicaris.

Species ad 5, Americæ tropicæ incolæ. *Mart. Hist. Nat. Palm.* 35, *partim, t.* 35, 36; *Palm. Orbign.* 14, *partim, t.* 5, *f.* 3, *t.* 19, *excl. f.* 2. *Drude in Mart. Fl. Bras.* iii. ii. 536 (*sect. Eu-iriartea*). *H. Wendl. in Bonpland.* 1860, 102, 106. *Spruce in Journ. Linn. Soc.* xi. 132, *excl. sp.* 2.

37. **Socratea,** *Karst. in Linnæa,* xxviii. 263.—Flores in eodem spadice infrafoliaceo simpliciter ramoso monoici, spiraliter dispositi, inferiores 3-ni intermedio ☿, superiores 2-ni v. solitarii ♂, ebracteati et ebracteolati. Fl. ♂ symmetrici. Sepala parva, triangularia. Petala late oblique ovata, acuta, valvata. Stamina ad 25, filamentis brevissimis subulatis basi connatis; antheræ lineari-elongatæ, basifixæ, erectæ. Ovarii rudimentum minutum. Fl. ♀ masculis minores, ovoidei, perianthio post anthesin aucto. Sepala late ovato-rotundata, imbricata. Staminodia 0. Ovarium ovoideum, 3-loculare, loculis 2 effœtis; stigmata sessilia, minuta, recurva; ovulum . . . Fructus ellipsoideus v. oblongo-obovoideus, 1- rarius 2-spermus, stigmatibus subapicalibus, pericarpio crassiusculo. Semen oblongum v. oblongo-obovoideum, erectum, hilo basilari, rapheos ramis a basi ascendentibus ramosis reticulatis, albumine æquabili; embryo subapicalis.—Palmæ inermes, caudice gracili remote annulato radicibus epigæis sustentato. Folia pauca, terminalia, æqualiter pinnatisecta, segmentis oblique cuneato-flabellatis profunde laciniatis, laciniis angustis sinuato-dentatis quaquaversis, nervis divaricatis. Spadices solitarii, ante anthesin corniformes, recurvi; spathæ 5–8, deciduæ, superiores completæ.

Species apud auctores 3 v. 5, Brasiliæ borealis et Colombiæ incolæ. *Drude in Mart. Fl. Bras.* iii. ii. 537, 538, *t.* 126 (*Iriartea, sect. Haplophyllum et Schizophyllum*). Species sunt: 1. *S. elegans,* Karst. l. c. 2. *S. Orbigniana,* Karst. l. c.; Mart. Palm. Orbign. 14, t. 5, f. 1, t. 19, f. 2, t. 20 B (excl. f. 2, 3) (*Iriartea*). 3. *S. exorhiza,* Mart. Hist. Nat. Palm. ii. 36, t. 33, 34 (*Iriartea,* embryone errore basilari descripto et depicto). 4. *S. durissima,* Œrst. Palm. Cent. Amer. (in Vid. Meddel. Nat. Foren. Kjobenh. 1858) 30 (*Iriartea*). 5. *S. philonotia,* Barb. Rodr. Enum. Palm. Nov. 131, Protest. Append. 35. Traill in Trim. Journ. Bot. 1877, 130, *S. exorhizam, Orbignianam* et *philonotiam* pro formis unius speciei habet.

38. **Dictyocaryum,** *H. Wendl. in Bot. Zeit.* 1865, 131.—Flores in eodem spadice infrafoliaceo fasciculatim ramoso monoici, spiraliter dispositi, inferiores 3-ni intermedio ♀, superiores solitarii v. 2-ni ♂, ebracteati et ebracteolati. Fl. ♂ oblongi, curvi, cylindracei. Sepala minuta, rotundata, basi gibba, imbricata. Petala oblonga, obtusa, valvata. Stamina 6, filamentis brevibus subulatis; antheræ lineares, basifixæ, erectæ. Ovarii rudimentum minimum. Fl. ♀ masculis multo minores, perianthio post anthesin aucto. Sepala et petala 3, imbricata. Staminodia 0. Ovarium 3-loculare; ovulum . . . Fructus ovoideus v. subglobosus, stigmatibus subbasilaribus, pericarpio grumoso, endocarpio membranaceo fragili. Semen ovoideum v. subglobosum, hilo basilari, rapheos ramis ascendentibus ramosis copiose reticulatis in embryonis situm convergentibus, albumine æquabili; embryo subbasilaris.—Palmæ elatæ, inermes, caudice remote annulato radicibus epigæis suffulto. Folia pauca, æqualiter pinnatisecta, segmentis oblique flabellatim cuneatis in lacinias 8–10 angustas quaquaversas apice erosas fissis. Spadices ante anthesin corniformes, elongati, recurvi; spathæ 6–7, deciduæ. Flores flavi.

Species ex Wendlandio 2, Brasiliæ borealis et Novæ Grenadæ incolæ, nempe: *D. Lamarckianum*, Mart. Palm. Orbign. 18, t. 12, et t. 20 A (*Iriartea*); Karst. in Linnæa, xxviii. 259 (*Deckeria*); et *D. fuscum*, Karst. Fl. Colomb. 109, t. 54, excl. f. 1, 9 ad 12 (*Socratea*).—Genus a nobis non visum, a Drudeo in Mart. Fl. Bras. iii. ii. 536, ad sectionem *Iriarteæ* relatum. In icone Martii *D. Lamarckiani*, Palm. Orbign. t. 20 A, f. 7, embryo bene medio inter hilum et verticem seminis situs.

39. **Iriartella,** *H. Wendl. in Bonpland.* 1862, 106.—Flores in eodem spadice infra- v. inter-foliaceo monoici, spiraliter dispositi, inferiores 3-ni intermedio ♀, superiores solitarii v. 2-ni ♂, ebracteati et ebracteolati. Fl. ♂ asymmetrici. Sepala parva, rotundata, imbricata. Petala oblique ovato-oblonga, obtusa, valvata. Stamina numerosa (ad 15), filamentis brevibus subulatis basi fasciculatis et connatis; antheræ anguste lineares, basifixæ, erectæ. Ovarii rudimentum obsoletum. Fl. ♀ masculis minores, perianthio post anthesin immutato. Sepala orbicularia, late imbricata. Petala consimilia, convolutivo-imbricata. Staminodia 0. Ovarium ovoideo-oblongum, 3-loculare, loculis 2 sæpissime effœtis; stigmata minuta, sessilia; ovula in loculis solitaria, erecta? Fructus parvulus, obovoideo-oblongus, basi sæpe gibbus v. 2-gibbus, rectus v. lente curvus, stigmatum cicatrice basilari, pericarpio tenuiter grumoso, endocarpio membranaceo. Semen ellipsoideum, erectum, hilo basilari, rapheos ramis a basi ad verticem ascendentibus parce reticulatis, albumine æquabili; embryo apicalis.—Palma humilis, gracilis, setosa, setis prurientibus, caudice arundinaceo griseo-tomentoso basi sobolifero remote annulato, radicibus hypogæis. Folia terminalia, pauca, inæqualiter? pinnatisecta, segmentis in planum dispositis a basi lata anguste cuneatis oblique præmorsis plicato-venosis, marginibus basi recurvis, subtus tomentellis, petiolo setoso, vagina elongata cylindracea. Spadices pedunculo compresso tomentello, ramis pendulis; spathæ 4–5, deciduæ, plano-convexæ, tomentosæ, pedunculum arcte vestientes. Flores minuti. Fructus parvus.

Species 1, riparum fluminis Amazonum incola. *Mart. Hist. Nat. Palm.* ii. 39, t. 37. *Traill in Trim. Journ. Bot.* 1877, 130. *Wallace, Palm. Amaz. t.* 15, omnes sub *Iriartea*. *Barb. Rodr. Enum. Palm. Nov., Protest. Append, t.* 2, *f.* 8, 9. *Drude in Mart. Fl. Bras.* iii. ii. 537, *t.* 127, *f.* 1 (*Iriartea, sect. Trachyphyllum.*)

40. **Catoblastus,** *H. Wendl. in Bonpland.* 1862, 104, 106.—Flores in diversis spadicibus infrafoliaceis brevibus monoici, spiraliter dispositi, ♂ solitarii v. gemini, ♀ solitarii, bracteati et bracteolati. Fl. ♂ asymmetrici. Sepala minuta, ovato-triangularia, vix imbricata. Petala 3, anguste subulato-lanceolata, flexuosa, crasse coriacea, valvata. Stamina 9–15, filamentis brevibus subulatis; antheræ magnæ, lineari-oblongæ, obtuse 4-gonæ, apiculatæ, basifixæ. Ovarii rudimentum minimum. Fl. ♀ masculis subæquales, perianthio post anthesin vix aucto. Sepala minuta, triangularia, haud imbricata. Petala multo majora, triangularia, crasse coriacea, basi imbricata, apicibus acutis liberis conniventibus valvatis. Staminodia 4–6, antheris parvis cassis. Ovarium ad basin 3-lobum, lobis inæqualibus stellatim patentibus subglobosis pubescentibus 1 v. 2 vacuis; stylus brevis, stigmatibus 3 lineari-elongatis crassis obtusis intus canaliculatis; ovula in loculis

basilaria, erecta. Fructus carpella 1–2, ellipsoideo- v. cylindraceo-oblonga, puberula v. rugosula, stigmatibus basilaribus, pericarpio grumoso, endocarpio membranaceo. Semen erectum, ovoideum ellipsoideum v. cylindraceum, liberum, hilo basilari, rapheos ramis ab hilo ad verticem ascendentibus reticulatis, albumine æquabili v. breviter ruminato; embryo basilaris.—Palmæ mediocres v. elatæ, inermes, caudice gracili remote annulato radicibus epigæis sustentato. Folia terminalia, inæqualiter pinnatisecta, segmentis basi cuneatis marginibus recurvis, dein dimidiato-lanceolatis oblique præmorsis, vagina elongata. Spadices subverticillati, ♂ et ♀ mixti, simpliciter ramosi; spathæ plures, coriaceæ, inferiores subcylindraceæ, compressæ, bicarinatæ, ore lobulato, superiores longiores immarginatæ bilabiatæ.

Species 2 v. 3, Novæ Grenadæ, Venezuelæ et Brasiliæ borealis incolæ. *Karst. Fl. Colomb.* i. 163, *t.* 81 (*Iriartea*). *Drude in Mart. Fl. Bras.* iii. ii. 541, *t.* 127, *f.* 2. *Traill in Trim. Journ. Bot.* 1876, 332 (*Iriartea*).

41. **Wettinia,** *Pœpp. in Endl. Gen. Pl.* 243; *Pœpp. et Endl. Nov. Gen. et Sp.* ii. 39, *t.* 153, 154.—Flores in diversis spadicibus infrafoliaceis simplicibus v. ramosis monoici, spiraliter densissime conferti, bracteati et bracteolati. Fl. ♂ asymmetrici. Sepala 3–5, parva, triangularia, crassa, rigida, valvata. Petala multo longiora, cornea, anguste subulata, flexuosa, demum torta. Stamina 12–16, petalis breviora, filamentis brevissimis subulatis; antheræ magnæ, lineari-oblongæ, basifixæ, pilosæ, mucronatæ. Ovarii rudimentum minutum. Fl. ♀ masculis multo majores, perianthio post anthesin paullo aucto. Sepala subæqualia, a basi dilatata triangularia. Petala multo longiora, late subulata, subflexuosa. Staminodia 0. Ovarium profunde 3-lobum, villosum, lobis ovoideis basi inter se et cum basi styli connatis, 1–2 vacuis; stylus basilaris, filiformis, stigmatibus 3 elongatis flexuosis; ovulum subbasilare. Fructus in spadice densissime compacti, carpella pressione mutua obpyramidata, vertice lato convexa villosa, styli residuo basilari, pericarpio molliter lignoso, endocarpio lignoso. Semina erecta, anguste obovoidea, testa tenui firma endocarpio adhærente, hilo subbasilari, rapheos ramis complanatis ab hilo ad verticem seminis ascendentibus, albumine æquabili; embryo basilaris.—Palmæ graciles, inermes, elatæ, caudice annulato radicibus epigæis in conum densissime compactis sustentato. Folia pauca, terminalia, inæqualiter pinnatisecta, segmentis integris basi cuneatis marginibus recurvis, dein dimidiato-lanceolatis oblique præmorsis plicato-nervosis, nervis divergentibus, rhachi obtuse triquetra superne canaliculata, vagina prælonga. Spadices 3-natim verticillati, breves, crassi, intermedio ♀ decurvo; spathæ 6, 3 inferiores persistentes, tubulosæ, ♂ apice irregulariter ruptæ, ♀ bilabiatæ; superiores caducæ, fusiformes, laceræ. Flores majusculi; bracteæ et bracteolæ inter flores ♀ 3–4, squamiformes.

Species 1 v. 2, Andium Peruviæ incolæ. *Kunth, Enum. Pl.* iii. 105, 589. *Gaud. Voy. Bonite, Bot. t.* 15, *f.* 7, 8. *Mart. Hist. Nat. Palm.* iii. 304, *t.* 166, *f.* 7 (*Arecin. e Peru*). *H. Wendl. in Bonpland.* 1860, 106. *Spruce in Journ. Linn. Soc.* iii. 194; ix. 128. *Wettiniæ* arcte affinis est palma Panamensis a Seemanno lecta, sepalis fl. ♀ subulato-lanceolatis, petalis consimilibus et æquilongis, fructibus compactis vix puberulis, carpellis vertice rotundatis.

42. **Calyptrocalyx,** *Blume, Rumph.* ii. 103, *t.* 102 D, 118, 161.—Flores in eodem spadice interfoliaceo longissimo simplici monoici, foveolis spiraliter dispositis immersi, 3-ni intermedio ♀, bracteati et bracteolati. Fl. ♂ symmetrici. Sepala orbicularia, cucullata, crasse coriacea, late imbricata. Petala paullo longiora, late ovata, obtusa, valvata. Stamina numerosa, basi perianthii conferta, interiora imperfecta, filamentis inæquilongis subulatis rectis basi connatis; antheræ lineares, basi longe 2-fidæ, basifixæ, versatiles. Ovarii rudimentum parvum. Fl. ♀ masculis minores, subglobosi, perianthio post anthesin aucto. Sepala orbicularia, late imbricata. Petala paullo longiora, orbicularia, convolutivo-imbricata, apicibus acutatis conniventi-valvatis. Staminodia 6 v. plura. Ovarium oblongo-ovoideum, subtrigonum, 1-loculare; stigma crassum, conoideum, 3-fidum; ovulum parietale. Fructus ovoideus v. olivæformis, subrostratus, stigmate terminali umbonatus, pericarpio crasso fibroso et succoso, endocarpio fibroso semini adhærente. Semen ovoideum

v. subglobosum, hilo laterali elongato, rapheos ramis ab hilo radiantibus ramosis reticulatis semen involventibus, albumine profunde ruminato; embryo basilaris.—Palmæ inermes, caudice gracili annulato. Folia terminalia, æqualiter pinnatisecta, segmentis lineari-lanceolatis acuminatis, costa nervisque subtus prominentibus, marginibus incrassatis basi recurvis, petiolo breviusculo, vagina breviuscula. Spadices longissimi, penduli, crassiusculi, longe pedunculati, solitarii v. 2-ni; spatha 1 completa, spadice brevior, decidua; bractea labio inferiori foveolæ adnata; bracteolæ squamiformes. Flores ♂ majusculi. Fructus mediocris v. majusculus.

Species 2; altera (*C. spicatus*, Blume) Amboinensis, bractea linguæformi protrusa, *Kunth, Enum. Pl.* iii. 642; *Miq. Fl. Ind. Bat.* iii. 44; *Palm. Archip. Ind.* 9; altera (*C. australasicus*) Australiæ tropicæ incola, *Scheff. in Ann. Jard. Bot. Buitenz.* i. 131, 140. *Benth. Fl. Austral.* vii. 140 (*Ptychosperma*). *H. Wendl. et Drude in Linnæa*, xxxix. 178, 189, 205, *t.* 2, *f.* 3 (LACCOSPADIX).

43. **Bacularia**, *F. Muell. Fragm. Phyt. Austral.* vii. 103. (Linospadix, *H. Wendl. et Drude in Linnæa*, xxxix. 177, 188, 198, *t.* 2, *f.* 2.)—Flores in eodem spadice interfoliaceo simplici gracillimo monoici, spiraliter dispositi, 3-ni intermedio ♀, minute bracteati et bracteolati. Fl. ♂ symmetrici, teretiusculi. Sepala rotundata, obtusa, imbricata, chartaceo-coriacea. Petala ovata v. lineari-oblonga, acuta v. obtusa, coriacea, valvata. Stamina 6, v. 10–12, filamentis brevibus subulatis basi connatis; antheræ oblongæ v. lineari-sagittatæ, basifixæ, erectæ, connectivo dilatato. Ovarii rudimentum parvum v. 0. Fl. ♀ masculis multo minores, ovoidei, a dorso compressi, perianthio post anthesin aucto. Sepala orbicularia, chartaceo-coriacea, late imbricata. Petala sepalis æquilonga, orbicularia, convolutivo-imbricata, apicibus acutatis conniventibus. Staminodia dentiformia. Ovarium ovoideum v. subglobosum, basi abrupte contractum, 1-loculare; stigmata minuta, sessilia, 3-gona; ovulum parietale, horizontale. Fructus parvus, elongato-ovoideus, rectus, subacutus, stigmatibus terminalibus, pericarpio crasse coriaceo et fibroso, endocarpio tenui. Semen elongatum, teres, erectum, hilo lato basilari, rapheos ramis ab hilo ascendentibus obscuris parce ramosis, albumine æquabili; embryo basilaris.—Palmæ humiles, inermes, caudicibus arundinaceis annulatis solitariis v. fasciculatis. Folia terminalia, inæqualiter pinnatisecta, segmentis membranaceis latis v. angustis apicibus fissis v. dentatis, latioribus pluri- angustioribus 1-nerviis, terminalibus confluentibus, costis nervisque subtus epaleaceis, marginibus non incrassatis basi recurvis, petiolo rhachique gracilibus furfuraceis dorso convexis facie planis v. inferne concavis, vagina brevi aperta. Spadices numerosi, foliis longiores, patentim recurvi, pedunculo gracillimo furfuraceo basi compresso; spathæ 2, remotæ, inferiore basilari tubulosa, superiore lineari membranacea torulosa ancipiti. Flores virides. Fructus virides, $\frac{1}{4}$–$\frac{1}{2}$-poll. longi.

Species 2, Australiæ temperatæ et tropicæ incolæ. *Benth. Fl. Austral.* vii. 137 (*Kentiæ sp, n.* 1, 2). *Mart. Hist. Nat. Palm.* 178, *t.* 155, *f.* 4 (*Areca*). *Bot. Mag. t.* 6644.

44. **Linospadix**, *Beccari, Malesia*, i. 62, *non H. Wendl.*—Flores in eodem spadice interfoliaceo simplicissimo monoici, cavis spiraliter dispositis immersi, 3-ni intermedio ♀, bracteati et bracteolati. Fl. ♂ symmetrici. Sepala orbicularia, crasse coriacea, concava, basi gibba, imbricata. Petala oblonga v. ovata, valvata. Stamina 6 v. 9, filamentis filiformibus; antheræ lineari-elongatæ, dorsifixæ, utrinque 2-fidæ, versatiles. Ovarii rudimentum minutum, v. angustum et apice 3-fidum. Fl. ♀ masculis minores, subglobosi, perianthio post anthesin aucto. Sepala reniformia, late imbricata. Petala longiora, late ovata, acuta, imbricata, apicibus conniventibus. Staminodia dentiformia. Ovarium ovoideum v. turbinatum, basi abrupte contractum, 1-loculare; stigmata 3, sessilia, majuscula, recurva; ovulum parietale, pendulum. Fructus parvus, ellipsoideus, stigmatibus apicalibus, pericarpio carnoso intus dense fibroso, fibris in laminas complanatas reticulatas dispositis, endocarpio tenui. Semen ellipsoideum v. subglobosum, erectum, raphe laterali elongato, ramis paucis reticulatis, albumine æquabili; embryo basilaris.—Palmæ humiles, inermes, caudicibus gracilibus arundinaceis annulatis. Folia terminalia, flabelliformia et profunde 2-fida, lobis apice acute laciniatis, v. pinnatisecta pinnis latis v.

angustis acuminatis plicato-nervosis, marginibus basi recurvis, rhachi petioloque gracili furfuraceis 3-gonis, vagina elongata aperta reticulatim fibrosa. Spadices suberecti, longe graciliterque pedunculati, rhachi stricta haud profunde alveolata; spathæ 2 completæ, coriaceæ, remotæ, angustæ, marcescentes, inferiore tubulosa 2-carinata, superiore spadice breviore; bracteæ et bracteolæ minutæ. Flores minuti, nitidi. Fructus rubri v. crocei.

Species 3, Novæ Guineæ incolæ. Genus *Baculariæ* arcte affine, differt spathis coriaceis spadicibus multoties brevioribus, antherisque dorsifixis.

45. **Howea**, *Beccari, Malesia*, i. 67 (Howiea). (Grisebachia, *H. Wendl. et Drude in Linnæa*, xxxix. 177, 188, 200, *t.* iv. *f.* 1, 2.)—Flores in eodem spadice interfoliaceo elongato simplicissimo monoici, cavis spiraliter dispositis inserti, 3-ni intermedio ♀, v. superiores solitarii et 2-ni ♂, bracteati et bracteolati. Fl. ♂ majusculi, symmetrici. Sepala orbicularia, concava, compresso-carinata, late imbricata. Petala late ovata, crasse coriacea, basi connata, valvata. Stamina 30–40, dense fasciculata, filamentis brevissimis v. 0; antheræ lineari-elongatæ, basifixæ, erectæ, basi et apice indivisæ. Ovarii rudimentum 0. Fl. ♀ masculis multo minores, subglobosi, perianthio toto post anthesin aucto. Sepala reniformia, latissime imbricata. Petala minora, orbicularia, convolutivo-imbricata, apicibus acutatis conniventi-valvatis. Staminodia 0. Ovarium ellipsoideum, 1-loculare; stigmata 3, sessilia; ovulum erectum. Fructus oliviformis, stigmate terminali umbonatus, pericarpio crasso fibroso, endocarpio tenuiter crustaceo separabili. Semen ellipsoideum, erectum, liberum, hilo parvo basilari, rapheos ramis ab hilo ascendentibus et ramosis dein descendentibus et laxe reticulatis, albumine æquabili; embryo basilaris.—Palmæ elatæ, inermes, caudice robusto annulato. Folia terminalia, numerosa, densa, æqualiter pinnatisecta, pinnis angustis acuminatis, petiolo et vagina . . . Spadices 2–3-pedales, solitarii v. 3–5 ex una spatha, crassi, cylindracei, nutantes v. penduli, pedunculo elongato basi compresso; spatha solitaria, spadicem æquans, cylindracea, apicem versus 2-carinata, longitudinaliter rupta; bracteæ cavos marginantes, bracteolæ squamiformes. Flores cavis spadicis semi-immersi, ♂ fere semi-pollicares. Fructus sesquipollicaris.

Species 1 v. 2, insulæ Lord Howe incolæ. *Benth. Fl. Austral.* vii. 137 (*Kentia Belmoreana et Forsteriana*). *Drude in Bot. Zeit.* 1877, 636, *t.* 5, *f.* 14, 15.

46. **Gigliolia**, *Beccari, Malesia*, i. 171.—Flores in eodem spadice interfoliaceo subdigitatim ramoso monoici, subdistiche sparsi, ♀ basin versus ramorum solitarii v. masculis 1 v. 2 stipati, ♂ versus apices ramorum solitarii v. 2-ni, ebracteati et ebracteolati. Fl. ♂ subsymmetrici, elongati, 3-goni. Calyx breviter tubulosus, 3-gonus, truncatus, 3-dentatus. Petala lanceolata, acuminata, coriacea, valvata. Stamina 3–9, filamentis brevibus basi in columnam connatis; antheræ breves v. lineari-elongatæ, dorsifixæ. Ovarii rudimentum 3-lobum. Fl. ♀ masculis multo majores et crassiores, ovoidei, perianthio post anthesin aucto. Sepala ovato-rotundata, late imbricata. Petala paullo longiora, ovata v. ovato-rotundata, basi concava imbricata, supra medium incrassata valvata. Staminodia 3–6, minutissima. Ovarium ovoideum, basi abrupte contractum, 1-loculare; stigma crassum, conoideum, sessile, 3-fidum, segmentis crassis 3-gonis; ovulum subbasilare, horizontale. Fructus immaturus cylindraceo-ovoideus, stigmatibus crassis erectis terminatus, pericarpio crasse coriaceo. Semen erectum, elongatum, hilo basilari . . .—Palmæ humiles, inermes, caudice arundinaceo annulato v. subnullo. Folia terminalia, lamina 2-fida, lobis apice crenato-dentatis, v. æqualiter pinnatisecta, segmentis oppositis lineari-lanceolatis caudato-acuminatis flaccidis, costa nervisque gracilibus, marginibus basi recurvis, rhachi teretiuscula antice canaliculata, petiolo gracili, vagina fissa. Spadices longe graciliterque pedunculati, ramis rigidis strictis v. flexuosis; spatha 1 completa, longissima, ensiformis, compressa, bicarinata, longitudinaliter fissa. Flores majusculi, sessiles. Fructus immaturus parvus.

Species 2, Borneenses, habitu toto cælo diversæ, et probabiliter subgenera distincta efformantes. Genus nulli affine. 1. *G. subacaulis*, folii lamina cuneato-oblanceolata, plicato-nervosa, ad medium

2-fida, segmentis apice crenato-dentatis, spadicis ramis ad apicem pedunculi subdigitatis suberectis strictis rigidis, filamentis breviter connatis, antheris elongatis. 2. *G. insignis*, Becc., caudice arundinaceo, foliis pinnatisectis, segmentorum margine inferiore basi in auriculam acuminatam rhachi appressam producto (ut in *Arenga*), spadicis rhachi elongata flexuosa, ramis alternis patentibus flexuosis gradatim decrescentibus, filamentis in columnam crassam solidam cylindraceam coadunatis, apicibus liberis, antheris minutis.

47. **Ceroxylon,** *Humb. et Bonpl. Pl. Æquin.* 1, *t.* 1, 1 *b.* (Klopstockia, *Karst. in Linnæa*, xxviii. 251; *Fl. Colomb.* 1, *t.* 1. Beethovenia, *Engel in Linnæa*, xxxiii. 677, *t.* 3, *f.* 4.)—Flores in diversis spadicibus interfoliaceis paniculatim ramosis monoici v. polygami, cum pedicello brevi articulati, minute bracteati, ebracteolati. Fl. ♂ asymmetrici. Sepala minuta, in cupulam crassam 3-lobam lobis acutis connata. Petala subulato-lanceolata, acuminata, ima basi connata, valvata. Stamina 9–15, uniseriata, filamentis brevibus subulatis inter se et cum petalis connatis; antheræ magnæ, lineares, basi longe bifida, insertæ, erectæ. Ovarii rudimentum conicum. Fl. ♀ masculos subæquantes, perianthio post anthesin vix aucto. Sepala in annulum carnosum, 3-lobum basi intrusum connata, lobis triangularibus acutis. Petala ovato-lanceolata, acuminata, carnosula, basi in tubum brevem connata, valvata. Staminodia numerosa, basi petalorum inserta, antheris parvis linearibus cassis. Ovarium profunde 3-lobum, tuberculatum, lobis 1–2 vacuis basi inter se et cum styli basi connatis; stylus brevis, crassus, erectus, 3-sulcatus, stigmatibus crassis subulatis recurvis; ovula supra basin anguli interioris loculorum inserta, ascendentia. Fructus globosus v. didymus, styli residuo basilari, pericarpio grumoso lævi v. grosse granulato, endocarpio membranaceo. Semen erectum, globosum, hilo basilari, rapheos ramis a basi ascendentibus ramosis ad situm embryonis convergentibus et reticulatis, albumine æquabili; embryo basilaris.—Palmæ præaltæ, inermes, caudice robusto annulato interdum ceram scatente. Folia numerosa, terminalia, æqualiter pinnatisecta, pinnis ensiformibus acuminatis rigide crasseque coriaceis subtus tenuiter lanatis marginibus basi recurvis, costa tenui, nervis obscuris, vagina fibrosa. Spadices elongati, ramosissimi, ramulis gracilibus flexuosis, floribus ad nodos insertis; spathæ ad 5, inferiores completæ, coriaceæ, sericeo-tomentosæ, ♀ elongatæ; bracteæ sub floribus minutæ, ovatæ, acutæ. Flores majusculi. Baccæ rubræ v. violaceæ, diametro nucis avellanæ.

Species 2, Andium Novæ Grenadæ et Venezuelæ incolæ. *Mart. Hist. Nat. Palm.* iii. 314 (*excl. C. australi*) *et* 188 (*Iriartea andicola*). *H. Wendl. in Bonpland.* 1860, 106. *Drude in Mart. Fl. Bras.* iii. ii. 545. *Engel in Linnæa*, xxxiii. 673 (*Klopstockia*).

48. **Juania,** *Drude in Bot. Zeit.* 1878, 189, nomen tantum.—Flores ♀ in spadice simpliciter ramoso subsolitarii, breviter pedicellati, bracteati, ebracteolati. Fl. ♂ . . . —Fl. ♀: Perianthium post anthesin immutatum. Calyx brevis, 3-lobus, lobis triangularibus acutis, coriaceus, basi intrusus. Petala ovata, acuta, coriacea, striata, basi in tubum breviter connata, imbricata apicibus valvatis. Staminodia 6, filiformia, basi corollæ inserta. Discus 0. Ovarium oblongum, 3-loculare, loculis 2 effœtis; stigmata 3, brevia, recurva; ovula angulo interiori loculorum affixa, pendula. Fructus globosus, stigmatibus subterminalibus, pericarpio crassiusculo grumoso v. carnoso?, endocarpio subcrustaceo intus subrugoso. Semen globosum, basilare, testa pallide brunnea, raphe laterali elevata verticem acutatum seminis attingente, ramis paucis descendentibus, albumine corneo æquabili; embryo subbasilaris.—Palma elegans, gracilis, inermis. Folia terminalia, pinnatisecta, segmentis elongatis anguste ensiformibus acuminatis striato-nervosis subtus argentatis, costa valida, marginibus incrassatis basi recurvis, petiolo gracili furfuraceo-squamoso. Spadix glaber, rhachi valida compressa, ramis strictis crassiusculis flexuosis erectis superioribus gradatim brevioribus, pedunculo basi squamis paucis membranaceis longe acuminatis; spathæ . . . ; bracteæ breves, cum spadice confluentes. Flores parvi, solitarii. Fructus magnitudine *Cerasi*.

Species 1, insulæ Juan Fernandez incola. Genus evidenter *Ceroxylo* affine et forte idem ac *C.? australe*, Mart. Hist. Nat. Palm. iii. 315, et *Morenia Chonta*, Philippi, in Bot. Zeit. 1856, 648.

49. **Malortiea,** *H. Wendl. Ind. Palm.* 28, *nomen*; *et in Bot. Zeit.* 1859, 5.—Flores in eodem spadice interfoliaceo subdigitatim ramoso monoici, in areolis spiraliter sparsis sessiles, 3-ni intermedio ♀, v. superiores solitarii et 2-ni ♂; bracteati et bracteolati. Fl. ♂ symmetrici, conico-ovoidei. Sepala late orbiculata, dure coriacea, imbricata. Petala ovata v. lanceolata, acuta, rigida, valvata. Stamina 6 v. 12, filamentis brevibus subulatis; antheræ lineares, obtusæ, dorsifixæ, basi 2-fidæ. Ovarii rudimentum 3-fidum. Fl. ♀ masculis minores, ovoideæ, acutæ, perianthio post anthesin valde aucto. Sepala orbicularia, concava, dorso rotundata, imbricata. Petala longiora, basi orbicularia, imbricata, apicibus lanceolatis acutis crasse coriaceis valvatis. Staminodia 6, setiformia, basi ovarii adnata. Ovarium ovoideo-trigonum, acutum, incomplete 3-loculare; stigmata subulata, erecta; ovula 3, columnæ centrali basilari late adnata. Fructus parvus, ovoideus v. elongato-ovoideus, apiculatus v. umbonatus, stigmatibus terminalibus, 1-locularis, 1-spermus, pericarpio coriaceo. Semen ellipsoideum, erectum, hilo basilari, raphe ad verticem attingente ramis . . .—Palmæ nanæ, inermes, caudicibus cæspitosis vaginis elongatis foliorum tectis. Folia alterna, suberecta, nunc simplicia apice 2-fida plicato-nervosa marginibus basi cuneata integerrimis superne grosse crenato-dentata sinubus erosis, v. fenestrata v. in segmenta basi angusta marginem versus confluentia fissa, v. in segmenta lata apice præmorsa et crenata divisa, petiolo gracili trigono basi in vaginam reticulatam marginibus fibrosis sensim angustato. Spadix longe graciliterque pedunculatus, erectus, simpliciter ramosus, pedunculo compresso, ramis paucis strictis rigidis angulato-compressis basi bractea rigida lanceolata v. subulata auctis; spathæ 2, pedunculo multo breviores, graciles, membranaceæ; bracteæ bracteolæque rigidæ. Florum glomeruli subremoti. Fructus parvus.

Species 5, Americæ centralis incolæ. *Bot. Mag. t.* 5247, 5291.

50. **Reinhardtia,** *Liebm. in Overs. K. Dansk. Selsk.* 1845, 99, *nomen*; *Mart. Hist. Nat. Palm.* iii. 311.—Flores in eodem spadice interfoliaceo subdigitatim ramoso monoici, in areolis spiraliter sparsis 3-ni intermedio ♀, v. superiores solitarii et 2-ni, bracteati et bracteolati. Fl. ♂ symmetrici, conico-ovoidei. Sepala rotundata, coriacea, nervosa, concava, late imbricata. Petala ovata, acuta, rigida, valvata. Stamina numerosa, in capitulum conferta, filamentis brevibus filiformibus; antheræ lineares, basi bifida affixæ, erectæ. Ovarii rudimentum 0. Fl. ♀ masculis minores, ovoidei, perianthio post anthesin valde aucto. Sepala orbicularia, dorso rotundata, imbricata. Petala multo longiora, basi rotundata, imbricata, supra medium lanceolata acuminata, rigida, valvata. Staminodia 0. Ovarium lanceolatum, 3-gonum, acutum, incomplete 3-loculare; stigmata 3, minuta, erecta; ovula 3, columnæ centrali basilari late adnata. Fructus parvus, ellipsoideus, apiculatus, stigmatibus terminalibus, 1-locularis, 1-spermus, pericarpio coriaceo et fibroso, endocarpio membranaceo. Semen ellipsoideum, erectum, liberum, hilo basilari, raphe ad verticem attingente exsculpto, ramis reticulatis, albumine ruminato; embryo basilaris.—Palmæ inermes, caudice gracili stricto annulato. Folia æqualiter pinnatisecta, segmentis numerosis elongatis anguste lineari-lanceolatis longe gracillimeque acuminatis, costa gracili, nervis plurimis, marginibus basi recurvis, rhachi gracili 3-gona. Spadices longe pedunculati, erecti, simpliciter ramosi, pedunculo rigido compresso stricto, ramis strictis rigidis erecto-patentibus compresso-angulatis, basi bractea rigida lanceolata auctis; spatha (una tantum visa) elongata, angusta, compressa, 2-carinata, ventre fissa, coriacea, spadicem æquans; bracteæ et bracteolæ rigidæ. Florum glomeruli subremoti.

Species nobis notis 3, omnes Mexicanæ, quarum 2 a Liebmannio missæ fl. ♀ carent, tertia (coll. Jurgensen, n. 760) fl. ♀ immaturos præbet.—Genus *Malortieæ* valde affine, differt staminibus, habitu, et foliis pinnatisectis segmentis longe acuminatis.

51. **Heterospatha,** *Scheff. in Ann. Jard. Bot. Buitenz.* i. 141, 162.—Flores in eodem spadice interfoliaceo ramosissimo monoici, spiraliter dispositi, 3-ni intermedio ♀ v. superiores 2-ni ♂, obscure bracteati et bracteolati. Fl. ♂ asymmetrici, compressi. Sepala parva, subrotunda, basi gibba, imbricata. Petala ovata, subacuta, valvata.

Stamina 6, filamentis filiformibus ima basi connatis apicibus inflexis; antheræ lineares, dorsifixæ, utrinque 2-fidæ, versatiles. Ovarii rudimentum columnare, 3-gonum. Fl. ♀ masculos subæquantes, ovoidei, perianthio post anthesin parum aucto. Sepala reniformia, late imbricata. Petala paullo longiora, orbicularia, convolutivo-imbricata, apicibus acutatis conniventibus. Staminodia 6, setiformia. Ovarium oblongum, 1-loculare; stigmata parva, recurva; ovulum parietale, pendulum. Fructus pisiformis, stigmatibus excentricis, pericarpio grumoso non fibroso intus lævi. Semen globosum, erectum, liberum, hilo basilari, raphe elongata, ramis a chalaza descendentibus reticulatis, albumine modice ruminato; embryo basilaris.—Palma elata, inermis. *Folia* terminalia, longe petiolata, æqualiter pinnatisecta, segmentis numerosis lanceolatis utrinque attenuatis acuminatis 1-nerviis, marginibus incrassatis basi recurvis, rhachi dorso rotundata facie angusta plana, vagina brevi fibrosa basi tumida. Spadix decompositus, ramis crassis, ramulis divaricatis; spathæ 2, inferiore 2-cristata, superiore multo longiore. Flores mediocres.

Species 1, Amboynensis.

52. **Nephrosperma,** *Balf. fil. in Baker Fl. Maurit.* 386.—Flores in eodem spadice interfoliaceo simpliciter ramoso monoici, spiraliter dispositi, 3-ni intermedio ♀, obscure bracteati et bracteolati. Fl. ♂ symmetrici. Sepala crassa, orbicularia, concava, basi gibba, late imbricata. Petala sepalis vix duplo longiora, ovato-oblonga, obtusa, crassiuscula, valvata. Stamina perplurima, in capitulum densum coacervata, filamentis crassiusculis interioribus longioribus; antheræ breves, apici filamenti dilatato late adnatæ, subhorizontales. Ovarii rudimenta 1–2, minuta, ovoidea. Fl. ♀ masculis minores, subglobosi, perianthio post anthesin modice aucto. Sepala orbiculata, coriacea, late imbricata. Petala paullo longiora, orbicularia, convolutivo-imbricata, apicibus acutatis conniventi-valvatis. Staminodia minuta, squamiformia. Ovarium ellipsoideum, 1-loculare; stigma crassum, sessile, conoideum, 3-fidum; ovulum parietale, pendulum. Fructus globosus, lævis, stigmate laterali, pericarpio tenuiter carnoso et fibroso, endocarpio tenuiter crustaceo. Semen globosum, suberectum, liberum, hilo oblongo subbasilari, rapheos ramis a margine hili ascendentibus liberis demum laxe reticulatis semen amplectentibus, albumine profunde ruminato; embryo supra-basilaris.—Palma mediocris, armata, caudice annulato et longe spinoso. *Folia* terminalia, inæqualiter pinnatisecta, segmentis acuminatis, aliis latioribus plurinerviis cum angustioribus 1-nerviis alternantibus, terminalibus confluentibus, nervis subtus paleaceis, petiolo lævi rachique spinosis, vagina late fissa spinosa, marginibus membranaceis. Spadix elongatus, pedunculo elongato erecto compresso, basi bracteis 2–3 tomentosis aucto, ramis cernuis; spathæ 2, inferiore spinosa persistente, superiore decidua. Flores majusculi. Fructus semipollicares, rubri.

Species 1, insularum Seychelles incola.

53. **Iguanura,** *Blume, Rumph.* ii. 105, *t.* 117. (Slackia, *Griff. Notul.* iii. 162; *Ic. Pl. Asiat. t.* 243; *Palm. Brit. Ind.* 161, *t.* 234.)—Flores in eodem spadice interfoliaceo simplici v. paniculatim ramoso monoici, spiraliter dispositi, 3-ni internedio ♀, v. superiores solitarii et 2-ni ♂, bracteati et bracteolati. Fl. ♂ symmetrici. Sepala orbicularia, crasse coriacea, basi gibba v. carinata, late imbricata. Petala ovata v. lanceolata, acuta, ima basi connata, valvata. Stamina 6, rarius 9, filamentis subulatis basi connatis apice rectis v. inflexis; antheræ oblongæ v. sagittatæ, dorsifixæ, versatiles. Ovarii rudimentum 3-gonum. Fl. ♀ masculis minores, subglobosi, perianthio post anthesin paullo aucto. Sepala orbicularia, concava, basi gibba, late imbricata. Petala paullo longiora, orbicularia, convolutivo-imbricata, apicibus acutatis conniventibus. Staminodia 6, dentiformia. Ovarium ovoideum v. oblongum, teres v. gibbum, obtuse 3-gonum, 1-loculare, v. 2–3-loculare loculis 2 effœtis; stigmata 3, sessilia, trigona; ovulum parietale. Fructus obovoideus v. oblongus, stigmatibus subbasilaribus, pericarpio carnoso et fibroso, endocarpio chartaceo. Semen oblongum v. obovoideum, suberectum, hilo laterali, rapheos ramis ab

hilo ascendentibus dein decurvis reticulatis, albumine ruminato v. æquabili; embryo basilaris.—Palmæ humiles, inermes, caudicibus arundinaceis annulatis. Folia terminalia, integra demum æqualiter pinnatisecta, segmentis membranaceis latis acuminatis præmorso-dentatis v. fissis plurinerviis, summis confluentibus, marginibus tenuibus basi recurvis, petiolo gracili rhachique glabris v. furfuraceis, vagina aperta v. basi integra. Spadices longe pedunculati, ramis paucis gracilibus patentibus; spathæ 2, spadice multo breviores, persistentes, tubulosæ, inferiore 2-cristata, superiore supra medium aperta; bracteæ foveolas marginantes, bracteolæ squamiformes. Flores et fructus parvi.

Species 4 v. 5, Archipelagi Malayani incolæ. *Mart. Hist. Nat. Palm.* iii. 229, 317, *t.* 178. *Kunth, Enum. Pl.* iii. 643. *Miq. Fl. Ind. Bat.* iii. 43, 749. *H. Wendl. in Bot. Zeit.* 1859, 63. *Scheff. in Ann. Jard. Bot. Buitenz.* i. 141, 161. Huc pertinet *Areca Wallichiana*, Mart. in Wall. Cat. n. 8600.

54. **Stevensonia**, *Duncan, Cat. Hort. Maurit.* 87, *nomen.* (Phœnicophorium, *Wendl. in Ill. Hort.* xii. *t.* 433; *Misc.* 5.)—Flores in eodem spadice interfoliaceo duplicato-ramoso monoici, spiraliter dispositi, 3-ni intermedio ♀, v. superiores 2-ni ♂, ebracteati et ebracteolati. Fl. ♂ asymmetrici, ovoideo-3-goni. Sepala 3, brevissima, reniformia, imbricata. Petala ovata, acuta, coriacea, valvata. Stamina 15–20, basi perianthii inserta, filamentis subulatis; antheræ lineari-oblongæ, utrinque longe 2-fidæ, dorsifixæ, demum versatiles. Ovarii rudimentum varium. Fl. ♀ masculis minores, globosi, perianthio post anthesin paullo aucto. Sepala 3, orbicularia, concava, crasse coriacea, late imbricata. Petala paullo longiora, rotundata, convolutivo-imbricata, apicibus acutatis subvalvatis. Staminodia 0 (in cupulam dentatam connata, *Balf.*). Ovarium ovoideum, 1-loculare; stigma mitriforme, 3-fidum, sessile; ovulum parietale. Fructus parvus, ellipsoideus, ventre planiusculo, dorso subcarinato, stigmate subbasilari, pericarpio crasse fibroso, endocarpio crustaceo. Semen suberectum, liberum, ovoideum, hilo lato subbasilari, rapheos ramis ab hilo ascendentibus ramosis gracillimis laxe reticulatis, albumine profunde ruminato; embryo subbasilaris.—Palma elata, tota aculeata v. demum fere inermis, caudice annulato. Folia terminalia, patenti-recurva, lamina cuneato-obovata convexa 2-fida basi obliqua plicato-nervosa, margine fissa, segmentis incisis, costis validis nervisque subtus paleaceis, petiolo plano-convexo, vagina alte fissa squamosa et aculeata. Spadix erectus, pedunculo elongato basi compresso, ramis crassiusculis; spathæ 2, inferiore persistente aculeata, superiore clavata inermi lignosa decidua. Flores mediocres. Fructus parvus, croceus.

Species 1, insularum Seychelles incola. *Balf. fil. in Baker Fl. Maurit.* 388.

55. **Verschaffeltia**, *Wendl. in Ill. Hort.* xii. *Misc.* 5. (Regelia, *Hort.*)—Flores minuti, in eodem spadice interfoliaceo decomposite ramoso monoici, spiraliter dispositi, sparsi v. 3-ni intermedio ♀, ebracteati et ebracteolati. Fl. ♂ globosi. Sepala orbicularia, concava, late imbricata. Petala vix longiora, late ovata, acuta, valvata. Stamina 6, filamentis brevissimis crasse subulatis; antheræ medio dorso affixæ, didymæ, loculis medio tantum connatis, rimis lateralibus. Ovarii rudimentum breve, clavatum, vertice dilatato truncato 3-gono. Fl. ♀ masculis majores, globosi, perianthio post anthesin fere immutato. Sepala orbicularia, concava, crasse coriacea, basi gibba, late imbricata. Petala paullo longiora, subæqualia, crasse coriacea, imbricata. Staminodia 6, triangulari-subulata, antheris minutis cassis. Ovarium ovoideum, demum oblique globosum; stigma laterale; ovulum parietale. Fructus globosus, lævis, stigmate subbasilari, pericarpio duro carnoso, endocarpio crustaceo carinis percurso. Semen erectum, globosum, sulcatum, hilo basilari orbiculari, rapheos ramis ab hilo ascendentibus reticulatis semen circumdantibus, albumine duro profunde ruminato; embryo subbasilaris.—Palma elata, tota armata v. demum inermis, caudice gracili annulato radicibus epigæis sustentato. Folia terminalia, recurva, lamina oblonga v. cuneato-obovata 2-fida plicato-nervosa, interdum fere ad rhachin laciniata segmentis incisis, costa nervisque validis subtus paleaceis, petiolo semitereti, vagina elongata alte fissa furfuracea. Spadix 3–6-pedalis, paniculatim ramosus, longe

pedunculatus, decurvus, furfuraceus, rhachi elongata, ramis patentibus ramulisque gracilibus; spathæ 2–3, elongatæ, vaginantes, inferiore persistente, superioribus deciduis. Flores perpusilli. Fructus pollicaris.

Species 1, insularum Seychelles incola. *Balf. fil. in Baker Fl. Maurit.* 387.

56. **Dypsis,** *Noronh. in Thou. Prod. Phytol.* 2, *nomen*; *Mart. Hist. Nat. Palm.* iii. 180, 312, *t.* 143, 158, *f.* 1, 2, 161, *f.* 5.—Flores minuti, in eodem spadice paniculatim ramoso monoici, 3-ni intermedio ♀ v. solitarii et 2-ni ♂, bracteati et bracteolati. Fl. ♂ asymmetrici. Sepala membranacea, orbicularia, late rotundata. Petala ovata, acuta, valvata. Stamina 6, filamentis linearibus basi connatis; antheræ didymæ, dorsifixæ, loculis subdistinctis. Ovarii rudimentum 0. Fl. ♀ masculis minores, subglobosi, perianthio post anthesin vix aucto. Sepala membranacea, orbicularia, cucullata, late imbricata. Petala paullo longiora, rotundata, convolutivo-imbricata, apicibus acutatis conniventi-valvatis. Staminodia 6, dentiformia. Ovarium obliquum, 1- v. 2–3-loculare, loculo unico fertili; stigmata sublateralia, subsessilia, recurva; ovulum parietale. Fructus parvus, oblongus v. ovoideus, rectus v. curvus, basi obliquus, stigmatibus basilaribus, pericarpio grumoso tenui, endocarpio fibroso testæ adhærente. Semen obovoideum, basi acutum, hilo laterali, testa fusca, rapheos ramis obscuris, albumine ruminato; embryo dorsalis.—Palmæ parvulæ, inermes, caudice arundinaceo. Folia terminalia, integra, apice 2-fida, v. demum findenda, v. pinnatisecta, segmentis apice fissis v. præmorso-dentatis, terminalibus sæpe confluentibus, vagina brevi. Spadices elongati, laxe floriger; spathæ 2, inferiore compresso-ancipiti, superiore longiore apice fissa; bracteæ rhachi adnatæ, bracteolæ membranaceæ.

Species enumeratæ 5 v. 6, omnes Madagascarienses, quarum una tantum bene descripta. Descriptio pro maxima parte ex Martio.

57. **Phloga,** *Noronh. in Thou. Prod. Phytol.* 2 (*nomen*).—Flores minuti, in eodem spadice paniculatim ramoso interfoliaceo? monoici, spiraliter dispositi, 3-ni intermedio ♀ v. superiores solitarii et 2-ni ♂, minute bracteati et bracteolati. Fl. ♂ subsymmetrici. Sepala orbicularia, crasse coriacea, concava, imbricata. Petala paullo longiora, elliptica, subacuta, coriacea, valvata. Stamina 6, filamentis in columnam crassam apice 6-dentatam basi petalorum adnatam confluentibus; antheræ minutæ, didymæ, loculis subglobosis, connectivo crassiusculo. Ovarii rudimentum 0. Fl. ♀ masculis minores, ovoidei, perianthio post anthesin paullo aucto. Sepala rotundata v. reniformia, concava, coriacea, late imbricata. Petala paullo longiora, basi lata convolutivo-imbricata, apicibus triangularibus valvatis. Staminodia 0. Ovarium oblongum, 1-loculare; stigma sessile, 3-fidum; ovulum . . . Fructus immaturus oblongus, incurvus, vertice rotundato, stigmate basilari, pericarpio crasso. Semen . . .—Palma inermis, densa, fruticosa. Folia pinnatisecta, segmentis distichis fasciculatis, fasciculis distantibus v. oppositis quaquaversis et quasi verticillatis, v. solitariis, oblanceolatis longe acuminatis plurinerviis, marginibus basi forte recurvis et in tuberculum in sicco lobulatum desinentibus, rhachi gracili teretiuscula furfuracea. Spadix patens, pedunculo brevi compresso angulato, rhachi breviuscula, ramis fructiferis gracilibus patentibus; spathæ . . . ; bracteæ et bracteolæ squamiformes. Flores inter minimos. Fructus ut videtur parvulus.

Species 1, Madagascariensis. *Dypsis nodifera*, Mart. Hist. Nat. Palm. iii. 312.

58. **Sommiera,** *Beccari, Malesia* i. 66.—Flores minuti, in eodem spadice interfoliaceo digitatim ramoso monoici, spiraliter dispositi, 3-ni intermedio ♀, bracteati et bracteolati. Fl. ♂ symmetrici, globosi. Sepala rotundata, acute carinata, subscariosa, imbricata. Petala brevia, ovata, acuta, tenuia, valvata. Stamina 6, filamentis brevibus subulatis basi connatis; antheræ oblongæ, dorsifixæ, versatiles. Ovarii rudimentum minutum. Fl. ♀ masculis multo minores, perianthio post anthesin parum aucto. Sepala reniformia, late imbricata. Petala paullo longiora, orbicularia, convolutivo-imbricata, apicibus acutatis conniventi-valvatis. Staminodia minuta. Ovarium ovoideum?; stigmata crassiuscula, reflexa; ovulum basilare?. Fructus parvus, globosus, stigmatibus basilaribus, pericarpio corticato cortice suberoso angulato-echinato, endocarpio crustaceo

fragili, intus rapheos ramis notato. Semen globosum, erectum, liberum, testa brunnea, hilo basilari, rapheos ramis ab hilo ad verticem seminis ascendentibus dein descendentibus ramosis et reticulatis, albumine æquabili; embryo basilaris.—Palmæ humiles, inermes, caudice brevi annulato. Folia terminalia, elongato-cuneato-oblonga, profunde bifida, plicato-nervosa, loborum apicibus crenatis, rhachi dorso convexa facie acuta, petiolo elongato furfuraceo dorso convexo facie concavo marginibus acutis, vagina aperta marginibus fibrosis. Spadix longe graciliterque pedunculatus, ramis simplicibus gracilibus densifloris furfuraceis; spathæ completæ 2, membranaceæ, inferiore longe tubulosa, superiore sub ramis inserta 2-partita, lacera; bracteæ breves, spadici adnatæ, bracteolæ squamiformes, in cupulam brevem dispositæ. Flores ♂ exacte spherici. Fructus piso majores, pallidi.

Species 2, Papuanæ. Fructus pericarpium *Manicariam* simulat.

59. **Chamædorea,** *Willd. Sp. Pl.* iv. 638. (Nunnezharia, *Ruiz et Pav. Prod. Fl. Per. et Chil.* 147, *t.* 31. Nunnezia, *Willd. Sp. Pl.* iv. 1154.)—Flores dioici (rarissime in spadicibus diversis monoici), in spadicibus simplicibus v. ramis spadicis paniculatim ramosi inter- v. infra-foliacei sessiles v. subimmersi, parvi v. minuti, ebracteati et ebracteolati, carnosuli. Fl. ♂: Calyx pateriformis v. cupularis, integer 3-lobus v. rarius 3-partitus. Petala 3, libera v. in cupulam v. urceolum connata, v. basi in stipitem solidum contracta, lobis segmentisve valvatis. Stamina 6, basi corollæ inserta, filamentis brevibus latiusculis v. subulatis; antheræ dorsifixæ, inclusæ, didymæ v. oblongæ. Ovarii rudimentum columnare v. obsoletum. Fl. ♀: Calyx maris. Petala sæpius in corollam gamopetalam connata, valvata v. imbricata. Staminodia 6, minuta v. 0. Ovarium obovoideum, globosum v. depressum, 3-loculare; stigmata minuta, recurva; ovula in loculis solitaria, basilaria, erecta. Fructus parvus, e carpellis 1-3 globosis v. oblongis obtusis, stigmatum residuis basilaribus, pericarpio coriaceo v. carnoso intus lævi vix fibroso. Semen erectum, globosum v. ellipsoideum, hilo parvo basilari, raphe exsculpta ramis obscuris, albumine cartilagineo æquabili; embryo basilaris v. dorsalis.—Palmæ inermes, erectæ v. procumbentes, rarius ope pinnarum scandentes, caudicibus solitariis v. cæspitosis annulatis gracilibus v. arundinaceis. Folia simplicia et apice 2-fida v. varie æqualiter pinnatisecta, laciniis latis v. angustis rectis v. obliquis acuminatis plicato-nervosis, basi sæpe callosis, marginibus basi reduplicatis v. recurvis, petiolo sæpe cylindraceo, vagina tubulosa brevi v. elongata, ore obliquo. Spadices inter- v. infra-foliacei, simplices v. paniculatim ramosi, erecti v. patentes, pedunculo brevi v. elongato, ramis laxi- v. densifloris. Spathæ 3 v. plures, sæpius alternæ, pedunculum vaginantes, elongatæ, apice fissæ, membranaceæ v. coriaceæ, plus minusve persistentes. Flores ♀ non raro minutissimi.

Species ad 60, sylvis montium Americæ tropicæ occidentalis a Mexico ad Panama incolæ. *Mart. Nat. Hist. Palm.* ii. 3, *t.* 3, iii. 157, 307, *t.* 126 *ad* 138; *Palm. Orbign.* 4, *t.* 6, *f.* 1 (*Hyospathe*) *et t.* 16 A, B. *Kunth, Enum. Pl.* iii, 170. *H. Wendl. Ind. Palm.* 57; *et in Bot. Zeit.* 1859, 29, 102; *in Bonplaud.* 1862, 37; *et in Gartenfl.* 1880, 101. *Drude in Mart. Fl. Bras.* iii. ii. 527, *t.* 125. *Jacq. Hort. Schœnb.* ii, *t.* 247, 248 (*Borassus*). *Otto, Gartenzeit.* 1834, 145, 153, *t.* 6. *Bot. Mag. t.* 4831, 4837, 4845, 6030 *et* 6038 (*Nunnezharia*), 5492 (*Morenia*). Genera et subgenera sequentia a Liebmannio in Overs. K. Dansk. Selsk. Forhandl. 1858, et ab Œrstedio in Vid. Meddel. Nat. Foren. Kjobenh. 1845, aliisque proposita, omnia pro sectionibus *Chamædoreæ* habenda.

1. *Collinia*, Liebm. l. c.; Œrst. l. c. Fl. ♂: Calyx cupularis, 3-fidus. Corolla multo major, stipitata, globosa, 3-fida. Fl. ♀: Calyx maris. Corolla ovoidea. Folia pinnata. Spadices interfoliacei, pedunculo longissimo ramis gracilibus, floribus distichis remotis. *C. elegans*, Mart. *C. elatior*, Liebm.

2. *Eleutheropetalum*, H. Wendl. Ind. Palm. 58, subgenus; Œrst. l. c. 6, t. 3. Fl. ♂: Calyx membranaceus, patelliformis, 3-fidus. Corolla globosa, stipitata, 3-partita. Fl. ♀: Calyx 3-partitus, segmentis orbicularibus membranaceis. Petala 3, oblonga, valvata. Staminodia 6. Carpella basi libera. Folia subsimplicia v. pinnata. Spadices interfoliacei, ♂ ramosissimi, ♀ simplices v. parce ramosi; fl. ♂ ramis sessilibus.—*C. Ernesti-Augusti*, H. Wendl. *C. Sartorii*, Liebm.

3. *Stachyophorbe*, Liebm. mss.; Œrst. l. c. 9, t. 4. Fl. ♂: Calyx cupularis, membranaceus, 3-lobus. Corolla multo major, obovoidea, 3-partita, stipitata, carnosa. Fl. ♀; Calyx maris. Corolla ovoidea, substipitata, 3-partita, segmentis carnosis marginibus membranaceis. Carpella matura 1-3

Folia pinnata. Spadices ♂, ramis declinatis; ♀ simplices, longe pedunculati. *C. cataractarum*, H. Wendl. *C. oreophila*, Mart. *C. pygmæa*, H. Wendl. *C. montana*, Liebm.

4. *Chamædorea*, Willd. (Char. reform.), Œrst. l. c., t. 10. Fl. ♂: Calyx patelliformis, 3-lobus. Corolla multo major, globosa v. oblonga, 3-partita, stipitata, segmentis liberis v. connatis. Fl. ♀: Calyx cupularis v. patelliformis, 3-lobus, virescens. Corolla 3-partita, segmentis imbricatis. Folia pinnata, rarissime integra. Spadices inter- v. infra-foliacei, ramosi, longe pedunculati; flores minuti, ♀ minutissimi.

α. *Euchamædorea*, Œrst. l. c. 11. Fl. ♀ immersi, depresso-conici, calycis lobis conniventibus, petalis sæpius subreniformibus ovarium amplectentibus. Spadices infrafoliacei, erecto-patentes. *C. pinnatifrons*, Jacq. (*Borassus*). *C. Bartlingiana*, H. Wendl. *C. lanceolata*, Ruiz et Pav. (*Nunnezharia*), &c.

β. *Chamædoropsis*, Œrst. l. c. 15. Fl. ♀ non immersi. Petala rotundata, ovarium amplectentia. Folia pinnata, pinnis basi callosis. Spadices infrafoliacei. *C. elatior*, Mart. *C. desmoncoides*, H. Wendl. *C. montana*, Liebm. *C. lunata*, Liebm. &c.

γ. *Chamædorella*, Œrst. l. c. 23. Fl. ♀ ovoidei, non immersi. Calyx virescens. Petala ovata, laxa. Spadices ♂ simpliciter ramosi, ramis pendulis; ♀ duplicato-ramosi, ramis tenuissimis patentibus. Folia glaucescentia. *C. lepidota*, H. Wendl. *C. brachyclada*, H. Wendl.

δ. *Psilostachys*, Œrst. l. c. 24, t. 5. Fl. ♂: Calyx minutissimus, membranaceus. Corolla stipitata, segmentis apice coadunatis. Fl. ♀ scrobiculis subimmersi, masculis 2–3-plo minores. Folia simplicia, furcata, brevissime petiolata. Spadices inter- v. infra-foliacei, longe pedunculati, ♂ ramosi ramis pendulis, ♀ simplices v. pauci-ramosi, ramis erectis carnosis. *C. geonomæformis*, H. Wendl.

ε. *Nunnezharia*, Œrst. l. c. 24. Fl. ♂ globosi. Calyx cupularis, 3-partitus. Corolla obovoideo-globosa, vix stipitata, segmentis apice liberis. Antherarum loculi sejuncti. Fl. ♀ masculis subæquales. Calyx maris. Petala 3, orbicularia. Staminodia 0. Folia simplicia furcata. Spadices ♂ et ♀ subsimiles, ramosi, pedunculis brevibus. *C. fragrans*, Mart. (*Nunnezharia*, R. et P.).

ζ. *Dasystachys*, Œrst. l. c. 25, t. 6. Stachyophorbe, Klotzsch in Allgemein. Gartenz. 1853, 363. Flores hexagoni, scrobiculis 8-seriatis congesti; ♂: Calyx annularis, 3-lobus, membranaceus. Petala carnosula, conniventia. Antheræ minutæ, filamentis planiusculis. Fl. ♀: Calyx cupularis, membranaceus, crenulatus, multilobus. Petala subreniformia, convolutivo-imbricata. Staminodia 5–6. Ovarium elongato-ovoideum. Folia simplicia, furcata. Spadices 1–3-ni, erecti, inter- et infra-foliacei. *C. Deckeriana*, Kl.

η. *Stephanostachys*, Klotzsch in Allg. Gartenzeit. 1852, 363; Œrst. l. c. 26, t. 7, f. 1–28. Flores depressi v. subglobosi; ♂ 4-goni. Calyx minutissimus. Corolla 3-partita, segmentis subcarnosis conniventibus. Fl. ♀; Calyx 3-partitus. Petala 3, rotundata, convolutivo-imbricata. Ovarium subglobosum. Folia pinnata. Spadices simpliciter ramosi, densiflori, ramis ♂ pendulis, ♀ erectis, pedunculo brevi. *C. Caspariana*, Kl. *C. Martiana*, H. Wendl., &c.

θ. *Spathoscaphe*, Œrst. l.c. 29, t. 7, f. 29–37. Fl. ♂ oblongo-obovoidei, basi compressi. Calyx breviter tubulosus, membranaceus. Corolla stipitata, segmentis oblongis. Fl. ♀ . . . Folia maxima, pinnata. Spadices infrafoliacei, densiflori, pedunculo brevi; ♂ ramis subumbellatis simplicibus pendulis, ♀ simplices v. ramis paucis erectis crassis. Spathæ coriaceo-chartaceæ, summa cymbæformi ventre aperta. *C. Arenbergiana*, H. Wendl.

Morenia, *Ruiz et Pav. Prod. Fl. Per. et Chil.* 150, *t.* 32, a *Chamædorea* separata fuit ob calycem in fl. ♂ planum 3-dentatum et petala late ovata. *Kunth, Enum. Pl.* iii. 174. *Mart. Hist. Nat. Palm.* iii. 161, *t.* 140, 141; *Palm. Orbign.* 6, *t.* 3, 16 C. *Karst. in Linnæa*, xxviii. 274; *Fl. Colomb.* ii. 135, *t.* 171. *Traill in Trim. Journ. Bot.* 1876, 331.

Kunthia, *Humb. et Bonpl. Pl. Æquin.* ii. 128, *t.* 122 (quæ *C. Lindeniana*, H. Wendl.), non a *Chamædorea* differt nisi floribus in distinctis spadicibus monoicis, aliis ♀, aliis ♂ ovario rudimentario præditis. *Kunth, Enum. Pl.* iii. 175, *Mart. Hist. Nat. Palm.* ii. *t.* 101, *f.* 6, 7, iii. 163, *t.* 142.

Wendland, Ind. Palm. 57, subgenera *Chamædoreæ* 4 agnoscit:—

1. *Collinia*, Mart. l. c. Corolla ♂ et ♀ apice 3-dentata, dentibus valvatis.
2. *Eleutheropetalum*, H. Wendl. l. c. 58. Corolla ♂ 3-partita, ♀ 3-partita, utraque valvata.
3. *Euchamædorea*, Mart. l. c. 58. Corolla ♂ 3-partita, valvata; ♀ 3-petala, convolutivo-imbricata.
4. *Stephanostachys*, Klotzsch in Allg. Gartenzeit. 1852, 363. Corolla ♂ 3-partita, ♀ 3-petala, utraque convolutivo-imbricata.

Nomine generico Pavoniano jure prioritatis gaudet, sed Willdenowianum, jam diu ab omnibus botanicis hortulanisque acceptum, non hodie rejiciendum. Confer etiam de his nominibus Drude in Mart. Fl. Bras. iii. ii. 528.

60. **Synechanthus,** *H. Wendl. in Bot. Zeit.* 1858, 145. (Reineckia, *Karst. in Koch, Wochenschr.* i. 349. Rathea, *Karst. l.c.* i. 377, ii. 15.)—Flores minuti, in ramis gracillimis ejusdem spadicis interfoliacei monoici, in acervulos elongatos alternos 1–2-seriatim dispositi, superiores in acervulo ♂ infimo ♀, ebracteati et ebracteolati. Fl. ♂ trigono-hemisphærici. Calyx cupularis, carnosulus, 3-lobus. Petala 3, basi connata, late ovata, concava, patula, valvata. Stamina 3 v. 6, basi corollæ inserta, filamentis brevibus subulatis; antheræ globoso-didymæ, dorsifixæ. Ovarii rudimentum subglobosum. Fl. ♀ masculos subæquantes, hemisphærici; perianthio post anthesin immutato. Calyx maris. Petala 3, orbicularia, convolutivo-imbricata. Staminodia 0, v. 3 minutissima. Ovarium globosum, 3-loculare; stigmata sessilia, minutissima; ovula in loculis erecta. Fructus ellipsoideus, 1-spermus, stigmatibus basilaribus, pericarpio tenuiter carnoso et fibroso, endocarpio membranaceo. Semen erectum, liberum, ellipsoideum, hilo parvo basilari, raphe sigmoidea ramis obscuris, albumine æquabili; embryo infra-apicalis.—Palmæ inermes, gregariæ, caudice gracili annulato sæpe stolonifero. Folia terminalia, æqualiter pinnatisecta, segmentis latis v. angustis membranaceis acuminatis plicato-nervosis sæpe interruptis, marginibus basi recurvis, rhachi dorso convexa facie alte carinata, petiolo supra canaliculato, vagina brevi aperta. Spadices plures, longe graciliterque pedunculati, floriferi erecti, ramis strictis compressis v. ancipitibus; spathæ plures, tubulosæ, membranaceæ, persistentes. Flores virides v. ♂ purpurascentes. Fructus rubrocroceus v. vitellinus, nitidus.

Species 2, Americæ centralis incolæ, et tertia Columbiana. *Bot. Mag. t.* 6572. Spadices ex Wendlandio infrafoliacei, et albumen ruminatum, sed in *S. fibroso* solo nobis noto certe spadices interfoliacei et albumen æquabile.

61. **Gaussia,** *H. Wendl. in Gœtt. Nachricht.* 1805, 327.—Flores minuti, in ramis filiformibus ejusdem spadicis interfoliaceis duplicatim ramosi monoici, in acervulos elongatos alternos distichos 1-seriatim dispositi, superiores in acervulis ♂ infimo ♀. *Fl.* ♂. . . *Fl.* ♀ perianthio post anthesin fere immutato. Sepala 3, transverse oblonga, imbricata. Petala 3, late ovata, marginibus late valvatis. Ovarium . . . Fructus carpella 1–3, parva, ellipsoidea v. obovoidea, paullo curva, stigmatibus basilaribus, pericarpio carnosulo et parce fibroso. Semen subglobosum v. ellipsoideum, erectum, hilo basilari, rapheos ramis perpaucis arcuatis subramosis descendentibus, albumine æquabili; embryo supra-basilaris.—Palma mediocris, inermis, caudice inferne incrassato, superne valde attenuato. Folia pinnatisecta, pinnis confertis anguste linearibus rectis acutis apicibus incrassatis integerrimis v. 2-fidis rigidulis striatis marginibus incrassatis basi recurvis, costa valida striatonervosa, rhachi tomentosa superne acuta. Spadix longe pedunculatus, patentim ramosus, recurvo-patens, ramis elongatis; spathæ plures, cylindraceæ, pedunculum vaginantes, fissæ, coriaceæ. Fructus parvus, purpureus.

Species 1, Cubæ incola.—Genus imperfecte notum, ex Wendlandio a *Synechantho* differt albumine æquabili, sed albumen in hoc certe æquabile est.

62. **Hyophorbe,** *Gærtn. Fruct.* ii. 186, *t.* 120. (Sublimia, *Comm. mss.*)—Flores minuti, in eodem spadice infrafoliaceo paniculatim ramoso monoici, in acervulos elongatos uniseriatim dispositi, ♂ in acervulis plurimi, ♀ ad basin acervuli pauci, ebracteati et ebracteolati. Fl. ♂ symmetrici. Sepala 3, membranacea, in cupulam 3-lobam connata, basi gibba, leviter imbricata. Petala brevia, late ovata, concava, crassiuscula, basi connata, valvata. Stamina 6, filamentis brevibus subulatis, basi inter se et basi corollæ adhærentibus; antheræ oblongæ, dorsifixæ, versatiles, loculis medio tantum connatis. Ovarii rudimentum columnare. Fl. ♀ masculis minores, perianthio post anthesin paullo aucto. Sepala orbicularia, breviter connata, imbricata. Petala paullo longiora, late ovata, valvata. Staminodia 6, minuta. Ovarium ovoideum, 3-loculare, loculis 2 effœtis; stigmata late trigona, erecta; ovulum parietale, pendulum. Fructus pyriformis v. oliviformis, rectus v. curvus, basi gibbus v. 2-gibbus, stigmatibus subbasilaribus, pericarpio coriaceo v. subcarnoso et fibroso, endocarpio membranaceo. Semen ellipsoideum, ascendens, hilo minuto basilari, rapheos ramis paucis ascendentibus furcatis divaricatis, albumine æquabili; embryo

lateralis v. infra apicalis.—Palmæ inermes, robustæ, caudice cylindraceo v. infra medium v. interrupte incrassato, annulato. Folia terminalia, æqualiter pinnatisecta, pinnis suboppositis lineari-lanceolatis acuminatis plicato-nervosis, marginibus incrassatis basi recurvis, petiolo subcylindraceo facie leviter canaliculato, basi 3-gono, vagina magna ventricosa integra. Spadices breviter pedunculati, vage duplicatim ramosi, ramis gracilibus patulis; spathæ numerosæ, distiche imbricatæ. Flores pallidi, flavidi v. virides. Fructus parvus, croceus v. cæruleus.

Species 3, insularum Mascarensium incolæ. *Balf. fil. in Baker, Fl. Maurit.* 382. *Mart. Hist. Nat. Palm.* iii. 164, 309, *t.* 143, *f.* 1, 154. *Kunth, Enum. Pl.* iii, 175. *H. Wendl. in Ill. Hortic.* xiii. *t.* 462, 463.

63. **Roscheria,** *H. Wendl. in Baker, Fl. Maurit.* 386.—Flores minuti, in ramis gracillimis ejusdem spadicis interfoliacei decomposite ramosi monoici, sparsi, solitarii v. 2-ni altero ♂ altero ♀, ebracteati et ebracteolati. Fl. ♂ symmetrici, teretiusculi. Sepala suborbicularia, obtusa, concava, crassiuscula, imbricata. Petala late ovata, subacuta, valvata. Stamina 6, filamentis brevibus triangularibus acutis in tubum brevem connatis; antheræ late didymæ, dorsifixæ. Ovarii rudimentum obconico-clavatum, vertice dilatato trigono plano. Fl. ♀ masculis majores, subglobosi, perianthio post anthesin aucto. Sepala subreniformia, arcte late imbricata. Petala longiora, orbicularia, convolutivo-imbricata. Staminodia obscura v. 0. Ovarium ovoideum v. ellipsoideum, in stigma conoideum 3-fidum sensim attenuatum, 1- rarius 2–3-loculare; ovulum parietale, pendulum. Fructus fusiformis, 1- rarissime 2-spermus, stigmate subbasilari; pericarpio tenuiter carnoso et fibroso, endocarpio crustaceo intus nitido. Semen oblique ascendens, globosum v. ellipsoideum (in fructibus 2-spermis hemisphæricum), hilo parvo orbiculari basilari, rapheos ramis ab hilo divaricatis laxe reticulatis, albumine profunde ruminato; embryo hilo proximus.—Palma gracilis, erecta, caudice ad nodos spinoso radicibus epigæis sustentato. Folia terminalia, longe petiolata, primum 2-fida, demum inæqualiter pinnatisecta, segmentis numerosis lineari-lanceolatis apice 2-fidis, nervis numerosis subtus paleaceis, petiolo inermi subtrigono antice sulcato, vagina elongata aculeata. Spadix 2–6-pedalis, pedunculo elongato gracili compresso, ramis gracilibus subsimplicibus divaricatis; spathæ plures, completæ, angustæ, compressæ, inermes, 2 inferiores persistentes, superiore decidua. Flores pallidi. Fructus parvulus, niger.

Species 1, insularum Seychelles incola. *H. Wendl. in Ill. Hortic.* 1871, *t.* 54 (*Verschaffeltia*). *Mart. Hist. Nat. Palm.* iii. 181 (*Dypsis gracilis* in nota sub *D. hirtula*) et *t.* 161, *f.* 5.

64. **Geonoma,** *Willd. in Mem. Acad. Berl.* 1804, 37; *Sp. Pl.* iv. 593. (Gynestum, *Poit. in Mém. Mus. Par.* ix. 387, *t.* 16 *ad* 20. Vouay, *Aubl. Pl. Gui.* ii. *App.* 99.)—Flores minuti, glumacei, in cavis spiraliter dispositis immersi, dioici v. in diversis spadicibus infrafoliaceis rarius interfoliaceis monoici, v. in eodem spadice monoici inferiores 3-ni intermedio ♀, superiores solitarii, bracteati et bracteolati, perianthio glumaceo. Fl. ♂ asymmetrici. Sepala obovato-oblonga, carinata, imbricata. Petala obovato-oblonga, concava, libera v. basi connata, valvata. Stamina 6, filamentis in cupulam urceolum v. tubum exsertum connatis, apicibus recurvis; antheræ didymæ, primum introflexæ, loculis discretis divaricatis sæpius pendulis. Ovarii rudimentum minutum v. 0. Fl. ♀ masculis paullo majores, compressi, perianthio post anthesin immutato. Sepala oblonga v. ovato-lanceolata, carinata, imbricata, interiore planiusculo. Petala lanceolata, in corollam 3-fidam connata, imbricata. Discus urceolaris, dentatus, liber. Ovarium disco inclusum, 3-loculare, loculis 2 effœtis v. rudimentariis; stylus lateralis v. basilaris, elongatus, stigmatibus 3 revolutis exsertis; ovulum subbasilare v. laterale et peltatum. Fructus parvus, globosus v. subglobosus, styli cicatrice basilari, 1-spermus, pericarpio coriaceo crustaceo v. subspongioso, intus parce fibroso, fibris endocarpio fragili non adhærentibus. Semen globosum, erectum, testa tenui, hilo basilari, raphe semen cingente interdum exsculpto, ramis obscuris, albumine æquabili; embryo subbasilaris v. dorsalis.—Palmæ graciles, inermes, caudice arundinaceo annulato. Folia terminalia, v. alterna, lamina integra apice 2-fida, v. plus minusve pinnatisecta, segmentis ultimis acuminatis 1-nerviis marginibus basi lata recurvis,

rhachi supra acuta dorso convexa, petiolo teretiusculo basi antice concavo, vagina tubulosa brevi v. elongata. Spadices suberecti v. decurvi, simplices furcati v. paniculatim ramosi, graciles v. robusti, interdum colorati; spathæ 2, sæpius ante anthesin caducæ v. obliteratæ, inferiore incompleta truncata concava, superiore compressa v. fusiformi. Flores cavis spadicis enati, demum semi-exserti, si 3-ni ♀ superiore, antherarum loculi interdum torti. Fructus parvus, sæpius niger.

Species ad 100, Americæ tropicæ incolæ. *Mart. Hist. Nat. Palm.* ii. 6, *t.* 4 *ad* 20 *excl.* 13, iii. 316. *Palm. Orbign.* 21, *t.* 11, 12, 22, 23. *Kunth, Enum. Pl.* iii. 228. *Dict. Sc. Nat. t.* 27 (*Gynestum*). *Griseb. Fl. Brit. W. Ind.* 517. *Barb. Rodr. Enum. Palm. Nov.* 9 *et Protest. App.* 40, *t.* 1. *Traill in Trim. Journ. Bot.* 1876, 323, *t.* 183, *f.* 1, 1877, 129. *Œrst. Palm. Centr. Amer.* (*in Vid. Meddel. Nat. Foren. Kjöbenh.* 1858), 32. *Karst. in Linnæa,* xxviii. 409. *H. Wendl. in Linnæa,* xxviii. 333 (*excl. G. Ghiesbreghtiano*). *Wallace, Palm. Amaz.* 62, *t.* 23 *ad* 25. Stigmata in iconibus omnibus (*G. Schottiano* et *elegante* exceptis) a Martio false terminalia depicta sunt.

65. **Asterogyne,** *H. Wendl. in litt.*—Flores parvuli, glumacei, dioici? v. in diversis spadicibus interfoliaceis simpliciter v. duplicatim ramosis monoici, in cavis spiraliter dispositis solitarii immersi, bracteati et bracteolati, perianthio glumaceo. Fl. ♂ asymmetrici. Sepala obovato-oblonga, carinata, imbricata. Petala concava, valvata. Stamina 6, filamentis connatis, apicibus liberis recurvis; antherarum loculi discreti, penduli. Fl. ♀ compressi, perianthio post anthesin immutato. Sepala oblonga, carinata, imbricata, interiore planiusculo. Corolla trifida, lobis stellatim recurvis imbricatis, tubo disco adnato et cum eo supra basin circumscisso. Staminodia in discum urceolarem connata. Ovarium 3-loculare, loculis 2 effœtis; stylus apicalis, elongatus, stigmatibus exsertis; ovulum . . . Fructus ellipsoideo-oblongus, rectus v. decurvus, subcompressus, utrinque attenuatus, 1-spermus, styli cicatrice basilari, pericarpio tenui succoso intus fibroso fibris tenuibus endocarpio adhærentibus. Semen oblongum, erectum, testa lævi brunnea, hilo basilari, raphe verticem attingente et semen circumambiente ramis 0, albumine æquabili; embryo basilaris.—Palmæ inermes, caudicibus gracilibus dense annulatis. Folia simplicia, oblonga, 2-fida, integra fissa v. fenestrata segmentis acuminatis plicato-nervosis, petiolo superne concavo. Spadix longiuscule pedunculatus, ramis strictis rigidis; spathæ 2–4, subpersistentes; bracteæ cum ore alveoli continuæ; bracteolæ squamiformes. Flores in cavis profundis enati, apicibus emersis. Fructus parvus.

Species paucæ, Americæ centralis incolæ, quarum una tantum (Chontales, *Seemann, n.* 163) floribus delapsis nobis nota est.

66. **Calyptrogyne,** *H. Wendl. in Bot. Zeit.* 1859, 72. (Calyptronoma, *Griseb. Fl. Brit. W. Ind.* 518.)—Flores in alveolis profundis spiraliter dispositis ejusdem spadicis interfoliacei simplicis v. simpliciter ramosi monoici, 3-ni intermedio ♀, rarius solitarii v. superiores 2-ni ♂, perianthio glumaceo. Fl. ♂ subsymmetrici, compressi. Sepala 3, oblonga v. lanceolata, concava, 2 v. omnia dorso carinata v. alata. Petala basi in stipitem solidum subcylindraceum connata, ovata v. spathulata, concava, valvata. Stamina 6, filamentis in tubum stipiti impositum connatis, apicibus liberis; antheræ basifixæ, sagittatæ, connectivo lato apice mucronato, primum introflexæ demum erectæ v. reflexæ. Ovarii rudimentum parvum. Fl. ♀ masculos subæquantes, late ovoidei, valde compressi, perianthio post anthesin immutato. Sepala ovato-lanceolata, 2-lateralia cymbiformia dorso acuta v. alata, dorsali angustiore, imbricata. Petala late ovata, brevia, dorso carinata v. subalata, basi in tubum cylindraceum demum circumscissum connata, stricte valvata. Staminodia in membranam conoideam 6-dentatam ovarium superantem calyptratim deciduam connata. Ovarium conicum, 3-loculare, loculis 2 effœtis; stylus centralis, elongatus v. brevis, stigmatibus recurvis; ovulum . . . Fructus oblongus v. obovoideus 1-spermus, styli cicatrice basilari, pericarpio carnoso et fibroso, fibris endocarpio tenui adhærentibus. Semen oblongum v. subglobosum, lente compressum, hilo basilari, raphe semen cingens ramis inconspicuis, albumine æquabili; embryo basilaris.—Palmæ inermes, interdum stoloniferæ, caudice brevi v. elongato inferne annulato. Folia terminalia, inæqualiter pinnatisecta, segmentis paucijugis angustis v. latis falcatis longissime acuminatis plicatis marginibus

basi recurvis, nervis numerosis, petiolo brevissimo, vagina brevi aperta. Spadices simplices v. a basi ramosi, longe pedunculati. Spathæ 2, angustæ, inferiore pedunculo multo breviore apice fissa, superiore decidua elongata per totam longitudinem fissa; bracteæ labium inferius alveolæ marginantes, connatæ; bracteolæ minutæ. Fructus parvus.

Species 6 v. 8, Americæ tropicæ incolæ. *Griseb. Cat. Pl. Cub.* 222 (*Calyptronoma*). *Traill in Trim. Journ. Bot.* 1876, 330, *t.* 112, *f.* 3. *Mart. Hist. Nat. Palm.* ii. 137, *t.* 13 (*Geonoma synantherum*).

PHOLIDOSTACHYS, *H. Wendl. in litt.* a *Calyptrogyne* differt spadice infrafoliaceo breviter pedunculato, stylo 0, fructu oblique oblongo-turbinato, pericarpio fibris crassissimis reticulatis basi liberis percurso, et raphe apice dilatata. Species 1, Costaricensis (*Geonoma pulchrum*, Wendl. ms.). Foliorum segmenta caudato-acuminata. Spadix crassus.

67. **Welfia,** *H. Wendl. nomen.*—Flores cavis profundis hexastiche dispositis ejusdem spadicis interfoliacei simpliciter ramosi monoici, 3-ni intermedio ♀, bracteati et bracteolati, perianthio glumaceo. Fl. ♂ asymmetrici. Sepala lanceolata, concava, acute carinata, imbricata. Petala late ovata, obtusa, basi in columnam cylindraceam connata, valvata. Stamina numerosa, inclusa, filamentis in columnam cylindraceam connatis, apicibus subulatis liberis; antheræ elongato-subulatæ, acuminatæ, basi breviter 2-lobo insertæ. Ovarii rudimentum 0, v. minimum 3-fidum. Fl. ♀ masculos subæquantes, compressi, perianthio post anthesin immutato. Sepala libera, cymbiformi-lanceolata, acuminata, imbricata. Petala multo majora, 2 lateralia cymbiformia alato-carinata, dorsali angustiore planiusculo, imbricata. Staminodia in urceolum conicum compressum apice dentatum dentibus obtusis valvatis demum patulis ovarium cingentem connata. Ovarium conico-subulatum, 3-loculare; stigmata sessilia, erecta, conniventia; ovulum basilare, erectum, elongatum. Fructus oblongus, compressus, apicem versus acutum complanatus et anceps, stigmate basilari, pericarpio crasse coriaceo lævi castaneo intus fibroso, endocarpio crustaceo intus lævi. Semen cylindraceo-oblongum, hilo laterali elongato, raphe semen cingens ramis paucis descendentibus, albumine æquabili; embryo basilaris.—Palmæ inermes, caudice elato crasse arundinaceo. Folia terminalia, pinnatisecta, segmentis coriaceis basi valde angustatis apice integris v. acuminatis fissis plurinerviis plicatis, marginibus basi recurvis, petiolo brevi planiusculo, vagina brevi fissa. Spadices crassi, penduli, cavis magnis hiantibus; spathæ 2, deciduæ . . . ; bracteæ labio superiore adnatæ, linguiformes, crasse coriaceæ, primum cavum claudentes, demum protrusæ. Flores majusculi, pallide ochroleuci. Fructus 2-pollicaris, atro-violaceus.

Species 2, Americæ centralis incolæ. Spathæ a nobis non visæ.

68. **Podococcus,** *Mann et H. Wendl. in Trans. Linn. Soc.* xxiv. 426, *t.* 38 A, 40 B, 43 A.—Flores in cavis orthostichis v. spiraliter dispositis ejusdem spadicis interfoliacei simplicis longissimi monoici, 3-ni intermedio ♀, v. 2-ni ♂, bracteati et bracteolati, perianthio membranaceo v. glumaceo. Fl. ♂ symmetrici. Sepala elliptico-oblonga, subfalcata, sæpe 2-fida, carinata, imbricata. Petala infra medium in tubum infundibularem connata, ovata, acuta, valvata. Stamina 6, filamentis filiformibus alternis paullo longioribus; antheræ breves, subdidymæ, dorsifixæ. Ovarii rudimentum 3-lobum. Fl. ♀ masculis subæquales, oblongi, perianthio post anthesin immutato. Sepala lineari-oblonga, membranacea, late imbricata. Petala infra medium in tubum infundibularem connata, ovata, acuta, marginibus tenuiter imbricatis. Staminodia 6, minima. Ovarium fusiforme, stipitatum, apice attenuatum, 3-loculare, loculis 1–2 effœtis; stigmata sessilia, brevia, recurva; ovulum parietale, pendulum. Fructus oblongo-cylindraceus, rectus v. lente curvus, infra stipitem brevem geniculatim deflexus, 1- rarius 2–3-spermus, stigmatibus basilaribus, pericarpio baccato. Semen erectum, elongato-ellipsoideum, hilo basilari, rapheos ramis ab hilo ascendentibus ramosis superne reticulatis, albumine æquabili; embryo dorsalis.—Palma humilis, inermis, rufo-furfuraceus, caudicibus arundinaceis annulatis. Folia alterna, inæqualiter pinnatisecta, segmentis 8–10 remotis membranaceis rhombeo-lanceolatis acutis plurinerviis a basi lata ad medium integerrimis dein lobulatis et eroso-dentatis, marginibus basi recurvis, terminalibus confluentibus, petiolo teretius-

culo, vagina elongata fissa. Spadices longe graciliterque pedunculati, penduli; spathæ 4, tubulosæ, marcescentes, 2 inferiores incompletæ, superiores oblique apertæ et fissæ; bracteæ breves, spadici adnatæ; bracteolæ minutæ, glumaceæ.

Species 1, Africæ tropicæ occidentalis incola.

69. **Bentinckia,** *Berry in Roxb. Fl. Ind.* iii. 621. (Keppleria, *Mart. mss. ex Endl. Gen. Pl.* 251.)—Flores in cavis spiraliter dispositis spadicis interfoliacei ramosi monoici v. dioici, solitarii v. 3-ni intermedio ♀, bracteati et bracteolati, perianthio glumaceo. Fl. ♂ subsymmetrici. Sepala late ovato-oblonga, obtusa, basi connata, imbricata. Petala longiora, ellipsoidea, basi in stipitem connata, valvata. Stamina 6, filamentis filiformi-subulatis apicibus inflexis; antheræ late oblongæ, dorsifixæ, versatiles. Ovarii rudimentum conicum. Fl. ♀ masculos subæquantes, ovoidei, perianthio post anthesin parum aucto. Sepala ovato-rotundata, obtusa, basi connata, imbricata. Petala longiora, late ovata, convolutivo-imbricata. Staminodia 6, minuta. Ovarium conico-trigonum, 3-loculare, loculis 2 effœtis; stigmata minuta, 3-gona; ovulum . . . Fructus parvus, sphæricus, subcompressus, stigmatibus subbasilaribus protrusis, pericarpio carnoso et fibroso, endocarpio crustaceo. Semen basi et apice endocarpio adnatum, profunde et late sinuato-sulcatum, hilo basilari, rapheos ramis ab hilo ad verticem seminis ascendentibus dein descendentibus et reticulatis, albumine æquabili; embryo basilaris.—Palma inermis, caudice mediocri arundinaceo. Folia æqualiter pinnatisecta, segmentis angustis longe acuminatis et in lacinias graciles fissis, marginibus basi recurvis. Spadices erecto-patentes, duplicato-ramosi, pedunculo brevi, ramis crassiusculis teretibus basi bracteatis, ♂ coccineis, ♀ violaceis: spathæ 2 inferiores breves, incompletæ, papyraceæ, superiores infra apices 2-fidæ; bracteæ os bilabiatum cavorum efformantes; bracteolæ squamiformes. Flores minuti, ♂ sæpe ad squamas ciliatas reducti.

Species 1, Tranvancorica. *Mart. Hist. Nat. Palm.* iii. 165, 228, *t.* 139. *Kunth, Enum. Pl.* iii. 227. *Griff. in Calc. Journ. Nat. Hist.* v. 467; *Palm. Brit. Ind.* 160, *App.* xxvi. *Wight in Madr. Journ. Nat. Sc.* ii. 385. *B. ceramica,* Miq., et *B. Renda,* Blume, sunt *Cyrtostachyos,* H. Wendl., species.

70. **Wallichia,** *Roxb. Cor. Pl.* iii. *t.* 295. (Harina, *Ham. in Trans. Wern. Soc.* v. 317. Wrightia, *Roxb Fl. Ind.* iii. 621.)—Flores in diversis spadicibus interfoliaceis simpliciter ramosis monoici v. rarissime polygami, bracteati et 2-bracteolati. Fl. ♂ symmetrici. Calyx membranaceus, cylindraceus, truncatus. Corollæ profunde 3-lobæ tubus cylindraceus, lobis lineari-oblongis obtusis coriaceis valvatis. Stamina 6, tubo corollæ inserta, filamentis brevibus subulatis; antheræ magnæ, lineari-oblongæ, obtusæ, basi 2-fida insertæ, erectæ. Ovarii vestigia 0. Fl. ♀ masculis multo minores, subglobosi, perianthio post anthesin immutato. Sepala crassa, orbicularia, concava, imbricata. Corolla coriacea, 3-loba, lobis triangulari-ovatis acutis ovario appressis valvatis. Staminodia pauca v. 0. Ovarium depresso-globosum, 2–3-loculare, in stipitem brevem contractum; stigmata conica, sessilia; ovula subbasilaria, compressa. Fructus ovoideo-oblongus, 1- rarius 2-locularis et -spermus, stigmatibus terminalibus, pericarpio crasse coriaceo. Semina erecta, libera, lineari-oblonga, plano-convexa, hilo minuto basilari, testa tenuissima fasciculis appressis pilorum (raphidibus) instructa, rapheos ramis paucis arcuatis, albumine corneo æquabili solido; embryo medio dorso seminis.—Palmæ humiles, cæspitosæ, caudicibus brevibus soboliferis v. caudice (in *W. disticha*) elato. Folia dense fasciculata, in *W. disticha* terminalia disticha, furfuracea, inæqualiter pinnatisecta, segmentis solitariis v. infimis fasciculatis a basi cuneata oblongis obovatis v. oblanceolatis eroso-dentatis, terminali cuneata, costa distincta, nervis flabellatis, marginibus basi recurvis, petiolo gracili a latere compresso, vagina brevi fissa marginibus longe crinitis. Spadices breviter pedunculati, ♂ cernui v. decurvi, ovoidei, ramosissimi, densiflori, ♀ laxiores, erecti; spathæ perplurimæ, tenuiter coriaceæ, inferiores angustiores, tubulosæ; superiores cymbiformes, completæ, imbricatæ. Flores mediocres, flavescentes. Fructus rufus v. purpureus.

Species 2 v. 3, Indiæ transgangeticæ et Himalayæ subtropicæ incolæ. *Mart. Hist. Nat. Palm.* iii. 189 (*excl. sp.* 3), 315 (*Wallichia* sect. *Harina*) *et t.* 136 (*Harina*). *Kunth, Enum. Pl.* iii. 193

(*Harina*). *Griff. in Calc. Journ. Nat. Hist.* v. 482, *sp.* 1; *Palm. Brit. Ind.* 174, 175, 237, 237 A, B, C (*H. caryotoides et oblongifolia*). *Brandis, For. Fl.* 549. *Kurz, For. Fl.* ii. 531 (*excl. sp.* 3). *T. Anders. in Journ. Linn. Soc.* xi. 6. *Bot. Mag. t.* 4584. *W. Yomæ*, Kurz, l. c. 533, species nobis ignota, differt calyce ♂ minuto cupulari.

71. **Didymosperma,** *H. Wendl. et Drude.* (Blancoa, *Blume, Rumph.* ii. 128, *in nota partim, nomen tantum.*)—Flores in diversis (rarius in eodem) spadicibus interfoliaceis monoici (interdum dioici ?) bracteati et 2-bracteolati. Fl. ♂ symmetrici. Calyx cupularis, 3-lobus v. 3-partitus, segmentis rotundatis marginibus membranaceis imbricatis. Petala ovato-oblonga, crasse coriacea, intus costata, libera v. basi connata, post anthesin incurva. Stamina 10–30, filamentis brevibus subulatis basi connatis; antheræ lineares, basi bifida insertæ, erectæ. Ovarii rudimentum 0. Fl. ♀ masculis minores, subglobosi, perianthio post anthesin paullo aucto. Sepala rotundata, coriacea. Corolla 3-partita, segmentis triangulari-ovatis acutis incurvis crasse coriaceis valvatis. Staminodia 0. Ovarium depresso-3-gonum, 2–3-loculare, basi contractum; stigmata sessilia, conica, conniventia; ovula basilaria, erecta, compressa. Fructus ovoideus v. oblongus, 1–2-locularis et -spermus, stigmate apicali v. subapicali, pericarpio crasse coriaceo. Semina erecta, oblonga, plano-convexa, libera, hilo minuto basilari, testa tenuissima, rapheos ramis paucis arcuatis, albumine æquabili corneo solido; embryo medio dorso seminis.—Palmæ humiles, caudicibus solitariis v. caudice solitario erecto. Folia terminalia, inæqualiter pinnatisecta, subtus argenteo-furfuracea, segmentis oppositis et alternis solitariis v. inferioribus fasciculatis e basi cuneata obovato-oblongis v. oblanceolatis sinuato-lobatis et erosis terminali cuneata, marginibus basi recurvis, costa distincta, nervis flabellatis, vagina brevi fibrosa. Spadices breviter crasseque pedunculati, ramis crassis. Spathæ numerosæ, spadicem vaginantes. Flores majusculi.

Species ad 6, Indiæ transgangeticæ et Archipelagi Malayani incolæ. Genus *Wallichiæ* arcte affine et vix non separabile; species includit sequentes: *Wallichia porphyrocarpa*, Mart. Hist. Nat. Palm. 190, t. 157 (quæ *W. Orani*, Blume, Rumph. ii. 195, et *Orania regalis, t.* 85, 95); *Wallichiæ*, sect. *Orania*, Mart. l. c. 315; *Wallichiæ species variæ*, Miq. Fl. Ind. Bat. iii. 32, et Pl. Jungh. 157; et *Harina nana*, Griff. Palm. Brit. Ind. 176, t. 238 A, B.

72. **Arenga,** *Labill. in Mém. Inst. Par.* iv. 209. (Saguerus, *Roxb. Fl. Ind.* iii. 626. Gomutus, *Spreng. Gen. n.* 2222.)—Flores in distinctis (rarius in eodem) spadicibus interfoliaceis simpliciter ramosis monoici, solitarii, rarius 3-ni intermedio ♀, v. 2-ni ♂, bracteati et bracteolati. Fl. ♂ symmetrici. Sepala rotundata, concava, late imbricata. Petala elongato-oblonga, obtusa, valvata. Stamina perplurima, filamentis brevibus subulatis; antheræ lineares, basifixæ, connectivo apice producto. Ovarii rudimentum 0. Fl. ♀ masculis minores, subglobosi, perianthio post anthesin aucto. Petala 3, triangulari-ovata, acuta, incurva, valvata. Staminodia plurima v. obsoleta. Ovarium subglobosum, 3-loculare; stigmata sessilia, conica; ovula solitaria, basilaria, erecta. Fructus globoso-obovoideus, obscure 3-gonus, vertice depressus, 2–3-spermus, stigmatibus terminalibus, pericarpio carnoso raphidibus onusto. Semina obovoidea, in fructibus 2-spermis plano-convexa, in 3-spermis dorso convexa ventre bifacialia, hilo parvo basilari, testa lævi atra, raphe 0, albumine testæ adhærente æquabili corneo solido; embryo infra medium seminis dorsalis.—Palmæ monocarpicæ ?, inermes, caudice crasso superne vaginis vetustis fibrosis vestito, interdum sobolifero. Folia terminalia, elongata, inæqualiter pinnatisecta, segmentis linearibus v. cuneatis petiolulatis præmorsis v. apice oblique fissis, costis validis, nervis parallelis, marginibus supra medium eroso-denticulatis basi recurvis uno v. utroque latere basi auriculatis subtus pallidis, petiolo plano-convexo marginibus in una specie spinosis, vagina brevi fibroso-reticulata marginibus crinitis. Spadices magni, deorsum evoluti, pedunculo brevi decurvo, ramis elongatis gracilibus pendulis; spathæ numerosæ, pedunculo insertæ, membranaceæ, deciduæ; bracteæ et bracteolæ latæ. Flores pro ordine magni, fusco- v. flavo-virides, v. purpurascentes. Fructus flavescens, carne pruriente.

Species ad 5, Asiæ tropicæ, Archipelagi Malayani, Novæ Guineæ et Australiæ tropicæ incolæ. *Mart. Hist. Nat. Palm.* iii. 191, *t.* 108, 147, 148 (*excl. citat. t.* 161, *f.* 4, *quæ vix Arengæ species*).

Kunth, Enum. Pl. iii. 196. *Blume, Rumph.* ii. 124, *t.* 95, 123, 124, 125 (*Saguerus*). *Griff. in Calc. Journ. Nat. Hist.* v. 471; *Palm. Brit. Ind.* 163, *t.* 235 A, B; C, D, *et App.* xxvii. *Miq. Fl. Ind. Bat.* iii. 34. *Beccari, Males.* i. 78. *Kurz, For. Fl.* ii. 533. *Benth. Fl. Austral.* vii. 143. *H. Wendl. et Drude in Linnæa,* xxxix. 219 (*Saguerus*). *Drude in Bot. Zeit.* 1877, 638, *t.* 6, *f.* 22 *ad* 24.

73. **Caryota,** *Linn. Gen. n.* 1228.—Flores in eodem spadice v. in distinctis spadicibus interfoliaceis fastigiatim ramosis monoici, 3-ni intermedio ♀, v. ♂ solitarii, bracteati et bracteolati. Fl. ♂ symmetrici. Sepala rotundata, coriacea, imbricata. Petala lineari-oblonga, crasse coriacea, valvata. Stamina numerosa (10–150), filamentis brevissimis basi connatis; antheræ lineares, acutæ, basi 2-fida affixæ. Ovarii rudimenta 0. Fl. ♀ masculis minores, subglobosi, perianthio post anthesin vix aucto. Sepala rotundata, concava, late imbricata. Petala rotundata, coriacea, basi connata, late imbricata. Staminodia 3 v. 0. Ovarium trigono-obovoideum, 3-loculare; stigma sessile, 3-lobum; ovula basilaria, erecta. Fructus globosus, 1–2-spermus, stigmate terminali, pericarpio tenui coriaceo. Semina solitaria et subglobosa, v. 2-na plano-convexa, libera, erecta, hilo basilari, rapheos ramis sulcis absconditis, albumine ruminato; embryo dorsalis, excentricus.—Palmæ inermes, monocarpicæ, caudice robusto elato annulato interdum sobolifero. Folia in comam sæpissime elongatam terminalem disposita, ampla, bipinnatisecta, segmentis dimidiato-flabelliformibus v. cuneatis integris v. fissis antice præmorso-dentatis, vernatione reduplicatim plicatis, costis primariis nervisque flabellatis, petiolo inferne teretiusculo, vagina dorso carinata marginibus fibrosis, ligula brevi. Spadices deorsum evoluti sæpe alternatim ♂ et ♀, pedunculo brevi crasso, ramis elongatis pendulis; spathæ 3–5, incompletæ, tubulosæ; bracteolæ latæ. Flores majusculi, virides v. purpurascentes. Fructus diametro cerasi, carne raphidibus pruriente, purpurascentes.

Species ad 12, Asiæ tropicæ, Archipelagi Malayani, Novæ Guineæ, et Australiæ tropicæ incolæ. *Mart. Hist. Nat. Palm.* iii. 193, 315, *t.* 107, 108, 162. *Kunth, Enum. Pl.* iii. 198, 604. *Lam. Ill. t.* 897. *Gærtn. Fruct.* i. *t.* 7. *Blume, Rumph.* ii. 134, iii. *t.* 162, 163. *Griff. in Calc. Journ. Nat. Hist.* v. 477; *Palm. Brit. Ind.* 168, *t.* 236 A, B, C, *et App.* xxvii. *Miq. Fl. Ind. Bat.* iii. 37; *Pl. Jungh.* 159; *Analect. Bot. Ind.* i. 3; *Palm. Archip. Ind.* 7. *Kurz, For. Fl.* ii. 530. *Benth. Fl. Austral.* vii. 144. *Beccari, Males.* i. 69, *et in Nuov. Giorn. Bot. Ital.* iii. 12. *H. Wendl. et Drude in Linnæa,* xxxix. 191. *Drude in Bot. Zeit.* 1877, 638, *t.* vi. *f.* 25, 26. *Hance in Trim. Journ. Bot.* 1879, 174. *Bot. Mag. t.* 5762.

74. **Orania,** *Zipp. in Algem. Konst. en letter-bode,* 1829, 294, *ex Mart. Hist. Nat. Palm.* iii. 186, *t.* 177, *f.* 1. (Macrocladus, *Griff. in Calc. Journ. Nat. Hist.* v. 489; *Palm. Brit. Ind.* 177, *t.* 239 A, B.)—Flores minuti, in eodem spadice interfoliaceo duplicatim ramoso monoici, distiche dispositi, 3-ni intermedio ♀, v. superiores solitarii et 2-ni ♂, bracteati et 2-bracteolati. Fl. ♂ subsymmetrici. Calyx minimus, 3-fidus. Petala oblonga v. lanceolata, concava, coriacea, valvata. Stamina 3 v. 6, fundo peranthii inserta, filamentis crassiusculis subulatis; antheræ lineari-oblongæ, basi bifida affixæ, erectæ, extrorsum dehiscentes. Ovarii rudimentum conicum. Fl. ♀ masculis crassiores, ovoidei, perianthio post anthesin modice aucto. Calyx membranaceus, 3-fidus, lobis ovatis cuspidatis. Petala late ovata, obtusa, valvata. Staminodia 3 v. 6. Ovarium obtuse 3-gonum, v. fere 3-partitum, 3-loculare; stigmata 3, sessilia, recurva; ovula in loculis solitaria, pendula. Fructus globosus, 1- rarius 2-locularis, basi loculis 1 v. 2 abortivis auctus, stigmatibus basilaribus, pericarpio spongioso-carnoso et fibroso, endocarpio tenuiter crustaceo. Semen globosum v. depresso-globosum, testa spongiosa brunnea endocarpio adhærente, hilo basilari, rapheos ramis creberrime reticulatis semen circumambientibus, albumine æquabili solido v. medio cavo; embryo medio (v. infra medium) dorso situs.—Palmæ elatæ, inermes, caudice annulato robusto. Folia terminalia, æqualiter et regulariter pinnatisecta, segmentis linearibus apice oblique laceris v. lobatis subtus albo-lepidotis, marginibus recurvis, costa valida, nervis prominulis, rhachi robusta dorso convexa facie acuta, petiolo valido, vagina brevi aperta marginibus fibrosis. Spadices elongati, pedunculo brevi crasso compresso basi semilunari, ramis secundariis gracillimis fastigiatis; spathæ 2,

inferior brevis, coriacea, compressa, anceps, apice pervia; superior completa, clavato-fusiformis, cuspidata, sublignosa, longitudinaliter fissa; bracteæ et bracteolæ delitescentes. Fructus majusculus.

Species 3 v. 4, Archipelagi Malayani et Papuæ incolæ. *Miq. Fl. Ind. Bat.* iii. 16; *Palm. Archip. Ind.* 4. *Blume, Rumph.* ii. 115 (*O. regalis*), *et Præfat.* viii. *t.* 119, 122 (ARAUCASIA excelsa). *A. nicobarica*, Kurz in Trim. Journ. Bot. 1875, 331, *t.* 171 certe non hujus generis, differt stigmate fructu basilari; in icone citata fig. 22 ad 25, omnino falsæ, nam semen ellipsoideum est et teres, rapheos ramis ab hilo adscendentibus gracilibus dein descendentibus ramosis et reticulatis, verisimiliter genus novum efficit, sed fl. ♂ desunt et insertio spadicis ignota est.

75. **Sclerosperma,** *Mann et H. Wendl. in Trans. Linn. Soc.* xxiv. 427, *t.* 38 C; 40 A. —Flores in eodem spadice interfoliaceo fusiformi monoici, densissime compacti, inferiores 3-ni intermedio ♀, superiores solitarii ♂, bracteati et bracteolati. Fl. ♂ valde asymmetrici. Sepala membranacea, libera v. connata, imbricata, in fl. inferioribus (cum ♀ consociatis) oblique ovata acuta, in fl. superioribus obcuneata truncata dorso carinata. Petala crasse coriacea, valvata, in fl. inferioribus falcato-ovata acuta, in fl. superioribus obcuneata basi connata, apicibus crassis 3-gonis incurvis. Stamina ad 25, filamentis brevissimis fasciculatis; antheræ anguste lineares, basifixæ, erectæ, extrorsum dehiscentes. Ovarii rudimentum 0. Fl. ♀ masculis majores, ovoidei, perianthio post anthesin aucto. Sepala falcato-ovata, acuta, coriacea, imbricata. Petala crasse coriacea, oblique lineari-oblonga, ima basi imbricata, superne valvata. Staminodia minuta. Ovarium anguste ovoideum, 1-loculare; stigma crassum, conicum, obscure 3-dentatum; ovulum parietale, pendulum. Fructus depresso-globosus, 1-spermus, stigmate supra medium laterali, pericarpio carnoso intus fibroso fibris tenuissimis, endocarpio tenuissimo lapideo membrana brunnea induto. Semen subglobosum, hilo excentrico, rapheos ramis ab hilo adscendentibus ramosis reticulatis ad embryonis situm convergentibus, albumine æquabili denso; embryo hilo oppositus.—Palma humilis, gregaria, inermis, caudicibus dense fastigiatis brevissimis. Folia fasciculata, erecto-patentia, inæqualiter pinnatisecta, segmentis suboppositis e basi lata lineari-oblongis v. quadratis oblique præmorsis subtus albicantibus, nervis alternis validis, marginibus basi recurvis, petiolo teretiusculo, vagina fissa fibrosa. Spadices 8–10-pollicares, inter folia reconditi, pedunculati, erecti; spathæ 2, duræ coriaceæ, inferior compressa, apice fibroso-laciniata; superior longior, fusiformis, longitudinaliter rupta; bracteæ ad basin fl. ♀ membranaceæ. Flores parvi. Fructus diametro pomi minoris.

Species 1, Africam occidentalem, locis inundatis ad flumen Gaboon incolens.

76. **Manicaria,** *Gærtn. Fruct.* ii. 468, *t.* 176. (Pilophora, *Jacq. Fragm.* 32, *t.* 35, *f.* B, G, *et t.* 36.)—Flores in eodem spadice interfoliaceo simpliciter ramoso monoici, cavis spiraliter dispositis basi immersi, superiores in ramos conferti ♂, inferiores sparsi ♀, bracteati et bracteolati. Fl. ♂ oblongi, obtuse trigoni. Sepala ovato-rotundata, coriacea, marginibus scariosis, imbricata. Petala crasse coriacea, obovato-oblonga, valvata. Stamina 24–30, in basi perianthii conferta, filamentis filiformibus basi connatis; antheræ anguste lineares, erectæ, basi longe bifida insertæ, apice emarginatæ. Ovarii rudimentum 0. Fl. ♀ masculis majores, ovoidei; perianthio post anthesin paullo aucto. Sepala rotundata, marginibus siccis demum laceris, late imbricata. Petala longiora, basi convolutivo-imbricata, superne acuta forte valvata. Staminodia ad 12. Ovarium 3-gono-turbinatum v. globosum, sulcatum, 3-loculare; stigmata 3, sessilia, trigona, demum patula; ovula in loculis erecta? Fructus globosus et 1-spermus, v. depresso 2–3-lobus et 2–3-spermus, stigmatibus terminalibus, pericarpio corticato, cortice suberoso angulato-echinato, endocarpio vitreo-crustaceo intus fibroso basi oblique pervio. Semina globosa, erecta, hilo oblongo, testa durissima, rapheos ramis crebre reticulatis semen amplectentibus, albumine corneo æquabili cavo; embryo basilaris.—Palmæ robustæ, inermes, caudice mediocri annulato curvo v. flexuoso, toto vaginis vetustis induto. Folia terminalia, maxima, rigida, suberecta, lanceolata, acuta, plicato-nervosa, serrata, demum pinnatisecta, costis crassis, nervis tenuibus, rhachi canaliculata, petiolo gracili compresso

dorso acuto facie canaliculato, vagina fissa marginibus fibrosis. Spadices plures, erecto-patentes, tomentosi, ramis strictis crassiusculis foveolatis, fructiferi nutantes; spathæ 2, superior fusiformis, teretiuscula, mucronata, fibrosa, tarde rupta; bracteæ subulatæ; bracteolæ obscuræ. Flores majusculi, roseo-ochroleuci, gravissime odori. Fructus diametro pomi minoris.

Species 2 v. 3, Americæ tropicæ a Brasilia boreali ad Novam Grenadam incolæ. *Mart. Hist. Nat. Palm.* ii. 139, *t.* 98, 99, iii. 230. *Kunth, Enum. Pl.* iii. 234. *Lam. Illustr. t.* 774. *Griseb. Fl. Brit. W. Ind.* 518. *Wallace, Palm. Amaz.* 68, *t.* 2, *f.* 2, 3, *t.* 26. *Traill in Trim. Journ. Bot.* 1876, 332.

77. **Leopoldinia,** *Mart. Hist. Nat. Palm.* ii. 58, *t.* 52, 53, 100, *f.* 1, 2, iii. 165.—Flores in eodem v. diversis spadicibus interfoliaceis paniculatim ramosis monoici, sparsi, ♂ in ramos superiores, v. dioici, bracteati et bracteolati. Fl. ♂ symmetrici. Sepala 3, suborbicularia v. oblata, membranacea, ciliata, imbricata. Petala brevia, ovata, coriacea, valvata. Stamina 6, filamentis brevissimis basi connatis complanatis; antheræ late ovatæ v. didymæ, erectæ, dorsifixæ, basi 2-lobæ, ovarii rudimentum ovoideum, v. 3, minuta. Fl. ♀ masculis paullo majores, subglobosi, perianthio post anthesin modice aucto. Sepala reniformia, imbricata. Petala longiora, late ovata, imbricata. Staminodia 0, v. minuta. Ovarium turbinatum, subtrigonum, 3-loculare, loculis 2 minimis effœtis; stigmata 3, sessilia, excentrica; ovulum parietale. Fructus subglobosus, v. ovoideus, paullo compressus, ima basi gibbus, stigmatibus basilaribus, pericarpio carnoso, endocarpio crasso dense fibroso, fibris latis multiseriatis ramosis lignescentibus. Semen globosum, suberectum, testa tenui, hilo basilari, rapheos ramis latis obscuris, albumine corneo æquabili cavo; embryo suprabasilaris.—Palmæ inermes, caudicibus solitariis v. cæspitosis, fibrillis reticulatis petiolorum vetustorum tectis. Folia terminalia, longe petiolata, æqualiter pinnatisecta, segmentis angustis longe acuminatis integris v. apice inæqualiter 2-fidis plicato-nervosis, costa superne prominula, marginibus basi recurvis, petiolo dorso convexo facie concavo superne semitereti marginibus acutis, vagina fissa marginibus fibris reticulatis longe barbata. Spadices arcuato-penduli, pluries divisi, tomentosi, pedunculo basi compresso, ramis ramulisque subpinnatis divaricatis, ultimis brevibus; spathæ 2, truncato-laceræ, caducæ; bracteæ triangulares ad basin ramorum. Flores inter minimos. Fructus mediocris.

Species 4, Brasiliæ borealis incolæ. *Kunth, Enum. Pl.* iii. 176. *Wallace, Palm. Amaz.* 12, *t.* 2, *f.* 6, *t.* 4, 5, 6. *Spruce in Journ. Linn. Soc.* iv. 58. Fl. ♀ a nobis non visi.

78. **Nipa,** *Wurmb. in Verhandl. Batav. Genootsh.* 1779, i. 349, *ex Blume, Rumph.* ii. 72. —Flores in eodem spadice interfoliaceo divaricatim ramoso monoici, ♂ in ramulis amentiformibus ramos laterales terminantibus dense congesti, ♀ in capitulum spadicem terminans agglomerati, bracteati et bracteolati; perianthium glumaceum. Fl. ♂ parvi, bracteolis setiformibus interspersi. Sepala lineari-cuneata, apicibus truncatis inflexis, læviter imbricata. Petala consimilia sed paullo minora, leviter imbricata. Stamina 3, in columnam cylindraceam connata; antheræ lineari-elongatæ, basifixæ, loculis adnatis; pollen subglobosum, hispidulum. Ovarii rudimentum 0. Fl. ♀ masculis multo majores, perianthii foliolis 6 rudimentariis dissitis. Staminodia 0. Ovarii carpella 3, cuneato-obovoidea, pressione mutua angulata, vertice libero, curvo-pyramidata, infra apicem obliquum rima stigmatosa exarata; ovulum erectum. Syncarpii globosi carpella magna, obovoidea, compressa, obtuse hexagona, vertice pyramidata, 1-locularia, stigmate infra-apicali, pericarpio crasse carnoso densissime fibroso, endocarpio spongioso et farinoso venoso, uno latere longitudinaliter carinato. Semen erectum, hinc ob endocarpii carinam intrusam sulcatum, hilo basilari lato, testa coriacea intus viscosa endocarpio arcte adhærente, raphe lata semi-completa ramis semen circumdantibus, albumine corneo æquabili cavo; embryo basilaris, obconicus.—Palma humilis, inermis, caudicibus horizontalibus elongatis robustis radicantibus vaginis vetustis tectis, apicibus breviter ramosis. Folia terminalia, pinnatisecta, segmentis lanceolatis acuminatis plicato-nervosis subtus glaucis

paleaceis, marginibus basi recurvis, petiolo plano-convexo, vagina brevi. Spadices inter folia summa terminales, primum erectæ, demum nutantes, ramulis floriferis basi bracteatis; spathæ plurimæ, vaginantes, supremis cucullatis rostratis. Syncarpium magnitudine capitis humani.

Species 1, æstuariis fluviorum Asiæ tropicæ a Zeylania et Ostia Ganges ad ins. Philippinas Nov. Guineam et Australiam tropicam extensa. *Mart. Hist. Nat. Palm.* iii. 305, *t.* 108. *Kunth, Enum. Pl.* iii. 110, 589. *Lam. Illustr. t.* 897. *Blume, Rumph.* ii. 72, iii. *t.* 164, 165. *Labill. in Mém. Mus. Par.* v. *t.* 21, 22. *Gaud. Voy. Bonite, t.* 67. *Griff. Notul.* iii. 168; *Ic. Pl. Asiat.* 244 *ad* 247. Genus polline hispidulo ab omnibus inter Palmas diversum. Carpella suadente Griffithio et Blumeo obscure ternatim disposita, ovarium tri-carpellare indicantia. Flores ♂ iis *Borassi* conformes, petalis fide Griffithii leviter imbricatis, a Blumeo contra, valvatis descriptis. Spadix ex Blumeo terminalis.

79. **Phytelephas,** *Ruiz et Pav. Syst. Veg. Fl. Per.* 299. (Elephantusia, *Willd. Sp. Pl.* iv. 1158.)—Flores dioici, in spadicibus interfoliaceis densissime compacti; spadices ♂ amentiformes, simplices, elongati, cylindracei v. capitati, ♀ capitati. Fl. ♂ minute bracteati. Perianthium obsoletum, v. minutum patelliforme dentatum dentibus numerosis inæqualibus acutis. Stamina numerosa, toro inserta, filamentis filiformibus liberis; antheræ lineari-elongatæ, mucronatæ, basifixæ. Ovarii rudimenta 0. Fl. ♀ præmagni, masculis multo majores, bractea magna elongato-lanceolata stipati, perianthio post anthesin aucto. Sepala 3, chartacea, triangularia, acuminata, imbricata. Petala 5–10, carnosula, elongato-lineari-oblonga, acuminata, imbricata. Staminodia perplurima, antheris cassis. Ovarium subglobosum, 4–9-sulcatum et -loculare; stylus terminalis, elongatus, columnaris, crassus, stigmatibus 4–9 filiformibus intus papillosis; ovula basi anguli interioris loculorum adscendentia. Syncarpium ponderosum, globosum, e fructibus 4–6-spermis obpyramidatis coadunatis constans, stylis terminalibus, pericarpio corticato intus carnoso, cortice tessellatim tuberculato, tuberculis sursum incrassatis fibrosis, endocarpio crustaceo fragili extus farinaceo albo, intus nitido. Semina in loculis solitaria, suberecta, ovoidea obovoidea v. subglobosa, obtuse angulata, hilo magno, rapheos ramis impressis, albumine duro æquabili solido; embryo subbasilaris.—Palmæ humiles, inermes, caudice robusto erecto v. prostrato et radicante. Folia terminalia, elongata, pinnatisecta, segmentis numerosis superioribus oppositis inferioribus alternis v. fasciculatis lineari-lanceolatis acuminatis, costa valida, marginibus basin recurvis. Spadices pedunculati, pedunculo squamoso, ♂ penduli, ♀ erecti; spathæ 2 completæ, elongatæ, ventre fissæ, crasse coriaceæ v. lignosæ. Flores ♀ inter Palmas longe maximi, petalis 2–3-pollicaribus; ♂ parvuli. Syncarpium magnitudine fere capitis humani.

Species 3 v. plures, Peruviæ et Novæ Grenadæ incolæ. *Mart. Hist. Nat. Palm.* iii. 306. *Kunth, Enum. Pl.* iii. 109. *Gaud. Voy. Bonite, t.* 14 *ad* 16, 29, 30. *Karst. in Linnæa,* xxviii. 275; *Fl. Colomb.* i. 165, *t.* 82. *Hook. Kew Journ.* i. 204, *t.* 6, 7 (*in Fl. des Serres, t.* 496, 497 *iteratæ*). *Seemann in Hook. Kew Journ.* iii. 303; *Bot. Her.* 205, *t.* 45 *ad* 47; *Bonpland.* 1855, 270, *t.* 1, 2. *Spruce in Journ. Linn. Soc.* iv. 186. *Bot. Mag. t.* 4913, 4914. *P. æquatorialis,* Spruce mss. a congeneribus insigniter differt caudice mediocri erecto, foliorum segmentis fastigiatis, et fl. ♂ pedunculo elongato racemoso. In *P. microcarpo* perianthium cupulare fide Karstenii adest, quod in *P. macrocarpo* et *æquatoriali* frustra quæsivimus.

Tribus II. Phœniceæ.

80. **Phœnix,** *Linn. Gen. n.* 1224. (Elate, *Linn. Mus. Cliff.* 12. Fulchironia, *Lesch. in Desf. Cat. Hort. Par.* 1829, 29. Phoniphora, *Neck. Elem.* iii. 302.)—Flores dioici, in ramis spadicis interfoliacei fastigiatim ramosi sessiles, minute bracteati, ebracteolati, perianthio coriaceo. Fl. ♂ oblongi v. ovoidei. Calyx cupularis, 3-dentatus. Petala 3, oblique oblonga v. ovata, basi subconnata, valvata. Stamina 6, rarissime 3 v. 9, basi corollæ inserta, filamentis subulatis basi connatis; antheræ lineari-oblongæ, erectæ, dorso affixæ. Ovarii rudimenta minuta v. 0. Fl. ♀ masculis subæquales, globosi, perianthio post anthesin aucto. Calyx maris. Petala 3, rotundata, concava, late imbricata. Staminodia 6, squamæformia v. in cupulam connata. Ovarii carpella 3, distincta, ovoidea v. globosa,

conniventia; stigmata sessilia, uncinata; ovula erecta. Fructus oblongus, teres, 1-spermus, stigmatibus terminalibus, pericarpio carnoso, endocarpio tenuiter membranaceo. Semen erectum, lineari-oblongum, teretiusculum v. plano-convexum, ventre profunde longitudinaliter sulcatum, hilo basilari, albumine corneo; embryo dorsalis v. subbasilaris.—Palmæ inermes, subacaules v. caudicibus gracilibus v. robustis sæpius cæspitosis brevibus v. elongatis, erectis v. declinatis, superne basibus persistentibus foliorum tectis. Folia terminalia, patenti-recurva, inæqualiter pinnata, segmentis subfasciculatis v. subæquidistantibus, elongato-lanceolatis v. ensiformibus acuminatis rigidis basi lata insertis marginibus integerrimis basi v. per totam longitudinem induplicatis, rhachi lateraliter compressa bifaciali dorso convexa, petiolo plano-convexo sæpissime pinnis abbreviatis rigidis spinescente, vagina brevi fibrosa. Spadices sæpius plures, erecti, v. fructiferi nutantes v. penduli, pedunculo valde compresso, ramis interdum subumbellatis; spatha completa, elongata, basilaris, compressa, anceps, coriacea, ventre et demum dorso fissa; bracteæ interdum obsoletæ. Flores mediocres, flavi. Baccæ croceæ, brunneæ v. atræ.

Species ad 12, Asiæ et Africæ tropicæ et subtropicæ incolæ. *Mart. Hist. Nat. Palm.* iii. 257, 320, *t.* 120, 124, 136, 164. *Kunth, Enum. Pl.* iii. 254. *Gærtn. Fruct.* 1, *t.* 9. *Lam. Illustr. t.* 893 (*Phœnix et Elate*). *Dict. Sc. Nat. t.* 25, 26. *Roxb. Cor. Pl.* i. *t.* 74, iii. *t.* 273. *Griff. in Calc. Journ. Nat. Hist.* v. 344; *Palm. Brit. Ind.* 136, *t.* 128, 128 A, 129 A, B. *Miq. Fl. Ind. Bat.* iii. 62; *Palm. Archip. Ind.* 14, 26. *Brandis, For. Fl.* 553. *Del. Fl. Egypt. t.* 62. *Turpin in Mém. Mus. Par.* iii. *t.* 15. *Jacq. Collect. Suppl. t.* 15; *Fragm. t.* 24. *T. Anders. in Journ. Linn. Soc.* xi. 13. *Drude in Bot. Zeit.* 1877, 638, *t.* vi. *f.* 27 *ad* 33.

TRIBUS III. CORYPHEÆ.

81. **Corypha**, *Linn. Gen. n.* 1221. (Taliera, *Mart. Progr. Palm. Fam. et Gen.* 10. Gembanga, *Blume in Flora*, 1825, 580, 678.)—*Flores parvi, hermaphroditi, in ramis spadicis terminalis pyramidalis paniculatim ramosi sessiles v. breviter pedicellati, minute bracteati.* Calyx cupularis, 3-dentatus v. 3-lobus. Petala 3, basi in stipitem solidum contracta, late ovata, acuta, incurva, subvalvata v. imbricata. Stamina 6, filamentis dilatato-subulatis basi petalorum late adnatis; antheræ ovato-cordatæ, dorsifixæ. Ovarium trigono-ovoideum, 3-lobum, 3-loculare, in stylum brevem subulatum contractum, stigmate simplici v. 3-denticulato; ovula in loculis basilaria, erecta. Fructus e carpellis 1–3-globosis 1-spermis, stylo basilari, pericarpio carnoso. Semen globosum v. oblongum, erectum, hilo basilari, testa membranacea, rapheos ramis ab hilo divergentibus ad situm embryonis convergentibus, albumine æquabili solido v. cavo; embryo verticem versus seminis.—Palmæ elatæ, inermes, monocarpicæ, caudice robusto annulato. Folia terminalia, maxima, orbicularia, ad medium in lacinias perplurimas lineari-lanceolatas flabellatim fissa, laciniis vernatione induplicatis, rhachi 0, ligula parva, petiolo elongato robusto superne concavo marginibus spinosis, vagina fissa. Spadix solitarius, ingens, erectus, paniculatim ramosissimus. Spathæ plures, tubulosæ, pedunculum et ramos vaginantes; bracteolæ obsoletæ. Flores virides. Fructus diametro cerasi.

Species ad 6 enumeratæ, Asiæ tropicæ et Archipelagi Malayani incolæ. *Mart. Hist. Nat. Palm.* iii. 231, 318, *t.* 108, 127. *Kunth, Enum. Pl.* iii. 235. *Gærtn. Fruct.* i. *t.* 7 (*semen inversum depictum*). *Lam. Illustr. t.* 899. *Blume, Rumph.* ii. 57, *t.* 97, 98, 105. *Roxb. Cor. Pl. t.* 255, 256. *Griff. in Calc. Journ. Nat. Hist.* v. 313; *Palm. Brit. Ind.* iii. *t.* 220 D, E, F, *App.* xxiii. *Miq. Fl. Ind. Bat.* iii. 49. *Kurz, For. Fl.* ii. 524. *H. Wendl. et Drude in Linnæa*, xxxix. 226.

82. **Sabal**, *Adans. Fam. Nat.* ii. 495.—Flores hermaphroditi, ramis spadicis elongati paniculatim ramosi solitarii, sessiles, bracteati et 2-bracteolati, perianthio post anthesin immutato. Calyx cupularis, inæqualiter 3-lobus, basi truncatus. Corolla profunde 3-loba, tubo brevi, lobis ovato-oblongis acutis concavis marginibus infra apices valvatos tenuibus imbricatis. Stamina 6, filamentis subulatis basi dilatatis in annulum tubo corollæ adnatum connatis; antheræ late ovato-cordatæ, dorsifixæ. Ovarium 3-gonum, 3-loculare, in stylum columnarem validum 3-gonum attenuatum, stigmate truncato; ovula in loculis

basilaria, erecta. Fructus e carpellis 1, rarius 2–3, globosis 1-spermis, stylo basilari, pericarpio carnoso ab epicarpio membranaceo soluto. Semina depresso-globosa, erecta, libera, hilo parvo basilari, testa atro-brunnea nitida, rapheos ramis obsoletis, albumine dure corneo æquabili umbilico intruso, fossa intus spongiosa marginibus rugosis; embryo dorsalis.—Palmæ inermes, humiles elatæ v. subacaules, caudice sæpe robusto annulato basi oblique ascendente superne vestigiis vaginarum onusto. Folia terminalia, orbicularia v. basi cuneata, flabellatim multifida, segmentis linearibus 2-fidis filis sæpissime interjectis, vernatione induplicatis, rhachi brevi v. elongata, ligula brevi rhachi adnata, petiolo antice concavo marginibus acutis inermibus, vagina breviuscula. Spadices magni, elongati, decompositi, primum erecti, ramis ramulisque decurvis v. pendulis gracilibus; spathæ pedunculum ramosque longe vaginantes, tubulosæ, ore obliquo; bracteæ et bracteolæ minutæ. Flores parvi, glabri, albi v. virides. Fructus parvus v. mediocris, niger.

Species 6, Americæ tropicæ et subtropicæ a Florida et insulis Bermudianis ad Venezuelam et insulam Trinitatis extensæ. *Mart. Hist. Nat. Palm.* iii. 245 (*excl. sp.*), *t.* 103, 130. *Kunth, Enum. Pl.* iii. 245 (*excl. sp.* 4). *Karst. Fl. Colomb.* ii. 137, *t.* 172 (*Trithrinax*). *Chapm. Fl. S. U. States* 438 (*excl. sp.* 2). *Griseb. Fl. Brit. W. Ind.* 514. *Guersent in Bull. Soc. Philom.* iii. 205, *t.* 25. *Jacq. Hort. Vindob.* iii. *t.* 8. *Bot. Mag. t.* 1434.

83. **Washingtonia,** *H. Wendl. in Bot. Zeit.* 1879, 68.—Flores hermaphroditi, in ramis spadicis interfoliacei paniculatim ramosi sparsi, sessiles, scarioso-coriacei, bracteolati; perianthium post anthesin immutatum. Calyx tubulosus, basi solidus, ore lente dilatato breviter 3-lobo, lobis scariosis erosis retusis imbricatis. Corolla infundibularis, tubo carnoso calyce incluso; lobi lanceolati, acuminati, striati, patuli, basi intus callo 2-lobo aucti. Stamina 6, fauci corollæ inserta, filamentis magnis crassis elongato-fusiformibus exsertis, apicibus attenuatis; antheræ magnæ, lineares, utrinque 2-fidæ, dorsifixæ, versatiles. Ovarium disco parvo insertum, depresso-obovoideum, 3-lobum, 3-loculare; stylus filiformis, flexuosus, longe exsertus, rigidus, persistens, stigmatibus minutis; ovula basilaria, erecta. Fructus parvus, ellipsoideus, 1-locularis, 1-spermus, reliquiis minutis carpellorum abortientium styloque coronatus, pericarpio carnoso. Semen oblongo-ovoideum v. globosum, dorso convexum, ventre planiusculum, testa brunnea nitida tenui, hilo parvo subbasilari, raphe inconspicua ramis 0, albumine corneo æquabili; embryo basin versus seminis dorsalis.—Palma elata, caudice robusto vaginarum et petiolorum vestigiis superne tecto. Folia terminalia, ampla, patentia, orbicularia, flabellatim plicata, ad medium fere fissa, laciniis induplicatis margine filiferis, rhachi brevi, ligula magna appressa, petiolo elongato robusto plano-convexo marginibus valide spinosis. Spadices elongati, copiose paniculatim ramosi, glabri, ramis gracilibus flexuosis; spathæ elongatæ, membranaceæ, fissæ, glabræ. Flores albi. Fructus niger.

Species 1 v. 2, Californiæ australis et Arizonæ incolæ. *S. Wats. in Bot. Calif.* ii. 211, 485. *Fenzl in Bull. Soc. Tosc. Ort.* i. 116, *cum ic* (*Pritchardia*).

84. **Nannorhops,** *H. Wendl. in. Bot. Zeit.* 1879, 147.—Flores in spadice interfoliaceo paniculatim ramoso polygamo-monoici, per paria spathella membranacea inclusi, altero sessili bracteato, altero breviter pedicellato ebracteato, perianthium post anthesin fere immutatum. Calyx breviter tubulosus, inæqualiter 3-lobus, membranaceus. Corolla 3-partita, tubo brevi, segmentis ovatis acutis valvatis. Stamina in fl. ☿ 6, filamentis tubo corollæ insertis, in fl. ♂ ad 9 filamentis basi lata fauci corollæ insertis; antheræ oblongæ v. oblongo-sagittatæ, intrusæ. Ovarium ovoideum, 3-gonum, in stylum brevem subulatum attenuatum, stigmate 3-denticulato; ovula basilaria, erecta. Fructus globosus ellipsoideus v. oblongus, 1-spermus, stylo basilari, pericarpio carnoso, endocarpio tenuiter crustaceo. Semen pericarpio conforme, liberum, hilo parvo basilare, ventre ad axin excavatum, fossa materia spongiosa farcta, testa tenuiter membranacea, raphe brevi ramis indistinctis laxe reticulatis, albumine corneo æquabili; embryo medio dorso situs v. subbasilaris.—Palma inermis, gregaria, humilis, pallida, caudicibus cæspitosis repentibus

ramosis vaginis vetustis foliorum opertis. Folia terminalia, rigida, cuneato-flabellata, in lacinias curvas 2-fidas induplicatim plicatas fissa, rhachi brevi, ligula 0, petiolo brevi concavo-convexo marginibus subserrulatis, vagina brevi fissa marginibus membranaceis. Spadices elongati, patentim ramosi, ramis ramulisque gracilibus; spathæ tubulosæ, pedunculum et ramos spadicis vestientes, ore obliquo in acumen producto; spathellæ flores 2-nos vaginantes, breviter tubulosæ, 2-nerves, ocreas *Polygoni* simulantes. Flores parvi, pallidi, Fructus pisiformis.

Species 1, montium Indiæ trans flumen Indus, Affghanistaniæ, Beluchistaniæ et Persiæ austro-orientalis incola. *Griff. in Calc. Journ. Nat. Hist.* v. 342; *Palm. Brit. Ind.* 135. *Brandis, For. Fl.* 547 (*omnes sub Chamæropside Ritchieana*, Griff.). *Aitchison in Journ. Linn. Soc.* xix. 140, *t.* 26.

85. ? **Teysmannia**, *Reichb. f. et Zolling. in Linnæa*, xxviii. 657 (*Teyssmania*).—Flores hermaphroditi, minuti, in ramis spadicis interfoliacei 2–3-plicatim ramosi sparsi, breviter pedicellati, solitarii v. fasciculati, bracteati et 2-bracteolati, perianthio post anthesin immutato. Calyx cupularis, 3-dentatus, basi carnosus. Petala crassa, e basi lata triangulari-lanceolata, acuta, valvata. Stamina 6, filamentis subulatis basi in cupulam hypogynam connatis; antheræ ovatæ, basifixæ. Ovarii carpella 3, rarius 1 v. 2, libera v. leviter cohærentia; stylus subulatus, 3-gonus, stigmate punctiformi; ovula in loculis erecta ?. Fructus globosus v. depresso-globosus, 1-locularis, 1-spermus, basi carpellis abortivis 1–2 auctus, stylo basilari, pericarpio corticato suberoso tessellatim verrucoso, verrucis 3–6-gonis, endocarpio tenui. Semen subdepresso-globosum, liberum, erectum, hilo basilari, testa tenui rugulosa, raphe brevi ramis obsoletis, albumine æquabili ventre profunde intruso, fossa materia spongiosa farcta; embryo lateralis.—Palma humilis, inermis, caudice subterraneo annulato apice emerso. Folia erecta, elongato-rhombea, obtusa, basi acuta, induplicatim plicata, marginibus laciniatis, laciniis obtuse 2-fidis, rhachi elongata, petiolo dorso carinato facie obsolete concavo, angulis rotundatis uncinato-aculeatis, vagina brevi. Spadix breviusculus, ramis basi divisis superne reflexis, pedunculo fusco-tomentoso; spathæ papyraceo-coriaceæ, pedunculum et ramos vaginantes, inferiores biseriales, imbricato-equitantes, superiores sparsæ; bracteæ lanceolatæ; bracteolæ inconspicuæ. Fructus diametro pomi.

Species 1, Sumatrensis. *Miq. Fl. Ind. Bat.* iii. 749. Descriptio pro maxima parte ex auctoribus citatis. Genus a Wendlandio inter ea stigmate terminali inclusum, sed nobis basilare apparet. In descriptione Zollingeri albumen ruminatum est et embryo basilaris, in exemplaribus nostris albumen certe æquabile et embryo lateralis.

86. **Chamærops**, *Linn. Gen. n.* 1219. (Chamæriphes, *Ponted. Anthol.* 147, *t.* 8, 10, *ex Gærtn. Fruct.* i. 26, *t.* 9.)—Flores in ramis spadicis interfoliacei paniculatim ramosi sessiles, polygamo-monoici v. dioici, ♂ et ☿ in eodem v. in diversis spadicibus, bracteati; perianthium post anthesin immutatum. Calyx 3-partitus, segmentis subulato-lanceolatis. Petala libera, ovata, acuta, imbricata. Stamina 6–9, filamentis brevibus latis basi calycis insertis v. in cupulam hypogynam connatis; antheræ majusculæ, ovato-oblongæ v. cordatæ, dorsifixæ. Ovarii carpella 3 (rarius plura), distincta; stigmata subsessilia; ovula basilaria, erecta. Fructus carpella 1–3, globosa v. ovoidea, basin versus trigona, 1-sperma, stigmatibus terminalibus, pericarpio carnoso intus fibroso, endocarpio membranaceo. Semina ellipsoidea v. globosa, erecta, hilo parvo basilari, raphe indistincta laxe ramosa, albumine dure corneo laxe ruminato; embryo infra medium dorsalis.—Palmæ inermes, gregariæ, humiles v. mediocres, caudicibus cæspitosis basi ramosis vaginis vetustis foliorum opertis. Folia terminalia, rigida, semi-orbicularia v. cuneato-flabellata, profunde laciniata, laciniis angustis bifidis induplicatim plicatis, rhachi 0, ligula brevissima, petiolo gracili biconvexo marginibus lævibus v. asperis, vagina fissa reticulatim fibrosa. Spadices breves, erecti, compressi, ramis brevibus densifloris; spathæ 2–4, latæ, crasse coriaceæ, inferiores fissæ, superiore completa; bracteæ parvæ, subulatæ; bracteolæ 0. Flores parvi, flavidi. Fructus rufescens v. flavescens.

Species 2, regionis Mediterraneæ incolæ. *Mart. Hist. Nat. Palm.* 248 (*Chamærops* sp. 1), *t.* 120, 124. *Kunth, Enum. Pl.* iii. 248, *sp.* 1. *Lam. Illustr. t.* 900. *Lamb. in Trans. Linn. Soc.* x. *t.* 8. *Cav. Ic.* ii. *t.* 115 (*Phœnix*). *Nees, Gen. Fl. Germ. Monocot.* iii. *n.* 36. *H. Wendl. in Bull. Soc. Bot. Fr.* viii. 429. *Drude in Bot. Zeit.* 1877, 638, *t.* 6, *f.* 34, 35. *Andr. Bot. Rep. t.* 599. *Bot. Mag. t.* 2152. *C. conduplicata*, Kickx in Bull. Acad. Sc. Bruxelles, v. 60; Walp. Ann. i. 752, patria ignota, omnino dubia est.

87. **Rhapidophyllum,** *H. Wendl. et Drude in Bot. Zeit.* 1876, 803.—Flores globosi, in ramis spadicis brevis crassi interfoliacei paniculatim ramosi sessiles, hermaphroditi v. polygamo-dioici, bracteati et bracteolati; perianthium crasse coriaceum, post anthesin fere immutatum. Sepala 3, triangulari-ovata, basi incrassata gibba. Petala 3, ovato-rotundata, imbricata. Stamina 6, filamentis filiformi-subulatis alternis basi petalorum insertis; antheræ magnæ, lineares, basi bifida affixæ, versatiles, breviter exsertæ. Ovarii carpella 3, rarius 4–5, libera, ovoidea, primum basi tantum demum in toto lanata, in stigmata parva recurva breviter attenuata; ovula subbasilaria, erecta. Carpella matura solitaria, rarius 2–3, ovoidea v. obovoidea, lana detergibili induta, 1-sperma, stigmate subterminali, pericarpio tenui fibroso, endocarpio crustaceo. Semen ellipsoideum, erectum, hilo magno, raphe lata endocarpio adnata ramis 0, albumine solido æquabili; embryo medio dorso.—Palma humilis, caudice brevi erecto v. repente et sobolifero vaginis foliorum vetustis in opus fibrosum solutis spinis elongatis erectis intermixtis tecto. Folia terminalia, orbicularia in sinu aperta v. transverse oblonga, profunde inæqualiter plicata et fissa, subtus argentea, laciniis integris v. 2–4-fidis induplicatis, rhachi 0, ligula brevissima rotundata, petiolo 3-gono superne planiusculo marginibus denticulatis subtus floccoso, vagina e fibris aliis crispis aliis rigidis intertextis. Spadices breviter pedunculati; spathæ 2–5, completæ, tubulosæ, compressæ, 2-fidæ, floccosæ. Flores minuti, crocei. Fructus parvus.

Species 1, Floridæ et Carolinæ australis incola. *Mart. Hist. Nat. Palm.* 250, *t.* 125, *f.* 4. *Chapm. Fl. S. U. States*, 439 (utraque sub *Chamæropside Hystrix*).

88. **Acanthorhiza,** *Wendl. in Bot. Zeit.* 1879, 147.—Flores hermaphroditi, in ramis spadicis interfoliacei triplicato-ramosi subsessiles, solitarii, minute bracteati; perianthium post anthesin . . . Calyx cupularis, 3-lobus, basi rotundato carnoso, lobis oblongis obtusis. Petala orbicularia, concava, coriacea, late convolutivo-imbricata. Stamina 6, filamentis in tubum membranaceum connatis, apicibus liberis exsertis; antheræ oblongæ, dorso prope basin affixæ, patenti-recurvæ. Ovarii carpella 3, distincta, erecta; styli elongati, erecti, stigmatibus terminalibus; ovula basilaria, erecta. Fructus . . .—Palmæ inermes, caudice mediocri robusto vestigiis vaginarum vetustarum dense obsito, basi radicibus spinescentibus onusto. Folia terminalia, lamina orbiculari in segmenta cuneiformia plicata apice 3–∞-fida profunde fissa, subtus glauca, rhachi 0, petiolo superne planiusculo v. convexo marginibus lævibus, vagina brevi fibrosa. Spadices compressi, pedunculo brevi ramisque patentibus crassis albis; bracteæ spathæve ad basin ramorum elongatæ, coriaceæ, deciduæ; bracteolæ setiformes, deciduæ.

Species 2 v. 3, Americæ centralis incolæ. *Mart. Hist. Nat. Palm.* iii. 252 (*Chamærops Mocinni*). *Ill. Hortic.* xxvi. *t.* 367 (sine fl. et fruct.). Flores ad exemplaria *A. Warczewitzii* in Hort. Herrenhausen culta a Wendlandio benevole missa descripti.

89. **Trithrinax,** *Mart. Hist. Nat. Palm.* 149, 247, 320, *et t.* 104 (*Thrinax*); *Palm. Orbign.* 43, *t.* 10, 25 A (*excl. f.* 5, 6).—Flores hermaphroditi, in ramis spadicis interfoliacei triplicato-ramosi subsessiles, solitarii, ebracteati v. obscure bracteati; perianthium post anthesin immutatum. Calyx tubulosus v. cupularis, 3-fidus, basi truncato carnosulo. Petala ovata v. fere orbicularia, erecta, late convolutivo-imbricata, marginibus tenuibus. Stamina 6, hypogyna, filamentis filiformi-subulatis basi liberis v. connatis exsertis; antheræ lineari-oblongæ, dorsifixæ, basi 2-fida insertæ. Ovarii carpella 3, distincta; styli elongati, erecti v. recurvi, stigmatibus capitellatis; ovula basilaria, erecta. Fructus

baccatus, 1-spermus, stylo terminali. Semen . . . albumine æquabili ?; embryo verticem versus seminis dorsalis.—Palmæ inermes, caudice mediocri cicatricato. Folia terminalia, orbiculari-ovata, flabellatim multifida, glabra, laciniis lanceolatis acuminatis 2-fidis induplicatis, petiolo biconvexo marginibus acutis integerrimis, ligula dura cordata, vagina fibrosa et spinis erectis v. reflexis horrida. Spadices patentes, pedunculo crasso, ramis flexuosis ; spathæ plures, inferiores pedunculo insertæ, oblongæ, oblique fissæ, superiores ocreiformes, oblique truncatæ ; bracteæ valde inconspicuæ. Flores parvi.

Species 2 v. 3, Brasilienses, et una Chilina. *Kunth, Enum. Pl.* iii. 247.—*T. compacta*, Griseb. Cat. Pl. Cub. 221, est genus *Hemithrinax*, nob.; *T. mauritiiformis*, Karst., est *Sabal* species.

90. **Brahea,** *Mart. Hist. Nat. Palm.* iii. 243, 319, *t.* 137, 162. Flores minuti, hermaphroditi, in ramis tomentosis spadicis interfoliacei paniculatim ramosi sparsi, sessiles, coriaceo-carnosi, bracteati et 2-bracteolati; perianthium post anthesin immutatum. Sepala orbicularia, concava, imbricata. Petala brevia, basi carinata, late ovata, crassiuscula, valvata. Stamina 6, filamentis subulatis basi dilatatis in cupulam hypogynam connatis ; antheræ breves, ovato-cordatæ, dorsifixæ. Ovarii carpella 3, breviter connata ; stylus terminalis, brevis, 3-gonus, stigmate minuto ; ovula basilaria, erecta. Fructus e carpellis 1–3 monospermis oblique ellipsoideis paullulum compressis puberulis lateribus carinatis, stylo terminali, pericarpio tenuiter carnoso, endocarpio crustaceo. Semen basilare, erectum, pericarpio conforme, testa a basi ad apicem facie ventrali ad axin intrusa, raphe diffusa, albumine corneo æquabili ; embryo in medio seminis dorsalis.—Palmæ inermes, caudice mediocri inferne annulato, superne reliquiis fibrosis vaginarum tecto. Folia terminalia, orbicularia, subpeltata, flabellatim plicata, ad medium fissa, laciniis bifidis filis interjectis induplicatis, rachi brevi angusta, ligula subtriangulari, petiolo patente marginibus subdentatis, vagina fibrosa. Spadices elongati, penduli, *paniculatim ramosissimi, ramulis ultimis elongatis vermiformibus patentibus rigidis obtusis densissime velutino-tomentosis ; spathæ plures, pedunculo insertæ, lineari-elongatæ, rigide coriaceæ, glabræ, fissæ ; bracteæ et bracteolæ minutæ. Flores diametro ramulorum multo minores, indumento immersi. Carpella matura semi-pollicaria, sicca pallida.

Species 4 enumeratæ, quarum unam Texano-mexicanam et montium Mexici indigenam, tantum vidimus; cæteræ verisimiliter Mexicanæ et Andium incolæ. *Kunth, Enum. Pl.* iii. 244. *H. Wendl. in Bot. Zeit.* 1879, 147.

91. **Serenœa,** *Hook. f. nov. gen.*—Flores parvi, hermaphroditi, in ramis gracilibus spadicis interfoliacei paniculatim ramosissimi sparsi, sessiles, bracteati et 2-bracteolati; perianthium post anthesin immutatum. Calyx cupularis, inæqualiter 3-fidus, basi truncatus. Corolla 3-partita, tubo brevi, segmentis ovato-oblongis acutis valvatis intus 2-carinatis carinis irregularibus crasse carnosis. Stamina 6, filamentis filiformibus basi dilatatis in annulum tubo corollæ adnatum connatis ; antheræ breviter oblongæ, dorsifixæ. Ovarium 3-gono-ovoideum, acutum, e carpellis 3 basi liberis, superne in stylum elongatum erectum gracilem attenuatis, stigmate minuto ; ovula basilaria, erecta. Fructus ovoideus, 1-spermus, stylo terminali, pericarpio crasse carnoso intus parce fibroso, endocarpio molli. Semen erectum, liberum, oblongum, fere cylindraceum, facie ventrali paullo complanatum, hilo parvo basilari, raphe ventrali incrassata elongata ramis 0, albumine solido æquabili ; embryo basin versus seminis dorsalis.—Palma humilis, inermis, cæspitosa, caudice repente ramoso rete fibroso e vaginis foliorum induto. Folia terminalia, orbicularia, coriacea, profunde plicato-multifida, subtus glauca, segmentis angustis induplicatis 2-fidis, rhachi 0, ligula brevi, petiolo plano-convexo marginibus dentatis. Spadix elongatus, tomentosus, rhachi flexuosa vaginis tubulosis oblique fissis induta, ramis patentibus patentim ramosis, ramulis alternis gracillimis ; spathæ plures, pedunculum vaginantes ; bracteolæ minutæ. Flores albi. Fructus niger, pollicaris.

Species 1, Floridæ et Carolinæ incola. *Chapm. Fl. S. U. States* 438 (*Sabal serrulata*, R. & S.). Genus ad exemplaria a Sereno Watson communicata descriptum, unde nomen genericum.

92. **Colpothrinax**, *Griseb. et H. Wendl. in Bot. Zeit.* 1879, 147.—Flores hermaphroditi, ramis spadicis interfoliacei subduplicato-ramosi sparsi, solitarii, sessiles, minute bracteati; perianthium post anthesin immutatum. Calyx tubuloso-campanulatus, basi intrusa, ore membranaceo 3-denticulato. Corollæ tubus cylindraceus, coriaceus, persistens, lobis ovatis subacutis coriaceis valvatis deciduis. Stamina 6, filamentis brevibus triangulari-subulatis basi in coronam 6-lobam tubo corollæ impositam connatis; antheræ lineari-oblongæ, dorsifixæ, utrinque profunde 2-lobæ. Ovarium trapezio-obovoideum, e carpellis 3 liberis vertice exsculptis in stylos erectos crassos subcohærentes attenuatis, stigmatibus punctiformibus; ovula basilaria, erecta. Fructus globosus, 1-locularis, stylo terminali, pericarpio carnoso intus parce fibroso, endocarpio crustaceo. Semen globosum, liberum, erectum, hilo basilari, raphe ab hilo ad verticem extensa incrassata lobulata nitida ramis 0, albumine æquabili solido; embryo medio-dorsalis.—Palma inermis. Folia terminalia, dure coriacea, orbicularia, flabellatim plicato-multifida, laciniis numerosissimis rigidis longe acuminatis 2-fidis induplicatis, costa valida, nervis perplurimis, rhachi elongata, ligula semicirculari libera. Spadices breviusculi, decurvi, rhachi valida, ramis laxifloris validis patentibus elongatis, inferioribus basi ramosis; spathæ plures, crasse coriaceæ, castaneæ, furfuraceæ, inferiore magna ad basin fissa, superiores tubulosæ superne fissæ; bracteæ minutæ, setiformes. Flores majusculi, in tuberculis ramorum spadicis sessiles. Fructus diametro cerasi.

Species 1, Cubæ incola.

93. **Erythea**, *S. Wats. Bot. Calif.* ii. 211, 485.—Flores hermaphroditi, in ramis spadicis interfoliacei paniculatim ramosi sessiles, solitarii v. fasciculati, bracteati et 2-bracteolati; perianthium coriaceum, post anthesin immutatum. Calyx cupularis, 3-lobus. Corolla brevis, late campanulata, 3-loba, lobis late ovatis acutis valvatis. Stamina 6, fauci corollæ inserta, filamentis brevibus subulatis basi in annulum connatis; antheræ parvæ, ovato-cordatæ, dorsifixæ. Ovarium obovoideum, trigonum, e carpellis 3 ventre connatis; stylus brevis, subulatus, 3-canaliculatus, stigmate 3-dentato; ovula basilaria, erecta. Fructus globosus, 1-spermus, stigmatibus terminalibus, pericarpio carnoso intus molli. Semen erectum, liberum v. pericarpio adhærens, globosum v. subplano-convexum, ventre ad axin sulcatum, sulco testa spongiosa farcto, hilo basilari, raphe valde inconspicua ramis obsoletis, albumine corneo æquabili; embryo subbasilaris.—Palmæ inermes, caudice robusto solitario basi annulato, superne vestigiis vaginarum foliorum tecto. Folia terminalia, juniora tomentosa, orbicularia, flabellatim multifida, laciniis apice laceris filis interjectis induplicatis, rhachi brevi, ligula elongata, petiolo valido marginibus lævibus v. spinosis. Spadices elongati, albo-tomentosi, ramis robustis; spathæ plures, pedunculum vaginantes, crasse coriaceæ, dense tomentosæ; bracteæ bracteolæque distinctæ. Flores pallidi. Fructus parvus.

Species 2, austro-Californicæ. Genus *Coperniciæ* proximum, an distinctum? Semen in *E. eduli* pericarpio adhærens, in *E. armata* liberum.

94. **Copernicia**, *Mart. Hist. Nat. Palm.* ii. 56, *t.* 49, 50 (*Corypha*), 50 A, 51, *f.* 5, iii. 242, 319; *Palm. Orbign.* 41, *t.* 1, *f.* 3, *et t.* 24.—Flores hermaphroditi, in ramis spadicis interfoliacei paniculatim ramosi sessiles, subsolitarii v. conferti, bracteati et 2-bracteolati; perianthium coriaceum, post anthesin immutatum. Calyx cupularis v. breviter cylindraceus, truncatus, 3-fidus v. 3-dentatus. Corolla late campanulata, lobis late ovatis acutis intus sulcatis valvatis. Stamina 6, fauci corollæ inserta, filamentis brevibus subulatis basi in annulum connatis; antheræ parvæ, dorsifixæ, ovato-cordatæ, inclusæ. Ovarium 3-gono-obovoideum, e carpellis 3 basi distinctis vertice exsculptis constans; stylus brevis, 3-sulcatus, stigmate 3-denticulato; ovula basilaria, erecta. Fructus globosus v. ellipsoideus, 1-locularis, styli cicatrice apicali, pericarpio coriaceo non fibroso. Semen erectum, globosum v. ellipsoideum, hilo lato subbasilari, raphe elongata ramis laxis descendentibus, albumine laxe ruminato; embryo subbasilaris.—Palmæ inermes,

caudice elato robusto solitario inferne annulato, superne vestigiis vaginarum induto. Folia terminalia, orbicularia, flabellatim plicata, in lacinias apice integras v. laceras induplicatas fissa, marginibus interdum filiferis, rhachi brevi, ligula brevi, petioli validi marginibus lævibus v. spinosis, vagina superne utrinque late patentim 2-auriculata. Spadices elongati, sæpe decurvi, glabri v. tomentosi, ramis divaricatis v. recurvis, rhachi vaginata; spathæ plures, incompletæ. Flores parvi, glabri v. tomentosi. Fructus parvus, lutescens.

Species ad 8, Novæ Grenadæ, ins. Indiæ Occidentalis et Brasiliæ incolæ. *Kunth, Enum. Pl.* iii. 242. *Griseb. Fl. Brit. W. Ind.* 514; *Cat. Pl. Cub.* 220.

CRYSOPHILA, *Blume*, est fide Wendlandii (in Kerch. Denterg. Palm. 242) *Copernicia? nana*, planta Mexicana, nobis non nisi foliis nota.

95. **Pritchardia,** *Seem. et H. Wendl. in Bonpland.* ix. 260, x. 197, 310, *t.* 15.—Flores hermaphroditi, in ramis spadicis interfoliacei 2–3-plicato-ramosi sessiles, sparsi, solitarii; perianthium post anthesin immutatum. Calyx tubuloso-campanulatus, 3-dentatus v.-lobus. Corolla 3-partita, tubo brevi; segmenta ovata, acuta, crasse coriacea, valvata, demum a tubo persistente soluta. Stamina 6, filamentis brevibus subulatis basi in cupulam tubumve corollæ adnatum connatis; antheræ lineari-oblongæ, dorsifixæ. Ovarium subglobosum v. obovoideum, 3-gonum v. 3-lobum, 3-loculare, in stylum validum 3-sulcatum elongatum attenuatum, stigmatibus minutis; ovula basilaria, erecta. Fructus globosus v. ellipsoideus, 1-spermus, stylo terminali, pericarpio tenui v. crassiusculo fibroso, endocarpio tenui. Semen globosum, erectum, hilo parvo basilari, raphe levissime impressa, ramis 0, albumine æquabili solido; embryo supra basin dorsalis.—Palmæ inermes, elatæ, caudice solitario inferne annulato, superne vestigiis vaginarum vestito. Folia terminalia, ampla, sæpe albo-furfuracea, orbicularia v. basi cuneata, non profunde plicato-multifida, segmentis angustis apice 2-fidis induplicatis, marginibus filiferis, *rhachi elongata, ligula* brevi, petiolo superne concavo inermi, vagina brevi. *Spadices longe pedunculati, rami* ramulisque validis ascendentibus, rhachi *vaginata*; *spathæ amplæ, crasse coriaceæ,* pedunculo affixæ, basi tubulosæ, superne fissæ, sæpe argenteo-furfuraceæ. Flores majusculi. Fructus parvus v. majusculus.

Species 3–4, insularum Amicorum et Sandwicensium incolæ. *Mart. Hist. Nat. Palm.* iii. 242 (*Livistonæ sp.* 7, 8). *Gaud. Voy. Bonite Bot. t.* 58, 59 (*Livistona?*). *H. Mann in Proc. Amer. Acad.* vii. 204. *Seem. Flor. Viti*, 273, *t.* 79.

96. **Licuala,** *Thunb. in Act. Holm.* 1782, 84. (Pericycla, *Blume, Rumph.* ii. 47, *t.* 94.) —Flores hermaphroditi, in ramis spadicis interfoliacei paniculatim ramosi sessiles v. pedicellati, sparsi v. 2–3-ni, minute bracteati v. ebracteati; perianthium post anthesin fere immutatum. *Calyx* cupularis v. breviter tubulosus, ore 3-fido. Corolla crasse coriacea, profunde 3-loba, lobis late ovatis acutis valvatis. Stamina 6, filamentis brevibus subulatis basi dilatatis in annulum fauci corollæ insertum demum liberum connatis; antheræ cordato-ovatæ, dorsifixæ. Ovarii carpella 3, vertice truncata exsculpta, ventre cohærentia; stylus filiformis, stigmate minuto 3-dentato; ovula subbasilaria, erecta. Carpella matura solitaria, parva, globosa ovoidea obovoidea v. ellipsoidea, stylo apicali, pericarpio tenui carnoso v. succulento, endocarpio crustaceo v. coriaceo. Semen globosum, erectum, liberum, læve, facie ventrali ad centrum perfossum, hilo basilari, raphe inconspicua, albumine corneo æquabili; embryo dorsalis.—Palmæ humiles, frutescentes, caudicibus solitariis v. cæspitosis inferne annulatis, supra sæpe longe vestigiis vaginarum et petiolorum tectis. Folia terminalia, in lacinias elongato-cuneatas plicatas truncatas apice lobatas v. laceras flabellatim sæpissime profunde divisas irregulariter fissa, rhachi brevissima, ligula brevi, petiolo gracili v. robusto inermi v. marginibus spinosis, vagina fibrosa. Spadices plerumque graciles, glabri v. furfuracei, rhachi vaginata; spathæ plures, pedunculum vaginantes, tubulosæ, ore oblique 2-fido, coriaceæ, persistentes; bracteæ et bracteolæ obsoletæ. Flores sparsi v. densi, interdum magni, semi-pollicares.

Species ad 30, Asiæ orientalis tropicæ, Archipelagi Malayani, Novæ Guineæ et Australiæ borealis

incolæ. *Mart. Hist. Nat. Palm.* iii. 234, *t.* 134, 135, 162. *Kunth, Enum. Pl.* iii. 238. *Gærtn. Fruct.* ii. *t.* 139. *Blume, Rumph.* ii. 37, *t.* 82, 88 *ad* 93. *Griff. in Calc. Journ. Nat. Hist.* v. 321; *Palm. Brit. Ind.* 117, *t.* 221 A, B, C, 222, 222 A, B, 223, 224 A, B, 225. *Kurz, For. Fl.* ii. 527. *Beccari, Malesia* 1, 80. *H. Wendl. et Drude in Linnæa*, xxxix. 191, *t.* 3, *f.* 2. *Drude in Bot. Zeit.* 1877, 638, *t.* 6, *f.* 36 *ad* 38. *Benth. Fl. Austral.* vii. 144. *Miq. Fl. Ind. Bat.* iii. 51, *Suppl.* 254, 591; *Palm. Archip. Ind.* 10; *Pl. Jungh.* 163.

97. **Livistona**, *R. Br. Prod.* iii. 123. (Saribus, *Blume, Rumph.* ii. 48, *t.* 95, 96.)—Flores hermaphroditi, minuti, in ramis gracilibus spadicis interfoliacei paniculatim ramosissimi sessiles v. pedicellati, sparsi v. fasciculati, ebracteati v. minute bracteati; perianthium post anthesin fere immutatum. Sepala 3, rotundata, concava, basi connata, imbricata. Corolla crasse coriacea, profunde 3-loba, lobis late ovatis acutis valvatis. Stamina 6, filamentis brevibus subulatis basi dilatatis in annulum fauci corollæ insertum connatis; antheræ cordato-ovatæ, dorsifixæ. Ovarii carpella 3, ventre cohærentia; styli breves, subulati, distincti v. cohærentes, stigmate minuto; ovula basilaria, erecta. Carpella matura 1–3, globosa oblonga v. ellipsoidea, recta v. subincurva, stylo subterminali; pericarpio extus coriaceo v. tenuiter carnoso, endocarpio crustaceo. Semen erectum, pericarpio conforme, convexum, facie ventrali medio ad centrum excavatum, hilo parvo basilari, testa membranacea, raphe diffusa, ramis obscuris, albumine æquabili corneo; embryo dorsalis.—Palmæ inermes, caudice sæpe robusto et elato, inferne annulato, superne vestigiis vaginarum induto. Folia terminalia, ampla, patentia, orbicularia, flabellatim plicata, ad medium v. infra fissa, laciniis 2-fidis induplicatis margine nudis v. filiferis, rhachi brevi, ligula parva cordiformi libera, petiolo elongato robusto plano-convexo v. biconvexo marginibus spinosis, vagina in fibras reticulatas soluta. Spadices elongati, primum suberecti, demum fructiferi penduli, longe pedunculati, laxe ramosi, ramis gracilibus; spathæ plures, elongatæ, tubulosæ, compressæ, pedunculum vaginantes, crasse coriaceæ, 2-fidæ v. 2-labiatæ, 2-carinatæ v. ancipites; bracteæ et bracteolæ obsoletæ. Flores viriduli. Fructus nitidus, ater cærulescens flavus v. brunneus.

Species ad 14, Asiæ orientalis tropicæ, Archipelagi Malayani, Novæ Guineæ et Australiæ orientalis incolæ. *Mart. Hist. Nat. Palm.* iii. 239, 319, *t.* 109, 110, 111, 135, 145, 146, *et t.* 102 (*Corypha*). *Kunth, Enum. Pl.* iii. 241. *Griff. in Calc. Journ. Nat. Hist.* v. 333; *Palm. Brit. Ind.* 127, *t.* 226 A, B, C, D, *App.* xxiii. *Miq. Fl. Ind. Bat.* iii. 57; *Suppl.* 591; *Pl. Jungh.* 165; *Palm. Archip. Ind.* 12. *Beccari, Males.* i. 84. *Kurz, For. Fl.* ii. 525. *Benth. Fl. Austral.* vii. 145. *F. Muell. Fragm. Phyt. Austral.* viii. 221. *H. Wendl. et Drude in Linnæa*, xxxix. 192, 226. *H. Wendl. in Bull. Bot. Soc. Fr.* viii. 430. *Jacq. Fragm. t.* 11, *f.* 1 (*Latania*). *Bot. Mag. t.* 6274. Spathæ in speciebus Asiaticis quam in Australianis multo majores et crassiores.

98. **Trachycarpus**, *H. Wendl. in Bull. Soc. Bot. Fr.* viii. 429.—Flores in ramis spadicis interfoliacei paniculati sessiles, polygamo-monoici, solitarii v. 2-ni, bracteati et 2-bracteolati; perianthium post anthesin immutatum. Calyx 3-partitus, segmentis ovatis acutis. Corolla 3-partita, segmentis late ovatis obtusis v. acutis, valvatis. Stamina 6, basi corollæ inserta, filamentis liberis subulatis; antheræ ovatæ, dorsifixæ, in fl. ♀ imperfectæ. Ovarii carpella 3, basi connata, 3-gono-ovoidea, acuta, glabra v. tomentosa, in fl. ♂ imperfecta; stigmata brevia, recurva; ovula basilaria, erecta. Fructus globosus ellipsoideus v. subreniformis, 1-spermus, stigmate terminali, pericarpio tenuiter carnoso, endocarpio tenui v. crustaceo. Semen pericarpio conforme, erectum, liberum, ventre longitudinaliter sulcatum, hilo parvo basilari, raphe diffusa ramis obscuris, albumine corneo æquabili; embryo medio dorso situs.—Palmæ inermes, caudicibus solitariis et elatis v. humilibus et cæspitosis, superne rete fibrosa e vestigiis vaginarum confecta dense obtectis. Folia terminalia, orbicularia v. semiorbicularia, profunde plicato-multifida, laciniis angustis 2-fidis induplicatis, rhachi 0, ligula brevissima, petiolo 2-convexo, vagina integra strato interiore e fibris dense intertextis. Spadices plures, breves v. elongati, robusti, densi- v. laxiflori; spathæ plures, majusculæ, compressæ, oblique fissæ, crasse coriaceæ, tomentosæ, pedunculum ramosque primarios spadicis vaginantes; bracteæ et bracteolæ minutæ. Flores parvi, flavescentes. Fructus cæruleus v. croceus, glaber v. tomentosus.

Species 4, 2 montium Indiæ borealis et Burmæ incolæ, una Chinensis, quarta Japonica. *Mart. Hist. Nat. Palm.* iii. 251 (*sp.* 3, 4, 7), *t.* 125. *Griff. in Calc. Journ. Nat. Hist.* v. 339 (*sp.* 1); *Palm. Brit. Ind.* 133, *t.* 227 A, B. *Wall. Pl. As. Rar.* iii. *t.* 211. *Kurz, For. Fl.* ii. 526. *Brand. For. Fl.* 546. *Bot. Mag. t.* 5221 (*excl. f.* 6, 7) (*omnes sub Chamæropside*).

99. **Rhapis,** *Linn. f. in Ait. Hort. Kew.* iii. 473.—Flores dioici v. polygamo-dioici, in ramis gracilibus spadicis interfoliacei patentim paniculato-ramosi sessiles, solitarii, 1-bracteati, perianthio crasse coriaceo post anthesin immutato. Fl. ♂: Calyx cupularis, 3-dentatus. Corolla obovoidea v. clavata, 3-fida, lobis brevibus late ovatis acutis valvatis. Stamina 6, filamentis tubo corollæ adnatis, apicibus liberis; antheræ didymæ, dorsifixæ, extrorsum dehiscentes, demum versatiles. Ovarii rudimenta obsoleta. Fl. ♀: Perianthium maris, sed brevius. Staminodia 6. Ovarii carpella 3, distincta, carpophoro elongato imposita, dorso convexa, ventre bifacialia; styli breves, stigmatibus acutis; ovula globosa, oblique lateraliter appensa. Fructus e carpellis 1–3 parvis obovoideis 1-spermis, stylis terminalibus, pericarpio carnoso intus fibroso, endocarpio molli. Semen depresso-globosum, liberum, ventre profunde excavatum, cavo materie spongiosa farcto, hilo suprabasilari, raphe inconspicua, albumine æquabili; embryo dorsalis.—Palmæ humiles, caudicibus dense cæspitosis arundinaceis longe foliosis vestigiis reticulatis vaginarum tectis. Folia alterna et terminalia, submembranacea, connata v. semiorbicularia, digitatim irregulariter inter nervos 3–∞-partita, segmentis linearibus cuneatis v. ellipticis truncatis integris dentatis v. fissis, nervis 3–∞, nervulis transversis conspicuis, rhachi 0, ligula brevissima semicirculari, petiolo gracili biconvexo marginibus lævibus v. serrulatis, vagina elongata in rete laxum soluta. Spadices foliis breviores, graciliter pedunculati, rhachi bracteis deciduis vaginata, ramis patentibus; spathæ 2–3, incompletæ, membranaceæ. Flores flavescentes.

Species 4 v. 5, Chinæ et Japoniæ incolæ. *Mart. Hist. Nat. Palm.* iii. 253, *t.* 144. *Kunth, Enum. Pl.* iii. 251. *Miq. Fl. Ind. Bat.* iii. 61. *Jacq. Hort. Schœnb. t.* 316. *Bot. Mag. t.* 1371. Flores ♀ non visi. Fructus in una specie tantum scrutatus a nobis.

100. **Thrinax,** *Linn. f. in Swartz, Prod.* 57; *Fl. Ind. Occ.* 613, *t.* 13.—Flores hermaphroditi, in ramis gracilibus spadicis interfoliacei paniculatim ramosi sparsi, pedicellati, pedicello basi bracteato; perianthium post anthesin immutatum. Calyx et corolla in cupulam brevem 6-fidam confluentes. Stamina 6–12, basi perianthii inserta, filamentis filiformi-subulatis basi breviter connatis; antheræ oblongæ v. lineari-oblongæ, dorsifixæ, utrinque 2-fidæ, connectivo tenui. Ovarium ovoideum v. globosum, 1-loculare, in stylum cylindraceum attenuatum, stigmate infundibulari; ovulum basilare, erectum. Fructus pisiformis, stylo apiculatus, pericarpio tenui. Semen liberum, erectum, globosum v. depresso-globosum, sulcis sinuatis verticalibus exsculptum, hilo basilari, rapheos ramis in sulcis reconditis, albumine corneo æquabili v. subruminato; embryo apicalis.—Palmæ inermes, mediocres v. humiles, caudicibus solitariis v. cæspitosis inferne annulatis superne vaginis foliorum in rete solutis longe vestitis. Folia terminalia, orbicularia v. basi truncata, flabellatim plicata et multifida, laciniis 2-fidis induplicatis, rhachi brevi v. 0, ligula libera erecta concava, petiolo gracili biconvexo, marginibus lævibus, vagina sæpius elongata rete pulcherrimum efformante. Spadices elongati, rhachi vaginis tubulosis vestita, ramis primariis alternis paniculatim ramosis, ramulis gracilibus; spathæ plures, pedunculo insertæ, papyraceo-coriaceæ, fissæ. Flores interdum longiuscule graciliterque pedicellati, pedicello basi bractea caduca stipato; bracteolæ minutæ v. obsoletæ. Fructus parvus.

Species ad 10, una Floridana, ceteræ Insularum Antillarum incolæ. *Mart. Hist. Nat. Palm.* iii. 254, 320, *t.* 103, 163. *Kunth, Enum. Pl.* iii. 252. *Griseb. Cat. Pl. Cub.* 221. *T.? Chuco, Mart. Palm. Orbign.* 45, *t.* viii. *f.* 1 *et* 25 B, floribus ignotis, versimiliter non hujus generis.

101. **Hemithrinax,** *Hook. f. gen. nov.*—Flores hermaphroditi, minuti, in ramis spadicis interfoliacei duplicato-ramosi sparsi, sessiles v. breviter stipitati, solitarii v. 2–3-ni, ebrac-

teati et ebracteolati; perianthium obsoletum, ad stipitem brevissimum basi truncatum setulis 6 minutissimis coronatum reductum. Antheræ 6, sessiles, breves, latæ, in annulum ovarium cingentem dispositæ, medio dorso affixæ, reversæ, loculis discretis ellipsoideis extus dehiscentibus, connectivo crassissimo subquadrato sicco rugoso. Ovarium ovoideum, 1- rarius 2–3-loculare, in stylum crassum curvum antheras superantem attenuatum, stigmate subinfundibulari flabellatim expanso obscure 3-lobo; ovula basilaria, erecta. Fructus pisiformis, breviter stipitatus, stylo apicali, pericarpio tenuiter crustaceo. Semen depresso-globosum, erectum, liberum, ad hilum late et profunde intrusum in fossam testa suberosa farctam, testa atra, hilo parvo basilari, raphe subbasilari indistincta, albumine corneo æquabili; embryo fere apicalis.—Palma . . . Folia terminalia, coriacea, orbicularia, plicato-multifida, subtus glauca, laciniis latis acuminatis induplicatis breviter 2-fidis, costa valida, nervis utrinque ad 8. Spadices breves, rhachi evaginata, ramulis crassiusculis curvis pubescentibus; spathæ plures, papyraceo-coriaceæ, elongatæ, acuminatæ, longe fissæ. Flores diametro ramulis minores. Fructus pallidus.

Species 1, Cubensis. *Griseb. Cat. Pl. Cub.* 221 (*Trithrinax compacta*).

TRIBUS IV. LEPIDOCARYEÆ.

102. **Calamus**, *Linn. Gen. n.* 436.—Flores polygamo-monoici v. dioici, in ramis spadicis interfoliacei paniculatim ramosi vaginati bifariam inserti, solitarii 2-ni v. rarissime glomerati, bracteati et bracteolati; perianthium coriaceum. Fl. ♂: Calyx cupularis, 3-dentatus v. 3-fidus. Petala 3, libera v. basi connata, oblonga v. lanceolata, acuta, valvata. Stamina 6, rarissime pauciora, fundo v. fauci corollæ inserta, filamentis brevibus v. subulatis basi liberis v. connatis, apicibus rectis v. infractis interdum incrassatis; antheræ lineares sagittatæ v. oblongæ, dorsifixæ. Ovarii rudimentum minutum v. 0. Fl. ♀ masculos subæquantes; perianthio post anthesin paullo aucto. Calyx maris. Corolla basi tubulosa, 3-fida, laciniis ovatis acutis valvatis. Staminodia 6, in cupulam liberam v. tubo corollæ adnatam connata. Ovarium ovoideum v. globosum, retrorsus squamatum, incomplete 3-loculare; stylus brevis v. elongatus, stigmatibus brevibus v. elongatis; ovula 3, basilaria, erecta. Fructus globosus v. ellipsoideus, 1- rarissime 2–3-spermus, stylo terminali, pericarpio tenui squamis deorsum imbricatis tessellatim loricato. Semen globosum ellipsoideum plano-convexum v. deforme, læve v. sinuato-sulcatum, suberectum, extus molliter carnosulum, chalaza laterali, rapheos ramis a chalaza ad situm embryonis decurrentibus, albumine æquabili v. leviter ruminato; embryo subbasilaris v. ventralis.—Palmæ armatæ, sæpissime debiles, scandentes, rarius erectæ, caudicibus cæspitosis longissimis remote annulatis. Folia alterna, remota, æqualiter pinnatisecta, segmentis æquidistantibus interruptis v. fasciculatis lanceolatis ensiformibus v. ellipticis, apicibus integris, costa nervis marginibusque basi recurvis sæpe setosis, rhachi dorso convexa facie acuta sæpe in funem aculeatum efoliolatum producta, petiolo brevi v. elongato obtuse 3-gono, vagina aculeata sæpe in ligulam concavam rarissime in ocream brevem producto, non raro flagello elongato aculeato uno latere instructa. Spadices breves v. elongati, dense v. laxe paniculatim ramosi, ramis sæpius gracillimis, floriferis brevibus v. elongatis rectis v. scorpioideis interdum crassis et complanatis, bracteis dense imbricatis quasi articulatis, rhachi non raro in funem producta, pedunculo gracili v. robusto libero v. vaginæ folii insequentis longe adnato; spathæ numerosæ, pedunculum ramosque vaginantes, tubulosæ, incompletæ, v. 1–2 inferiores majores et completæ, coriaceæ inermes v. aculeatæ. Flores parvi, sæpissime virides, rarissime pubescentes, intra bracteas spathaceas solitarii v. bini, altero sæpe abortivo aut sexu distincto; bracteolæ liberæ v. connatæ. Fructus parvus v. mediocris.

Species ad 200, omnes tropicæ v. subtropicæ, pleræque oriento-Asiaticæ paucæ Australienses et Africæ tropicæ incolæ. *Mart. Hist. Nat. Palm.* iii. 207, 331, *t.* 112, 113, 116, 128, 160, 175, 176. *Gærtn. Fruct.* ii. *t.* 139. *Lam. Illustr. t.* 770. *Blume, Rumph.* iii. 28, *t.* 146 *ad* 154, 163, 163 B. *Griff. in Calc. Journ. Nat. Hist.* v. 26, *cum ic.*; *Palm. Brit. Ind.* 33, *t.* 185 *ad* 216 C *et* 216 B (*Dæmonorops*), *Append.* xx. *Miq. Fl. Ind. Bat.* iii. 103 749; *Suppl.* 90, 256, 594; *Palm. Archip.*

Ind. 17. *Kurz, For. Fl.* ii. 515. *Thwaites, Enum. Pl. Zeyl.* 330, 431. *Benth. Fl. Austral.* vii. 134. *Mann et H. Wendl. in Trans. Linn. Soc.* xxiv. 429, *t.* 41 F. *H. Wendl. in Bot. Zeit.* 1859, 158. *Drude in Bot. Zeit.* 1877, 637, *t.* 5, *f.* 1, 2. *T. Anders. in Journ. Linn. Soc.* xi. 8.

Genus in sectiones sequentes subnaturales a Griffithio divisum est:—

1. *Coleospathæ.* Spadices diffusi; spathæ omnes sub anthesin persistentes, tubulosæ, limbo parvo v. obsoleto.

2. *Piptospathæ.* Spadices diffusi; spathæ 1 v. 2 inferiores persistentes, ramorum deciduæ.

3. *Platyspathæ.* Spadices contracti; spathæ omnes sub anthesin persistentes, planæ, vaginis parvis v. 0.

4. *Cymbospathæ.* Spadices contracti; spathæ cymbiformes, rostratæ, diu persistentes, 2 inferiores ceteras involucrantes, vaginis obsoletis. DÆMONOROPS, *Blume in Ræm. et Schult. Syst.* vii. 1322; *Rumph.* ii. *t.* 131 *ad* 137; iii. 2, *t.* 138 *ad* 145, 163 B. *Mart. Hist. Nat. Palm.* iii. 203, 326, *t.* 117, 125, 175 *ad* 177. *Kunth, Enum. Pl.* iii. 204. *Miq. Fl. Ind. Bat.* iii. 81; *Suppl.* 90, 255, 592.

103. **Zalacca,** *Reinw. in Syll. Pl. Soc. Bot. Ratisb.* ii. 3 (Salacca).—Flores polygamo-monoici v. dioici, in ramulis amentiformibus spadicis interfoliacei elongati dense multifariam conferti, bracteati et 2-bracteolati; ♂ 2-ni, ♀ solitarii v. 2-ni altero sterili; perianthium coriaceum. Fl. ♂: Calyx tubulosus et 3-fidus v. 3-partitus. Corolla tubulosa, 3-fida, laciniis valvatis. Stamina 6, tubo corollæ inserta, filamentis brevibus basi connatis; antheræ breves, oblongæ v. lineari-sagittatæ, subbasifixæ. Ovarii rudimenta minuta v 0. Fl. ♀ masculis majores, perianthio post anthesin aucto. Calyx 3-fidus v. 3-partitus. Corolla tubulosa, 3-fida, laciniis lanceolatis valvatis. Staminodia 3 v. 6, libera v. in cupulam connata. Ovarium 3-loculare, setosum v. squamosum; stigmata 3, subulata; ovula basilaria, erecta. Fructus globosus turbinatus v. obovoideus, 1–3-spermus, septis fere evanidis, stigmatibus terminalibus, pericarpio tenui squamis deorsum imbricatis interdum longe spinescentibus tessellatim loricato. Semina solitaria et globosa v. 2–3 et obtuse angulata, hilo basilari, vertice profunde excavata, testa crustacea extus molliter carnosa, chalaza apicali, albumine osseo æquabili; embryo basilaris.—Palmæ acaules, radicibus soboliferis. Folia elongata, æqualiter pinnatisecta, segmentis alternis fastigiatis v. æquidistantibus lanceolatis v. oblanceolatis rectis v. falcatis acuminatis, nervis parallelis supremis interdum connatis, marginibus setosis ima basi recurvis, rhachi obtuse 3-gona aculeata non producta, petiolo valido teretiusculo aculeis sæpe spiraliter dispositis palmatisve armato, vagina valide armata aculeis compressis, ligula 0. Spadices simplices v. fastigiatim ramosi, penduli, ramulis floriferis breviusculis remotis v. confertis sessilibus v. pedunculatis; spathæ persistentes, inferiores pedunculum ramosque vaginantes, incompletæ; partiales ramulos floriferos subtendentes, primum clausæ, papyraceæ; bracteolæ in cupulam glabram v. villosam 2-locularem connatæ. Flores sæpius rosei. Fructus sæpissime rostratus.

Species ad 8, Archipelagi Malayani incolæ et una Assamica. *Mart. Hist. Nat. Palm.* iii. 199, 325, *t.* 118, 119, 123, 136, 159, *f.* 3, 173, 174. *Kunth, Enum. Pl.* iii. 102. *Gærtn. Fruct. t.* 139 (*Calamus*). *Blume, Rumph.* ii. 158. *Griff. in Calc. Journ. Nat. Hist.* v. 6; *Palm. Brit. Ind.* 9, *t.* 175 *ad* 180 C; *App.* xix. *Miq. Fl. Ind. Bat.* iii. 80. *Kurz, For. Fl.* ii. 511. *Wall. Pl. As. Rar.* iii. *t.* 222.

104. **Korthalsia,** *Blume, Rumph.* ii. 166, *t.* 130, *f.* 2. (Ceratolobus, *Blume, ibid.* iii. *t.* 157, 157 B. Calamosagus, *Griff. in Calc. Journ. Nat. Hist.* v. 22; *Palm. Brit. Ind.* 26, *t.* 183, 184, 184 A.)—Flores dioici (hermaphroditi, *Griff.*) in ramulis amentiformibus spadicis vaginati interfoliacei dense multifariam conferti, bracteati et bracteolati; perianthium coriaceum. Fl. ♂: Sepala orbicularia v. late oblonga. Petala oblongo-lanceolata, valvata. Stamina 6, basi petalorum inserta, filamentis brevibus basi connatis; antheræ lineares, subsagittatæ, dorsifixæ. Ovarii rudimentum oblongum. Fl. ♀ masculos subæquantes. Sepala maris. Corolla basi tubulosa, 3-fida, laciniis ovatis acutis valvatis. Staminodia 6 v. plura, fauci corollæ inserta. Ovarium imperfecte 3-loculare, squamis recurvis obtectum; stylus brevis v. elongatus, stigmatibus 3 brevibus recurvis; ovula 3, basilaria, erecta. Fructus globosus v. ovoideus, 1-locularis, 1-spermus, stylo terminali, pericarpio tenui squamis deorsum imbricatis tessellatim loricato. Semen erectum, obovoideum v. globosum,

vertice profunde foveolatum, chalaza laterali, albumine ruminato; embryo ventralis, vagus.—Palmæ graciles, caudice elongato scandente flexuoso. Folia alterna, pinnatisecta, segmentis alternis trapeziformibus basi cuneatis in petiolum brevem angustatis flabellatim venosis, supra medium erosis, marginibus ima basi recurvis, rhachi trigona in funem aculeatum producta, petiolo brevi teretiusculo, vagina cylindracea in ligulam scaphoideam producta. Spadices laxe ramosi, penduli, pedunculo ramisque primariis spathis tubulosis elongatis persistentibus vaginatis, ramulis floriferis omnino exsertis; bracteæ latiores quam longæ, membranaceæ, bracteolæ ad villos reductæ. Flores parvi. Fructus parvus.

Species ad 16, Archipelagi Malayani et Novæ Guineæ incolæ. *Mart. Hist. Nat. Palm.* iii. 210, 343, *t.* 172, *f.* 1. *Miq. Fl. Ind. Bat.* iii. 74, 750; *Suppl.* 591; *Pl. Jungh.* 162. *Kurz, For. Fl.* ii. 512. *H. Wendl. in Bot. Zeit.* 1859, 174. *Beccari, Malesia,* i. 87.

105. **Ceratolobus,** *Blume in Schult. Syst.* vii. 1334; *Rumph.* ii. 163, *t.* 129, 137 A.—Flores polyagmo-monoici, in ramis gracillimis spadicis exigui interfoliacei longe gracillime pedunculati sæpissime 2-ni, inferiore sessili ☿, superiore stipitato ♂ v. neutro, bracteati; perianthium coriaceum. Fl. ♂: Calyx parvus, 3-fidus, lobis triangularibus patulis. Petala lanceolata, acuta, valvata. Stamina 6, basi petalorum inserta, filamentis ima basi connatis; antheræ lineares, dorsifixæ. Ovarii rudimentum minutum. Fl. ☿ masculos subæquantes. Calyx maris. Corolla 3-fida, laciniis valvatis. Stamina 6, tubo corollæ inserta, antheræ lineares, dorsifixæ. Ovarium ovoideum, imperfecte 3-loculare, squamis reversis onustum; stigmata 3, majuscula, recurva; ovula 3, basilaria, erecta. Fructus globosus v. ellipsoideus, 1-locularis, 1-spermus, stigmatibus terminalibus, pericarpio tenui squamis deorsum imbricatis tessellatim loricato. Semen globosum, erectum, testa rugulosa extus molliter carnosa, chalaza laterali, albumine ruminato; embryo basilaris.—Palma gracilis, caudice elongato erecto v. scandente vaginis aculeatis foliorum tecto. Folia alterna, æqualiter pinnatisecta, segmentis oppositis et alternis sessilibus cuneato-rhombeis longe acuminatis plicatis antice crenato-erosis marginibus ima basi recurvis, costa distincta, rhachi trigona aculeata et in funem aculeatum producta, petiolo brevi teretiusculo, vagina tubulosa in ligulam brevem producta. Spadix 4–6-pollicaris, exilis, laxe paniculatus, complanatus, rhachi ramisque basi squama instructis filiformibus flexuosis, pedunculo longissimo pendulo aculeato vaginæ folii insequentis longe adnato; spatha solitaria, siliquiformis, completa, lineari-oblonga, complanata, longe rostrata, anceps, marginibus basi aculeolatis, membranacea, secus margines tarde dehiscens. Flos superior ebracteatus, inferior bracteis bracteolisque vaginantibus instructus. Fructus parvus.

Species 2, Javanica et Sumatrana. *Mart. Hist. Nat. Palm.* iii. 196, 325, *t.* 115. *Kunth, Enum. Pl.* iii. 200. *Miq. Fl. Ind. Bat.* iii. 73.

106. **Pigafetta,** *Beccari, Males.* i. 89.—Flores polygamo-monoici, in ramulis amentiformibus spadicis axillaris laxe paniculatim ramosi dense conferti, bracteati; perianthium coriaceum. Fl. ♂: Calyx obconicus, truncatus v. obscure 3-dentatus. Petala 3, libera, lanceolata, valvata. Stamina 6, filamentis brevibus crassis; antheræ erectæ, ovato-lanceolatæ, basi sagittata affixæ, cuspidatæ. Ovarii rudimentum inconspicuum. Fl. ♀ . . . Fructus globosus v. oblongus, 1-locularis, 1-spermus, stigmatibus terminalibus; pericarpio squamis retrorsum imbricatis tessellatim loricato. Semen oblongum v. globosum, subrugosum v. irregulariter costatum, carne molli indutum, hilo basilari, chalaza dorsali, albumine æquabili; embryo dorsalis.—Palmæ elatæ, caudice robusto superne aculeato, basi sobolifero, inferne remote annulato. Folia terminalia, pinnatisecta, segmentis oppositis et alternis lanceolatis acuminatis, marginibus basi recurvis, petiolo teretiusculo inermi v. aculeato. Spadices paniculatim ramosissimi, penduli, pedunculo ramisque primariis spathis tubulosis truncatis incompletis vaginatis, ramulis amentiformibus graciliter pedunculatis basi vaginatis; bracteæ lanceolatæ. Flores lana immersi, spiraliter dispositi.

Species 3, Archipelagi Malayani et Novæ Guineæ incolæ. *Mart. Hist. Nat. Palm.* iii. 215, 343 (*Metroxylon sect. Pigafetta*), *et t.* 102 (*Sagus*). *Blume, Rumph.* ii. 154, *t.* 128 (*Sagus*). Genus imperfecte notum, a nobis haud scrutatum.

107. **Plectocomia,** *Mart. et Blume in Schult. Syst.* vii. 2, 1333.—Flores dioici, in spiculis brevibus spadicis axillaris (v. terminalis) spathellis conchiformibus imbricatis velatis inserti, secundi, minute bracteati et bracteolati ; perianthium coriaceum. Fl. ♂ : Calyx cupularis v. obconicus, 3-fidus v. 3-dentatus. Petala 3, oblique lanceolata, acuminata, basi breviter connata, valvata. Stamina 6, basi perianthii inserta, filamentis subulatis basi in columnam brevem connatis ; antheræ lineares, erectæ, dorsifixæ. Ovarii rudimentum 0. Fl. ♀ masculis majores, perianthio post anthesin aucto. Calyx cupularis, 3-dentatus. Corolla 3-fida, basi ventricosa, lobis ovato-lanceolatis acuminatis valvatis. Staminodia 6, in annulum fauci corollæ insertum connata, antheris cassis. Ovarium subglobosum, 3-loculare, squamis fimbriatis nudisve reversis operta ; stigmata 3, sessilia, linearia, erecta ; ovula basilaria, erecta. Fructus globosus, 1- rarius 3-spermus, breviter rostratus, stigmatibus terminalibus, pericarpio tenui squamis retrorsum imbricatis tessellatim loricato, intus carnosulus. Semen erectum, subglobosum angulatum v. subplano-convexum marginibus grosse crenatis, hilo basilari, chalaza apicali, raphe distincta, albumine æquabili ; embryo basilaris.—Palmæ scandentes, monocarpicæ ?, aculeis recurvis armatæ, caudicibus gracilibus v. robustis longissimis annulatis superne longe vaginatis. Folia alterna, æqualiter pinnatisecta, segmentis remotis v. fasciculatis anguste elliptico-lanceolatis, longe graciliterque acuminatis, basi contracta marginibus recurvis, rhachi obtuse trigona in funem elongatum aculeatum producta, petiolo teretiusculo vaginaque tubulosa aculeatis, ligula 0. Spadices simpliciter ramosi, ramis secundis pluripedalibus pendulis ; spathellæ arcte imbricatæ, subcylindraceæ v. leviter compressæ, oblongæ v. cuneatæ, basi contractæ et rhachin spadicis amplectentes, apicibus rotundatis v. acutis, coriaceæ, siccæ, persistentes ; spiculæ ♂ pollicares, multifloræ, ♀ breviores paucifloræ ; bracteæ et bracteolæ subulatæ. Fructus inter minores tribus.

Species ad 6, montium Indiæ transgangeticæ et Archipelagi Malayani incolæ. *Mart. Hist. Nat. Palm.* iii. 198, 325, *t.* 114, 116, *f.* 1, 176, *f.* 11, 12. *Kunth, Enum. Pl.* iii. 202. *Blume, Rumph.* iii. 68, *t.* 158, 159, 163. *Griff. Palm. Brit. Ind.* 103, *App.* xxi. *t.* 217 *ad* 219. *Miq. Fl. Ind. Bat.* iii. 78 ; *Suppl.* 592. *Kurz, For. Fl.* ii. 514. *T. Anders. in Journ. Linn. Soc.* xi. 11. *H. Wendl. in Bot. Zeit.* 1859, 165. *Bot. Mag. t.* 5105. Spadix in *P. himalayana* terminalis fide T. Andersonii, l. c., in aliis certe axillaris est. Planta culta monocarpica videtur.

108. **Eugeissonia,** *Griff. in Calc. Journ. Nat. Hist.* v. 101, *cum ic.* ; *Palm. Brit. Ind.* 109, *App.* xxii. *t.* 220, 220 A, B, C.—Flores elongati, dioici, ad apices ramulorum spadicis terminalis contracti erecti, longe pedunculati, solitarii v. 2–3-ni, bracteati et bracteolati ; perianthium crasse coriaceum. Fl. ♂ : Calyx campanulatus, 3-fidus. Corolla 3-gona, basi breviter contracta et solida, segmentis elongato-lanceolatis acuminatis pungentibus valvatis. Stamina ad 12, filamentis brevibus basi connatis ; antheræ elongato-lineares, acutæ, loculis a latere dehiscentibus. Ovarii rudimentum 0. Flores ♀ masculis majores, perianthio post anthesin valde aucto. Calyx maris. Petala unguiculata, ungue dilatato, lamina elongato-lanceolata acuminata pungente, basi intus crista transversa pilorum aucta, valvata. Staminodia 0 nisi cristæ petalorum. Ovarium oblongum, squamis reversis tectum, 3-loculare ; stigmata sessilia, oblonga, complanata ; ovula basilaria, erecta. Fructus ovoideus, in rostrum crassum obtusum attenuatus, 1-locularis, 1-spermus, stigmatibus terminalibus, pericarpio squamis parvis retrorsum imbricatis tessellatim loricato, endocarpio lignoso intus septis 6 imperfectis in longitudinem percurso. Semen ovoideum, erectum, extus subcellulosum, in longitudinem profunde 6-sulcatum, hilo basilari, chalaza rapheque inconspicuis, albumine æquabili solido ; embryo basilaris.—Palmæ monocarpicæ, armatæ, caudicibus cæspitosis. Folia elongata, suberecta, æqualiter pinnatisecta, segmentis æquidistantibus anguste lanceolatis caudato-acuminatis, costa gracili setosa marginibus basi recurvis, rhachi trigona inermi apice non producta, petiolo elongato teretiusculo aculeis complanatis armato, ligula 0, vagina brevi. Spadices stricti, thyosoideo-ramosi, ramis erectis, inferne foliis parvis ad vaginas flagelliferas reductis aucti, ramulis crassitie pollicis cylindraceis erectis vaginis obtusis dense subdistiche imbricatis tectis, vaginis

supremis in bracteas bracteolasque desinentibus, inferioribus carinatis. Flores 1-4-pollicares, teretes, curvi, longe exserti. Fructus majusculus.

Species 2 v. plures, Archipelagi Malayani incolæ. *Mart. Hist. Nat. Palm.* iii. 212, 343, *t.* 179, 180. *Miq. Fl. Ind. Bat.* iii. 77. *Beccari in Nuov. Giorn. Bot. Ital.* iii. 18.

109. **Metroxylon,** *Rottb. in Nye Saml. Dansk. Videns. Selsk. Skrift.* ii. 525, *t.* 1. (Sagus, *Blume, Rumph.* ii. 146 (*excl. sect.* 2), *t.* 86, 126, 127.)—Flores polygamo-monoici v. hermaphroditi, in ramulis amentiformibus spadicis terminalis dense multifariam conferti, 2-ni v. solitarii, bracteati et bracteolati; perianthium coriaceum. Fl. ♂: Calyx infundibularis, 3-fidus v. 3-dentatus, nervosus. Corolla 3-fida, laciniis oblongis valvatis. Stamina 6, basi v. fauci corollæ inserta, filamentis basi connatis; antheræ lineares v. sagittatæ, dorsifixæ. Ovarii rudimentum 3-partitum. Fl. ☿ masculis consimiles, perianthio post anthesin fere immutato. Staminodia in urceolum membranaceum connata, antheris cassis v. 0. Ovarium oblongum, retrorsus squamosum, imperfecte 3-loculare; stylus conicus, stigmatibus 3 dentiformibus; ovula 3, basilaria, erecta. Fructus ellipsoideus v. subglobosus, 1-locularis, 1-spermus, stylo terminali, pericarpio squamis deorsum imbricatis tessellatim loricato, endocarpio spongioso. Semen erectum, globosum v. depresso-globosum, rugulosum, testa tenui, carne 0, hilo et chalaza subbasilaribus, rapheos ramis inconspicuis, albumine duro ruminato; embryo ventralis.—Palmæ monocarpicæ, erectæ, caudicibus sæpe cæspitosis robustis mediocribus v. elatis basi soboliferis, inferne annulatis. Folia terminalia, suberecta, æqualiter pinnatisecta, segmentis oppositis lineari-lanceolatis, acuminatis, costa subtus setosa, marginibus basi recurvis, rhachi inferne convexa superne obtusa v. acuta, petiolo dorso convexo antice sulcato longe denseque armato, vagina coriacea aperta, ligula 0. Spadix amplus, laxe paniculato-ramosus, totus spathis tubulosis vaginatus, ramulis floriferis alternis distichis elongatis patenti-recurvis; spathæ coriaceæ, aculeatæ; bracteæ latiores quam longæ, bracteolæ in cupulam campanulatam connatæ. Flores lana immersi.

Species ad 6, Archipelagi Malayani, Novæ Guineæ et insularum Fiji incolæ. *Mart. Hist. Nat. Palm.* iii. 213, 343 (*excl. sect. Pigafetta*), *t.* 102, 159. *Kunth, Enum. Pl.* iii. 213 (*excl. sp.*). *Dict. Sc. Nat. t.* 32, 33 (*Sagus*). *Kœn. in Kœn. et Sims Ann. Bot.* i. 193, *t.* 4. *Griff. Palm. Brit. Ind.* 21, *t.* 181; *Append.* xx. (*Sagus*). *Miq. Fl. Ind. Bat.* iii. 139 (*excl. sect.* 2). *Beccari, Males.* 91; *et in Nuov. Giorn. Bot. Ital.* iii. 29. CŒLOCOCCUS, *H. Wendl. in Seem. Fl. Vit.* est *Sagus vitiensis*, H. Wendl.

110. **Raphia,** *Beauv. Fl. Ow. et Ben.* i. 75, *t.* 44, *f.* 1, 45, 46. (Metroxylon, *Spreng. Gen. Pl.* 283, *non Rottb.*)—Flores in ramulis pectinatis compressis ejusdem spadicis maximi terminalis fastigiatim ramosi monoici, distichi, bracteati et bracteolati; perianthium crasse coriaceum. Fl. ♂: Calyx tubulosus, ore truncato integerrimo v. minute denticulato. Corolla curva, basi contracta trigona solida, segmentis 3 lineari-lanceolatis valvatis. Stamina 6–16, filamentis subulatis v. incrassatis basi connatis et basibus segmentorum insertis; antheræ erectæ, lineares, basin versus affixæ, obtusæ v. mucronatæ, loculis a latere dehiscentibus. Ovarii rudimentum 0. Fl. ♀ masculis majores, perianthio post anthesin immutato. Calyx et corolla maris. Staminodia in urceolum 6–∞-dentatum, corollæ tubo basi insertum connata. Ovarium ovoideum, 3-loculare, retrorsus squamosum; stigmata sessilia, subulata, recurva; ovula supra basin loculorum inserta. Fructus magnus, oblongus ovoideus v. ellipsoideus, rostratus, 1-locularis, 1-spermus, stigmatibus terminalibus, pericarpio crasso squamis retrorsum imbricatis tessellatim loricato, endocarpio fungoso. Semen latere affixum, oblongum, utrinque obtusum v. acutum, sulcatum, hilo laterali, raphe lineari ramis reticulatis, albumine osseo solido ruminato; embryo ventralis.—Palmæ monocarpicæ, inermes v. vaginis armatis, caudicibus mediocribus v. elatis simplicibus v. dichotome divisis dense annulatis. Folia terminalia, longissima, suberecta, æqualiter pinnatisecta, segmentis lineari-lanceolatis acuminatis crasse coriaceis, costa valida, marginibusque basi recurvis setosis v. aculeolatis, rhachi bifaciali antice acuta apice non producta, petiolo cylindraceo v. dorso convexo facie planiusculo, vagina brevi, marginibus longe fibrosis. Spadices maximi, penduli, cylindracei, dense ramosis-

simi, ramis brevibus imbricatis flabelliformibus pectinatim ramosis ramulisque crassiusculis compressis bracteis floriferis vaginantibus densissime vaginatis quasi articulatis; spatha communis 0, partiales numerosæ, ramos incomplete vaginantes; bracteæ cyathiformes, compressæ, arcte imbricatæ; bracteolæ dorso in vaginulam 2-fidam connatæ. Flores elongati, sæpius decurvi, longe exserti, inferiores in ramulis ultimis spadicis ♀. Fructus magnus, squamis amplis.

Species 6 v. 7, Africæ tropicæ et Madagascariæ incolæ, et una Americana ab Amazonum ostia ad Nicaraguam extensa. *Mart. Hist. Nat. Palm.* ii. 53, *t.* 45, 47, *f.* 5, 48 (*Sagus*), iii. 216, 343. *Kunth, Enum. Pl.* iii. 216. *Lam. Illustr. t.* 771 (*Sagus*). *Dict. Sc. Nat. t.* 30, 31 (*Sagus*). *Gærtn. Fruct. t.* 10, *f.* 1 (*Sagus*). *Griff. Palm. Brit. Ind. t.* 182 (*Sagus*). *Drude in Mart. Fl. Bras.* iii. ii. 286, *t.* 61, 62. *Wallace, Palm. Amaz.* 42, *t.* 2, 16. *Mann et H. Wendl. in Trans. Linn. Soc.* xxiv. 437, *t.* 39 A, B, 42 A, B, C, D.

111. **Oncocalamus,** *Mann et H. Wendl. in Kerch. de Dentergh. Palm.* 252; *et in Trans. Linn. Soc.* xxiv. 436, *t.* 41 E, 43 E (Calami *subgenus*).—Flores monoici, in ramis spadicis axillaris simpliciter ramosi vaginati distiche glomerati, bracteati et bracteolati, glomerulis polygamo-monoicis; perianthium coriaceum. Fl. ♂ glomeruli numerosi. Calyx oblongus, 3-dentatus v. breviter 3-fidus, lobis fimbriatis valvatis. Petala calyce inclusa, ima basi connata, ovata, acuta, concava, chartaceo-coriacea, marginibus tenuibus valvatis. Stamina 6, filamentis in tubum carnosum oblongum truncatum petalis æquilongum connatis; antheræ minutæ, didymæ, ad os tubi sessiles, 3 alternæ paullo altius insertæ. Ovarii rudimentum styliforme. Fl. ♀ in glomerulo solitarii, centrales, perianthio post anthesin immutato. Calyx maris. Petala maris sed basi altius connata. Staminodia andrœcio maris similia sed antheris orbata, et tubo calycis adnata. Ovarium elongato-ovoideum, 3-loculare, superne squamis reversis opertum, in stylum strictum elongatum attenuatum, stigmatibus 3 brevissimis; ovula basilaria, erecta. Fructus immaturus globosus, stylo terminali. Semen . . .—Palma scandens, caudice elongato gracili. Folia elongata, æqualiter pinnatisecta, segmentis oppositis et alternis elongato-lanceolatis acutis, marginibus remote aculeatis basi recurvis, rhachi inermi obtuse 3-gona in funem gracilem 3-gonum segmentis in spinas alternas reversas mutatis producta, petiolo brevissimo, vagina in ocream truncatam producta. Spadices penduli, distiche ramosi, inermes, basi nudi, superne spathis tubulosis truncatis vaginati, ramis longissimis gracilibus pendulis; bracteæ imbricatæ, infundibulari-campanulatæ, spathelliformes, 5–11-flores; bracteolæ in corpus faviforme confertæ.

Species 1, Africæ occidentalis ad Sierra del Crystal incola. Flores ut nobis videtur pro maxima parte ☿, uno in glomerulo fructum maturante.

112. **Eremospatha,** *Mann et H. Wendl. in Kerch. de Dentergh. Palm.* 252; *et in Trans. Linn. Soc.* xxiv. 433, *t.* 41 A, B, C, 43 B (Calami *subgenus*).—Flores hermaphroditi v. polygami, in ramis spadicis axillaris evaginati simpliciter ramosi gemini, distichi, minute bracteati, ebracteolati; perianthium crasse coriaceum, post anthesin immutatum. Calyx campanulatus v. cupularis, truncatus v. 3-dentatus. Corolla oblonga, 3-loba, lobis brevibus ovatis acutis valvatis. Stamina 6, fauci corollæ inserta, filamentis brevissimis in annulum crassum 6-dentatum connatis; antheræ minutæ, cordatæ, dorso affixæ. Ovarium columnare, squamis reversis onustum; stigmata lingulata; ovula subbasilaria, erecta. Fructus oblongus ellipsoideus v. subcylindraceus, 1- rarius 2–3-locularis et -spermus, pericarpio tenui squamis deorsum imbricatis tessellatim loricato. Semen peltatum, oblongum, a dorso compressum, subrugosum, hilo supra-basilari lineari, chalaza dorsali, rapheos ramis ab hilo radiantibus, albumine æquabili; embryo ventralis.—Palmæ scandentes, caudicibus elongatis gracilibus flexuosis annulatis. Folia alterna, æqualiter pinnatisecta, segmentis alternis et oppositis lineari-lanceolatis nervis in apicem acuminatum convergentibus, v. obovatis obtusis nervis flabellatim dispositis, marginibus basi recurvis nudis v. aculeolatis integerrimis v. supra medium erosis, rhachi obtuse 3-gona marginibus spinosis apice in funem elongatum 3-gonum segmentis in spinas oppositas crassas rigidas deflexas mutatis producta, petiolo sub 0, vagina tubulosa aculeata in ocream truncatam producta. Spadices

breves, breviter pedunculati, pedunculo ramisque compressis distichis robustis patentibus; spathæ ad squamas brevissimas basin ramorum stipantes reductæ; bracteæ e squamis minutis.

Species 3 v. 4, Africæ tropicæ occidentalis incolæ. Genus spadice evaginato et floribus fere ebracteatis singulare; nervi segmentorum in *E. Hookeri* illos *Korthalsiæ* revocant; in *E. cuspidato* contra, nervi in apicem convolutum spinescentem segmenti terminantur.

113. **Ancistrophyllum,** *Mann et H. Wendl. in Kerch. de Denterg. Palm.* 230; *et in Trans. Linn. Soc.* xxiv. 432, *t.* 38 D, 41 G, 43 C (Calami *subgenus*).—Flores hermaphroditi, in ramis elongatis spadicis erecti terminalis distiche inserti, spathaceo-bracteati et bracteolati; perianthium crasse coriaceum, post anthesin auctum. Calyx campanulatus, breviter 3-lobus. Corolla oblongo-cylindracea, 3-partita, segmentis lineari-oblongis acutis erecto-patentibus valvatis. Stamina 6, basi segmentorum inserta, filamentis lingulatis v. clavatis; antheræ lineari-oblongæ, basi 2-fidæ, dorsifixæ, erectæ. Ovarium ovoideum, squamulis reversis fimbriatis onustum, 3-loculare, in stylum gracilem elongatum attenuatum, stigmatibus 3 minutis oblongis; ovula basilaria v. subbasilaria, erecta. Fructus parvus, ovoideo-globosus, rostratus, 1-spermus, stylo terminali, pericarpio tenui squamis deorsum imbricatis tessellatim loricato. Semen erectum v. suberectum, globosum v. dorso compressum, hilo basilari v. supra-basilari, chalaza dorsali, raphe lineari, albumine æquabili v. extus lacunoso; embryo ventralis.—Palmæ monocarpicæ, cæspitosæ, alte scandentes, caudicibus gracilibus elongatis flexuosis. Folia remota, alterna, æqualiter pinnatisecta, segmentis subaggregatis v. alternis lineari-lanceolatis v. oblongo-falcatis acuminatis nervis costisque lævibus, marginibus aculeolatis basi recurvis, rhachi valida antice planiuscula dorso convexa marginibusque lævibus v. aculeatis, apice in funem elongatum crassum 3-gonum segmentis deflexis ensiformibus auctum producta, vagina clausa spinosa in ocream elongatam producta. Spadix pyramidatus, 4–6-pedalis, distiche duplicato-ramosus, ramis pendulis, ramulis alternis longissimis flexuosis; spathæ tubulosæ, pedunculum ramosque spadicis vaginantes; bracteæ spathellæformes, 2-flores; bracteolæ in cupulam 2-cuspidatam 2-alatam obliquam connatæ. Flores mediocres. Fructus parvus.

Species 3 v. 4, Africæ occidentalis incolæ. Genus in sectiones 2 dividendum:—

1. *Ancistrophyllum,* Mann et H. Wendl. l. c. *Calami* subgen. Folii segmenta basi angusta inserta, anguste lineari-lanceolata. Semen compressum, læve, hilo basilari. Species 1: *Calamus secundiflorus,* Beauv. Fl. Ow. et Ben. t. 9, 10. Mart. Hist. Nat. Palm. iii. 341.

2. *Laccosperma.* Mann et H. Wendl. l. c. 430, *t.* 38 B, 41 D, 43 D, *Calami* subgen.; Drude in Bot. Zeit. 1877, 635, t. 5, f. 45. Folii segmenta basi late inserta, late falcato-elliptica v. lanceolata. Semen globosum, foveolatum, peltatum. Species 2 v. 3. Laccosperma, *Mann et H. Wendl. in Kerch. de Denterg. Palm.* 249.

114. **Mauritia,** *Linn. f. Suppl.* 70.—Flores monoici v. polygamo-dioici, in ramulis brevibus distichis spadicis interfoliacei paniculato-ramosi inserti, bracteati et bracteolati, ramulis ♂ amentiformibus floribus confertissimis, ♀ brevibus paucifloris; perianthium coriaceum. Fl. ♂: Calyx cyathiformis v. infundibularis, indivisus v. e sepalis 3 cuneatis. Petala 3, lanceolata, erecta, basi in stipitem brevem contracta, valvata. Stamina 6, basi petalorum inserta, filamentis brevibus v. subelongatis liberis v. in columnam brevem connatis, 3 petalis oppositis longioribus; antheræ oblongæ v. lineari-oblongæ, erectæ, dorsifixæ. Ovarii rudimentum parvum. Fl. ♀ v. ⚥ masculis multo majores. Calyx cupularis v. ovoideus. Petala 3, unguiculata, unguibus tenuibus liberis v. connatis, lamina lanceolata acuminata erecta intus basi cristata v. appendiculata, valvata, post anthesin valde aucta. Staminodia 0 nisi appendices petalorum. Ovarium retrorsum squamosum, 3-loculare; stigmata sessilia, subulata; ovula basilaria, erecta. Fructus ellipsoideus v. globosus, 1-locularis, 1-spermus, pericarpio tenui squamis retrorsum imbricatis tessellatim loricato, endocarpio? tenuiter carnoso. Semen globosum v. ovoideum, testa lævi, raphe umbilicali laterali, chalaza elongata verticali mamillari v. calcarata, albumine æquabili solido osseo; embryo ventralis.—Palmæ elegantissimæ, subinermes, caudice gracili

elato v. mediocri obscure annulato, annulis v. internodiis interdum spinis conicis armatis Folia terminalia, lamina pinnatim flabelliformi semicirculari v. circulari, v. cuneata multifida, segmentis lanceolatis acuminatis, costis marginibusque inermibus v. spinulosis, rhachi brevi v. elongata, petiolo gracili v. robusto teretiusculo, vagina brevi v. elongata in una specie in fibras densissime contextas soluta. Spadices magni, pedunculo elongato, ramis crassis distichis flexuosis spathis incompletis vaginatis, ramulis amentiformibus numerosis basi spatha brevi cochleato-infundibulari crasse coriacea stipatis; bracteæ et bracteolæ vaginantes, latæ, truncatæ, crasse coriaceæ, marginibus incrassatis rugulosis. Flores parvi v. majusculi, inferiores in ramulis sæpe ♀ pauci. Fructus mediocris.

Species 6 v. 7, Brasiliæ borealis, Guianæ et insularum Indiæ occidentalis incolæ. *Mart. Hist. Nat. Palm.* ii. 41, *t.* 38 *ad* 44, iii. 344; *Palm. Orbign.* 19, *t.* 13, *f.* 1, 14, *f.* 1, 21 A, B. *Kunth, Enum. Pl.* iii. 217. *Drude in Mart. Fl. Bras.* iii. ii. 287, *t.* 61 *ad* 65, 67. *Wallace, Palm. Amaz.* 46, *t.* 2, *f.* 2, *et t.* 17 *ad* 21. *Griseb. Fl. Brit. W. Ind.* 515. *Barb. Rodr. Enum. Palm. Nov.* 18. *Spruce in Journ. Linn. Soc.* xi. 167. *Traill in Trim. Journ. Bot.* 1877, 129.

Genus a Drudeo in Mart. Fl. Bras. l. c. in sectiones sequentes divisum:—

1. *Moriche.* Caudex estolonifer, lævis. Folia radiatim flabellata, lævia. Spadices breviter pedunculati, pedunculo valido quam rami pluries breviore. Includit 1. *M. flexuosa*, Linn.; Mart. Hist. Nat. Palm. t. 40; Wallace, Palm. Amaz. t. 2, f. 2 et 17. 2. *M. vinifera*, Mart. l. c. t. 38, 39; Palm. Orbign. t. 13, 21.

2. *Diplorhipis.* Caudex stolonifer, basi armatus. Folia plerumque mediane bisecta, aculeata v. inermia. Spadices longius pedunculati, pedunculo gracili ramos subæquante. 1. *M. aculeata*, H. B. K.; Wallace, Palm Amaz. t. 20 (*M. gracilis*). 2. *M. Martiana*, Spruce; Wallace, l. c. t. 19 (*M. aculeata*); Mart. l. c. t. 39, 44 (*M. aculeata*). 3. *M. armata*, Mart. l. c. t. 41 ad 43; Palm. Orbign. t. 14, 21. 4. *M. pumila*, Wallace l. c. t. 21. Lepidococcus, *H. Wendl. et Drude in Kerch. de Dentergh. Palm.* 249.

Orophoma, *Drude in Mart. Fl. Bras.* iii. ii. 294, *t.* 66 (*Mauritiæ* subgen. *Orophoma*, Spruce in Journ. Linn. Soc. xi. 171. *M. carana*, Wallace, Palm. Amaz. t. 18) *differt caudice solitario robusto, superne reliquiis vetustis vaginarum onusto, et corollæ fl. ♂ basi elongata.* Fl. ♀ *ignoti.*

115. **Lepidocaryum,** *Mart. Gen. et Sp. Palm.* ii. 49, *t.* 47, *f.* 1–3, iii. 344.—Flores dioici, in ramulis brevibus compressis spadicis interfoliacei secundi v. distiche conferti, bracteati et bracteolati; perianthium coriaceum. Fl. ♂: Calyx campanulatus v. cupularis, subtrigonus, 3-denticulatus. Petala 3, ima basi connata, erecta, lanceolata, valvata. Stamina 6, basi petalorum inserta, filamentis subclavatis, 3 petalis oppositis longioribus; antheræ lineari-oblongæ, dorsifixæ, basi longe 2-fidæ. Ovarii rudimentum minimum v. 0. Fl. ♀ masculis majores. Calyx maris. Corolla 3-fida, basi ventricosa, segmentis 3 ovato-lanceolatis acuminatis valvatis, post anthesin auctis. Staminodia in annulum fauci corollæ insertum connata, brevia, antheris 0 v. cassis. Ovarium ovoideum, 3-loculare, squamis reversis opertum; stigmata 3, erecta, lineari-subulata; ovula erecta, basilaria. Fructus obovoideus, rostratus, 1-locularis, 1-spermus, pericarpio tenui squamis retrorsum imbricatis tessellatim loricato. Semen erectum, oblongum, hilo basilari, dorso verticaliter late exsculptum, chalaza apicali, rapheos ramis subtiliter reticulatis, albumine æquabili solido; embryo infra apicem ventralis.—Palmæ inermes, mediocres, caudice gracili erecto v. flexuoso. Folia flabelliformia, lamina palmatipartita, basi cuneata v. sinu lato, segmentis linearibus acuminatis integris v. fissis glabris v. secus costam marginibusque ciliato-setosis, rhachi brevi, petiolo gracili obtuse trigono superne a latere compresso basin versus canaliculato, vagina elongata inflata convoluta. Spadices graciles, patentes, subdistiche paniculato-ramosi, pedunculo ramisque spathis tubulosis vaginatis, ramulis floriferis brevibus, basi spathellis late infundibularibus involucratis; bracteæ late ovatæ; bracteolæ in cupulam obliquam 2-fidam dorso 2-carinatam v. 2-alatam connatæ. Flores rosei. Fructus inter minores, squamis parvis.

Species 5, Brasiliæ borealis et Guianæ incolæ. *Kunth, Enum. Pl.* iii. 220. *Drude in Mart. Fl. Bras.* iii. ii. 296, *t.* 62, 67, 68. *Spruce in Journ. Linn. Soc.* xi. 172 (*Mauritia sect. Lepidocaryum*). *Traill in Trim. Journ. Bot.* 1877, 129. *Barb. Rod. Enum. Palm. Nov.* 19. *Wallace, Palm. Amaz.* 60, *t.* 2, *f.* 4, 22.

TRIBUS V. BORASSEÆ.

116. **Borassus,** *Linn. Gen. n.* 1220. (Lontanus, *Gœrtn. Fruct.* i. 21, *t.* 8.)—Flores dioici; ♂ parvi, in foveolis ramorum amentiformium spadicis simpliciter ramosi interfoliacei dense congesti, receptaculo basi foveoli adnato 2-seriatim secundi, bracteis squamosis immixti; fl. ♀ magni, in ramis spadicis simpliciusculi robusti sparsi, solitarii v. 2-ni, bracteis latissimis involuti. Fl. ♂: Perianthium glumaceum. Sepala 3, anguste lineari-cuneiformia, apice inflexa truncata, libera, imbricata. Petala sepalis inclusa, basi in stipitem elongatum connata, obovato-spathulata, concava, patentia, imbricata. Stamina 6, filamentis brevissimis subulatis; antheræ magnæ, oblongæ, basi bifida affixæ. Ovarii rudimenta e setis 3. Fl. ♀ masculis multoties majores, globosi, perianthio crasse carnoso post anthesin inordinate aucto. Sepala reniformia, imbricata. Petala consimilia sed minora, convolutivo-imbricata. Staminodia 6–9, basi petalorum inserta. Ovarium 3-gono-globosum, 3- (rarius 2–4-) loculare, integrum v. 3–4-partitum; stigmata sessilia, recurva; ovula basilaria, erecta (ab apice placentæ basilaris erecta antitropa, *Griff.*). Fructus magnus, subglobosus, stigmatibus apiculatus, 1–3-pyrenus, pericarpio tenuiter carnoso, pyrenis obcordatis a dorso compressis osseis extus densissime fibrosis, intus processubus 2 intrusis, apice pertusis. Semen pyreno conforme, late oblongum, vertice 3-lobo, testa endocarpio adhærente, albumine æquabili corneo cavo; embryo apicem versus seminis. —Palma elata, inermis, caudice robusto annulato medio v. altius incrassato, interdum apicem versus furcato v. pauci-ramoso. Folia terminalia, ampla, palmatim flabelliformia, plicato-multifida, laciniis induplicatis apice 2-fidis, marginibus lævibus, rhachi brevi, ligula abbreviata rigida, petiolo spinoso, vagina brevi. Spadices magni, ad basin ramorum spathis incompletis vaginati, ♂ ramis floriferis solitariis v. 2–3-nis crassis cylindraceis bracteis multiseriatim dense imbricatis foveolas floriferas efficientibus vestitis; ♀ crassi, subtortuosi, pauciflori. Flores ♂ receptaculo subreniformi inserti, circinnatim evoluti, uno post alterum e foveola egredientes. Fructus brunneus.

Species 1, Africæ tropicæ incola, in India late culta, v. in provinciis ostia versus fluminis Indus forsan spontanea. *Mart. Hist. Nat. Palm.* iii. 219, 318, *t.* 108, 121, 162. *Kunth, Enum. Pl.* iii. 221. *Lam. Illustr. t.* 898. *Brandis, For. Fl.* 544. *Kurz, For. Fl.* ii. 531. *Roxb. Cor. Pl.* i. *t.* 71, 72. *Griffith, Notul.* iii. 167. *Drude in Bot. Zeit.* 1877, 635, *t.* 5, *f.* 6 *ad* 9.

117. **Lodoicea,** *Labill. in Ann. Mus. Par.* ix. 140, *t.* 13.—Flores dioici, ♂ parvi, in foveolis spadicis interfoliacei amentiformis conferti, bracteolis squamosis immixti; fl. ♀ magni, in ramis spadicis robusti sparsi, solitarii v. bini, bracteis latissimis cincti. Fl. ♂: Perianthium glumaceum. Sepala 3, lineari-cuneiformia, apice truncata inflexa, imbricata. Petala sepalis inclusa, in stipitem elongatum basi connata, obovato-spathulata, concava, patentia, imbricata. Stamina 24–36, filamentis in columnam brevem connatis; antheræ lineares, basi bifida affixæ, erectæ, apice incrassatæ, obtusæ. Ovarii rudimenta 0?. Fl. ♀ globosi. Perianthium crasse coriaceum, post anthesin inordinate auctum. Sepala orbicularia, crenulata, latissime imbricata. Petala consimilia sed minora, convolutivo-imbricata. Ovarium ovoideum, 3- rarius 2–4-loculare; stigmata 3, sessilia; ovula . . . Fructus maximus, oblique obovoideus, 1- v. imperfecte 2–3-locularis, pericarpio crasso dure carnoso, putamine crasso osseo extus fibroso in longitudinem profunde 3- rarius 4–6-lobo. Semen endocarpio arcte adhærens, testa tenui, albumine corneo æquabili late cavo; embryo basilaris, sinum spectans.—Palma elata, inermis, caudice solitario robusto annulato. Folia terminalia, ampla, ovato-cordata, palmato-flabelliformia, plicato-multifida, laciniis induplicatis, rhachi valde elongata, petiolo supra concavo, marginibus inermibus, vaginis brevibus demum ad medium fissis. Spadices pluripedales, e fissuris vaginarum extrusi, basi ramisque spathis incompletis vaginati; ♂ rami floriferi maximi, cylindracei, trunciformes, e bracteis latis connectis densissime multiseriatim imbricatis constantes; ♀ crassus, subtortuosus. Flores ♂ in receptaculo subreniformi basi foveolæ adnato circinnatim evoluti, uno post alterum e foveola egredientes. Fructus pedalis et ultra, olivaceus, endocarpio aterrimo.

Species 1, insularum Seychellarum incola. *Mart. Hist. Nat. Palm.* iii. 221, *t.* 109, 122. *Kunth, Enum. Pl.* iii. 225. *Baker, Fl. Maurit.* 379. *Bot. Mag. t.* 2734 *ad* 2738 (*in Fl. des Serres*, 523 *ad* 526 *iteratæ*). Genus non nisi staminibus numerosis et fructu magno a *Borasso* distinguendum.

118. **Latania**, *Comm.*; *Juss. Gen.* 39. (Cleophora, *Gærtn. Fruct.* ii. 185, *t.* 120.)—Flores dioici, in foveolis ramulorum amentiformium spadicis interfoliacei duplicatim ramosi solitarii, bracteati. Fl. ♂ obovoidei, perianthio glumaceo. Sepala 3, spathulata, imbricata. Petala 3, spathulata, basi in stipitem brevem connata, imbricata. Stamina 15–32, filamentis brevibus subulatis plus minus in columnam connatis; antheræ lineari-oblongæ, basi bifida insertæ. Ovarii rudimentum columnare v. e setis 3. Fl. ♀ magni, subglobosi, bracteis latis crassis per paria connatis inclusi, perianthio crasse carnoso post anthesin valde aucto. Sepala reniformia, late imbricata. Petala vix longiora, orbicularia, convolutivo-imbricata. Staminodia in cupulam dentatam connata. Ovarium 3-loculare, globosum; stigmata 3, sessilia, recurva; ovula basilaria, erecta. Drupa globosa, obovoidea v. pyriformis, teres v. 3-gona, 1–3-pyrena, stigmate terminali, pericarpio succulento, pyrenis obovoideis v. oblongis crustaceo-lignosis obtuse 3-gonis lævibus v. varie insculptis. Semina obovoidea, erecta, libera, testa brunnea endocarpio adhærente, albumine corneo æquabili solido; embryo in vertice seminis.—Palmæ inermes, elatæ, caudice solitario robusto annulato. Folia ampla, terminalia, longe petiolata, suborbicularia, palmato-flabelliformia, plicato-multifida, laciniis induplicatis marginibus lævibus v. spinulosis, rhachi brevi, petiolo 3-gono supra concavo, ligula conchoidea, vagina brevi. Spadices pluripedales, basi et ad ramos compressos spathis incompletis vaginati; ramuli floriferi ♂ cylindracei, ad apices ramorum spadicis digitatim dispositi, bracteis densissime imbricatis velati; ♀ subtortuosi, pauciflori, bracteis latissimis dentatis vaginati. Flores ♂ e bracteis semi-exserti, perianthio nitido; ♀ multo majores. Drupæ majusculæ, flavæ.

Species 3, insularum Mascarensium incolæ. *Mart. Hist. Nat. Palm.* iii. 223, *t.* 148, *f.* 4, 154, 161, *t.* 2. *Baker Fl. Maurit.* 380. *Jacq. Fragm. t.* 8. *Lemaire, Ill. Hortic. t.* 229.

119. **Hyphæne**, *Gærtn. Fruct.* ii. 13, *t.* 82. (Cucifera, *Del. Fl. Ægypt.* i. 57, *t.* 1, 2. Douma, *Poir. Dict. Suppl.* ii. 519; *Lam. Illustr. t.* 900.)—Flores dioici, in ramulis amentiformibus spadicium interfoliaceorum immersi, ♂ 2-ni, superpositi, ♀ solitarii, bracteati et bracteolati. Fl. ♂: Perianthium glumaceum. Sepala lineari-oblonga, basi connata, imbricata. Petala late ovata, obtusa, concava, basi in stipitem brevem connata, imbricata. Stamina 6, rarius 7, toro inserta, filamentis brevibus subulatis; antheræ lineares, basi 2-fida insertæ. Ovarii rudimentum 0. Fl. ♀ brevissime stipitati, masculis majores, perianthio crasse coriaceo post anthesin paullo aucto. Sepala 3, ovato-orbicularia, obtusa, imbricata. Petala paullo minora, late ovata, obtusa, imbricata. Staminodia 6, in annulum membranaceum connata, antheris effœtis. Ovarium subglobosum, obscure 3-lobum, 3-loculare; stigmata 3, minuta, sessilia, terminalia, dein excentrica; ovula basi lata lateri loculi affixa. Fructus sessilis v. stipitatus, sphæricus oblongus ovoideus v. obovoideus, teres v. obscure lobatus v. medio constrictus, basi et apice sæpe intrusus, 1-locularis, stigmatibus basilaribus, pericarpio grumoso et fibroso epidermide nitido, endocarpio lignoso intus carnoso. Semen endocarpio adnatum, erectum, ovoideum v. obovoideum, basi intrusum, testa durissima fusca, rapheos ramis planis reticulatis, albumine osseo æquabili late cavo; embryo apicalis.—Palmæ inermes, mediocres v. elatæ, caudice robusto cylindraceo ventricoso v. pyriformi simplici v. dichotome ramoso cicatricato. Folia terminalia, orbicularia v. ovato-orbicularia, palmato-flabelliformia, plicato-multifida, laciniis ensiformibus acutis v. 2-fidis marginibus induplicatis fibris interpositis, rhachi brevi, petiolo valido biconvexo v. supra planiusculo marginibus spinulosis, ligula brevi rotundata, vagina brevi aperta. Spadices spathis incompletis cylindraceis vaginati, ♂ ramis alternis, ramulis floriferis subfastigiatis cylindraceis; bracteæ semicirculares, densissime imbricatæ; bracteolæ membranaceæ, barbatæ, spadicis ♀ masculis subsimiles. Fructus diametro pugilli parvi v. minor.

Species 9 enumeratæ, Africæ tropicæ, Arabiæ et ins. Madagascariæ incolæ. *Mart. Hist. Nat. Palm.* iii. 225, *t.* 131 *ad* 133. *Kunth, Enum. Pl.* iii. 226. *Dict. Sc. Nat. t.* 28, 29 (*Douma*). *Kirk in Journ. Linn. Soc.* ix. 234. *Jacq. Fragm. t.* 133 (*Palma Thebaica*). *H. Wendl. in Bot. Zeit.* 1881, 91.

Tribus VI. Cocoineæ.

120. **Bactris,** *Jacq. Stirp. Amer. t.* 256.—Flores in eodem spadice interfoliaceo simplici v. simpliciter ramoso monoici, sparsi, sessiles, inferiores in ramulis 3-ni intermedio ♀, bracteati. Fl. ♂: Calyx annularis urceolaris v. 3-partitus, segmentis lanceolatis v. subulatis basi connatis carinatis. Petala multo majora, ovata v. lanceolata, planiuscula, ima basi connata, valvata. Stamina 6, 9, v. 12, basi perianthii toro parvo v. basi petalorum affixa, inclusa, filamentis subulatis; antheræ lineares, basi bifida affixæ, erectæ. Ovarii rudimentum 0, v. minutum. Fl. ♀ in parte inferiore ramorum masculis immixti, iis minores, perianthio post anthesin immutato v. aucto. Calyx varius, cylindraceus urceolaris v. rarius annularis v. tripartitus, ore truncato integerrimo v. dentato. Corolla calyce longior v. æquilonga, urceolaris v. cylindracea, ore truncato 3-denticulato. Discus cupularis, membranaceus, v. obsoletus. Ovarium ovoideum v. prismatico-trigonum, 3-loculare, loculis 2 effœtis v. obsoletis; stigmata 3, sessilia, brevia, pyramidata, demum recurva; ovulum loculum implens. Fructus ovoideus v. globosus, 1-locularis, 1-spermus, stigmatibus terminalibus, pericarpio carnoso, endocarpio osseo verticem versus v. supra medium 3-poroso. Semen infra apicem loculi pendulum, raphe reticulata, albumine æquabili corneo; embryo poro uni oppositus.—Palmæ sæpius humiles, rarissime omnino inermes, caudicibus solitariis v. fasciculatis annulatis aculeatis v. inermibus, radicibus soboliferis. Folia terminalia v. sparsa, æqualiter v. inæqualiter pinnatisecta, glabra v. pubescentia, segmentis sparsis v. aggregatis v. in laminam bifidam plus minusve imperfecte confluentibus, apicibus acutis rarius obtusis, marginibus ciliatis basi recurvis, petiolo brevi v. elongato, vagina elongata aculeata. Spadices sessiles v. pedunculati, vaginas foliorum perforantes; spathæ 2, inferiore brevi apice pervia, superiore coriacea v. lignosa spadicem excedente cymbiformi v. fusiformi ventre dehiscente, inermis setosa v. aculeata; bracteæ persistentes. Flores parvi v. mediocres, ochroleuci v. virescentes. Fructus parvus, colore varius.

Species enumeratæ ad 100, Americæ tropicæ incolæ. *Mart. Hist. Nat. Palm.* ii. 92, *t.* 60, 70, 72 *ad* 74, iii. 279, 321; *Palm. Orbign.* 53, *t.* 6, *f.* 2, 7, 14, *f.* 2, 26 B, 27, 28 A, B. *Kunth, Enum. Pl.* iii. 261. *Gærtn. Fruct.* i. *t.* 9. *Lam. Illustr. t.* 895. *Drude in Mart. Fl. Bras.* iii. ii. 316, *t.* 73 *ad* 80. *Griseb. Fl. Brit. W. Ind.* 519. *Karst. in Linnæa,* xxviii. 405, *et* 397 (*Gulielma*); *Fl. Colomb.* ii. 139, *t.* 173, *et* 127, *t.* 63 (*Gulielma*). *Wallace, Palm. Amaz.* 76, *t.* 28 *ad* 35, *et* 45 (*Bactris*). *Œrst. Palm. Centro-Amer.* (*in Vid. Meddel. Nat. Foren. Kjobenh.* 1858) 40, *t.* 8, 9, *f.* 32 *ad* 35, 50 *ad* 52. *Barb. Rodrig. Enum. Palm. Nov.* 26, *t.* 1, *f.* 3 *ad* 7, 2, *t.* 4 *ad* 6, *et Protest. Append.* 19, 42. *Spruce in Journ. Linn. Soc.* xi. 143, ubi auctor species 17 Amazonicas enumerat, sub sectionibus sequentibus:—

1. *Isochlamys.* Fl. ♀: Calyx et corolla subæquilongi, glabri, ovoideo-urceolati, ore 3-dentato, in fructu 3-fidi v. 3-partiti. Palmæ humiles, tenues, plerumque inermes, foliis sæpissime simplicibus, spadicibus simplicibus, spathis inermibus.

2. *Anisochlamys.* Fl. ♀: Calyx tenuis, brevis, 3-partitus. Corolla coriacea, ovoideo-urceolata, 3-loba, fructu aucta. Palmæ humiles, tenues, inermes, foliis sæpe interrupte pinnatisectis, spadicibus simplicibus, spathis inermibus.

3. *Cyathochlamys.* Fl. ♀: Calyx annularis, ore 3-gono v. 3-fido. Corolla cupularis, coriacea v. lignosa, villosa, in fructu aucta. Palmæ humiles v. mediocres, foliorum segmentis aggregatis (in *B. bifida* confluentibus) spadicibus (*B. bifida* excepta) ramosis, spatha superiore armata.

4. *Endochlamys.* Fl. ♀: Calyx globoso-urceolaris. Corolla brevior, lanata. Palmæ subhumiles, aculeatæ, foliis æqualiter pinnatisectis, spadicibus simplicibus, spatha superiore armata.

Traill in Trim. Journ. Bot. 1876, 354; 1877, 1, 40, 75, 132, *t.* 184, species 27 Amazonicas descripsit in sectiones duas a Martio stabilitatas, nempe *Sphærocarpæ* fructu globoso, et *Oocarpæ* fructu ellipsoideo. Denique Drude in Mart. Fl. Bras. species omnes brasilianas in sectiones 8 distribuit, ad habitum, folia, ramificationem spadicis pro maxima parte constitutas.

Augustinea, *Karst. in Linnæa,* xxviii. 395 (Pyrenoglyphis, *Karst. Fl. Colomb.* ii. 141, *t.* 174.

Œrst. Palm. Amer. Cent. l. c. 37), est. *B. major*, Jacq. Stirp. Sel. t. 263, nullo charactere a speciebus cæteris disco instructis differt; ad sectionem *Oocarpearum*, Mart., pertinet.

GULIELMA, *Mart. Hist. Nat. Palm.* ii. 84, *t.* 66, 67, iii. 283, 322; *Palm. Orbign.* 71, *t.* 10, *f.* 3, 29 A (*non Karst.*), est *Bactridis* species elata, per regiones tropicas Americæ australis culta, a Spruceo ad sectionem suam *Cyathochlamys* relata. *Kunth, Enum. Pl.* iii. 268. *Œrst. Palm. Centr. Amer. l. c.* 45, *t.* 9, *f.* 40 *ad* 49. *Wallace, Palm. Amaz.* 92, *t.* 3, *f.* 4, 36. *Barb. Rodr. Enum. Palm. Nov.* 23.

121. **Desmoncus,** *Mart. Hist. Nat. Palm.* ii. 84, *t.* 68, 69, iii. 32, 277, 321, *t.* 165; *Palm. Orbign.* 47, *t.* 14, *f.* 3, 26 A.—Flores in eodem spadice interfoliaceo simpliciter ramoso monoici, bracteati et bracteolati; ♂ in ramis superiores numerosi, inferiores ♀ solitarii v. utrinque floribus ♂ stipati. Fl. ♂: Calyx minutus, membranaceus, 3-fidus v. 3-gonus, lobis acutis carinatis. Petala 3, crassiora, oblique ovata, acuta v. acuminata, valvata. Stamina 6, in fundo perianthii toro parvo inserta, inclusa, filamentis subulatis v. filiformibus; antheræ lineares, basi 2-fida insertæ, erectæ. Ovarii rudimentum minutum v. 0. Fl. ♀ masculis multo minores, coriacei, perianthio post anthesin paullo aucto. Calyx cupularis, ore 3–5-denticulato. Corolla urceolaris, ore truncato 3-fido v. 3-dentato. Discus 0. Ovarium ovoideum, 3-loculare, loculis 2 sæpissime effœtis; stylus brevis, stigmatibus 3 acutis revolutis; ovulum lata basi affixum. Fructus parvus, ovoideus obovoideus v. subglobosus, 1-locularis, 1-spermus, pericarpio tenui carnosulo, endocarpio crustaceo v. osseo reticulatim venoso supra medium v. vertice 3-poroso, poris circumcirca stellatim fibrosis. Semen endocarpio conforme, testa tenera, albumine cartilagineo æquabili; embryo poro uni oppositus.—Palmæ gregarieæ, ubique aculeatæ, aculeis rectis v. hamatis, decumbentes v. scandentes, caudicibus fasciculatis flexuosis annulatis. Folia sparsa, sæpe refracta, subsessilia, pinnatisecta, segmentis oppositis et alternis v. sparsis acuminatis, basi in petiolum angustatis, marginibus haud ciliatis basi recurvis, rhachi in cirrhum validum segmentis deformatis deflexis armatum producta, petiole brevi, vagina elongata superne in ocream producta. Spadices solitarii, parvi, ramis fastigiatis gracilibus flexuosis; spathæ 2, inferiore brevi coriacea apice aperta, superiore sublignosa, cylindracea, ventre fissa; bracteæ breves. Flores virescentes, perianthio basi pervio. Fructus pisiformis, ruber.

Species ad 25. Americæ tropicæ incolæ. *Kunth, Enum. Pl.* iii. 258. *Drude in Mart. Fl. Bras.* iii. ii. 301, *t.* 69 *ad* 72. *Griseb. Fl. Brit. W. Ind.* 519. *Spruce in Journ. Linn. Soc.* xi. 155. *Traill in Trim. Journ. Bot.* 1876, 353, *t.* 183, *f.* 4. *Wallace, Palm. Amaz.* 72, *t.* 27. *Barb. Rodr. Enum. Palm. Nov.* 24.

Genus a Drudeo in sectiones 2 divisum:—

1. *Eudesmoncus.* Spadicis rhachis gracilis, elongata, ramos graciles pauciores distichos (v. in majoribus tristichos) intermediis longis separatos exserens; spatha interior fusiformis. Petala fl. ♂ cuspidata. Fructus minores, endocarpio tenui.

2. *Bactridopsis.* Spadicis rhachis crassa, ramos rigidos multos v. plurimos undique patentes dense exserens; spatha interior ovato-ventricosa. Petala fl. ♂ acuta. Fructus majores, endocarpio firmo. Sectio *Bactridi* proxima.

122. **Astrocaryum,** *G. W. Mey. Prim. Fl. Esseq.* 265.—Flores in eodem spadice interfoliaceo simpliciter ramoso monoici, bracteati et bracteolati, ♂ numerosi minuti apicibus elongatis amentiformibus ramorum immersi (rarius emersi), ebracteati; ♀ pauci, magni, ad basin ramorum sessiles. Fl. ♂: Sepala parva, triangularia, libera v. connata, acuta, haud imbricata. Petala ovata obovata v. lanceolata, basi connata, valvata. Stamina 6, raro plura, inclusa, filamentis crassis v. filiformibus; antheræ lineares, basi 2-fida v. dorso affixæ, versatiles v. erectæ. Ovarii rudimentum minutum v. 0. Fl. ♀ masculis multo majores, ovoidei, perianthio post anthesin aucto. Calyx urceolaris v. cupularis, truncatus v. 3-dentatus. Corolla urceolaris, carnosa, ore contracto 3-dentato demum irregulariter fisso. Discus annularis, membranaceus, corollæ tubo adnatus v. obsoletus. Ovarium ovoideum, 3-loculare, loculis 2 effœtis v. obsoletis; stylus conicus, stigmatibus confluenti-

bus; ovulum . . . Fructus ovoideus v. subglobosus, rostratus, lævis v. aculeatus, 1-spermus, stylo terminali, pericarpio carnoso intus fibroso, endocarpio osseo vertice 3-poroso, poris circumcirca stellatim fibrosis. Semen ovoideum, testa brunnea, rapheos ramis reticulatis, albumine æquabili corneo cavo; embryo poro uni oppositus.—Palmæ armatæ, acaules v. caudice humili v. elato annulato annulis spinosis. Folia terminalia, pinnatisecta, segmentis approximatis æquidistantibus v. fasciculatis lanceolatis acuminatis v. apice attenuato oblique truncato plicatis subtus albicantibus, terminalibus liberis v. confluentibus, marginibus aculeatis basi recurvis, petiolo breviusculo, vagina brevi aperta. Spadices breves v. elongati, ramis effusis pendulis basi incrassatis dein (*A. rostrato* excepto) gracillimis longe nudis, parte amentiformi basi nuda quasi pedunculata; spathæ 2, inferiore membranacea decidua, superiore fusiformi v. scaphoidea coriacea v. lignosa ventre aperta persistente; bracteæ fl. ♀ latæ, imbricatæ, bracteolæ consimiles. Fl. ♀ interdum utrinque flore masculo stipati. Fructus majusculus, ruber v. croceus.

Species enumeratæ ad 30 (an omnes congeneres), Americæ tropicæ præcipue Brasiliæ incolæ. *Mart. Hist. Nat. Palm.* ii. 69, *t.* 52, 58, 59, 65, iii. 287, 323; *Palm. Orbign.* 84, *t.* 4, *f.* 1, 2, 13, *f.* 3, 29 C, 30 A. *Kunth, Enum. Pl.* iii. 271. *Drude in Mart. Fl. Bras.* iii. ii. 364, *t.* 81 *ad* 83. *Griseb. Fl. Brit. W. Ind.* 521. *Karst. in Linnæa,* xxviii. 245; *Fl. Colomb.* ii. 167, *t.* 83. *Barb. Rodr. Enum. Palm. Nov.* 20 *et Protest. Append.* 27. *Spruce in Journ. Linn. Soc.* xi. 157. *Traill in Trim. Journ. Bot.* 1877, 77. *Wallace, Palm. Amaz.* 100, *t.* 2, *f.* 5, 38 *ad* 44.

Typus generis, *A. rostratum* Meyer (Bot. Mag. t. 4773) a congeneribus differt parte superiore ramorum spadicis non amentiformi nec quasi pedunculata, floribus ♂ majoribus foveolis rhacheos vix immersis et disco in fl. ♀ 0. Pericarpium carnosum in *A. Munbaca,* Mart., *A. gymnacantho,* Mart., aliisque paucis ab apice ad basin in lacinias 6 stellatim patentes dehiscit.

Toxophœnix, *Schott, Nachr. K.K. Œsterr. Naturf. in Brasil.* ii. *App.* (ex Martio), est fide Drudei *A. Ayri,* Mart.

123. **Acrocomia,** *Mart. Hist. Nat. Palm.* ii. 66, *t.* 56, 57; iii. 285, 322; *Palm. Orbign.* 78, *t.* 9, *f.* 1 (*Cocos*) *et* 29 B.—Flores in eodem spadice interfoliaceo simpliciter ramoso monoici; ♂ numerosi, parvi, in apicibus elongatis amentiformibus ramorum immersi densissime conferti; ♀ pauci, magni, ad basin ramorum sessiles, bracteati. Fl. ♂: Sepala minuta, scariosa, ovato-oblonga, obtusa, marginibus integris v. laceris, vix imbricatis. Corolla subcylindracea, basi carnosa, obtuse 3-gona, segmentis oblongis valvatis. Stamina 6, filamentis filiformibus segmentorum basibus adnatis compressis; antheræ exsertæ, lineari-oblongæ, dorsifixæ, versatiles. Ovarii rudimentum 0 v. minimum. Fl. ♀ masculis multo majores, ovoidei, perianthio post anthesin paullo aucto. Sepala minuta, ovato-orbicularia v. reniformia, imbricata. Petala longiora, crasse coriacea, libera v. basi connata et ovarii basi adnata, convolutivo-imbricata. Discus cupularis, liber v. corollæ adnatus, 3-fidus v. 6-dentatus. Ovarium ovoideum, 3-loculare, loculis 2 effœtis; stigmata 3, sessilia, subulato-lanceolata, revoluta; ovulum horizontale.—Fructus globosus v. oblongus, glaber v. setulosus, 1-spermus, stigmatibus terminalibus, pericarpio mucilaginoso intus fibroso, endocarpio crasso medio 3-poroso. Semen globosum v. 3-lobum, lateri loculi affixum, testa rapheos ramis reticulata, albumine duro æquabili; embryo poro uni oppositus.—Palmæ armatæ, caudice elato solitario sæpius medio ventricoso annulato, dense aculeato. Folia terminalia, pinnatisecta, segmentis anguste lineari-lanceolatis longe oblique acuminatis, marginibus nudis basi recurvis, costa petiolo et rhachi longe spinosis, vagina breviuscula aperta. Spadices pedunculati, aculeati, ramis crassiusculis effusis, parte ♀ flexuosa floribus remotis, ♂ elongata cylindracea; spathæ 2, inferiore apice aperta, superiore fusiformi lignosa aculeata; bracteæ fl. ♂ in opus foveatum confluentes, in fl. ♀ membranaceæ. Flores inter minores, ochroleuci, ♀ interdum utrinque flore masculo stipati. Fructus niger v. fuscus.

Species enumeratæ ad 8, Americæ tropicæ incolæ, inter se quam maxime affines et forsan pro varietatibus unius habendæ. *Kunth, Enum. Pl.* iii. 270. *Drude in Mart. Fl. Bras.* iii. ii. 388, *t.* 84. *Griseb. Fl. Brit. W. Ind.* 521. *Œrst. Palm. Centro-Amer.* (*in Vid. Meddel. Nat. Foren. Kjobenh.*) 47.

124. **Martinezia**, *Ruiz et Pav. Fl. Per. et Chil. Prod.* 148, *t.* 32. (Aiphanes, *Willd. in Mem. Acad. Berl.* 1804, 32.)—Flores in eodem spadice interfoliaceo simpliciter ramoso monoici, bracteati, ♂ in parte superiore præcipue ramorum sparsi, sessiles, ♀ in parte inferiore solitarii v. fl. masculis 2 stipati. Fl. ♂: Sepala parva, triangulari-ovata, imbricata. Petala ovato- v. oblongo-lanceolata, planiuscula, basi connata, valvata. Stamina 6, inclusa, filamentis brevissimis subulatis; antheræ lineares v. oblongæ, basi bifida affixæ, erectæ. Ovarii rudimentum minutum. Fl. ♀ ovoidei, masculis majores, perianthio post anthesin paullo aucto. Sepala membranacea, reniformia, concava, late imbricata. Petala paullo longiora, ovata, acuta, valvata v. subimbricata. Discus urceolaris, truncatus v. 6-dentatus, liber v. petalis adhærens. Ovarium ovoideum, 3-loculare, loculis 2 effœtis; stigmata 3, trigona, conniventia; ovulum adscendens. Fructus globosus, 1-spermus, stigmatibus terminalibus, pericarpio carnoso, endocarpio osseo glabro extus et intus ruguloso medio 3-poroso poris radiatim fibrosis. Semen globosum, rugulosum, ad hilum basilare intrusum, testa brunnea rapheos rami sparum ramosis percursa, albumine æquabili solido; embryo poro uni oppositus.—Palmæ armatæ, humiles v. elatæ, caudicibus solitariis v. cæspitosis annulatis aculeatis. Folia terminalia, pinnatisecta, segmentis alternis v. fasciculatis cuneatis late præmorsis 3-multifidis plicato-nervosis marginibus nudis v. ciliolatis basi planis v. recurvis, petiolo rhachique teretiusculis obtuse angulatis aculeatis, vagina brevi aperta. Spadices pedunculati, aculeati, ramis gracilibus erectis; spathæ 2, inferiore incompleta apice fissa, superiore fusiformi aculeata ventre fissa; bracteæ membranaceæ. Flores inter minores, pallidi. Fructus croceus coccineus v. roseus.

Species enumeratæ 7, Americæ tropicæ incolæ. *Mart. Hist. Nat. Palm.* iii. 283, 322, *t.* 161, *f.* 1; *Palm. Orbign.* 74, *t.* 2, 28 C. *Kunth, Enum. Pl.* iii. 269 *et* 275 (*Aiphanes*). *Gærtn. Fruct.* ii. *t.* 139, *f.* 5 (*Bactris*). *Griseb. Fl. Brit. W. Ind.* 521 (*Aiphanes*). *H. Wendl. in Linnæa,* xxviii. 349. *Karst. in Linnæa,* xxviii. 397. *Drude in Mart. Fl. Bras.* iii. ii. 392, *t.* 85; *in Bot. Zeit.* 1877, 636, *t.* 5. *f.* 10 (*Aiphanes*).

Marara, *Karst. in Linnæa,* xxviii. 389; *Fl. Colomb.* ii. 133, *t.* 170, *et* 143, *t.* 175, ad *Aiphanem* a Wendlandio relata ex descriptione et iconibus auctoris a *Martinezia* differt petalis fl. ♀ valvatis (charactere in tribu anomalo).

125. **Elæis**, *Jacq. Stirp. Amer.* 280, *t.* 172. (Alfonsia, *H. B. et K. Nov. Gen. et Sp.* i. 306.)—Flores in diversis spadicibus interfoliaceis ramosis monoici, bracteati et bracteolati, ♂ solitarii v. 2-ni, alveolis racheos immersi tandem emersi, ♀ ad basin ramulorum ♂ v. in diversis spadicibus sessiles, bracteis lanceolatis involuti. Fl. ♂: Perianthium glumaceum. Sepala oblonga v. lanceolata, concava, imbricata. Petala sepalis inclusa, tenuiora, oblonga, marginibus tenuibus valvatis. Stamina 6, filamentis in tubum cylindraceum crassum carnosum connatis apicibus liberis demum reflexo-patentibus; antheræ lineari-oblongæ, exsertæ, basi 2-loba insertæ. Ovarii rudimentum minutum. Fl. ♀ masculis multo majores, ovoidei, perianthio coriaceo v. chartaceo post anthesin accrescente. Sepala ovata v. ovato-lanceolata, basi imbricata. Petala consimilia, paullo longiora, erecta, convolutivo-imbricata, apice integra v. fissa. Discus annularis. Ovarium ovoideum v. subcylindraceum, 3-loculare, loculis 1 v. 2 sæpius effœtis; stylus crassiusculus, pyramidatus, stigmatibus magnis linearibus revolutis; ovula loculos explentia, micropyle subapicali. Fructus ovoideus v. obovoideus, 1–3-spermus, basi intrusus, apice umbilicatus, stigmatibus terminalibus, pericarpio fungoso et oleoso intus fibroso, endocarpio crasso osseo angulato extus fibroso vertice v. supra medium 3-poroso. Semen infra verticem loculi adnatum, testa tenui, rapheos ramis reticulatis, albumine cartilagineo æquabili cavo, embryo poro uni oppositus.—Palmæ humiles v. elatæ, inermes, caudice solitario erecto v. decumbente annulato, petiolorum basibus onusto. Folia terminalia, numerosa, ampla, pinnatisecta, segmentis ensiformibus acuminatis basi recurvis, petiolo brevi crasso marginibus spinosis v. inermibus, vagina brevi aperta. Spadices breves, crassi, pedunculo brevi bracteis acutis laxe induto; rami densi, ♂ apice spinescentes, ♀ robustiores; spathæ 2 completæ, demum in fibras solutæ; bracteæ fl. ♂ densissime imbricatæ, connatæ, inter se foveolos racheos efformantes, bracteolæ squamæformes; fl. ♀ bracteæ magnæ lanceolatæ

spinescentes flores superantes; bracteolæ sepalis conformes, florem vaginantes. Flores ♀ sparsi, stigmatibus magnis protrusis. Fructus pollicaris.

Species 3 v. 4, Africæ et Americæ orientalis tropicæ incolæ. Genus in subgenera 2 divisum:—

1. *Eulæis.* Flores in diversis spadicibus monoici. Spadix breviter pedunculatus, ovoideus, densissime ramosus, spatha interiore coriacea. Endocarpium vertice 3-porosum. Caulescens, pinnis infimis spinescentibus. *Mart. Hist. Nat. Palm.* ii. 61, *t.* 33, 55, 56, iii. 323; *Palm. Orbign.* 91. *Kunth, Enum. Pl.* iii. 278. *Gærtn. Fruct.* i. *t.* 6. *Lam. Illustr. t.* 896. *Karst. in Linnæa,* xxviii. 241. *Œrst. Palm. Centro-Amer.* (*in Vid. Meddel. Nat. Foren. Kjobenh.* 1858), 51. *Drude in Mart. Fl. Bras.* iii. ii. 455, *t.* 105.

2. *Barcella,* Traill in Trim. Journ. Bot. 1877, 80 (subgen.). Flores in ramis ejusdem spadicis monoici. Spadix longe pedunculatus, laxe ramosus, spatha interiore lignosa. Endocarpium supra medium 3-porosum. Acaulis, pinnis omnibus flaccidis. BARCELLA, *Drude in Mart. Fl. Bras.* iii. ii. 459, *t.* 106, ubi stamina (nondum rite evoluta) perperam fere libera et inclusa depicta.

126. **Diplothemium,** *Mart. Hist. Nat. Palm.* ii. 107, *t.* 51, *f.* 7, 70, 75 *ad* 78, iii. 293, 324; *Palm. Orbign.* 103, *t.* 9, *f.* 3, 15, *f.* 3, 28 D. (Allagoptera, *Nees in Max Neuw. Reise, ed. min.* ii. 332, *ex Martio.*)—Flores dioici v. in eodem spadice interfoliaceo simplici monoici, dense spiraliter conferti, bracteati et bracteolati; ♂ in parte superiore sessiles, ♀ in parte inferiore masculis 2 stipati et tecti. Fl. ♂: Sepala ovata v. subulato-lanceolata, ima basi connata. Petala paullo longiora, late ovata, acuta, valvata. Stamina 6 v. plura (ad 60), basi perianthii inserta, inclusa, filamentis subulatis liberis v. connatis; antheræ lineari-oblongæ v. subulato-lanceolatæ, basi 2-fida affixæ, erectæ. Ovarii rudimentum minutum v. 0. Fl. ♀ masculis majores v. minores, globoso-ovoidei, perianthio post anthesin aucto. Sepala late ovata, coriacea, imbricata. Petala sepalis inclusa, ovato-rotundata, convolutivo-imbricata, apicibus acutatis conniventibus. Discus 0. Ovarium ovoideum, 3-loculare, loculis 2 effœtis; stigmata sessilia, erecta, demum recurva; ovulum angulo interiori affixum. Fructus ovoideus v. obovoideus, 1-spermus, stigmatibus terminalibus, pericarpio fibroso, endocarpio osseo extus fibroso, basin versus 3-poroso. Semen endocarpio conforme, albumine æquabili solido; embryo poro uni oppositus.—Palmæ inermes, humiles v. acaules, caudicibus interdum robustis solitariis v. fasciculatis annulatis. Folia terminalia, pinnatisecta, segmentis aggregatis lanceolatis v. ensiformibus acuminatis subtus glaucis v. argentatis, marginibus basi recurvis, costa distincta, rhachi bifaciali a latere valde compressa, petiolo antice concavo, vagina aperta fibrosa. Spadices erecti, breviter v. longe pedunculati, stricti, crassiusculi; spathæ 2, inferiore coriacea, superiore crassiore cymbiformi rostrata ventre dehiscente; bracteæ breves, coriaceæ. Flores majusculi, ochroleuci v. flavi. Fructus parvus.

Species 4, Brasiliæ mediæ et australis incolæ. *Drude in Mart. Fl. Bras.* iii. ii. 428, *t.* 98. *Kunth, Enum. Pl.* iii. 289. *Hook. Bot. Mag. t.* 4861. Species heteromorphæ; flores ♂ in *D. littorali* polyandri, antheris lineari-oblongis obtusis; in *D. campestri* 6-andri v. 9-andri, antheris lineari-oblongis; in *D. caudescente* polyandri, antheris angustis subulatis acuminatis (an genus diversum? fructu adhuc ignoto).

127. **Cocos,** *Linn. Gen. n.* 1223.—Flores in eodem spadice interfoliaceo simpliciter ramoso monoici, bracteati, ♂ in parte superiore ramorum numerosi solitarii v. 2-ni, conferti v. sparsi; ♀ in parte inferiore sparsi, sessiles v. pedunculati, solitarii v. flore masculo utrinque stipati. Fl. ♂ asymmetrici. Sepala parva, triangularia v. lanceolata, acuta, erecta, valvata. Petala oblique oblonga, acuta, erecta v. patula, valvata. Stamina 6, inclusa, filamentis subulatis; antheræ lineares, acutæ v. obtusæ, basi 2-fida affixæ, erectæ. Ovarii rudimentum minutum v. 0. Fl. ♀ masculis sæpissime multo majores, ovoidei, perianthio post anthesin aucto. Sepala ovata v. ovato-lanceolata, crasse coriacea, erecta, imbricata. Petala sepalis inclusa, coriacea, basi dilatata, convolutivo-imbricata, apicibus brevibus v. elongatis acutis conniventi-valvatis. Discus annularis v. obscurus. Ovarium ovoideum v. depresso-globosum, 3-loculare, loculis 2 sæpius effœtis, in stylum brevem attenuatum, stigmatibus subulatis erectis demum recurvis; ovula subbasilaria, adscendentia.

Fructus ovoideus v. ellipsoideus, teres v. obtuse 3-gonus, vertice rostrato rotundato v. intruso, 1-spermus, stylo terminali, pericarpio crasso fibroso, endocarpio osseo extus fibroso basin versus 3-poroso. Semen loculo conforme, testa fusca rapheos ramis reticulata, albumine æquabili cavo v. solido radiatim fibroso; embryo poro uni oppositus.—Palmæ humiles v. elatæ, inermes, caudice gracili v. robusto annulato sæpe basibus foliorum tecto. Folia terminalia, pinnatisecta, segmentis ensiformibus v. lanceolatis æquidistantibus v. aggregatis 1–plurinerviis apice integris v. uno latere dentatis v. plus minus profunde laciniatis, marginibus lævibus basi recurvis, rhachi subtrigona superne acuta, dorso convexa, petiolo antice concavo marginibus lævibus v. spinosis, vagina brevi aperta fibrosa. Spadices erecti, demum cernui, ramis erectis v. cernuis; spatha inferior brevior apice fissa, superior fusiformis v. clavata, lignosa, dorso sulcata; bracteæ variæ. Flores albi v. flavidi. Fructus magnus v. mediocris.

Species enumeratæ ad 30, Americæ tropicæ, et subtropicæ australis incolæ, una in tropicis amphigæa. *Mart. Hist. Nat. Palm.* ii. 113 (*excl. sp.*), *t.* 62, 64, 75, 78 *ad* 82, 84 *fig. dext. ad* 86, 87, *f.* 1, 88, *f.* 3, *ad* 7; iii. 289, 323; *Palm. Orbign.* 92 (*excl. sp.* 4), *t.* 1, *f.* 1, 2, 3, *f.* 2, 9, *f.* 2, 30 B, C. *Kunth, Enum. Pl.* iii. 281. *Lam. Illustr. t.* 894. *Gærtn. Fruct. t.* 4, 5. *Spach, Suites Buff. t.* 100. *Drude in Mart. Fl. Bras.* iii. ii. 398, *t.* 87 *ad* 97. *Barb. Rodrig. Enum. Palm. Nov.* 38, *App. Protest.* 43. *Roxb. Cor. Pl.* i. *t.* 73. *Griff. Palm. Brit. Ind. t.* 241. *Wallace, Palm. Amaz.* 124, *t.* 48. *Traill in Trim. Journ. Bot.* 1877, 79. *Drude in Griseb. Symb. Fl. Argent.* 283. *Spruce in Journ. Linn. Soc.* xi. 161. *Hook. Kew Journ.* ii. *t.* 1, 2. *Trim. Journ. Bot.* 1879, *t.* 202.

Syagrus, *Mart. Hist. Nat. Palm.* ii. 129, *t.* 89, 90 *et t.* 73 D, 83, 83 (*fig. sinist.*) 88, *f.* 1, 2 (*Cocos*), iii. 290, 324, *t.* 166; *Palm. Orbign.* 131, *t.* 4, *f.* 4, *et* 30 D (*Cocos*). *Kunth, Enum. Pl.* iii. 288. *Griseb. Fl. Brit. W. Ind.* 522. *Barb. Rodrig. Enum. Palm. Nov.* 40 (*Cyagrus*), *Protest. App.* 33, 45. *Hook. Bot. Mag. t.* 5180 (*Cocos*). Langsdorffia, *Raddi in Mem. Soc. Ital. Mod.* xvii. 349, *t.* 1; ægre a *Coco* distincta est floribus ♀ sæpissime masculis minoribus, disco urceolari bene evoluto, endocarpio intus fasciis lævibus cum totidem fibrosis alternantibus a poris ad verticem ducentibus instructo, et albumine interdum ubi fasciis opposito sulcato. *S. Sancoana*, Karst. *in Linnæa*, xxviii. 247; Fl. Colomb. ii. 147, t. 177 ex icone et descriptione auctoris a congeneribus differt floribus ebracteatis solitariis v. rarius binis.

Platenia, *Karst. in Linnæa*, xxviii. 250, a *Syagro* differt defectu disci urceolaris et spathæ inferioris.

Glaziova, *Mart. mss. ex Drude in Mart. Fl. Bras.* iii. ii. 395, *t.* 83, 86, includit species 2 brasilianas (*Cocos Weddelliana* et *G. insignis*, Hort.) humiles, gracillimas, floribus ♂ longius pedicellatis et endocarpio tenuiore.

Lithocarpus, *Targ. Tozett. in Steud. Nom. Bot.* i. 170, ii. 56, *nomen*, est *Cocos lapidea*, Gærtn. Fruct. t. 6.

128. **Maximiliana**, *Mart. Hist. Nat. Palm.* i. 131, *sp.* 1, *t.* 91 *ad* 93, iii. 295, *excl. sp.* 1 *et* 3; *Palm. Orbign.* 109, *sp.* 1, *t.* 15 *f.* 2, 31 A.—Flores dioici v. in eodem spadice crasso interfoliaceo ovoideo densissime simpliciterque ramoso monoici, sessiles, bracteati et bracteolati, ramis brevissimis dense imbricatis aliis ♂ aliis androgynis floribus masculis superioribus confertis, fœmineorum superioribus masculis 2 sæpe stipatis. Fl. ♂: Sepala minima, triangulari-ovata. Petala parvula, subcoriacea, oblongo-lanceolata, plana, erecta, valvata. Stamina 6, basi perianthii inserta, exserta, filamentis filiformi-subulatis petala æquantibus v. superantibus; antheræ perianthio longiores, lineares, graciles, curvæ, basi 2-fida affixæ, pendulæ. Ovarii rudimentum minutum. Fl. ♀ masculis multo majores, ovoidei, perianthio post anthesin valde aucto. Sepala 3, ovato-orbicularia, coriacea, late imbricata. Petala paullo longiora, consimilia, convolutivo-imbricata, apicibus abrupte contractis conniventi-valvatis. Discus cupularis, ovarii basin cingens. Ovarium ovoideum, 3-loculare, loculis 2 effœtis; stylus brevis, stigmatibus demum revolutis; ovulum basilare, erectum. Fructus ovoideus, 1-spermus, stylo terminali, pericarpio fibroso et subcarnoso, endocarpio osseo acuminato basin versus 3-poroso. Semen ovoideum, testa helvola rapheos lateralis ramis reticulata, albumine æquabili solido; embryo poro uni oppositus.—Palmæ inermes, caudice erecto mediocri v. elato annulato, superne vaginarum vestigiis onusto. Folia terminalia, interrupte pinnatisecta, segmentis aggregatis linearibus acuminatis v.

apicibus erosis, costa distincta venis transversis conspicuis, marginibus lævibus basi recurvis, rhachi bifaciali a latere valde compressa, petiolo plano-convexo, vagina aperta fibrosa. Spadices magni, breves, claviformes, crasse pedunculati, ramis innumeris densissime imbricatis et densifloris ; spathæ 2, inferiore bicarinata apice aperta, superiore cymbiformi crasse lignosa longe rostrata persistente ; bracteæ parvæ, membranaceæ ; bracteolæ minutæ. Flores mediocres. Fructus flavescens v. fulvus.

Species 3, fluminis Amazonum et Maranon et ins. St. Kitts et Trinidad incolæ. *Drude in Mart. Fl. Bras.* iii. ii. 450 (*excl. sect. Scheelea*), *t.* 104. *Kunth, Enum. Pl.* iii. 291, *sp.* 1. *Karst. in Linnæa,* xxviii. 271. *Griseb. Fl. Brit. W. Ind.* 522. *Barb. Rodr. Enum. Palm. Nov.* 41. *Spruce in Journ. Linn. Soc.* xi. 162. *Wallace, Palm. Amaz.* 120, *t.* 3, *f.* 2, 3, *et t.* 47.

129. **Scheelea,** *Karst. in Linnæa,* xxviii. 264 ; *Fl. Colomb.* i. 135, *t.* 67, ii. 145, *t.* 176.—Flores dioici v. in eodem spadice interfoliaceo simpliciter ramoso monoici, bracteati, ♂ numerosissimi in parte superiore ramorum sessiles, conferti, ♀ in parte inferiore pauci solitarii v. fl. masculo utrinque stipati, sessiles v. valide pedunculati. Fl. ♂ ; Sepala minuta, triangularia, acuta. Petala sepalis multo longiora, elongato-claviformia v. cylindracea, acuta, carnosula, valvata. Stamina 6, petalis multo breviora, filamentis filiformibus inæquilongis ; antheræ lineares, basi 2-fida affixæ, erectæ. Ovarii rudimentum 0 v. miminum. Fl. ♀ masculis multo majores, ovoidei, perianthio post anthesin valde aucto. Sepala magna, coriacea, ovata, nervosa, imbricata. Petala consimilia sed paullo majora, convolutivo-imbricata. Discus cupularis, ovarii basin cingens. Ovarium ovoideum, 3-loculare, loculis 1–2 interdum effœtis ; stylus breves, teres, stigmatibus majusculis patulis ; ovula basilaria, erecta. Fructus oblongus v. ovoideus, 1–3-spermus, stylo terminali, pericarpio fibroso, endocarpio crasso osseo extus fibroso supra basin 3-poroso. Semina ellipsoidea, testa rapheos ramis venosa, albumine corneo æquabili solido ; embryo poro uni oppositus.—Palmæ inermes, humiles v. elatæ, caudice solitario inermi. Folia terminalia, pinnatisecta, segmentis seriatis v. aggregatis linearibus in plantis junioribus apice obtuse inæqualiter 2-fidis lobis incurvis in adultis integris ? 1-nerviis marginibus basi recurvis, rhachi dorso convexa facie acuta, petiolo antice concavo, vagina brevi aperta. Spadices longe v. breviuscule pedunculati, ramis breviusculis suberectis ; spathæ 2, superiore fusiformi lignosa acuminata ; bracteæ minimæ. Flores ochroleuci. Fructus majusculus.

Species enumeratæ ad 7, Americæ tropicæ incolæ. *Mart. Hist. Nat. Palm.* 131, *t.* 94 (*Maximiliana, sp.* 2) *et* iii. 296 (*Maximiliana, sp.* 1 *et* 3), *et t.* 169, *f.* 2 (*Attalea*) ; *Palm. Orbign.* 31 B (*Attalea*), *t.* 4, *f.* 3 (*Maximiliana*). Genus inter *Cocon* et *Maximilianam* quasi medium, ab utroque diversum petalis fl. ♂, sed medius pro subgenere *Cocois* habendum. A Drude in Mart. Fl. Bras., *Scheeleæ* species inter *Maximilianam* et *Attaleam* distributæ sunt, ut nobis videtur infauste.

130. **Attalea,** *H. B. et K. Nov. Gen. et. Sp.* i. 309, *t.* 95, 96.—Flores dioici v. in eodem spadice v. in diversis spadicibus interfoliaceis simpliciter ramosis monoici, bracteati, ramis omnibus androgynis v. aliis ♂ aliis ☿ floribus masculis superioribus. Fl. ♂ : Sepala parva, libera, v. basi connata. Petala oblongo- v. lineari-lanceolata, erecta, valvata. Stamina 6–24, ad basin corollæ in toro parvo conferta, inclusa, filamentis subulatis ; antheræ lineares, basi 2-fida affixæ, erectæ. Ovarii rudimentum 0 v. minimum. Fl. ♀ masculis multo majores, ovoidei v. subglobosi, perianthio post anthesin valde aucto. Sepala coriacea, ovata, imbricata. Petala consimilia, basi convolutivo-imbricata, apicibus acutatis conniventi-valvatis. Discus cupularis v. urceolaris. Ovarium 3- rarius 2- v. 4–6-loculare, loculis aliis sæpissime effœtis ; stylus brevis v. stigmata sessilia recurva ; ovula basilaria, erecta. Fructus ovoideus v. ellipsoideus, apice rotundatus attenuatus v. rostratus, 2–5-spermus, stylo terminali, pericarpio fibroso v. lignoso, endocarpio osseo v. lapideo, extus undique fibroso, basin versus 2–6-poroso. Semina elongata, raphe latiuscula, ramis reticulatis, albumine æquabili sæpius solido ; embryo poro uni oppositus.—Palmæ inermes, humiles v. elatæ, caudice solitario crassiusculo annulato v. cicatricato. Folia terminalia, pinnatisecta, segmentis æquidistantibus linearibus v. lineari-lanceolatis acuminatis, marginibus basi recurvis, rhachi bifaciali a latere valde compressa, petiolo facie concavo marginibus acutis,

vagina aperta fibrosa. Spadices sæpe magni, crasse v. longe pedunculati, rarius mediocres; spatha unica (superiore) fusiformis, lignosa; bracteæ et bracteolæ parvæ. Flores ochroleuci v. flavescentes. Fructus majusculus.

Species enumeratæ ad 20, Americæ tropicæ incolæ. *Mart. Hist. Nat. Palm.* ii. 135, *t.* 41, 75, 95 *ad* 97, iii. 296, 325, *t.* 167, *f.* 1–6, 168, 169, *f.* 3, 4, 5; *Palm. Orbign.* 112 (*excl. sp.*), *t.* 5, *f.* 2, 31 C. *Drude in Mart. Fl. Bras.* iii. ii. 434, *t.* 99 *ad* 101, *excl. sect. Pseudoscheelea. Kunth, Enum. Pl.* iii. 275. *Karst. in Linnæa*, xxviii. 255, 273; *Fl. Colomb.* i. 137, *t.* 68. *Œrst. Palm. Centro-Amer. in Vid. Meddel. Nat. Foren. Kjobenh.* 1858, 49. *Barb. Rodrig. Enum. Palm. Nov.* 42. *Griseb. Fl. Brit. W. Ind.* 522. *Drude in Bot. Zeit.* 1877, 636, *t.* 5, *f.* 11. *Spruce in Journ. Linn. Soc.* xi. 163. *Wallace, Palm. Amaz.* 116, *t.* 3, *f.* 1 *et* 46.

131. **Jubæa**, *H. B. et K. Nov. Gen. et Sp.* i. 308, *t.* 96.—Flores in eodem spadice interfoliaceo simpliciter ramoso monoici, bracteati. Fl. ♂ superiores, breviter pedicellati. Sepala lineari-lanceolata, acuta, carinata. Petala multo majora, ovata v. oblonga, acuta, coriacea, concava, costata. Stamina 27–30, basi perianthii inserta, inclusa, filamentis capillaribus antheris longioribus liberis; antheræ lineares, dorsifixæ, erectæ. Ovarii rudimentum. . . . Fl. ♀: Sepala late imbricata. Petala convolutivo-imbricata. Urceolus parvus, membranaceus. Ovarium ovoideum, 3-loculare, loculis 2 rudimentariis; stigmata 3, subulata, patula; ovula . . . Fructus obovoideus, 1-spermus, stigmatibus terminalibus, pericarpio dense fibroso, endocarpio osseo globoso utrinque acuto leviter 3-carinato medio v. supra medium 3-poroso. Semen globosum, albumine cartilagineo æquabili cavo; embryo poro uni oppositus.—Palma elata, inermis, caudice crasso basibus vaginarum tecto. Folia terminalia, pinnatisecta, segmentis patentibus quaquaversis lineari-lanceolatis acuminatis rigidis glabris v. pulverulentis, marginibus recurvis, rhachi a latere compressa dorso convexa ventre acuta, petiolo inermi, vagina brevi aperta. Spadices plures; spatha superiore completa fusiformi lignosa ventre aperta demum bipartita. Flores ochroleuci. Fructus flavescens.

Species 1, Chilensis. *Mart. Hist. Nat. Palm.* iii. 294, *t.* 161, *f.* 3; *Palm. Orbign.* 106 (*excl. sp.*). *Kunth, Enum. Pl.* iii. 293. *Gaud. Voy. Bonite, t.* 54. Inflorescentia a nobis non visa.

Micrococos, *Philippi in Bot. Zeit.* 1859, 362, quæ Molinæa, *Bertero in Mercur. Chilen, anglice in Sillim. Amer. Journ.* xx. 152, *et germanice in Linnæa*, vii. *Litteraturb.* 36, *reddita*, a Martio et Wendlandio ad *Jubæam spectabilem* relata, ex descriptione auctoris differt perianthio fl. ♀ e squamis variis imbricatis ovatis obtusis ovario arcte appressis, ovario 1-loculari, et embryone.

132. **Orbignya**, *Mart. in Endl. Gen. Pl.* 257; *Hist. Nat. Palm.* iii. 302, 325, *t.* 169, *f.* 1, 6, 170; *Palm. Orbign.* 125, *t.* 10, *f.* 2, 13, *f.* 2, 32 (*Orbignia*).—Flores in diversis spadicibus interfoliaceis simpliciter ramosis aliis ♂ aliis ☿ monoici, bracteati et bracteolati, ramis androgynis cum fl. ♂ superioribus. Fl. ♂: Sepala minuta, late ovato-triangularia. Petala 2–5, ovata v. ovato-lanceolata, integra v. dentata, basi libera v. connata, valvata. Stamina 12–24, basi petalorum inserta, inclusa, filamentis filiformibus; antheræ lineares, loculis discretis spiraliter tortis. Ovarii rudimentum 0 v. minimum. Fl. ♀ masculis multo majores, subglobosi v. a basi lata trigono-ovoidei, perianthio post anthesin valde aucto. Sepala crasse coriacea, ovata v. oblongo-lanceolata, imbricata. Petala consimilia sed minora, convolutivo-imbricata, apicibus acutis interdum dentatis. Discus cupularis. Ovarium ovoideum, 2–7-loculare; stylus brevis, crassus, stigmatibus 2–7 magnis linearibus erectis; ovula basilaria, suberecta.—Fructus globosus v. ovoideus, rostratus, 2–6-spermus, stylo terminali; pericarpio fibroso, endocarpio osseo extus fibroso basin versus 3–6-poroso. Semina angusta, oblonga v. obovoidea, testa brunnea rapheos ramis reticulata, albumine æquabili cartilagineo solido; embryo poro uni oppositus.—Palmæ inermes, humiles v. elatæ, caudice solitario irregulariter cicatricato. Folia terminalia, pinnatisecta, segmentis alternis lineari-lanceolatis acuminatis, marginibus basi recurvis, petiolo margine serrato?, vagina aperta. Spadices elongati, rhachi robusta recta, ramis breviusculis alternis erectis, ♀ crassiores quam masculi; spathæ plures, fusiformes; bracteæ et bracteolæ connatæ, membranaceæ. Flores ♂ parvi, ♀ pollicares, flavi. Fructus mediocris.

Species 5 v. 6, Bolivianæ et Brasilianæ. *Kunth, Enum. Pl.* iii. 293. *Drude in Mart. Fl. Bras.* iii. ii. 446, *t.* 102, 103.

Ordo CLXXXVIII. **PANDANEÆ.**

Endl. Gen. Pl. 242. Lindl. Veg. Kingd. 132.

Flores dioici, utriusque sexus in spadice simplici v. composito dense conferti. *Perianthium* 0. Fl. ♂ : *Stamina* numerosa ; filamenta filiformia v. brevia et conica, libera v. connata. *Antheræ* basifixæ, erectæ, oblongæ, obtusæ, 2-loculares, loculis interdum 2-locellatis, in longitudinem dehiscentes ; pollen globosum v. ellipsoideum. *Ovarii* rudimenta 0 v. minuta, rarius discus depressus. Fl. ♀ : *Staminodia* 0 v. brevia, hypogyna v. basi ovarii adnata. *Ovarium* 1-loculare, liberum, v. cum ovariis contiguis in phalanges 2-∞-loculares stigmatibus distinctis v. confluentibus connatum ; stylus 0 v. brevissimus et obconicus ; stigma sessile et subulatum uno latere papillosum, v. furcatum, v. depressum et hippocrepiforme. *Ovula* anatropa, nunc solitaria et subbasilaria funiculo brevi, nunc plurima placentis 1–∞ parietalibus funiculis elongatis affixa ascendentia v. pendula. *Syncarpium* v. syncarpiorum capitulum e carpellis (fructibus) singulis v. syncarpiis minoribus concretis compositum, ellipsoideum oblongum cylindraceum v. globosum ; carpella singula 1-locularia, v. syncarpia minora ∞-locularia, matura lignosa drupacea v. baccata intusque pulposa, teretiuscula v. angulata, vertice tumido hemisphærico v. pyramidato-prismatico integro v. lobato solido v. cavo stigmatibus coronato. *Semina* minuta, ellipsoidea v. fusiformia, subsessilia v. funiculis ascendentibus appensa ; testa membranacea v. crustacea, striolata ; raphe prominula ; albumen dense carnosum. *Embryo* minutus, hilo proximus.

Fructices v. arbores erecti v. ope radicum scandentes, di-tri-chotome ramosi, trunco ramisque annulatis radices æreas emittentibus. Folia apices versus ramorum conferta, spiraliter trifariam disposita, a basi vaginante longissime linearia, sensim acuminata, recurva, carinata, concava, rigide coriacea, marginibus et carina spinulosis v. serratis rarissime inermibus, demum tota decidua, aculeis sæpe recurvis, v. inferioribus recurvis superioribus incurvis. Spadices axillares et terminales, fasciculati v. paniculati, sessiles v. pedunculati, foliis spathaceo-bracteati. Flores sessiles, parvi, ebracteati et ebracteolati.

Species enumeratæ ad 80, omnes tropicæ v. subtropicæ, pleræque insularum Africæ orientalis, Archipelagi Indici, et maris Pacifici incolæ, in Asia et Africa continentali pauciores, una in India Occidentali inquilina, altera in Nova Zelandia indigena.

Ordo *Aroideis*, *Typhaceis* et *Cyclanthaceis* proximus, habitu proprio diversus.

CONSPECTUS GENERUM.

1. Pandanus. Staminodia in fl. ♀ 0. Ovula in carpellis solitaria.—*Archip. Malay., Asia, Africa, Australasia et Oceania.*

2. Freycinetia. Staminodia in fl. ♀ hypogyna. Ovula in loculis numerosa.—*Archip. Malay., Australasia, Oceania.*

GENERA EXCLUSA V. DUBIA.

Carludovica, Ruiz et Pav. et Cyclanthus, Poit., ad **Cyclanthaceas** pertinent.

Nipa, Thunb., Phytelephas, Ruiz et Pav., et Wettinia, Pœpp. et Endl., inter **Palmas** quærendæ.

Souleyetia, Gaud. Bot. Voy. Bonite, t. 19, sine descriptione; Solms-Laub. in Linnæa, xlii. 107, cum habitu *Pandani* ovarium uniloculare cum ovulis 3 basilaribus erectis orthotropis gaudet.

1. **Pandanus,** *Linn. f. Suppl.* 64.—Flores dioici ; ♂ in spadicibus thyrsoideis conferti. Stamina numerosa, sessilia, v. in columna interdum peltata inserta, filamentis liberis v. connatis ; antheræ lineares v. oblongæ, basifixæ, erectæ. Fl. ♀ in spadice simplici dense conferti. Staminodia 0. Ovaria libera, 1-locularia, v. in phalanges 1–∞-loculares connata, vertice incrassato solido v. cavo truncato tumido v. prismatico ; stigmata

simplicia, subulata, nunc unguiformia uno latere papillosa, nunc bilamellata v. furcata, nunc depressa reniformia aut hippocrepica cruribus involutis; ovula in loculis solitaria, funiculis brevibus adscendentibus basi placentæ parietalis affixa. Syncarpium globosum ellipsoideum oblongum v. cylindraceum, sæpe ponderosum; carpella lignosa v. drupacea, infra medium connata, v. in phalanges induratas confluentia, singulatim v. in greges ab axi persistente decidua. Semen erectum, fusiforme, testa membranacea v. subcrustacea. —Frutices v. arbores erecti, rarius herbæ acaules v. caule prostrato radicante, trunco gracili v. robusto simpliciusculo v. patentim ramoso, ramis radices æreas validas emittentibus. Folia longissima v. mediocria. Spadices terminales, ♀ solitarii v. paniculati, fructiferi sæpius penduli, foliis floralibus non raro coloratis spathaceo-bracteati.

Species bene cognitæ ad 50, perplurimæ Archipelagi Malayani et insularum Mascarensium et Seychellarum incolæ, paucæ in Asia et Africa continentali v. in Australia tropica et Oceania vigentes, una insulis Indiæ occidentalis inquilina. *Kunth, Enum. Pl.* iii. 94, 583. *Solms-Laub. in Bot. Zeit.* 1878, 321, 352, *t.* 10, *f.* 3 *ad* 7, 10 *ad* 12, 14 *ad* 28; *et in Linnæa*, xlii. 1. *Balf. fil. in Journ. Linn. Soc.* xvii. 33; *et in Baker, Fl. Maurit.* 395. *Benth. Fl. Austral.* vii. 148. *Lam. Illustr. t.* 798. *Hance in Trim. Journ. Bot.* 1875, 67. *Kurz in Journ. As. Soc. Beng.* xxxviii. 145; *in Seem. Journ. Bot.* v. 93, 125, *t.* 62 *ad* 65; *For. Fl.* ii. 505. *Miq. Fl. Ind. Bat.* iii. 153, *t.* 37; *Analect. Bot.* ii. 10, *t.* 2. *Roxb. Corom. Pl. t.* 94 *ad* 96. *Griff. Ic. Pl. Asiat. t.* 174. *Beauv. Fl. Ow. et Ben. t.* 21, 22. *Gaud. Bot. Voy. Bonite, t.* 22. *Bot. Mag. t.* 4736, 5014, 6347. *Illustr. Hortic.* 1860, *t.* 265; 1872, *t.* 55; 1877, *t.* 288. *Regel, Gartenfl. t.* 48, 297. *Rev. Hortic.* 1862, 406, *fig.* 36, 37; 1866, 271, *cum ic.*; 1868, 210, *fig.* 23; 1878, 405, *fig.* 84; 1879, 290 *cum ic.*; 1881, 174, *fig.* 40 *ad* 45.

Species omnes a Solms-Laubachio ad typos sequentes relatæ sunt:—

1. Stamina subumbellata. Carpella distincta, sursum vergentia, stigmate sessili. *Pandani* sect. *Microstigma*, Kurz in Seem. Journ. Bot. v. 104. Jeanneretia, *Gaud. l. c. t.* 25. Typus est *P. Kurzianus*, Solms-Laub., species Javanica.

2. Stamina simplicia. Carpella distincta, deorsum vergentia, vertice subulato ad latus stigmatifero. *Pandani* sect. *Acrostigma*, Kurz l. c. 100. Huc pertinet ex Solms-Laub., Fisquetia, *Gaud. l. c. t.* 4, 5, in qua ex icone carpella certe sursum vergent, ut et *P. ornatus* ex descriptione Solms-Laub. Typus est *P. fœtidus*, Roxb. Species Australianæ et Archipelagi Malayani.

3. Stamina umbellata. Carpella distincta, sursum vergentia, vertice subulato ad latus stigmatifero. *Pandani* sect. *Rykia*, Kurz l. c. 101. Rykia, *de Vriese in Verh. K. Akad. Wetensk.* 1854; *in Tuinb. Fl.* i. 161; *et in Hook. Kew Journ.* vi. 268. Barrotia, *Gaud. l. c. t.* 13, *f.* 15–24; *Brongn. in Ann. Sc. Nat. Ser.* vi. i. 277, *partim.* Typus est *P. furcatus*, Roxb. Species Asiæ tropicæ et Archipelagi Malayani.

4. Fl. ♀: Carpella distincta, deorsum vergentia, stigmate lamelliformi 2-lobo. Fl. ♂: Stamina pauca, filamentis basi connatis. Huc includitur Fouilloya, *Gaud. l. c. t.* 26, *f.* 1 *ad* 9, *et* 21 *ad* 24. Typus est *P. racemosus*, Gaud. l. c. Species Africanæ et insularum Mascarensium.

5. Fl. ♀: Carpella distincta v. 2–3 confluentia, stigmata varia. Fl. ♂ stipitati. Stamina umbellata. Tuckeya, *Gaud. l. c.* 26, *fig.* 10 *ad* 20. Typus est *P. Candelabrum*, Beauv. (*non Hook.*). Species Africana.

6. Fl. ♀: Carpella in greges circulares confluentia. Fl. ♂ stipitati. Stamina subumbellata. *Pandani* sect. *Keura*, Kurz in Journ. As. Soc. Beng. 1869, 147 partim. Marquartia, *Hassk. in Flora*, 1842, *Beibl.* ii. 14; *Cat. Hort. Bogor.* 61. Hasskarlia, *Walp. Ann.* i. 753 *partim.* Vinsonia, *Gaud. l. c. t.* 17, 23, 31. Typus est *P. utilis*, Bory, Kurz in Seem. Journ. Bot. v. 131, t. 64, f. 4. Species insularum Mascarensium.

7. Fl. ♀: Carpella in greges circulares confluentia. Fl. ♂ stipitati. Stamina subverticillatim spicata. *Pandani* sect. *Keura*, Kurz in Seem. Journ. Bot. v. 105 partim. Hasskarlia, *Walp. Ann.* i. 753 *partim. Pandani* sp. Gaud. l. c. t. 22. Brongn. in Ann. Sc. Nat. Ser. vi. i. 269, t. 15, f. 10. Athrodactylis, *Forst. Char. Gen. n.* 75. Keura, *Forsk. Fl. Æg. Arab.* 95, 122, 172. Typus est *P. fascicularis*, Lam. Roxb. Cor. Pl. t. 94 ad 96 (*P. odoratissimus*). Griff. Ic. Pl. Asiat. t. 147. Species Asiaticæ.

8. Fl. ♀: Carpella in greges transveras confluentia, sursum vergentia. Fl. ♂ stipite obconico truncato lateribus antheriferis. Barrotia, *Brongn. in Ann. Sc. Nat. Ser.* 6, i. 277, *t.* 14, 15. Typus est *P. altissimus*, Solms-Laub. Species Nova-Caledonica.

Genera sequentia certe ad *Pandanum* referenda sunt, sed dubitanter quoad ejus sectiones. Bryantia, *Brongn. in Ann. Sc. Nat. Ser.* 6, i. 287, *t.* 15; *Solms-Laub. l. c.* 54. Doornia, *de Vriese*

in Tuinb. Fl. 1855, 174; *Solms-Laub. l. c.* 49. DORYSTIGMA, *Gaud. l. c.* 13; *Solms-Laub. l. c.* 64. EYDOUXIA, *Gaud. l. c. t.* 18; *Solms-Laub. l. c.* 45. HETEROSTIGMA, *Gaud. l. c. t.* 25; *Solms-Laub. l. c.* 66. HOMBRONIA, *Gaud. l. c. t.* 22; *et in Hombr. et Jacquinot, Bot. Voy. Astrol. Monocot. t.* 2; *Walp. Ann.* v. 862; *Solms-Laub. l. c.* 48. ROUSSINIA, *Gaud. l. c. t.* 21; *Solms-Laub. l. c.* 57. SUSSEA, *Gaud. l. c. t.* 24, 25, 38; *Solms-Laub. l. c.* 66.

Species nonnullæ a Brongniartio ad *Barrotiam* v. *Bryantiam* v. a Gaudichaudio ad *Fisquetiam* v. *Vinsoniam* relatæ, quoad affinitates omnino dubiæ remanent.

2. **Freycinetia,** *Gaud. in Bot. Voy. Freycin.* 431, *t.* 41 *ad* 43, *et in Bot. Voy. Bonite, t.* 27, 35, 36, 37, 38, 52, 60. (Jezabel, *Banks, ex Salisb. Gen. Pl. Fragm.* 5. Victoriperrea, *Gaud. in Hombr. et Jacquinot, Bot. Voy. Astrol. Monocot. t.* 1.)—Flores dioici, in spadicibus simplicibus conferti. Fl. ♂: Stamina numerosa, filamentis brevissimis conicis v. filiformibus flexuosis; antheræ lineari-oblongæ, basifixæ, erectæ, apice obtusæ apiculatæ v. cuspidatæ. Ovarii rudimentum oblongum depressum v. obsoletum. Fl. ♀: Staminodia brevia, hypogyna, linearia, basi ovario adnata. Ovaria distincta v. in phalanges connata, 1-locularia, vertice incrassata truncata crenulata; stigmata depressa crenis respondentia; ovula numerosissima, rarius pauca, sæpius filis immixta, placentis 3–∞ parietalibus 2-seriatim affixa, funiculis elongatis adscendentibus. Fructus syncarpicus, baccatus, 1–multilocularis, rarius septis evanidis 1-locularis, loculis polyspermis mucilagine repletis; carpellis vertice induratis. Semina fusiformia v. ellipsoideo-oblonga, testa crustacea v. membranacea striolata, raphe prominula, albumine carnoso; embryo minutus v. elongatus, axilis.—Fructices v. fruticuli scandentes, caudice simpliciusculo v. ramoso radicante annulato. Folia lineari-elongata, basi vaginantia, carinata, integerrima v. serrulata. Spadices terminales, fasciculati v. subumbellati, foliis floralibus abbreviatis sæpius coloratis interdum carnosis spathaceo-involucrati, ♀ post anthesin decidui v. diu persistentes.

Species ad 30, Asiæ tropicæ orientalis, Archipelagi Malayani, Australiæ tropicæ et insularum Pacificarum incolæ; una in regionibus calidioribus Novæ Zelandiæ indigena. *Kunth, Enum. Pl.* iii. 101, 585. *Walp. Ann.* iii. 494; v. 858. *Solms-Laub. in Linnæa,* xlii. 81, *et in Bot. Zeit.* 1878, *t.* 10, *f.* 1, 2, 8, 9, 13. *Miq. Fl. Ind. Bat.* iii. 167. *Kurz in Journ. As. Soc. Beng.* xxxviii. 133 *For. Fl.* ii. 508. *Benth. Fl. Austral.* vii. 150. *Blume, Rumph. t.* 40 *ad* 43. *Bennett, Pl. Jav. Rar. t.* 9. *A. Rich. Bot. Voy. Astrol. t.* 2. *Homb. et Jacquinot, Bot. Voy. Astrol. t.* 2. *Hook. f. Fl. Nov. Zel. t.* 54, 55. *Seem. Fl. Vit. t.* 83 *ad* 86. *Rev. Hortic.* 1872, *t.* 193. *Bot. Mag. t.* 6028.

ORDO CLXXXIX. CYCLANTHACEÆ.

Endl. Gen. Pl. 243. PANDANACEARUM tribus, Lindl. Veg. Kingd. 132.

Flores monoici, utriusque sexus in spadicibus dense spiraliter v. verticillatim conferti. Fl. ♂: *Perianthium* 0, v. stipitatum obliquum, ore multi-dentato. *Stamina* numerosa; filamenta inter se et cum tubo perianthii confluentia, apicibus liberis. *Antheræ* filamento adnatæ, ovoideæ v. lineares, loculis rimis longitudinalibus dehiscentibus; pollen ellipsoideum, læve. *Ovarii* rudimenta 0. Fl. ♀: *Perianthium* 0, v. segmenta 4, brevia, distincta v. connata, interdum cum iis florum vicinorum confusa et in annulum multidentatum confluentia, persistentia, non raro post anthesin accrescentia et in fructu indurata. *Staminodia* sæpius 4, perianthii segmentis dum adsint basi adnata, brevia v. longissima et flexuosa, apicibus nudis v. antheris effœtis terminatis. *Ovarium* liberum v. inferne rhachi spadicis immersum et ei adnatum, depresso-quadratum, vertice truncato v. 4-lobo, 1-loculare. *Stylus* 0, v. crassus et pyramidatus; stigmata solitaria v. 4 in verticem ovarii v. stylum brevem prona, horizontalia, stellatim patentia. *Ovula* numerosa, patentia v. pendula, anatropa, placentis parietalibus v. ab apice loculi pendulis et stigmatibus

respondentibus funiculis crassis affixa. *Fructus* syncarpium carnosum e baccis distinctis v. confluentibus depressis stigmatibus coronatis polyspermis, placentis tumidis carnosis. *Semina* parva, sessilia v. pendula, funiculo brevi; testa extus carnosa; albumen carnosum et oleosum v. corneum. *Embryo* minutus, axilis, hilo proximus, rectus v. curvus.

Herbæ perennes, sparsim cellulis spiculiformibus instructæ, acaules v. rhizomate articulato, v. frutices inermes caule annulato vaginato erecto decumbente v. ope radicum scandente, interdum lignoso. Folia disticha v. in spiram disposita, petiolata, flabellata, integra 2-fida v. 2-partita, nervis parallelis, vernatione complicata; petiolus brevis v. elongatus, basi vaginans, vagina fissa. Spadices axillares, solitarii, pedunculati, simplices, breviusculi, cylindracei v. oblongi, pedunculo brevi v. elongato basi vagina (cataphyllo) 2-carinata folio opposito instructo. Spathæ 2–6, pedunculo insertæ, spadicem immaturum tantum includentes, caducæ. Flores in cyclis superpositis v. in spiram continuam dispositi, ♂ et ♀ in cyclos alternantes v. in cyclis distinctis, v. ♀ solitarii cum ♂ consociati.

Species ad 35, sed multæ imperfecte cognitæ, omnes Americæ tropicæ incolæ.

Ordo *Aroideis* et *Pandaneis* quam maxime affinis, et non nisi habitu foliisque vernatione plicatis facile distinguendus.

CONSPECTUS GENERUM.

Tribus I. Carludoviceæ. Flores ♂ 4-natim aggregati, singulum ♀ stipantes. Perianthium multidentatum. Stamina numerosa. Fl. ♀: Staminodia 4–6, filiformia, longissima. Stigmata 4. Succus aquosus.

1. Stelestylis. Fl. ♀ e spadice emersi. Perianthii segmenta 2 cæteris latiora. Stylus pyramidatus; ovula pendula, funiculis elongatis. Folia 2-fida.—*Brasil.*

2. Carludovica. Fl. ♀ in spadice immersi. Perianthii segmenta æqualia. Stigmata sessilia; ovula subsessilia. Folia 2-fida v. 2–4-partita.—*Amer. trop.*

3. Ludovia. Fl. ♀ in spadice immersi. Perianthium 0. Stigmata sessilia; ovula subsessilia. Folia carnosa, integra.—*Guian. Gall.*

Tribus II. Cyclantheæ. Flores in annulos v. spiras alternatim ♂ et ♀ confluentes. Perianthium fl. ♂ 0; fl. ♀ multidentatum. Folia 2-partita, segmento utroque 1-costato. Succus lactescens.

4. Cyclanthus.—*Amer. trop.*

GENERA EXCLUSA.

Nipa, *Thunb.* et Wettinia, *Pœpp. et Endl.* inter **Palmas** inveniuntur.

Tribus I. Carludoviceæ.

1. **Stelestylis,** *Drude in Mart. Fl. Bras.* iii. ii. 230, *t.* 53.—Flores in spiras densas dispositi, ♂ 4 singulum ♀ stipantes. Fl. ♂: Perianthium compresso-globosum, in stipitem attenuatum, vertice concavum, ambitu multidentato. Stamina numerosa, filamentis inter se et cum perianthio confluentibus, apicibus liberis brevibus attenuatis; antheræ breviter oblongæ, didymæ, exsertæ, dorso affixæ. Fl. ♀: Perianthii foliola 4, inæqualia, 2 majora subquadrato-ovata, 2 minora lineari-oblonga, apice 2-fida. Staminodia 4, longissima, inferne perianthii foliolis adnata, superne filiformia, caduca. Ovarium ovoideum, in stylum 4-gonum attenuatum; stigmata 4, corniformia, horizontaliter stellatim patentia; ovula numerosissima, pendula, funiculis elongatis placentis 4 parietalibus affixa, chalaza appendiculata. Syncarpium carnosum, oblongum, stigmatibus prominentibus. Semina ellipsoidea, funiculis elongatis suspensa, testa firma apice in appendicem filiformem funiculo subæquilongum producta, albumine copioso; embryo minutus.—Folia ampla, bifida, segmentis fissis, costa simplici, nervis pinnatis, petiolo brevi canaliculato vaginante. Pedunculus elongatus. Spadix gracilis; spathæ 3.

Species 1, Brasiliæ orientalis incola, a nobis non visa.

2. **Carludovica**, *Ruiz et Pav. Fl. Per. et Chil. Prod.* 146, *t.* 31. (Ludovia, *Pers. Syn.* ii. 576. Salmia, *Willd. in Gesellsch. Naturf. Fr. Berl. Mag.* v. 399.)—Flores in spiras densas dispositi, ♂ 4 singulum ♀ stipantes. Fl. ♂: Perianthium stipitatum, obliquum, carnosum, margine 1–2-seriatim multidentatum. Stamina numerosa, filamentis inter se et cum perianthio confluentibus, apicibus liberis breviter attenuatis; antheræ oblongæ, didymæ, exsertæ, dorso affixæ. Fl. ♀ liberi v. rhachi spadicis immersi et adnati. Perianthium 4-gonum, 4-fidum, v. 4-partitum, segmentis lobisve obtuse quadratis demum accrescentibus induratis persistentibus. Staminodia 4, longissima, filiformia, basi faciei segmentorum adnata, decidua, apicibus interdum antheras imperfectas gerentibus. Ovarium perianthio immersum, liberum v. tubo adnatum, 1-loculare; stigmata 4, sessilia, stellatim patentia, demum tumida et indurata; ovula perplurima, placentis 4 crassis parietalibus loculo intrusis v. ab apice loculi pendulis funiculis brevibus affixa, inappendiculata. Syncarpium carnosum, perianthii segmentis induratis stigmata tumida stipantibus opertum. Semina ellipsoidea, subsessilia, inappendiculata, testa coriacea extus carnosa, albumine copioso carnoso corneo; embryo minutus.—Herbæ v. suffrutices, caudice brevi humili v. elongato erecto decumbente v. scandente annulato. Folia alterna v. fasciculata, rarius disticha, 2-fida palmatisecta v. rarissime integra, segmentis multicostatis integris v. dentatis, petiolo brevi v. elongato basi vaginante. Spadix simplex, oblongus v. cylindraceus, axillaris, breviter v. longe pedunculatus. Spathæ 2 v. plures, cymbiformes, caducæ.

Species ad 30, Americæ tropicæ et insularum Indiæ occidentalis incolæ. *Kunth, Enum. Pl.* iii. 104, 588. *H. Wendl. Ind. Palm.* 43. *Poit. in Mém. Mus. Par.* ix. 27, *t.* 1 (*Ludovia*). *Drude in Mart. Fl. Bras.* iii. ii. 231, *t.* 54 *ad* 59. *Lodd. Bot. Cab t.* 1068. *Hook. Journ. Bot.* 1840, *t.* 3, 4. *Pœpp. et Endl. Nov. Gen. et Sp. t.* 151, 154. *Bot. Mag. t.* 2950–1 (*Ludovia*), 6418. *Regel, Gartenfl. t.* 992, 1046. *Ill. Hortic. t.* 165. *Rev. Hortic.* 1861, *t.* 10, 11; 1869, *f.* 71. *Œrst. in Vidensk. Meddel. Natur. Foren. Kjobenh.* 1857, 196. *Gard. Chron.* 1877, ii. 715, *f.* 136; 1879, ii. 278, *f.* 46.

Evodianthus, *Œrst. in Vidensk. Meddel. Natur. Foren. Kjob.* 1875, 194; *Amer. Centr. t.* 1. *Walp. Ann.* v. 860, ex descriptione auctoris a *Carludovica* non differt nisi staminibus dentibusque perianthii in fl. ♂ 2-seriatis et ovario libero. Sarcinanthus, *Œrst. l. c.* 196; *Amer. Cent. t.* 2. *Walp. l. c.* 861, differt ovario supero et staminibus cavum totum perianthii implentibus.

3. **Ludovia**, *Brongn. in Ann. Sc. Nat. Ser.* 4, xv. 361, *t.* 1; *et in Fl. des Serres*, xv. 33, *t.* 1515–6.—Flores in spiras densas dispositi, ♂ 4 singulum ♀ stipantes. Fl. ♂: Perianthium disciforme, crassum, breviter pedicellatum, multidentatum. Stamina numerosa, filamentis inter se et cum perianthio confluentibus, apicibus breviter liberis attenuatis; antheræ oblongæ, didymæ, exsertæ, dorso affixæ. Fl. ♀: Perianthium 0. Staminodia 4, longissima, filiformia, basi ovario adnata, apicibus uncinatis anthera imperfecta instructis. Ovaria inter se et cum pedicellis florum ♂ confluentia, 1-locularia; stigmata 4, sessilia, ovato-linearia, stellatim patentia; ovula numerosa, placentis 4 ab apice loculi pendulis funiculis brevibus affixa, inappendiculata. Syncarpium . . .—Caudex radicans, crassus, oblique assurgens, annulatus. Folia disticha, maxima, crassa, rigida, basi breviter vaginantia, subpetiolata, lanceolata v. subspathulata, acuta, apicem versus crenato-dentata, nervis obliquis subimmersis. Spadices axillares, breviter pedunculati, oblongo-cylindracei; spathæ 3–5, distichæ.

Species 2, Guianæ gallicæ et Brasiliæ incolæ. *Drude in Mart. Fl. Bras.* iii. ii. 242, *t.* 60, *f.* 1. Genus a nobis non visum, ex auctore a *Carludovica* differt perianthio in fl. ♀ 0, staminodiis basi ovarii accretis, habitu subrepente, et foliis distichis crassis, haud plicatis, contextura solida.

Tribus II. Cyclantheæ.

4. **Cyclanthus**, *Poit. in Mém. Mus. Paris*, ix. 35, *t.* 2, 3. (Cyclosanthes, *Pœpp. in Froriep. Notiz.* xxxi. 312. Discanthus, *Spruce in Journ. Linn. Soc.* iii. 196.)—Flores in annulos alternatim ♂ et ♀ superpositos, v. in spiram confluentes dispositi. Fl. ♂: Perianthium 0. Stamina 6, filamentis brevibus mono- v. diadelphis; antheræ lineari-oblongæ, basifixæ. Fl. ♀ inter se per totum cyclum v. spiram confluentes. Perianthii

segmenta in seriem duplicem multidentatam connata, alia basin alia apicem rhacheos spectantia. Staminodia brevia, inter se et cum perianthio confluentia, antheris imperfectis instructa. Ovaria rhachi immersa, inter se confluentia et cavernam continuam efformantia; stylus crassus, stigmatibus emarginatis; ovula numerosa, placentis 2 parietalibus funiculis elongatis affixa, inappendiculata. Fructus syncarpium discis distinctis tumidis sulcatis opertum. Semina ovoidea, funiculo elongato, testa extus pellucida intus sulcata, rhaphe angusta, albumine carnoso; embryo rectus, cylindraceus.—Herbæ acaules, lactescentes. Folia conferta, longe petiolata, bifurcata, segmentis lanceolatis 1-costatis plicatis nervis parallelis, nervulis transversis distinctis, petiolo tereti basi vaginante. Pedunculus longissimus, nudus v. bracteatus, cylindraceus; spathæ plures, apicem versus pedunculi completæ. Flores odori.

Species 3 v. 4? Americæ tropicæ incolæ. *Kunth, Enum. Pl.* iii. 107, 589. *Dict. Sc. Nat. Bot. Monocot. t.* 5, 6. *Pœpp. et Endl. Nov. Gen. et Sp.* ii. 38, *t.* 152, 154. *Drude in Mart. Fl. Bras.* iii. ii. 245, *t.* 60.

Ordo CXC. TYPHACEÆ.

Endl. Gen. Pl. 241. Lindl. Veg. Kingd. 126.

Flores in diversis spadicibus monoici, v. abortu dioici. *Perianthium* e squamulis paleisve membranaceis v. e filis tenuissimis constans. Fl. ♂: *Stamina* 6 v. plura, sæpius squamis paleisve perianthii dense confertis sine ordine immixta, filamenta distincta v. connata, filiformia v. capillaria, perianthium longe superantia, flaccida. *Antheræ* basifixæ, erectæ, lineares oblongæ v. cuneatæ, loculis in longitudinem dehiscentibus, connectivo interdum in acumen conicum producto; pollen globosum v. conglobatum. Ovarii rudimenta 0. Fl. ♀: *Ovarium* superum, 1–2-loculare, sessile v. stipitatum, loculis 1-ovulatis. *Styli* tot quot loculi, breves v. elongati, terminales, persistentes, lineares v. linguæformes, introrsum in longitudinem stigmatosi. *Ovula* ab apice loculi pendula, anatropa, funiculo brevi v. 0. *Fructus* membranaceus v. subdrupaceus, 1- rarius 2-locularis, teres v. pressione angulatus, sessilis v. stipitatus, stylo persistente terminatus; pericarpium v. membranaceum et dehiscens, v. carnosum intus induratum indehiscens. *Semen* loculo conforme, pendulum, testa membranacea interdum ope chalazæ incrassatæ pericarpio adhærens, funiculo 0, rhaphe obsoleta; albumen copiosum, farinaceum v. subcarnosum. *Embryo* axilis, cylindraceus, extremitate radiculari incrassata, plumula fissura laterali latente.

Herbæ aquaticæ v. paludosæ, rhizomate perennante repente ramos annuos foliaque proferente; caules enodes, farcti, simplices v. ramosi. Folia alterna, linearia, integerrima, erecta et emersa v. natantia, basi vaginantia, vagina aperta, enervia v. 1-costata, nervis parallelis. Flores parvi v. minuti, in spadicibus globosis v. cylindraceis nudis v. basi foliaceo-bracteatis sessiles, densissime conferti, ebracteati et ebracteolati; spadices ♂ in caule superiores.

Species ad 16, in aquis paludibusque dulcibus Europæ, Asiæ temperatæ et tropicæ, Australiæ, et Americæ borealis temperatæ vigentes.

Ordo *Pandaneis* proximus, differt caulibus annuis foliisque inermibus, perianthio evoluto, stylo elongato, ovulo ab apice loculi pendulo, funiculo obsoleto et embryone elongato.

CONSPECTUS GENERUM.

1. Typha. Perianthium e filis tenuissimis. Antheræ lineares. Ovarium stipitatum. Fructus siccus, demum unilateraliter fissus.—*Reg. temp. et. trop.*

2. Sparganium. Perianthium e squamis hyalinis. Antheræ oblongæ v. cuneatæ. Ovarium sessile, 1- rarius 2-loculare. Fructus extus spongiosus, indehiscens.—*Reg. bor. temp. et frigid., Australasia.*

1. **Typha,** *Linn. Gen. n.* 1040.—Flores in spadicibus terminalibus cylindraceis densissime conferti. Perianthium e filis tenuissimis articulatis sæpius paleis elongatis apice anguste spathulatis ovariis staminibusve imperfectis immixtis. Fl. ♂: Stamina numerosa, filamentis filiformibus brevibus v. elongatis flaccidis distinctis v. varie connatis brevibus v. elongatis; antheræ lineares v. lineari-oblongæ, basifixæ, loculis oppositis 2-locellatis, rimis lateralibus dehiscentibus, connectivo simplici v. in conum producto, polline conglobato 4-dymo. Fl. ♀: Ovarium angustum, basi attenuatum in stipitem brevem v. elongatum productum, superne in stylum gracilem erectum brevem v. elongatum productum, stigmate linguiformi v. lineari. Fructus minutus, subsessilis v. longe stipitatus, ellipsoideus v. cylindraceus, siccus, demum fissus. Semen pericarpio conforme, testa striata, albumine farinaceo; embryo axilis, angustus, cylindraceus, albumini fere æquilongus.—Herbæ paludosæ v. lacustres, gregariæ, graciles v. robustæ, interdum elatæ, glaberrimæ, rhizomate valido repente, caulibus erectis simplicibus basi submersis. Folia radicalia, lineari-elongata, crassiuscule spongiosa, costata v. ecostata; caulina pauca, breviora. Pedunculus erectus, teres, strictus, gracilis v. robustus, indivisus. Spadices ♂ et ♀ consimiles, superpositi, pedunculum fere terminantes, contigui v. remoti, nudi v. spathis caducissimis stipati. Flores in cylindrum ob copia filorum perianthii velutinum densissime conferti. Fructus minutus, ob fila pappiformia vento deflatus.

Species ad 10, paludibus aquæ dulcis regionum tropicarum et temperatarum incolæ. *Kunth, Enum. Pl.* iii. 90, 583. *Rohrb. in Verhandl. Bot. Verein. Brandenb.* xi. 67. *Walp. Ann.* iii. 495, v. 862. *Gærtn. Fruct.* 1, *t.* 2. *Nees, Gen. Pl. Germ. Monocot.* iii. *n.* 41. *L. C. Rich. in Ann. Mus. Par.* xvii. *t.* 5, *f.* 8, 9. *L. C. Rich. in Guill. Archiv.* i. 193, *t.* 5. *Spach, Suites Buff. t.* 93. *Schkuhr, Handb. t.* 281. *Reichb. Ic. Fl. Germ.* ix. *t.* 319 *ad* 323. *Pollini, Fl. Veron.* iii. *t.* 1. *Webb. Phytog. Canar. t.* 218.

2. **Sparganium,** *Linn. Gen. n.* 1041. (Platanaria, *S. F. Gray, Nat. Arr. Brit. Pl.* ii. 39.)—Flores in spadicibus globosis axillaribus conferti. Perianthium e squamis paucis irregularibus membranaceis elongato-cuneatis. Stamina plurima, filamentis distinctis; antheræ oblongæ v. cuneatæ, basifixæ, loculis oppositis rimis lateralibus dehiscentibus, connectivo non producto; polline globoso. Ovarium solitarium, sessile, turbinatum v. cuneiforme, 1–2-loculare, vertice solido subconico in stylos 1 v. 2 breves v. elongatos producto, stigmate unilaterali subulato v. lingulato. Fructus sessilis, obovoideus cuneiformis v. fusiformis, angulatus, pericarpio extus spongioso, endocarpio 1–2-loculari duro apice pertuso, indehiscens. Semen pericarpio conforme, testa tenuissima, albumine farinaceo; embryo axilis, cylindraceus.—Herbæ aquaticæ, rhizomate gracili v. mediocri, caulibus simplicibus v. ramosis foliosis erectis v. in aquam pronis. Folia alterna, lineari-elongata, stricta v. flaccida, erecta v. natantia, integerrima, costata v. ecostata, subspongiosa, basi vaginantia. Pedunculi simplices v. ramosi, ramis sæpius basi foliaceo-bracteatis. Spadices parvi v. mediocres, ♂ terminales, sæpe in ramis superpositi, sessiles v. rhachin amplectentes; inferiores ♀, in ramis sessiles v. pedunculati.

Species ad 6, regionibus temperatis et subfrigidis hemisphæriæ borealis et Australasiæ incolæ. *Kunth, Enum. Pl.* iii. 88. *Gærtn. Fruct.* i. *t.* 19. *Nees, Gen. Fl. Germ. Monocot.* iii. *n.* 40. *Reichb. Ic. Fl. Germ.* ix. *t.* 324 *ad* 326. *Schkuhr, Handb. t.* 282. *Griff. Ic. Pl. Asiat. t.* 166, 168.

Ordo CXCI. **AROIDEÆ.**

Endl. Gen. 232. Lindl. Veg. Kingd. 127. Schott, Aroideæ, 1853, cum tabb. 60; Icones Aroidearum, 1857, cum tabb. 40; Genera Aroidearum, 1858, cum tabb. 98; Prodr. Syst. Aroid. 1860. Engler, Araceæ (DC. Monogr. Phanerog. ii.), 1879. Orontiaceæ, Lindl. Veg. Kingd. 193.

Flores in spadicem simplicem dispositi, nunc hermaphroditi et omnes conformes, nunc monoici ♂ in parte superiore spadicis, rarissime dioici, distincti v. varie confluentes, ♂ et ♀

non raro in laminam spadicem involventem demum solutam confluentes. *Perianthium* in floribus monoicis 0, v. rarissime cupuliforme; in hermaphroditis hypogynum, e segmentis 4–6 cuneatis v. obovatis apicibus truncatis v. incurvis imbricatis, v. rarius in urceolum lobatum v. truncatum connatis. *Stamina* in fl. hermaphroditis 4–8, distincta, hypogyna, foliolis perianthii opposita, filamentis dilatatis, antheris terminalibus loculis juxtapositis poris v. rimulis dorso dehiscentibus; in fl. monoicis stamina 1–∞, distincta v. in corpus peltatum prismaticum v. sinuatum vertice deplanatum confluentia. *Antheræ* distinctæ v. in staminibus confluentibus ope connectivi incrassati connatæ, loculis discretis v. juxtapositis liberis v. connectivo immersis et apice poro dehiscentibus v. dorso ejus adnatis et poris terminalibus v. rimis dorsalibus dehiscentibus, rarissime in tubulos apice pervios productis; connectivum polymorphum, sæpe loculos superans; pollen globosum v. ellipsoideum, lævigatum, pulvereum v. in farciminula conglomeratum (pollen vermiforme). *Staminodia* vera subulata v. clavata inter fl. ♀ et infra fl. ♂ occurrunt, et præterea organa multiformia, tam ♂ quam ♀, staminodia simulantia, quæ organa neutra nuncupamus, non raro adsunt. *Ovarium* globosum ovoideum oblongum v. lageniforme, integrum, rarissime lobatum, basi lata sessile v. inferne spadici immersum, 1–∞-loculare, septis perfectis v. imperfectis, vertice in stylum attenuato v. tumido v. dilatato deplanato et loculo multo latiore. *Stylus* 0, v. brevis v. elongatus, semper terminalis et indivisus, rectus, rarissime curvus: stigma terminale, discoideum pulvinare v. capitatum, sæpe guttam mucosam distillans, interdum in vertice ovarii sessile, lineari-oblongum rima medio exsculpta, in paucis lobatum v. stellatum. *Ovula* in loculis solitaria v. plura, basilaria v. placentis parietalibus et axilibus v. aciebus semiseptorum affixa, v. ab apice loculi pendula, brevia v. elongata, sessilia v. funiculo brevi v. elongato interdum cristato affixa, orthotropa micropyle tholum loculi spectante nunc anatropa v. semi-anatropa, rarius campylotropa v. amphitropa, micropyle sæpe magno hiante fundum loculi spectante. *Fructus* in spadice plures, liberi v. connati, baccati v. membranacei, indehiscentes v. verticibus crasse coriaceis suboperculatim solutis, loculis sæpissime pulpa glutinosa v. mucilaginosa repletis, 1–∞-spermi. *Semina* parva v. magna, globosa ellipsoidea v. oblonga, recta v. curva, umbilico laterali v. basali poculiformi v. exsculpta; testa membranacea coriacea v. crustacea, lævis striata punctata scrobiculata v. cristata, rhaphe varia, endopleura membranacea; albumen sæpius copiosum, carnosum, rarius farinaceum corneum parcum v. 0. *Embryo* axilis, elongatus, rarius parvus v. minutus, in semine exalbuminoso hippocrepicus et macropodus.

Plantæ glaberrimæ, rarissime pubescentes v. aculeatæ, succo aqueo v. caustico v. lacteo, herbaceæ et acaules v. caulescentes, rhizomate tuberoso v. elongato rarissime repente, nunc fruticosæ caulibus sympodialibus ope radicum scandentibus. Folia in speciebus tuberiferis solitaria v. pauca, proteranthera hysteranthera v. floribus coætanea, in caulescentibus alterna disticha v. spiraliter disposita, integra pertusa lobata pinnatifida pinnatisecta v. pedatisecta, in perplurimis hastata v. sagittata; præter folia normalia, cataphylla membranacea sæpe 2-carinata pedunculum v. folia vaginantia adsunt. Pedunculus simplex, rarissime ramosus, in speciebus herbaceis sæpissime terminalis, in frutescentibus axillaris. Spatha forma varia, in plerisque generibus colorata, colore viridi atro flavescente rubescente v. purpurascente, nunquam cærulescente. Flores parvi v. minuti, interdum fœtidissimi.

Species fere 900, per regiones tropicas utriusque orbis maxima copia dispersæ, in regionibus temperatis rariores, in frigidis omnino desunt.

Ordo valde naturalis, vix tamen nisi habitu a *Naiadeis, Cyclanthaceis*, et *Typhaceis* facile distinguendus, nec a *Pandaneis* nisi habitu, et (Van Tieghemo ducente, Ann. Sc. Nat. Ser. 7, vi. 196) stipitis morphologia. Cum *Palmis* quibus per *Pandaneas* auctores quidam putaverunt associandum esse, nulla vera affinitas. Ordo assidue elaboratus est per Schottium, qui multo acumine species ordinavit et tribus, subtribus, et genera, sumpta pro maxima parte de exemplaribus vivis, fundavit: nimia tamen genera proposuit secundum singulos characteres. Engler multa genera Schottiana sagaciter redegit; nobis tamen judicibus infeliciter pro systemate Schottiano novum proposuit ad characteres histologicos axis incrementi conditum, quod nobis videtur mancum quoad explicationem

affinitatum naturalium, ut et modum generum determinandorum; nec possumus habere tribus 33 in quas ordinem distribuit adoptione dignas.

In hoc ordine magis quam in ullo alio, opus est nobis, sine areta confirmatione, characteres aliis auctoribus propositos (imprimis Schottianos) secundum exemplaria viva, accepere, cum sub exsiccatione omnes evanescunt, quo statu solum, tot genera nobis accedunt. Contra autem, ex laboribus N. E. Brownei multum utilitatis percepimus, qui in Herbario Kewensi concorporavit seriem pretiosam observationum et analyses de die in diem sumpta ex exemplaribus quæ in Horto Kewensi alibique flores exhibuerunt.

FORMÆ ABNORMES.

Habitus abnormis est in *Pistia*, etsi inflorescentia floresque fere *Ambrosiniæ* exhibet.

Flores ♂ et ♀ in seriebus parallelis longitudinalibus ordinati sunt in *Spathicarpa* et *Spathantheo*.

Inter genera perianthio donata, in *Zamioculcade* solo flores superiores etsi revera masculi ovariis bene evolutis instructi sunt.

CONSPECTUS GENERUM.

Series A. Flores monoici (in *Arisæmate* interdum dioici). Perianthium 0.

Tribus I. Arineæ. Spadix (*Pistia* excepta) appendiculatus. Flores superiores ♂. Perianthium 0. Stamina libera, antherarum loculis connectivo majoribus. Fl. ♀: Staminodia 0. Ovarium 1-loculare, ovulis orthotropis.—*Herbæ acaules.*

Subtribus 1. Atheluchieæ. *Tubus spathæ ope dilatationis spadicis clausus v. in loculos 2 divisus.*

1. Cryptocoryne. Spathæ faux clausa, inflorescentia tota tubo inclusa. Fl. ♀: Ovaria monocycla, inter se connata. Fructus syncarpium valvatim dehiscens. Herbæ paludosæ v. aquaticæ. —*Ind. or., ins. Malay.*

2. Lagenandra. Spathæ faux clausa, inflorescentia tota tubo inclusa. Fl. ♀: Ovaria polycycla. Fructus baccatus. Herbæ paludosæ.—*Ind. or.*

3. Pinellia. Spathæ faux clausa; inflorescentia ♀ tubo inclusa; ♂ exserta. Herbæ foliis 3- v. pedati-sectis.—*China, Japon.*

4. Ambrosinia. Spathæ tubus 2-locularis; inflorescentia ♂ in loculo postico, ♀ uniflora in antico inclusa. Herba foliis integris.—*Reg. Mediterr.*

Subtribus 2. Pistieæ. *Spadix inappendiculatus, spathæ dorso adnatus. Fl. ♂: Stamina 2, connata, spadicis apice inserta; fl. ♀ solitarius, dorso tubo spathæ basi lata longe adnatus, ovulis orthotropis.*

5. Pistia. Herba natans, acaulis, stolonifera, foliis rosulatis cuneato-obovatis.—*Aquæ dulces tropicarum.*

Subtribus 3. Arisareæ. *Spadix appendiculatus, liber v. basi spadicis adnatus. Fl. ♂ sparsi; antheræ in processubus spadicis sessiles. Folia et flores coætanei.*

6. Arisarum. Spathæ tubus marginibus connatis. Fl. ♂ monandri, antheris hippocrepicis. —*Reg. Mediterr.*

7. Arisæma. Spathæ tubus convolutus. Flores sæpissime dioici, ♂ 2–5-andri.—*As. temp. et subtrop., Am. bor., Abyssinia.*

Subtribus 4. Euarineæ. *Spadix liber, appendiculatus. Fl. ♂ densi; antheræ sessiles v. subsessiles. Folia sæpe proteranthia.*

* *Spathæ tubus marginibus connatis.*

8. Biarum. Ovulum solitarium. Folia integra.—*Reg. Mediterr.*

9. Sauromatum. Ovula 2–4. Folia pedatisecta.—*As. trop., Afr. trop.*

** *Spathæ tubus convolutus.*

10. Arum. Ovula ∞, parietalia, 2-seriata. Bacca polysperma. Folia hastata v. sagittata. *Europ., As. occid.*

11. Typhonium. Ovula 1–2, basilaria. Bacca 1–2-sperma. Folia sagittata, 3–5-loba v. pedatisecta.—*As. trop., Austral., ins. Pacific.*

12. THERIOPHONUM. Ovula numerosa, basi et apici loculi inserta. Bacca oligosperma. Folia sagittata v. hastata.—*Ind. or.*

13. HELICOPHYLLUM. Ovula 2, basilaria. Bacca 1–2-sperma. Folia pedatisecta, segmentis lateralibus convolutis.—*As. occid.*

14. HELICODICEROS. Ovula pauca, basi et apici loculi inserta. *Spadicis appendix crinita.* Fl. ♂ et ♀ remoti, organis neutris interpositis. Folia pedatisecta, segmentis lateralibus convolutis.—*Ins. Balear.*

15. DRACUNCULUS. Ovula pauca, basi et apice loculi inserta. Fl. ♂ et ♀ contigui. Folia pedatisecta, segmentis lateralibus convolutis.—*Europ. austr., ins. Canar.*

Tribus II. Stilochitoneæ. Spadix inappendiculatus. Flores superiores ♂, inferiores ♀. Perianthium fl. ♂ annulare, fl. ♀ cupulare. Stamina distincta, filamentis brevibus v. elongatis, loculis connectivo latioribus. Ovarium 1-loculare, ovulis anatropis. Herbæ foliis simplicibus.

16. STYLOCHITON. Spathæ tubus marginibus connatis.—*Afr. trop. et austr.*

Tribus III. Zomicarpeæ. Spadix appendiculatus. Perianthium 0. Fl. ♂: Stamina distincta, antheris didymis. Fl. ♀: Ovarium 1-loculare, ovulis anatropis.—Herbæ tuberosæ.

17. ZOMICARPA. Ovarium 1-loculare, ovulis 6–9 elongatis. Herbæ, foliis proterantheris 3- v. pedati-sectis.—*Brasil.*

18. ZOMICARPELLA. Ovarium 1-loculare, ovulo solitario. Herba parvula, foliis ovatis cordatis v. sagittatis.—*Nov. Grenada.*

Tribus IV. Pythonieæ. Spadix appendiculatus v. inappendiculatus. Perianthium 0. Fl. ♂: Stamina distincta, sessilia v. stipitata, antherarum loculis connectivo latioribus. Fl. ♀: Ovarium 1–∞-loculare, ovulis anatropis v. semi-anatropis, micropyle infera. Herbæ acaules, tubere magno, foliis sæpissime proterantheris pedatisectis et pinnatifidis.

* *Spadix appendiculatus, inflorescentiis ♂ et ♀ contiguis, organibus neutris 0.*

19. AMORPHOPHALLUS. Spadicis appendix lævis, floribus omnibus perfectis, ♂ et ♀ arcte contiguis.—*As. trop., ins. Malay. et Pacific.*

20. THOMSONIA. Spadicis appendix processubus conicis onusta, floribus ♂ superioribus sterilibus, ♂ et ♀ arcte contiguis.—*Himalaya.*

21. PSEUDODRACONTIUM. Spadicis appendix processubus verrucosis onusta, floribus ♂ omnibus perfectis sparsis.—*Cochinchina.*

** *Spadix appendiculatus; inflorescentia ♂ a ♀ remota, organibus neutris interpositis.*

22. SYNANTHERIAS. Spadicis appendix gracilis. Stamina circa discum disposita. Ovarium 2-loculare, ovulis septo affixis.—*Penins. Ind. or.*

23. RHAPHIOPHALLUS. Spadicis appendix gracilis. Stamina sine ordine conferta. Ovarium 3-loculare, ovulis basilaribus.—*Penins. Ind. or.*

24. ? XENOPHYA. Spadicis appendix elongata. Ovarium 1-loculare, ovulis 6 basilaribus.—*Nov. Guinea.*

*** *Spadix inappendiculatus.*

25. PLESMONIUM. Fl. ♂ et ♀ remoti, organis neutris magnis margaritiformibus interpositis. Ovarium 2–3-loculare.—*Bengal.*

26. ANCHOMANES. Fl. ♂ et ♀ contigui, organis neutris 0. Ovarium decurvum, tuberculatum, 1-loculare.—*Afr. trop.*

Tribus V. Colocasieæ. Spadix (*Schizocasia* excepta) inappendiculatus. Flores superiores ♂, inferiores ♀. Perianthium 0 (urceolo in fl. ♀ *Peltandræ* excepto). Stamina in corpus sæpissime prismaticum sessile v. peltatum connata. Ovarium 1–∞-loculare.

* *Ovula orthotropa v. fere orthotropa, micropyle supera.*

† *Spathæ tubus apertus. Fructus tubo non involutus.*

27. ARIOPSIS. Stamina omnia inter se connata. Ovarium 1-loculare, placentis 4–6 multiovulatis, stigmate 4–6-fido. Herbæ pusillæ, tuberosæ, foliis peltatis.—*Ind. or.*

†† *Spathæ tubus convolutus. Fructus tubo involutus.*

28. Remusatia. Ovarium basi 1-loculare, apice 2–4-loculare, ovulis numerosis placentis 3–4-parietalibus 2-seriatim affixis. Herbæ tuberosæ annis alternis foliiferi et floriferi; spathæ lamina aperta.—*Ind. or., Java.*

29. Gonatanthus. Ovarium 1-loculare, v. apice 2–3-loculare, ovulis numerosis basilaribus. Herbæ tuberosæ, spathæ tubo medio constricto, lamina anguste elongata convoluta.—*Mont. Himal.*

30. Colocasia. Ovarium 1-loculare, ovulis numerosis placentis 3–5 parietalibus 2-seriatim affixis. Herbæ magnæ, tuberosæ v. caudice crasso, spathæ lamina aperta.—*As. trop., una amphigæa culta.*

31. Alocasia. Ovarium 1-loculare, v. apice 3–4-loculare, ovulis paucis basilaribus. Herbæ elatæ, caudice crasso suberecto, foliis sagittatis cordatis.—*As. trop.*

32. Anubias. Ovarium imperfecte 2-loculare, ovulis numerosis placentis latis basilaribus affixis. Herbæ rhizomate prorepente, foliorum nervis tenuissimis parallelis.—*Afr. trop.*

33. Peltandra. Ovarium *cupulæ immersum*, 1-loculare, ovulis 1–paucis subparietalibus. *Embryo exalbuminosus.* Herba paludosa, rhizomate crasso, foliis hastatis nervis tenuissimis densis.—*Amer. bor.*

** *Ovula anatropa v. semianatropa, micropyle infera.*

† *Baccæ tubo spathæ inclusæ.*

34. Caladium. Ovaria distincta v. leviter cohærentia, 2–3-locularia, ovulis in loculis numerosis septo adnatis. Herbæ tuberosæ, foliis membranaceis annuis cordatis v. sagittatis.—*Amer. trop.*

35. Xanthosoma. Ovaria inferne distincta superne crasse dilatata et coadunata, 2–3-locularia, ovulis in loculis plurimis septo affixis. Herbæ tuberosæ v. caudice elongato, foliis coriaceis sagittatis v. pedatisectis.—*Amer. trop.*

36. Typhonodorum. Ovarium 1-loculare, ovulo solitario basilari. Herbæ robustæ, caudice crasso, foliis triangulari-hastatis v. cordatis.—*Madagasc.*

37. ? Chlorospatha. Ovaria distincta, 2–3-locularia, ovulis in loculis pluribus, placentis subventralibus. Herba tuberosa, foliis pedatisectis.—*Nov. Grenada.*

†† *Spatha aperta. Baccæ tubo non inclusæ.*

38. ? Hapaline. Pelta staminum elongato-hexagona, tenuissima. Ovarium 1-loculare, 1-ovulatum. Herba gracilis, tuberosa, foliis peltatis cordato-sagittatis.—*Burma.*

39. ? Scaphispatha. Staminum filamenta in columnam 4-sulcatam antheris æquilongam connata. Ovarium 1-loculare, ovulis 4 basilaribus.—*Bolivia.*

40. ? Schizocasia. Stamina in columnam prismaticam connata. Ovarium 1-loculare, ovulis plurimis.—*Nov. Guinea, ins. Philipp.*

Tribus VI. Philodendreæ. Spadix inappendiculatus (v. rarius appendice nuda v. organis neutris induta). Flores superiores ♂, inferiores ♀. Perianthium 0. Stamina distincta v. rarius in corpus prismaticum connata, connectivo sæpius loculis latiore. Herbæ v. frutices, foliis floribusque coætaneis. Spadix sæpissime spatha brevior, rarissime medio nudus.

Excepta: Stamina in *Syngonio* dorso cohærentia.

* *Fructus tubo spathæ non inclusus. Spatha tota decidua, marcescens. Stamina in generibus paucis connata.*

† *Frutices scandentes. Fl. ♂ steriles inter fertiles ♂ et ♀ (Rhektophyllo excepto). (Stamina distincta v. connata.)*

41. Philodendron. Stamina in corpus prismaticum connata. Ovaria distincta, 2–10-locularia, ovulis orthotropis angulo interiori loculorum affixis. Semina albuminosa. Folia varia.—*Amer. trop.*

42. Thaumatophyllum. *Spadix appendiculatus.* Stamina distincta antheris angustis stipitatis. Ovaria distincta, ovulis orthotropis numerosissimis. Folia pedato-pinnatisecta.—*Brasil. bor.*

43. Syngonium. Stamina in corpus prismaticum connata. Ovaria cohærentia, 1–2-locularia,

ovulis in loculis solitariis anatropis basilaribus. Semina exalbuminosa, embryone macropodo. Folia pedatisecta.—*Amer. trop.*

44. PORPHYROSPATHA. Stamina connata. Ovaria distincta, 2-locularia, ovulis in loculis 1–2 anatropis, placentis centralibus. Folia sagittata v. 3-secta.—*Costa-Rica.*

45. CULCASIA. Stamina distincta. Ovaria sparsa, 1–2-locularia, ovulis in loculis solitariis anatropis basilaribus. Semina albuminosa. Folia ovata v. lanceolata.—*Afr. trop.*

46. CERCESTIS. Stamina distincta. Ovarium 1-loculare, ovulo solitario anatropo suprabasilari. Semen exalbuminosum, embryone macropodo. Folia sagittato- v. hastato-cordata.—*Afr. trop.*

47. RHEKTOPHYLLUM. Stamina distincta. Ovarium 1-loculare, ovulo solitario anatropo parietali. Folia ampla, pertusa v. paucipinnatisecta.—*Afr. trop.*

†† *Herbæ acaules v. caudice erecto. Stamina distincta.*

48. AGLAONEMA. Fl. ♂ et ♀ contigui. Ovarium 1–2-loculare; ovula in loculis solitaria, anatropa, placentis intrusis affixa. Semina exalbuminosa, embryone macropodo. Folia ovata v. ovato-lanceolata.—*Amer. trop.*, *Afr. trop.*

49. PHILONOTION. Fl. ♂ et ♀ longe remoti. Ovarium 1-loculare; ovulum 1, anatropum, parietale. Folia lanceolata.—*Fl. Amazon.*

50. MONTRICHARDIA. Fl. ♂ et ♀ contigui. Ovarium 1-loculare; ovula gemina, anatropa, subbasilaria. Semen exalbuminosum, embryone macropodo. Folia sagittata.—*Amer. trop.*

51. NEPHTHYTIS. Fl. ♂ et ♀ contigui. Ovarium 1-loculare; ovulum 1, sub apice loculi pendulum, anatropum. Semina exalbuminosa, embryone macropodo. Folia late sagittata.—*Afr. trop.*

** *Fructus tubo accrescente spathæ inclusus, lamina marcescente decidua. Herbæ acaules, staminibus distinctis.*

52. RICHARDIA. Fl. ♂ et ♀ contigui. Ovarium staminodiis instructum, 2–5-loculare; ovula anatropa, angulo interiori affixa. Semina albuminosa. Folia sagittata.—*Afr. aust.*

*** *Fructus spatha tota persistente inclusus. Herbæ acaules v. caudice erecto, staminibus distinctis.*

53. HOMALONEMA. Fl. ♂ et ♀ contigui. Ovarium staminodiis instructum, 3–4-loculare; ovula anatropa, septis adnata. Semina albuminosa. Folia lanceolata v. cordata.—*As. trop.*, *Amer. trop.*

54. CHAMÆCLADON. Fl. ♂ et ♀ contigui. Ovarium staminodiis instructum; ovula in loculis plura, anatropa, angulo interiori adnata. Semina albuminosa. Folia ovata v. lanceolata.—*Asia trop.*

**** *Fructus tubo turbinato spathæ cinctus, lamina circumscisse decidua. Herbæ sæpius parvulæ, acaules, foliis lanceolatis ellipticis v. cordatis, staminibus distinctis. Ovarium 1-loculare; ovula parietalia.*

† *Ovula anatropa.*

55. SCHISMATOGLOTTIS. Spadix inappendiculatus, floribus ♂ perpaucis superioribus omnibus sterilibus. Stamina truncata.—*Archip. Malay.*

56. APATEMONE. Spadicis appendix tuberculata. Stamina truncata.—*Archip. Malay.*

57. BUCEPHALANDRA. Spadix inappendiculatus. Antheræ 2-cornutæ.—*Borneo.*

58. RHYNCHOPYLE. Spadix inappendiculatus. Fl. ♂ v. fere omnes perfecti. Stamina truncata.—*Borneo.*

†† *Ovula orthotropa.*

59. PIPTOSPATHA. Spadix inappendiculatus. Antheræ connectivum longe productum. Ovaria distincta.—*Borneo.*

60. GAMOGYNE. Spadix inappendiculatus. Antheræ truncatæ. Ovaria omnia connata.—*Borneo.*

61. MICROCASIA. Spadix appendice subglobosa lævi coronatus. Antheræ 2-aristatæ. Ovaria pauca, distincta.—*Borneo.*

Tribus VII. Dieffenbachieæ. Spadix inappendiculatus. Flores superiores ♂, inferiores ♀. Perianthium 0. Fl. ♂: Stamina in corpus sessile v. stipitatum connata. Fl. ♀: Staminodia ovarium cingentia 2–8, distincta v. in cupulam connata. Ovarium 2–5-loculare; ovula angulo interiori loculorum affixa, orthotropa v. anatropa.

* *Stigma sessile, pulvinare. Semina exalbuminosa, embryone macropodo.*

62. Dieffenbachia. Stamina in corpus sessile connata. Ovarium 1–3-loculare, loculis 1-ovulatis; ovula anatropa. Folia oblonga.—*Amer. trop.*

** *Stigma sæpius stylum terminans, lobatum v. capitatum. Semina albuminosa. Stamina* (Gearo *excepto*) *in corpus peltatum connata.*

63. Taccarum. Ovarium 3–6-loculare, loculis 1-ovulatis, stigmate capitato; ovula anatropa. Folia pinnatisecta.—*Brasil.*

64. Andromycia. Ovarium 3-loculare, loculis 1-ovulatis, stigmate 3-crure; ovula anatropa. Folia pedatisecta.—*Cuba.*

65. Staurostigma. Ovarium 3–5-loculare, loculis 1-ovulatis, stigmate radiatim 3–5-lobo; ovula anatropa. Folia pinnatisecta.—*Amer. trop.*

66. Gearum. Ovarium 3–4-loculare, loculis 1-ovulatis, stigmate subsessili 3–4-lobo; ovula orthotropa. Folia pedata.—*Brasil.*

67. Mangonia. Ovarium 3-loculare, loculis 2-ovulatis, stigmate 3-lobo; ovula anatropa. Folia sagittata.—*Prov. Argent.*

68. Steudnera. Ovarium 1-loculare, loculis ∞-ovulatis, stigmate stellatim 3–5-lobo; ovula orthotropa. Folia ovato-oblonga, peltata.—*Burma.*

69. Gorgonidium. Ovarium 4-loculare, loculis 1-ovulatis, stigmate depresso 4-lobo; ovula orthotropa.—*Sualia.*

Tribus VIII. Spathicarpeæ. Spadix per totam longitudinem spathæ adnatus. Flores in serie longitudinali ordinati, seriebus exterioribus (spathæ contiguis) ♀, intermedia ♂. Perianthium 0. Fl. ♂: Stamina in corpus peltatum connata. Fl. ♀: Ovarium staminodiis instructum; ovula orthotropa. Herbæ acaules.

70. Spathicarpa. Ovarium 1-loculare, ovulo solitario basilari.—*Brasil.*

71. Spathantheum. Ovarium 4–∞-loculare, loculis 1-ovulatis.—*Bolivia.*

Series B. Flores hermaphroditi, perianthio 0.

Tribus IX. Calleæ. Spadix inappendiculatus. Flores omnes fertiles v. pauci ad basin v. apicem spadicis abortu unisexuales. Stamina 4–∞, distincta, filamentis complanatis linearibus; antheræ terminales, loculis connectivum superantibus. Ovarium obpyramidatum v. prismaticum, vertice dilatato deplanato; stigma in centro verticis sessile v. subsessile, in directione spadicis elongatum, depressum, medio sulcatum; ovula anatropa v. campylotropa.—Frutices scandentes, foliis simplicibus, rarius herbæ.

* *Herba aquatica, rhizomate repente. Spatha accrescens, persistens.*

72. Calla. Spadix stipitatus. Ovarium 1-loculare; ovula 6–9 basilaria. Semina albuminosa.—*Europ., Amer. bor.*

** *Frutices, rarius herbæ, scandentes. Spatha decidua.*

† *Spadix stipitatus.*

73. Stenospermation. Ovarium 2-loculare; ovula in loculis 4–6, basi septi affixa. Semina albuminosa.—*Amer. trop.*

74. Rhodospathe. Ovarium 2-loculare; ovula in loculis plura, a basi ad apicem septi affixa. Semina compressa, reniformia, cristata, albumine parco.—*Amer. trop.*

75. Heteropsis. Ovarium perfecte v. imperfecte 2-loculare; ovula in loculis 2, basi septi affixa.—*Brasil., Guiana.*

76. Anadendrum. Ovarium 1-loculare; ovulum solitarium, basilare. Semen exalbuminosum, embryone macropodo.—*Archip. Malay.*

†† *Spadix sessilis.*

77. Monstera. Ovarium 2-loculare; ovula in loculis 2, basi septi affixa. Baccæ cohærentes. Semina exalbuminosa, embryone macropodo.—*Amer. trop.*

78. Scindapsus. Ovarium 1-loculare; ovulum solitarium, basilare. Semina exalbuminosa, embryone macropodo.—*Asia trop., ins. Pacific.*

79. RHAPHIDOPHORA. Ovarium 1- v. imperfecte 2-loculare; ovula numerosa, placentis ad apicem loculi productis affixa. Baccæ cohærentes, polyspermæ. Semina teretiuscula, albuminosa. —*As. trop., ins. Pacific.*

80. EPIPREMNUM. Ovarium 1- v. imperfecte 2-loculare; ovula in loculis 2 v. plura. Baccæ 1-spermæ. Semen reniforme, albuminosum.—*Archipel. Malay., ins. Pacific.*

81. ? AMYDRIUM. Ovarium 2-loculare, *stigmate capitato*; ovula in loculis solitaria, basi septi affixa.—*Archip. Malay.*

Series C. Flores omnes hermaphroditi (*Zamioculcade* excepto). Perianthium e segmentis 4–8 distinctis.

Tribus X. Zamioculcasieæ. Flores in spadice inappendiculato abortu unisexuales, superiores ♂ ovariis effœtis, inferiores ♀ antheris effœtis. Perianthii segmenta 4. Herbæ acaules, foliis 1–3-pinnatisectis.

82. ZAMIOCULCAS. Ovarium 2-loculare; ovula in loculis solitaria, antropa.—*Afr. trop. or.*

Tribus XI. Orontieæ. Flores in spadice inappendiculato hermaphroditi. Perianthii segmenta 4, 6, v. 8.

Subtribus 1. Euorontieæ. *Spatha stipitem longissimum pedunculiformem spadicis vaginans, lamina incompleta v. 0. Spadix sursum florens. Ovarium 1–2-loculare.*

83. ORONTIUM. Ovarium 1-loculare; ovulum solitarium, semi-anatropum. Herba aquatica. —*Amer. bor.*

84. LYSICHITUM. Ovarium 2-loculare ovula in loculis 1–2, orthotropa, ab apice funiculi basilaris pendula. Herba paludosa.—*Asia bor. orient., Amer. bor. occ.*

Subtribus 2. Dracontieæ. *Spatha fornicata, diu persistens. Spadix sursum florens. Ovarium 2–3-loculare; ovula in loculis solitaria, semi-anatropa v. campylotropa.*

85. SYMPLOCARPUS. Spadix globosus. Ovarium 1–2-loculare; ovula sub apice loculorum pendula. Rhizoma prorepens, foliis cordatis.—*As. bor., Amer. bor.*

86. DRACONTIUM. Spadix cylindraceus. Ovarium incomplete 2–3-loculare; ovula angulo interiori loculorum affixa. Herba tuberosa, foliis 3-sectis v. pinnatifidis.—*Amer. trop.*

Subtribus 3. Lasieæ. *Spatha elongata, sæpe torta, rarius breviuscula, diu persistens. Spadix deorsum florens. Ovarium 1–5-loculare; ovula in loculis solitaria, anatropa v. semi-anatropa.*

87. LASIA. Ovarium 1-loculare, stylo crasso; ovulum ab apice loculi pendulum. Herba aculeata, foliis pedato-pinnatifidis, spatha elongata torta.—*As. trop.*

88. PODOLASIA. Ovarium 1-loculare, stigmate sessili; ovulum subbasilare. Herba caudice erecto, foliis hastatis, spatha cymbiformi obtusa.—*Borneo.*

89. UROSPATHA. Ovarium 2-loculare; stigma sessile; ovula in loculis 2–∞. Herbæ caudice erecto, foliis hastatis, spatha elongata acuminata.—*Amer. trop.*

90. ANAPHYLLUM. Ovarium 1-loculare, stigmate sessili; ovulum parietale. Herba caudice prorepente, foliis pedato-pinnatisectis, spatha lanceolata longe acuminata.—*Ind. or.*

91. OPHIONE. Ovarium 4–5-loculare, stylo crasso; ovula angulo interiori loculorum affixa. Herba tuberosa, spatha lanceolata.—*Nov. Grenada.*

92. CYRTOSPERMA. Ovarium 1-loculare; ovula placentis parietalibus 2-seriatim inserta. Herbæ rhizomate tuberoso v. prorepente, foliis hastatis.—*Asia, Africa, et Amer. trop.*

Subtribus 4. Spathiphylleæ. *Spatha tandem foliacea, accrescens, persistens, tota explanata. Spadix sursum florens. Ovarium 3–4-loculare; ovula anatropa.*

93. SPATHIPHYLLUM. Stigma 3–4-lobum; ovula in loculis 2–8, angulo interiori loculorum affixa.—Herbæ subacaules, foliis oblongis v. lanceolatis.—*Amer. trop., Archip. Malay.*

Subtribus 5. Anthurieæ. *Spatha accrescens, persistens, aperta, recurva v. reflexa. Spadix sursum florens. Ovarium 2-loculare.*

94. ANTHURIUM. Ovarii loculi 1–2-ovulati.—Herbæ v. frutices acaules v. scandentes, foliis variis.—*Amer. trop.*

Subtribus 6. Pothoineæ. *Spatha accrescens, persistens v. obsoletus. Spadix sursum florens. Ovarium 1–3-loculare. Semina exalbuminosa, embryone macropodo.*

95. Pothos. Ovarium 3-loculare, loculis 1-ovulatis. Frutices scandentes, lamina folii cum petiolo dilatato articulata.—*As. trop., Austral., ins. Pacif., Madagasc.*

96. Pothoidium. Ovarium 1-loculare, 1-ovulatum. Frutex scandens, petiolo dilatato cum lamina angustiore articulato.—*Archip. Malay.*

Subtribus 7. Acoreæ. *Spatha obsoleta v. obscura. Spadix sursum florens. Ovarium 1–3-loculare, ovula orthotropa.*

✓ 97. Acorus. Spadix solitarius, in margine pedunculi ensiformis sessilis. Ovarium 2–3-loculare; ovula ab apice loculi pendula. Herbæ aromaticæ, foliis ensiformibus.—*Reg. temp. bor.*

98. Gymnostachys. Spadices racemosi, longe pedunculati. Ovarium 1-loculare; ovulum solitarium, ab apice loculi pendulum. Herba tuberosa, foliis gramineis.—*Australia.*

GENERA DUBIA.

Anthelia, Schott in Miq. Ann. Mus. Lugd. Bat. i. 127, genus imperfecte descriptum, insularum Celebes incola, est ut nobis videtur planta *Raphidophoræ* affinis, sed stigmate punctiformi, ovario imperfecte biloculari loculis 2-ovulatis, et ovulis funiculis brevibus semianatropis placentis septifixis peltatim affixis.

Arisacontis, Schott, Prod. 415, genus ab Englero prætermissum, ad folium tantum in insula Radack a Chamisso detectum conditum, omnino dubium est.

Tribus I. Arineæ.

1. **Cryptocoryne,** *Fisch. ex Wydl. in Linnæa,* v. 428. (Myrioblastus, *Wall. mss.*)—Flores in spadice tenuissimo apice fauci spathæ accreto monoici, ♂ et ♀ longe distantes. Perianthium 0. Fl. ♂: Stamina 1–2, distincta; antheræ breves, sessiles, truncatæ, loculis contiguis oppositis apice processubus conicis perforatis dehiscentibus; pollen vermiforme. Fl. ♀ ad basin spadicis monocycli, rarius cyclo addito superposito abortivo, inter se et cum spadice connati, in stylos breves recurvos liberos attenuati, 1-loculares, stigmatibus discoideis v. oblongis retrorsum spectantibus; ovula in loculis numerosa, orthotropa, erecta, funiculis brevissimis dense pilosis angulo interiori loculi 2–4-seriatim affixa, micropyle supera. Baccæ in syncarpium carnosum pluriloculare connatæ, pericarpio disrupto valvatim dehiscentes, valvis stellatim expansis, polyspermæ. Semina obovoidea v. oblonga, testa haud crassa rugosa, albumine copioso; embryo axilis, plumula interdum polyphylla, in bacca germinans.—Herbæ aquaticæ v. paludosæ, rhizomate repente stolonifero, caudice epigæo. Folia oblongo- v. lineari- v. cordato-lanceolata v. ovata, costa valida, nervis gracilibus, transversis tenuissimis. Pedunculus brevis elongatus v. 0. Spathæ tubus brevis v. elongatus, marginibus connatis, fauce plica reflexa spadicis apice dilatati accreta clausa; lamina angusta, recta plicata v. torta. Spadix inter flores ♂ et ♀ nudus, tenuis v. incrassatus; inflorescentia ♂ cylindracea, multiflora, ♀ pauciflora.

Species ad 25, Asiæ tropicæ et Archipelagi Malayani incolæ. *Engl. Arac.* 623, *et in Bull. Soc. Tosc. Ort.* 1879, 301. *N. E. Brown in Journ. Linn. Soc.* xviii. 242, *t.* 4. *Schott, Gen. Aroid. t.* 1; *Aroid. t.* 12, 13. *Blume, Rumph.* 1, *t.* 36. *Griff. in Trans. Linn. Soc.* xx. *t.* 10 *ad* 12; *Ic. Pl. Asiat. t.* 170 *ad* 172. *Wight, Ic. t.* 773. *Roxb. Cor. Pl.* iii. *t.* 294 (*Ambrosinia*). *Lodd. Bot. Cab. t.* 525 (*Arum*). *Bot. Mag. t.* 2220 (*Arum*).

2. **Lagenandra,** *Dalzell in Hook. Kew Journ.* iv. 289.—Flores in spadice tenuissimo sub apice fauci spathæ accreto monoici, ♂ et ♀ longe distantes. Perianthium 0. Fl. ♂: Stamina 1–2, sessilia, distincta; antheræ didymæ, truncatæ, loculis contiguis oppositis cornubus perforatis dehiscentibus; pollen vermiforme. Fl. ♀ numerosi, spiraliter dispositi, organis paucis neutris tuberculiformibus superpositis. Ovaria inter se libera v. connata, obpyramidata, 1-locularia; stigma peltatum v. discoideum; ovula 1–∞, orthotropa, erecta, funiculis brevibus placentæ basilari affixa, micropyle supera. Baccæ liberæ v. connatæ, stigmate coronatæ, 1–6-spermæ. Semina oblonga v. cylindracea,

testa haud crassa rugoso-costata, albumine copioso corneo; embryo axilis.—Herbæ aquaticæ v. paludosæ, rhizomate repente stolonifero, caudice epigæo diviso. Folia longe v. breviter petiolata, ovata v. lanceolata, costa valida, nervis tenuibus. Pedunculus elongatus. Spathæ tubus marginibus connatis, fauce plica reflexa spadicis apici dilatati accreta clausa, lamina lanceolata v. subulata, convoluta v. torta. Spadix brevissime appendiculatus; inflorescentia ♂ et ♀ cylindracea.

Species 4, Indiæ orientalis incolæ. *Engl. Arac.* 620. *Schott, Gen. Aroid. t.* 2.

3. **Pinellia,** *Tenore in Atti R. Acad. Sc. Nap.* iv. 57, *cum ic. ex ejusd. Cat. Ort. Bot. Nap.* 91, *et in Atti Riun. Scienz. Ital.* iii. 522. (Hemicarpurus, *Nees, Del. Sem. Hort. Bot. Vratisl.* 1839, 4, *et in Linnæa,* xiv. *Litterat-ber.* 167. Atherurus, *Blume, Rumph.* i. 136, *t.* 31 *et* 37.)—Flores in spadice appendiculato monoici, omnes fertiles, ♀ spathæ tubo apice clauso inclusi, ♂ lamina involuti. Perianthium 0. Fl. ♂ monandri. Anthera sessilis, quadrata, loculis contiguis obovoideis truncatis rima continua dehiscentibus; pollen amorphum. Fl. ♀ unilaterales. Ovarium ovoideum, 1-loculare, in stylum brevem attenuatum, stigmate parvo capitellato; ovulum solitarium, orthotropum, erectum, funiculo brevissimo placentæ basilari affixum, micropyle supera. Baccæ ovoideo-oblongæ. Semen globosum v. obovoideum, apiculatum, testa rugosula, albumine copioso; embryo axilis.—Herbæ tuberosæ, foliis floribusque coætaneis. Folia 3- v. pedati-secta, membranacea, segmentis oblongo-lanceolatis ellipticisve acutis, nervis tenuibus, petiolo elongato apice interdum gemmifero. Pedunculus solitarius. Spatha marcescens, tubo convoluto, fauce ope dilatationis spadicis clausa, lamina oblonga, concava. Spadix basi nudus, appendice elongata vermiformi exserta, parte ♀ spathæ adnata, floribus confertis; inflorescentia ♂ brevis, libera, cylindracea, densiflora.

Species 3 v. 4, Chinæ borealis et Japoniæ incolæ. *Eng. Arac.* 565. *N. E. Brown in Journ. Linn. Soc.* xviii. 246. *Schott, Gen. Aroid. t.* 4.

4. **Ambrosinia,** *Linn. Gen. n.* 1238.—Flores in spadice breviter appendiculato monoici, ♂ et ♀ in loculis distinctis spathæ longitudinaliter 2-locularis inclusi, omnes fertiles. Perianthium 0. Fl. ♂ in loculo postico 8–10, diandri, 2-seriatim superpositi; antheræ sessiles, loculis transversis contiguis elongato-reniformibus rima continua dehiscentibus, connectivo obsoleto; pollen in massas irregulares emissum. Fl. ♀ in loculo antico spathæ solitarius. Ovarium depresso-globosum, 1-loculare, in stylum curvum crassiusculum attenuatum, stigmate discoideo dilatato; ovula numerosa, cylindracea, orthotropa, erecta, placentæ latæ basilari funiculis elongatis affixa. Bacca globosa, stylo coronata, polysperma. Semina subglobosa, apiculata, testa striata strophiolata . . .—Herba parvula, tuberosa, foliis floribusque coætaneis. Folia ovata v. oblonga, obtusa, membranacea, nervis utrinque 2–3 arcuatis, nervulis inconspicuis, petiolo basi vaginante. Pedunculus brevissimus, hypogæus, fructifer elongatus. Spatha oblique terræ accumbens, delitescens, navicularis, apice in rostrum procurvum concavum producta, tubo indistincto, marginibus connatis, fauce aperta. Spadix fere inclusus, ope dilatationis longitudinalis spathæ utrinque accretus, appendice minuta exserta.

Species 1, Italiæ et Algeriæ incola. *Engl. Arac.* 618. *Bassi in Comm. Acad. Bologn.* v. i. 83 *cum ic. Blume, Rumph.* i. *t.* 36. *Cesati in Linnæa,* xi. *t.* 5. *Schott, Gen. Aroid. t.* 3; *Aroid. t.* 11. *Lam. Illustr. t.* 737. *Bot. Mag. t.* 6360.

Ucria, a nonullis perperam pro synonymo *Ambrosiniæ* data, nomen est auctoris tractatus (Rœm. Archiv. i. 67, 70) a Targionio citati, nec genus ei dicatum.

5. **Pistia,** *Linn. Fl. Zeyl.* 152; *Gen. Pl. n.* 1023. (Zara, *Lour. Fl. Cochin.* 405. Apiospermum *et* Limnonesis, *Klotzsch in Abhandl. K. Akad. Wiss. Berlin.* 1853, 351, 352, *t.* 1, 2, 3.)—Flores in spadice cum spathæ dorso confluente monoici; ♂ spadicis apice libero organis neutris suffulto verticillati; ♀ solitarius, axi tubi spathæ basi lata adnatus. Perianthium 0. Fl. ♂: Stamina 2, in corpus sessile oblongum lateraliter compressum leviter 4-lobum connata, loculis utriusque antheræ sibi invicem oppositis rimulis verticalibus dehiscentibus, connectivo non producto. Fl. ♀: Ovarium oblique globosum,

1-loculare, in stylum incurvum latiusculum attenuatum, stigmate obtuso pulvinare; ovula numerosa, orthotropa, oblonga, funiculis brevissimis in placenta lata parietali axi spathæ parallela 4–6-seriatim conferta, micropyle supera. Bacca tenera, oligo- v. poly-sperma. Semina erecta, oblonga v. basin versus attenuata, obscure angulata, micropyle umbonata, testa crustacea irregulariter punctulata, endopleura membranacea, albumine copioso farinaceo; embryo in apice albuminis minutus, obovoideus.—Herba natans, acaulis, pubescens, stolonifera, radicibus fibrosis. Folia rosulata, sessilia, obovato-cuneata, nervis flabellatim radiantibus subtus prominulis. Spathæ parvæ, albæ, puberulæ, medio utrinque plicatæ, basi ovarium semi-amplectente, lamina cucullata aperta. Spadix spatha brevior, parte ♂ brevi libera apice staminifera, basi organis neutris dilatatis et squamula decidua instructa.

Species 1, in aquis dulcibus tropicis, Australia et ins. maris Pacifici exceptis, obvia. *Engl. Arac.* 631, *et in Mart. Fl. Bras.* iii. ii. *t.* 52 (*ovario perperam spathæ tubo ambitu adnato depicto*). *Roxb. Corom. Pl.* iii. *t.* 268. *Jacq. Stirp. Amer. t.* 148. *Dict. Sc. Nat. t.* 7, 8. *Griff. Ic. Pl. Asiat. t.* 161 A, 161 B, 260, 261. *Bot. Mag. t.* 4564, *icon. in Fl. des Serres*, i. *t.* 625, *et in Jard. Fleur. t.* 137 *iterata*. Genus floribus certe *Ambrosiniæ* quam maxime affine.

6. **Arisarum,** *Targ. Tozett. in Anal. Mus. Fis. Firenz.* ii. ii. 617.—Flores in spadice appendiculato monoici, omnes fertiles, ♂ sparsi, ♀ pauci unilaterales. Perianthium 0. Fl. ♂ monandri; anthera in processu spadicis sessilis, reniformis, peltata, loculis confluentibus rima continua dehiscentibus; pollen amorphum. Fl. ♀: Ovarium depressum, 1-loculare; stylus crassus, conoideus v. columnaris, stigmate pulvinari; ovula plura, orthotropa, erecta, funiculis brevissimis placentæ latæ basilari affixa, micropyle supera. Baccæ turbinatæ, angulatæ, vertice plano marginibus elevatis. Semina ad 6, ovoidea, acuta, testa rugoso-striata, strophiolo funiculo obconico longiore et crassiore, albumine carnoso basi intruso; embryo axilis, radicula crassiore.—Herba tuberosa, foliis floribusque coætaneis. *Folia* rotundato-hastata v. sagittata, nervis tenuibus, petiolo elongato, vagina brevi. Pedunculus elongatus. Spatha demum evanescens, tubo subventricoso marginibus connatis, fauce subconstricta, lamina brevi fornicata procurva. Spadix parte ♀ spathæ adnatus; appendix stipitata, decurva, apice clavata v. in filum producta.

Species 3, Mediterraneæ. *Engl. Arac.* 560. *N. E. Brown in Journ. Linn. Soc.* xviii. 246. *Schott, Gen. Aroid. t.* 5. *L. C. Rich. in Guill. Archiv.* i. *t.* 2. *Jacq. Hort. Schœnb.* ii. *t.* 192 (*Arum*). *Dunal, Bouq. Mediterr. t.* 5. *Sibth. Fl. Græc. t.* 948. *Moggr. Contrib. Fl. Menton. t.* 47. *Durieu, Fl. Alger. t.* 44. *Caruel in Nuov. Giorn. Bot. Ital.* xi. *t.* 1. *Reichb. Ic. Fl. Germ.* vii. *t.* 7. *Bot. Mag. t.* 6023. *Gard. Chron.* 1871, 301 (*Arum*).

7. **Arisæma,** *Mart. in Flora*, 1831, ii. 459.—Flores dioici, rarius monoici, in spadice appendiculato inserti, ♂ sparsi, ♀ densi, organa neutra subulata interdum supra flores ♀ et ♂. Perianthium 0. Fl. ♂ 2–5-andri; antheræ subsessiles v. processu spadicis peltatim insertæ, loculis contiguis ovoideis v. didymis distinctis v. confluentibus poris v. rimulis dehiscentibus. Fl. ♀: Ovarium ovoideum oblongum v. globosum, 1-loculare, loculo intus apice processu spongioso prædito; stylus brevis v. sub 0, stigmate pulvinari; ovula 1–∞, orthotropa, erecta, funiculis brevibus placentæ basilari sessili v. elevatæ affixa, micropyle supera. Baccæ turbinatæ obovoideæ v. globosæ, 1-oligospermæ. Semina ovoidea v. globosa, apice breviter producta, testa crassiuscula, albumine copioso; embryo axilis.—Herbæ tuberosæ, foliis floribusque coætaneis. Folia 1–3, 3-secta v. pedatim aut verticillatim 5–∞-secta, segmentis latis v. angustis acuminatis marginibus integerrimis v. crenulatis, petiolo gracili v. robusto basi vaginante. Spatha decidua; tubus oblongus v. ventricosus, convolutus, non raro multicostatus, fauce aperta v. contracta, lamina sæpissime ampla et fornicata acuminata v. caudata. Pedunculus solitarius, brevis v. elongatus. Spadix inclusus v. exsertus, sæpius conoideus; appendix e basi dilatata brevis obtusa v. acuta v. in filum longissimum exsertum in vernatione segmentis folii involutum demum terræ protrusum desinens.

Species ad 50, pleræque Asiæ temperatæ et subtropicæ incolæ, paucæ in America boreali et una in Abyssinia vigentes. *Engl. Arac.* 533. *N. E. Brown in Journ. Linn. Soc.* xviii. 246, *t.* 5, 6. *Schott, Gen. Aroid. t.* 6. *Blume, Rumph.* i. *t.* 27, 28, 37 E. *Wall. Tent. Fl. Nep. t.* 18 *ad* 20 (*Arum*); *Pl. As. Rar.* ii. *t.* 135, 136. *Dcne. in Jacquem. Voy. Bot. t.* 168. *Griff. Ic. Pl. Asiat.* iii. *t.* 163 (*Pythonium*). *Wight, Ic. t.* 784 *et* 788 (*Arum*). *Morren in Ann. Gand.* 1846, *t.* 58. *Miq. in Ann. Mus. Lugd. Bat.* iii. *t.* 3. *Lodd. Bot. Cab. t.* 320 (*Arum*); *Fl. des Serres, t.* 1322. *Regel, Gartenfl.* 1861, *t.* 313. *Bot. Reg. t.* 668 (*Arum*). *Bot. Mag. t.* 950 (*Arum*), 4388, 5267, 5496, 5507, 5914, 5931, 5964, 6446, 6457, 6474, 6491.

8. **Biarum,** *Schott, Melet.* i. 17.—Flores in spadice longe appendiculato monoici, ♂ et ♀ remoti, organa neutra conica subulata v. furcata, inter sexus et interdum supra ♂ posita. Perianthium 0. Fl. ♂: Stamina 1–2, distincta; antheræ sessiles, loculis contiguis ovoideis rimulis porisve distinctis v. confluentibus dehiscentibus, connectivo sæpe apiculato. Fl. ♀: Ovarium ovoideum v. oblongum, 1-loculare; stylus brevis v. elongatus, stigmate discoideo v. hemisphærico; ovulum solitarium, orthotropum, erectum, funiculo brevissimo placentæ basilari affixum, micropyle supera. Baccæ obovoideæ. Semen obovoideum, testa crassiuscula rugosa, strophiolo conico, albumine copioso; embryo axilis.—Herbæ tuberosæ, sæpissime annis alternis foliiferæ et floriferæ. Folia linearia oblonga v. lanceolata, in petiolum elongatum angustata. Pedunculus brevis v. sub 0. Spatha marcescens v. evanescens, tubo hypogæo v. epigæo cylindraceo v. ventricoso, marginibus alte v. basi tantum connatis, lamina angusta aperta. Spadix gracilis, sessilis, spatham æquans v. superans, appendice sæpius vermiformi interdum longe exserta; inflorescentia ♂ breviuscula, cylindracea; ♀ pauciflora, conica v. hemisphærica.

Species ad 12, regionis Mediterraneæ incolæ, plurimæ orientales. *Engl. Arac.* 571. *N. E. Brown in Journ. Linn. Soc.* xviii. 254. Genera sequentia rite pro sectionibus ab Englero habita sunt:—

1. *Eubiarum,* Engl. l. c. 572. Antheræ breves, rimis fere basin attingentibus. Organa neutra subulato-conica, supra et infra fl. ♂ posita. Spathæ lamina erecta. Biarum, *Schott, l. c.*; *Gen. Aroid. t.* 7. *Blume, Rumph.* i. *t.* 29. *Bot. Reg. t.* 512 (*Arum*). *Reichb. Ic. Fl. Germ.* vii. *t.* 6. *Gard. Chron.* 1871, *f.* 133. Stenurus, *Salisb. Gen. Fl. Fragm. t.* 5.

2. *Cyllenium,* Engl. l. c. 574. Antherarum loculi obliqui, rimis lateralibus medium attingentibus demum superne confluentibus. Organa neutra infra fl. ♂ positi. Cyllenium, *Schott, Gen. Aroid. t.* 9.

3. *Ischarum,* Engl. l. c. 575. Antherarum loculi oppositi, rimis medium vix attingentibus. Organa neutra supra fl. ♂ pauca. Ovarium abrupte in stylum attenuatum. Ischarum, *Blume, Rumph.* i. 144, *t.* 29. *Schott, Gen. Aroid. t.* 10. *Bot. Mag. t.* 5324, 6355.

Leptopetion, *Schott, Gen. Aroid. t.* 8, species Ægyptiaca, ad sect. *Ischarum* ab Englero relata, conspicue differt floribus cum foliis coætaneis, pedunculo elongato, antherarum loculis poris dehiscentibus, stigmate conoideo, et organis neutris perpaucis, an genus proprium?

9. **Sauromatum,** *Schott, Melet.* i. 17; *Gen. Aroid. t.* 11.—Flores in spadice longe appendiculato monoici, ♂ et ♀ longe remoti, organibus neutris clavatis interpositis. Perianthium 0. Fl. ♂: Antheræ sessiles, subcompressæ, 4-lobæ, loculis contiguis oppositis obovato-oblongis poris apicalibus dehiscentibus, connectivo demum prominulo. Fl. ♀: Ovarium oblongum, 1-loculare, vertice rotundato; stylus brevis, demum in vertice ovarii retractus, stigmate pulvinari; ovula 1–2, orthotropa, erecta, placentæ basilari papillosæ funiculis brevissimis affixa, micropyle supera. Baccæ obpyramidatæ, 1-spermæ, substipitatæ, vertice rugosæ. Semen globosum v. subplano-convexum, testa tenui lævi, strophiolo obconico, albumine copioso; embryo axilis.—Herbæ tuberosæ, annis alternis foliiferæ et floriferæ. Folia solitaria, pedatipartita, petiolo elongato tereti. Spatha marcescens, demum evanida, tubo ventricoso, marginibus plus minus connatis, fauce aperta, lamina lanceolata elongata. Spadix sessilis, spatha brevior, appendice teretiuscula elongata; inflorescentiæ ♂ et ♀ breves.

Species ad 6, Asiæ et Africæ tropicæ incolæ. *Engl. Arac.* 568. *N. E. Brown in Journ. Linn Soc.* xviii. 255. *Wall. Pl. As. Rar.* ii. *t.* 115 (*Arum*). *Wight, Ic. t.* 800 (*Arum*). *Link et Otto, Ic. Pl. Rar.* i. *t.* 8 (*Arum*). *Regel, Gartenfl.* 1866, *t.* 495. *Fl. des Serres, t.* 1334. *Lemaire, Jard. Fleur.* i. *t.* 12. *Bot. Mag. t.* 4465.

10. **Arum,** *Linn. Gen. n.* 1028, *partim.*—Flores in spadice appendiculato monoici, ♂ et ♀ remoti v. approximati, organis neutris e basi tumida subulatis interpositis et supra ♂ confertis. Perianthium 0. Fl. ♂: Stamina 3–4; antheræ sessiles, brevissimæ, loculis oppositis obovoideis rimulis apicalibus dehiscentibus, connectivo vix producto; pollen vermiforme. Fl. ♀: Ovarium oblongum, obtusum, 1-loculare; stigma subsessile, pulvinare; ovula 6 v. plura, orthotropa, erecta, funiculis brevibus placentæ parietali 2–3-seriatim affixa, micropyle supera. Baccæ obovoideæ, polyspermæ. Semina globosa, vertice apiculato v. producto, testa inferne rugosa, strophiolo tumido, albumine copioso; embryo axilis.—Herbæ rhizomate tuberoso v. deformi, foliis proterantheris v. floribus coætaneis. Folia sagittata v. hastata, petiolo basi vaginante. Pedunculus sæpissime solitarius, brevis v. elongatus. Spatha marcescens v. evanida, tubo convoluto, lamina ovata v. ovato-lanceolata. Spadix sessilis, spatha brevior, appendice sæpissime stipitata et cylindracea, rarius clavata; inflorescentia ♀ cylindracea, quam ♂ sæpissime longior; organa neutra superiora deorsum, inferiora sursum spectantia.

Species ad 20, Europam, regiones Mediterraneas et Asiam occidentalem usque ad Affghanistan habitantes. *Engl. Arac.* 580. *N. E. Brown in Journ. Linn. Soc.* xviii. 257. *Schott, Gen. Aroid. t.* 13; *Ic. Aroid. t.* 31 *ad* 40. *Nees, Gen. Fl. Germ. Monocot.* iii. *n.* 39. *Reichb. Ic. Fl. Germ.* vii. *t.* 8, 9, 10, 12. *L. C. Rich. in Guillem. Archiv.* i. *t.* 1. *Fl. Dan. t.* 505. *Regel, Gartenfl. t.* 742. *Bot. Mag. t.* 2432, 5509.

Gymnomesium, *Schott in Œstr. Bot. Wochenbl.* 1855, 17; *Gen. Aroid. t.* 12, ab Englero ad *Arum* reductum, est *A. pictum*, L., Sardiniæ incola, interspatio sexibus nudo, spatha marcescente et foliis subhysteranthiis.

Dochafa, *Schott, Syn. Aroid.* 24; *Gen. Aroid. Append.*, quæ *Arum flavum*, Schott, Prodr. 40, ab *Aro* nullo charactere differt.

11. **Typhonium,** *Schott in Wiener Zeitschr.* iii. 72.—Flores in spadice appendiculato monoici, ♂ et ♀ remoti, organa neutra infra fl. ♀ subulata v. 0, supra fl. ♂ clavata. Perianthium 0. Fl. ♂: Stamina 1–3; antheræ subsessiles, loculis elongato-ovoideis contiguis rimulis porisve apicalibus dehiscentibus, connectivo inconspicuo v. demum paullo producto; pollen globosum. Fl. ♀: Ovarium ovoideum v. oblongo-obovoideum, 1-loculare; stigma sessile, pulvinare v. hemisphæricum; ovula 1–2, orthotropa, erecta, funiculis brevissimis placentæ basilari affixa, micropyle supera. Baccæ ovoideæ, 1–2-spermæ. Semen globosum, subacutum, testa tenui rugulosa, strophiolo cum funiculo confluente, albumine copioso; embryo axilis.—Herbæ tuberosæ, foliis floribusque coætaneis. Folia sagittata v. hastata, 3–5-loba v. partita v. pedatisecta, petiolo elongato. Pedunculus sæpius brevis. Spathæ tubus convolutus, accrescens, persistens, fauce constricta; lamina ovata v. lanceolata, acuta v. acuminata, aperta v. subaperta, erecta v. recurva, decidua. Spadix sessilis v. stipitatus, inclusus, appendice varia sæpius stipitata; inflorescentia ♂ cylindracea, ♀ brevis; organa neutra supra fl. ♂ 0, infra fl. ♂ 0 v. subulata, supra fl. ♀ clavata, dense conferta, elongata, adscendentia v. recurva.

Species ad 13, Asiæ tropicæ, Australasiæ, et insularum maris Pacifici incolæ. *Engl. Arac.* 609. *N. E. Brown in Journ. Linn. Soc.* xviii. 260. Genera sequentia a Schottio distincta, rite pro subgeneribus ab Englero habenda:—

Typhonium, *Schott, Aroid. t.* 15 *ad* 18; *Gen. Aroid. t.* 17. Organa neutra infra fl. ♂ 0, supra ♀ clavata. *Blume, Rumph.* i. *t.* 36. *Wight, Ic. t.* 790, 793, 801, 803. *Miq. in Ann. Mus. Lugd. Bat.* iii. *t.* 3, *f.* B. *Lodd. Bot. Cab. t.* 422 *et* 516 (*Arum*). *Andr. Bot. Rep. t.* 356 (*Arum*). *Saund. Ref. Bot. t.* 283. *Griff. Ic. Pl. Asiat. t.* 50 (*Arum*). *Bot. Reg. t.* 450 (*Arum*). *Bot. Mag. t.* 339 *et* 2324 (*Arum*), 6180.

Heterostalis, *Schott in Œstr. Bot. Wochenbl.* 1857, 261; *Gen. Aroid. t.* 18. Organa neutra infra fl. ♂ subulata, decurva v. ascendentia, supra ♀ magna clavata ascendentia. *Lodd. Bot. Cab. t.* 396 (*Arum*). *Wight, Ic. t.* 791 (*Arum*). *Blume, Rumph.* i. *t.* 30 (*Typhonium*).

12. **Theriophonum,** *Blume, Rumph.* i. 127.—Flores in spadice appendiculato monoici, ♂ et ♀ remoti, organis neutris simpliciter subulatis v. filiformibus interpositis et interdum supra ♂ positis. Perianthium 0. Fl. ♂: Stamina 1–2; antheræ sessiles,

subcompressæ, didymæ, loculis oblongis v. globosis contiguis poris rimulisque subapicalibus dehiscentibus, connectivo emarginato v. breviter v. longe producto. Fl. ♀: Ovarium oblongum v. cuneatum, 1-loculare; stigma sessile, pulvinare, demum evanidum; ovula pauca v. plurima, orthotropa, alia ab apice loculi pendula, alia a basi erecta, funiculis brevibus affixa. Baccæ oligospermæ. Semina ovoidea, funiculo brevi tumido, albumine copioso; embryo axilis.—Herbæ tuberosæ, foliis cum floribus coætaneis. Folia cordato-sagittata v. hastata, petiolo elongato gracili. Pedunculus sæpius brevis. Spatha marcescens, demum evanescens, tubo convoluto, fauce subconstricta, lamina erecta oblonga v. lanceolata acuminata. Spadix spatha brevior, appendice erecta tenui filiformi v. clavata; inflorescentia ♂ angusta, cylindracea, elongata; ♀ brevissima, pauciflora; organa neutra sursum curvata.

Species 5, Indiæ Orientalis incolæ. *Engl. Arac.* 605. *N. E. Brown in Journ. Linn. Soc.* xviii. 258. Genus in sectiones 2 abÆnglero divisum:—

1. *Eutheriophonum*, Engl. l. c. 606. Antherarum loculi rimulis apicalibus dehiscentes, connectivo longe producto. *Schott, Gen. Aroid. t.* 14; *Aroid. t.* 21. *Hook. Bot. Misc. Suppl. t.* 3 (*Arum*).

2. *Calyptrocoryne*, Engl. l. c. 608. Antherarum loculi poris apicalibus dehiscentes, connectivo non producto. Organa neutra inferiora ad fl. ♀ approximata, superiora pauca v. 0. Calyptrocoryne, *Schott, Gen. Aroid. t.* 16. Tapinocarpus, *Dalzell in Hook. Kew Journ.* iii. 345. *Schott, Gen. Aroid. t.* 15.

13. **Helicophyllum,** *Schott, Aroid.* 20, *t.* 28 *ad* 30; *Gen. Aroid. t.* 20.—Flores in spadice appendiculato monoici, ♂ et ♀ remoti, organis neutris subulatis interpositis. Perianthium 0. Fl. ♂: Stamina 2; antheræ sessiles, subcompressæ, loculis oblongis contiguis rimulis apicalibus v. lateralibus dehiscentibus, connectivo haud producto. Fl. ♀: Ovarium obovoideum v. subglobosum, 1-loculare, vertice truncato v. depresso; stylus brevis v. 0, stigmate pulvinari v. capitato; ovula 2, orthotropa, erecta, funiculis brevissimis placentæ basilari affixa, micropyle supera. Baccæ obovoideæ v. globosæ, 1–2-spermæ. Semina depresso-globosa, apiculata, testa crassa rugosa, albumine copioso basi intruso; embryo axilis.—Herbæ tuberosæ, foliis cum floribus coætaneis. Folia longe petiolata, crasse coriacea, hastata v. sagittata, v. juniora hastata, et seniora pedatisecta segmentis basi confluentibus lateralibus sæpe spiraliter volutis. Pedunculus foliis brevior. Spatha marcescens, tubo oblongo subventricoso persistente, lamina oblonga erecta. Spadix spatha multo brevior, tenuis v. robustus, appendice clavata et rugosa, v. tenuiter cylindracea, rarius brevi crassa conoidea; inflorescentia ♂ et ♀ breves, cylindraceæ; organa neutra sparsa, elongata, sursum curva.

Species 4 v. 5, Asiæ occidentalis incolæ. *Engl. Arac.* 597.

Eminium, *Schott, Syn. Aroid.* 16; *Gen. Aroid. t.* 19; *Aroid. t.* 22 (*Ari sect. Eminium, Blume, Rumph.* i. 121), a *Helicophyllo* differt foliis integris et fide Schottii sed errore foliis proterantheris; sententia Engleri sectionem tantum efficit.

14. **Helicodiceros,** *Schott in Œstr. Wochenbl.* 1853, 369; *Aroid. t.* 26, 27; *Gen. Aroid. t.* 20.—Flores in spadice longo setoso-appendiculato monoici, ♂ et ♀ remoti, organibus neutris subulatis interpositis et supra ♂ positis. Perianthium 0. Fl. ♂: Stamina 2–3; antheræ sessiles v. subsessiles, subglobosæ, loculis contiguis obovoideis v. oblongis rimis demum confluentibus dehiscentibus, connectivo tenui non producto. Fl. ♀: Ovarium obovoideum, 1-loculare, vertice subtrilobo; stigma sessile, pulvinare; ovula 4–6, orthotropa, alia ab apice loculi pendula, alia a basi erecta, funiculis brevibus crassis affixa. Baccæ . . .—Herba tuberosa, foliis cum floribus coætaneis. Folia longe petiolata, pedatisecta, segmentis lanceolatis lateralibus pinnatifidis circa costam spiraliter volutis, sursum porrectis, petiolo longe vaginante. Pedunculus crassus, elongatus. Spatha crassa, persistens, tubo convoluto tessellato, fauce constricta, lamina ovato-oblonga v. lanceolata retroversa, disco setoso. Spadix crassus, stipitatus, spatha brevior; appendix stipitata, lamina spathæ incumbens, grosse vermiformis, medio incrassata, ad apicem usque attenuatam crinita; inflorescentiæ ♂ et ♀ breves, crassæ, cylindraceæ, densifloræ; organa neutra

inter sexus magna, porrecta et incurva, quæ supra fl. ♀ ad apicem stipitis posita, fere pollicaria, in appendicem producta, et gradatim ad setas reducta.

Species 1, in insula Sardiniæ vicinisque indigena. *Engl. Arac.* 604. *Bot. Reg. t.* 831 (*Arum*). *Fl. des Serres, t.* 445 (*Dracunculus*). *Geelink, Sert. Bot. t.* 49 (*Arum*). Genus forte melius pro subgenere *Dracunculi* habendum.

15. **Dracunculus,** *Schott, Melet.* i. 17; *Gen. Aroid. t.* 22; *Aroid. t.* 23, 24.—Flores in spadice longe appendiculato monoici, ♂ et ♀ arcte contigui v. subremoti; organa neutra supra fl. ♂ pauca, parva, conica. Perianthium 0. Fl. ♂: Stamina 3–4; antheræ breviter stipitatæ, reniformes, loculis ellipsoideis v. obovoideis contiguis poris v. rimulis apicalibus dehiscentibus, connectivo tenui demum loculos superante; pollen vermiforme. Fl. ♀: Ovarium oblongum, in stylum conicum attenuatum, stigmate hemisphærico; ovula 2–4, orthotropa, omnia basilaria v. alia ab apice loculi pendula, funiculis brevibus affixa. Baccæ obovoideæ, oligospermæ. Semina ovoidea obovoidea v. subglobosa v. plano-convexa, testa crassa rugosa, albumine copioso basi intruso; embryo axilis.—Herbæ tuberosæ, foliis cum floribus coætaneis. Folia petiolata, pedatisecta, segmentis lanceolatis convolutis demum arrectis, petiolo longe vaginante. Pedunculus folia superans. Spatha marcescens, persistens, tubo recto convoluto, lamina ovato-lanceolata aperta recurva. Spadix spatha brevior, sessilis, appendice longe stipitata erecta elongata conoidea demum fungosa; inflorescentiæ ♂ et ♀ cylindraceæ, densifloræ; organa neutra sparsa, inconspicua.

Species 2, altera Europæ australis incola, altera Canariensis. *Engl. Arac.* 601. *Gærtn. Fruct. t.* 84 (*Arum*). *Blume, Rumph.* i. *t.* 37. *Reichb. Ic. Fl. Germ.* vii. *t.* 11. *Sibth. Fl. Gr. t.* 946 (*Arum*). *Bot. Reg. t.* 831.

Anarmodium, *Schott in Bonplandia,* ix. 368 (D. canariensis, *Schott, Aroid. t.* 25. *Webb. Phytogr. Canar. t.* 219), a typo generis differt floribus ♂ et ♀ subremotis, antheris stipitatis et connectivo haud producto.

Tribus II. Stilochitoneæ.

16. **Stylochiton,** *Leprieur in Ann. Sc. Nat. Ser.* 2, ii. 184, *t.* 5 (*Stylochæton*).—Flores in spadice inappendiculato monoici, omnes fertiles, ♂ et ♀ remoti. Fl. ♂: Perianthium brevissimum, urceolare v. annulare. Stamina 4–6, distincta, ovarii rudimentum cingentia, filamentis filiformibus; antheræ oblongæ v. cuneato-obovatæ, truncatæ, loculis contiguis lineari-oblongis rimis elongatis lateralibus dehiscentibus, connectivo angusto haud producto. Fl. ♀ liberi v. arcte connati. Perianthium cupulare. Ovarium perianthio inclusum, obovoideum angulatum v. oblongum, 1-loculare v. inferne 2–4-loculare; stylus elongatus, stigmate capitato v. dilatato pulvinari; ovula in loculis 2–∞, anatropa, elongata, placentis a basi ascendentibus funiculis brevibus v. elongatis affixa, micropyle infera. Baccæ liberæ v. in syncarpium connatæ, stylo coronatæ, 1–4-loculares, loculis 2–∞-spermis. Semina ovoidea, leviter compressa, testa membranacea striata atra, micropyle prominula, albumine copioso; embryo axilis.—Herbæ rhizomate articulato, articulis disciformibus annotinis. Folia cordata, sagittata v. hastata, petiolo elongato longe et late vaginante. Pedunculus brevissimus. Spatha persistens?, tubo elongato marginibus connatis, fauce aperta, lamina brevi ovata v. elongato-lanceolata acuminata concava hiante. Spadix sessilis, totus inclusus; inflorescentia ♂ elongata, cylindracea, densiflora; ♀ brevior, nunc densiflora, floribus spiraliter dispositis, nunc monocycla et pauciflora floribus infimis inter se et cum spadice confluentibus.

Species 3, Africæ tropicæ et australis incolæ. *Engl. Arac.* 522. Genus ab Englero in sectiones duas divisum:—

1. *Cyclogyne,* Engl. l. c. 522. Filamenta antheris haud longiora. Fl. ♀ monocycli, connati. Ovarium 1-loculare; ovula in loculis plura, placentis ultra septa productis funiculis longiusculis affixa. Rhizoma folia anno priore, pedunculum hypogæum anno posteriore gerens, vel folia cum floribus coætanea. Spathæ tubus elongatus, terra absconditus, lamina emersa valde incrassata, *Kotschy et Peyr. Pl. Tinn. t.* 20.

2. *Spirogyne,* Engl. l. c. 523. Filamenta antheris triplo longiora. Fl. ♀ spiraliter conferta. Ovarium 2–4-loculare; ovula in loculis 2 v. plura, placentis medio loculi funiculis brevibus affixa. Folia cum floribus coætanea. Pedunculi 1–2, petiolo multo breviores. Spathæ tubus lamina brevior. *Schott, Gen. Aroid. t.* 68; *Aroid. t.* 14. Guienzia, *Sonder in Sched.*

TRIBUS III. ZOMICARPEÆ.

17. **Zomicarpa,** *Schott, Synops. Aroid.* 33 ; *Gen. Aroid. t.* 23.—Flores in spadice appendiculato dorso basi spatha adnato monoici, ♂ numerosi ♀ unilateralibus contigui ; organa neutra supra fl. ♂ perpauca, minuta, conica. Perianthium 0. Fl. ♂ : Stamina 1–2, distincta ; antheræ subsessiles, depressæ, didymæ, loculis oppositis contiguis poris rimulisve apicalibus dehiscentibus, connectivo haud producto ; pollen pulvereum. Fl. ♀ : Ovarium oblongum v. subglobosum, basi lata sessile, 1-loculare ; stylus brevissimus, stigmate dilatato discoideo ; ovula 6–9, anatropa, erecta, elongata, funiculis brevissimis placentæ basilari affixa, micropyle infera. Baccæ subglobosæ, sub-6-spermæ, basi circumscissæ. Semina erecta, ellipsoidea v. oblonga, testa crassiuscula chartacea, strophiolo conico, albumine copioso ; embryo axilis.—Herbæ tuberosæ. Folia proteranthia, longe petiolata, reniformia, 3-pedatisecta, segmentis elliptico-oblongis lateralibus minoribus, petiolo ima basi vaginante. Pedunculus gracilis, folia æquans. Spatha carnosula, persistens, tubo convoluto basi cucullato marginibus connatis, fauce constricta, lamina lanceolata acuminata aperta reticulatim venosa. Spadix spatha brevior, appendice gracili basi organis neutris paucis sparsis ; inflorescentia ♂ cylindracea, densiflora ; ♀ pauciflora.

Species 3, Brasilienses. *Engl. Arac.* 524, *et in Mart. Fl. Bras.* iii. ii. *t.* 50. *Saund. Ref. Bot. t.* 15. *Peyritsch, Aroid. Maximil. t.* 1, 2, 3.

18. **Zomicarpella,** *N. E. Brown in Gard. Chron.* 1881, ii. 266 ; *et in Ill. Hortic.* xxviii. 144.—Flores in spadice gracile appendiculato dorso basi spathæ adnato monoici, ♂ et ♀ subremoti ; organa neutra 0. Perianthium 0. Fl. ♂ : Stamina distincta, filamentis brevibus v. subelongatis compressis ; antheræ terminales, loculis didymis subglobosis connectivo latioribus poris apicalibus dehiscentibus ; pollen vermiforme. Ovarium ovoideo-oblongum, 1-loculare ; stigmate subsessili discoideo ; ovulum solitarium, breve, anatropum, funiculo brevissimo basifixum, erectum ; micropyle infera. Fructus . . .—Herba parvula, gracilis, tuberosa, foliis cum floribus coætaneis. Folia graciliter petiolata, late ovato-cordata v. sagittata, acuta, maculata, membranacea, lobis posticis deltoideo-ovatis obtusis, nervis ad 9 digitatis v. subpedatis, petiolo crassiusculo basi vaginante. Pedunculus petiolo longior, crassiusculus. Spatha pollicaris, membranacea, lanceolata, ad basin aperta. Spadix spatha duplo longior, gracilis, appendice tenui gracili substipitata, longe exserta erecta ; inflorescentia ♂ et ♀ subæquilongæ, graciles.

Species 1, Novæ Grenadæ incola.

TRIBUS IV. PYTHONIEÆ.

19. **Amorphophallus,** *Blume in Batav. Diar.* 1825, *ex Dcne. in Nov. Ann. Mus. Par.* iii. 366. (Pythion, *Mart. in Bot. Zeit.* 1831, 479.)—Flores in spadice crasse appendiculato monoici, ♂ et ♀ contigui, omnes perfecti ; organa neutra 0. Perianthium 0. Fl. ♂ : Stamina 2–4 ; antheræ sessiles, loculis contiguis oblongis poris apicalibus dehiscentibus, connectivo tenui haud v. brevissime producto. Fl. ♀ : Ovarium globosum, 1–4-loculare ; stylus brevis v. elongatus, stigmate integro v. 2–4-lobo ; ovula in loculis solitaria, anatropa v. semi-anatropa, decurva, funiculis brevibus v. subelongatis placentis basilaribus v. angulo interiore adnatis affixa, micropyle infera. Baccæ subglobosæ, oligospermæ. Semina ellipsoidea v. plano-compressa, testa tenui lævi, albumine 0 ; embryo macropodus.—Herbæ, interdum giganteæ, tubere maximo oblato. Folia hysteranthia, ampla, 3-secta, segmentis varie sectis et 1–2-pinnatifidis, pinnis oblongis acutis, petiolo valido interdum apice bulbifero. Pedunculus brevis v. elongatus. Spatha erecta, basi convoluta, campanulata late infundibularis v. fornicata, marcescens. Spadix erectus, crassus, spatham longe superans, appendice fusiformi v. incrassata et fungosa ; inflorescentiæ ♂ et ♀ cylindraceæ, densifloræ.

Species ad 25, Asiæ et Africæ tropicæ, Archipelagi Malayani et insularum maris Pacifici incolæ. *Engler Arac.* 308, 643, *et in Bot. Jahrb.* i. 183. *Rumph. Herb. Amb.* i. *t.* 32 *ad* 34. Sectiones sequentes pro generibus propriis ab auctoribus pluribus habentur:—

1. *Candarum*, Engl. l. c. 309. Spatha maxima, campanulata, pedunculo brevissimo. Spadicis appendix inflorescentiæ æquilonga. Ovarium globosum, 2–4-loculare, stylo elongato, placenta basilari. India. *Schott, Gen. Aroid. t.* 31. *Gaud. in Freyc. Voy. Bot. t.* 39 (*Arum*). *Roxb. Cor. Pl.* iii. *t.* 272 (*Arum*). *Wight, Ic. t.* 782 *et* 785 (*Arum*). *Bot. Mag. t.* 2182 (*Arum*), 5187. *Blume, Rumph.* i. 39, *t.* 32, 33. CANDARUM, *Reichb. ex Schott. Melet.* i. 17.

2. *Brachyspatha*, Engl. l. c. 311, *excl. sp.* Spatha brevis, acuminata, pedunculo elongato. Spadicis appendix elongata, longe attenuata, spatham superans. Ovarium subglobosum, 2-loculare, stylo brevi, placentis basilaribus. India. *Blume, Rumph.* i. *t.* 35, 37. *Regel, Gartenfl. t.* 845 (*errore* 842). *Gard. Chron.* 1878, ii. *f.* 127 (*Conophallus*). BRACHYSPATHA, *Schott, Syn. Aroid.* 35; *Gen. Aroid. t.* 29; *Gard. Chron.* 1876, ii. *fig.* 129, 130.

3. *Conophallus*, Engl. l. c. 315. Spatha erecta, concava, basi convoluta, lamina concava. Spadix spatham paullo superans, appendice crassa fungosa. Ovarium subglobosum, 2–3-loculare, stylo brevi, stigmate discoideo, placentis basilaribus. India. *Bot. Mag.* 2072 *et* 2508 (*Arum*). *Blume, Rumph.* i. *t.* 34. CONOPHALLUS, *Schott, Syn. Aroid.* 34; *Gen. Aroid. t.* 30.

4. *Corynophallus.* Spatha oblique campanulata, tubo dilatato, fauce aperta, lamina late ovata arrecta. Spadix sublonge stipitatus, a basi in appendicem crassissimam pyriformem sensim auctus. Ovarium globosum, 1-loculare, stylo elongato, stigmate discoideo, placenta basilari. Africa. *Lemaire in Fl. des Serres*, 1846, *t.* 161. CORYNOPHALLUS, *Schott in Œstr. Bot. Wochenb.* 1857, 389; *Gen. Aroid. t.* 32. *Engl. Arac.* 325. *Masters in Gard. Chron.* 1872, *fig.* 343.

5. *Hydrosme.* Spathæ tubus convolutus, lamina explanata margine undulata. Spadix breviter stipitatus, appendice elongata cylindracea elongato-conoidea v. clavata. Ovarium oblongum 1–3-loculare, stigmate discoideo v. 2–3-lobo, ovulis subbasilaribus. Africa. HYDROSME, *Schott in Œstr. Bot. Wochenbl.* 1857, 389; *Gen. Aroid. t.* 33, *et in Peters Mozamb. Reise, t.* 56. *Engl. Arac.* 321, *et in Bot. Jahrb.* i. 187. HANSALIA, *Schott in Œstr. Bot. Zeitschr.* 1858, 82. *Syn. Aroid.* 133. In *H. Hildebrandtia*, specie Madagascariensi, stylus elongatus, basi annulatim incrassatus, stigma obliquum, et semina exalbuminosa ab Englero descripta sunt.

6. *Proteinophallus.* Spatha oblique late infundibularis, tubo convoluto, fauce aperta; spadix elongatus, sessilis, appendice longe exserta elongato-conoidea longitudinaliter sinuatim sulcata. Ovarium globosum 2–3-loculare, stylo columnari, stigmate 3-lobo, placentis angulo interiori adnatis. Cochin China. *Masters in Gard. Chron.* 1873, *p.* 610, *cum ic.* PROTEINOPHALLUS, *Hook. f., Bot. Mag. t.* 6195. TAPEINOPHALLUS, *Baill. Dict. Bot. Ic. sine descr.*

20. **Thomsonia,** *Wall. Pl. As. Rar.* i. 83, *t.* 99. (Pythonium, *Schott, Meletem.* i. 17; *Gen. Aroid. t.* 25.)—Flores in spadice appendiculato monoici, ♂ et ♀ arcte contigui; superiores ♂ imperfecti deplanati, basin appendicis vestientes. Perianthium 0. Fl. ♂: Stamina 3–5, distincta, brevissime stipitata; antheræ quadratæ, loculis obovoideis contiguis poris apicalibus tandem confluentibus dehiscentibus, connectivo tenui obsoleto v. prominulo. Fl. ♀: Ovarium globosum, 1-loculare; stylus subcylindraceus, stigmate majusculo dilatato 4-gono; ovulum solitarium, anatropum, erectum, funiculo brevi placentæ basilari affixum, micropyle infera. Fructus . . .—Herbæ tuberosæ, annis alternis? foliiferæ et floriferæ. Folia longe petiolata, 3-pedatisecta, segmentis pinnatipartitis, pinnis oblongo-lanceolatis acuminatis. Pedunculus elongatus. Spatha coriacea, decidua, oblonga, cymbiformis, tubo indistincto. Spadix sessilis, spatham subæquans, appendice inferne organis neutris superne tuberculis conicis operta; inflorescentia ♂ cylindracea v. subclavata quam ♀ cylindraceam robustior.

Species 2, Himalayæ et Mont. Khasiæ incolæ. *Engl. Arac.* 306.

ALLOPYTHION, *Schott, Gen. Aroid. t.* 24, a *Thomsonia* non nisi tuberculis perpaucis conicis inter fl. ♂ et ♀ differre videtur.

21. **Pseudodracontium,** *N. E. Brown in Trim. Journ. Bot.* 1881, 193, *t.* 231, *f.* 2.—Flores in spadice appendiculato monoici, ♂ sparsi, ♀ dense congesti; appendix stipitata, fl. ♂ imperfectis operta. Perianthium 0. Fl. ♂: Stamina 3–6, clavata, distincta v. filamentis ima basi v. altius connatis superne in antheram obcordatam v. subglobosam sensim,

desinentibus, loculis contiguis poris v. rimulis subapicalibus extrorsum dehiscentibus, connectivo inter loculos minute producto. Fl. ♀: Ovarium globosum v. oblongum, 1-loculare, in stylum brevissimum attenuatum, stigmate minuto pulvinari; ovulum solitarium, breve, anatropum, funiculo brevissimò placentæ basilari v. in loculo intrusæ affixum, micropyle infera. Fructus . . .—Herbæ tuberosæ, foliis floribusque coætaneis. Folia 3-secta, segmentis fissis v. pinnatis, pinnis lanceolatis acuminatis superioribus confluentibus decurrentibus, inferioribus remotis sessilibus, petiolo elongato crasso basi vaginato. Pedunculus petiolis multo brevior. Spatha erecta, cymbiformis, acuta, basi breviter convoluta, superne aperta, submembranacea, demum marcescens ?. Spadix spatha brevior, crassus, sessilis; inflorescentia ♂ floribus longe distantibus quam ♀ densiflorà longior et angustior; appendix brevis, cylindraceo-conoidea, obtusa, floribus ♂ imperfectis stipitatis apicibus corrugatis quasi verrucosis operta.

Species 2, Cochin-Chinenses. *Lind. et André, Illustr. Hortic.* 1878, 90, *t.* 316 (*Amorphophallus*).

22. **Synantherias,** *Schott, Gen. Aroid. t.* 28.—Flores in spadice longe appendiculato monoici, ♂ et ♀ remoti, organibus neutris paucis conicis interjectis. Perianthium 0. Fl. ♂: Stamina 4–6, distincta, circa discum nudum posita; antheræ subsessiles, didymo-quadratæ, loculis obovoideis contiguis poris apicalibus demum confluentibus dehiscentibus, connectivo vix prominulo. Fl. ♀: Ovarium 2-loculare, oblongum v. globosum; stigma subsessile, magnum, hemisphæricum, 2–4-lobum; ovula in loculis solitaria, anatropa v. semi-anatropa, decurva, funiculis brevibus placentis septo adnatis affixa, micropyle infera. Fructus . . .—Herba tuberosa. Folia hysteranthia, pedatisecta, segmentis pinnatifidis, pinnis lineari-lanceolatis. Pedunculus gracilis. Spatha brevis, erecta, ventricosa, tubo obscuro aperto in laminam latam acutam abrupte desinente. Spadix spatha multo longior, gracilis, erecta, substipitata, appendice gracili elongato-subulata inflorescentia multoties longiore; organa neutra depresso-conoidea, elongato-quadrata.

Species 1, Peninsulæ Indiæ orientalis incola. *Engl. Arac.* 319. *Wight, Ic. t.* 802 (*Arum*). Genus fructu ignoto non nisi organis neutris inter inflorescentias ♂ et ♀ positis ab *Amorphophalli* sectione *Brachyspatha* distinguendum.

23. **Rhaphiophallus,** *Schott, Gen. Aroid. t.* 27.—Flores in spadice appendiculato monoici, ♂ et ♀ remoti, organis neutris paucis gibberiformibus interpositis. Perianthium 0. Fl. ♂: Stamina distincta; antheræ subsessiles, loculis obovoideis contiguis poris apicalibus demum confluentibus dehiscentibus, connectivo prominulo. Fl. ♀: Ovarium obpyramidatum, 3-loculare; stigma subsessile, discoideum, dilatatum, sub-4-lobum; ovula in loculis solitaria, anatropa, erecta, funiculis brevibus placentis basilaribus affixa. Fructus . . .—Herba tubere parvo. Folia hysteranthia, solitaria, 3-secta, segmentis dichotomis cruribus pinnatisectis, pinnis oblongis acutis decurrentibus. Pedunculus gracilis. Spathæ tubus convolutus, fauce aperta, lamina paullo longiore erecta lanceolata acuta. Spadix stipitatus, appendice elongata gracili subulata; inflorescentiæ cylindraceæ, ♂ brevior et tenuior.

Species 1, Peninsulæ Indiæ orientalis ad Mangalor incola. *Engl. Arac.* 320. Genus a nobis non visum.

24. ? **Xenophya,** *Schott in Ann. Mus. Lugd. Bat.* i. 124.—Flores in spadice appendiculato monoici, ♂ et ♀ remoti, organis neutris gibbosis interjectis. Perianthium 0. Fl. ♂: Stamina 2 ?, distincta, filamentis dilatatis; antheræ breves, loculis ad apicem connectivi oppositis poris apicalibus dehiscentibus. Fl. ♀: Ovarium 1-loculare; stigma sessile, sub-4-lobum; ovula ad 6, anatropa, basilaria, funiculis brevibus affixa. Fructus . ? .—Herba tuberosa, foliis floribus coætaneis. Folia ovata, pinnatipartita, segmentis lanceolatis acuminatis, infimis ex pedato 2-fidis. Spatha convoluta. Spadix stipitatus, appendice nuda; inflorescentia ♂ elongata, ♀ multo brevior.

Species 1, Novæ Guineæ incola. *Engl. Arac.* 526. Genus a nobis non visum.

25. **Plesmonium,** *Schott, Synops. Aroid.* 34 ; *Gen. Aroid. t.* 26.—Flores in spadice inappendiculato monoici, ♂ et ♀ remoti, organis neutris numerosis crassis globosis interpositis. Perianthium 0. Fl. ♂: Stamina distincta ; antheræ sessiles, quadratæ, loculis obovoideis contiguis brevibus poris confluentibus dehiscentibus, connectivo prominulo. Fl. ♀ sparsi. Ovarium ovoideum v. globosum, 2–3-loculare, in stylum conicum attenuatum, stigmate majusculo pulvinare ; ovula in loculis solitaria, anatropa, erecta, funiculis brevibus angulo interiori affixa. Baccæ ovoideæ, vertice intruso, 2–3-loculares, 2–3-spermæ. Semina ellipsoidea plano-convexa v. obtuse 3-gona, testa rugosula, albumine 0 ; embryo macropodus.—Herba, tubere maximo depresso. Folia proteranthia, 3-secta, segmento medio pinnatipartito, lateralibus furcatis pinnatisectis, pinnis lineari-lanceolatis, petiolo elongato. Spatha erecta, ovata, marcescens, inferne campanulato-convoluta, superne aperta. Spadix stipitatus, validus, rectus, spatha brevior ; inflorescentia mascula elongato-cylindracea, densiflora, ♀ multo brevior ; organa neutra pisiformia, margaritacea.

Species 1, Bengaliæ incola. *Engl. Arac.* 302. *Wight, Ic. t.* 795 (*Arum*).

26. **Anchomanes,** *Schott in Œstr. Bot. Wochenbl.* 1853, 313 ; *Gen. Aroid. t.* 34.—Flores in spadice inappendiculato monoici, ♂ et ♀ contigui ; organa neutra 0. Perianthium 0. Fl. ♂: Stamina 2, distincta ; antheræ sessiles, quadratæ, lobulis oblongis contiguis basi confluentibus vertice connectivo crasso dilatato truncato separatis, rimulis verticalibus dehiscentibus. Fl. ♀: Ovarium 1-loculare, sublageniforme, in stylum conicum decurvum tuberculatum sensim productum, stigmate parvo ; ovulum breve, solitarium, anatropum, erectum, funiculo brevi placentæ basilari affixum, micropyle oblique infera. Baccæ ovoideæ, stylo coronatæ, 1-spermæ. Semen oblongo-ovoideum, testa tenuissima, albumine 0 ; embryo macropodus.—Herbæ tuberosæ. Folia hysteranthia, solitaria, primaria sagittata, secondaria 3-secta segmentis cuneatis v. trapezoideis, tertiaria 3-secta segmentis dichotomis v. pinnatifidis, petiolo elongato aspero. Pedunculus asper, petiolo brevior. Spatha marcescens, aperta, erecta, cymbiformis v. lanceolata, acuminata, carnosa, ima basi convoluta. Spadix spatha multo brevior, obtusa ; inflorescentia ♂ elongato-conoidea, obtusa ; ♀ æquilonga v. brevior, cylindracea, ovariis baccisque decurvis.

Species 1 v. 2, Africæ tropicæ occidentalis incolæ. *Engl. Arac.* 303. *Bot. Mag. t.* 3728 (*Caladium*), 5394.

Tribus V. Colocasieæ.

27. **Ariopsis,** *Grah. Cat. Bomb. Pl.* ; *Addend.* 252.—Flores in spadice inappendiculato monoici, ♂ et ♀ remoti ; organa neutra 0. Perianthium 0. Fl. ♂: Stamina 3, in corpus peltatum connata ; connectiva florum omnium confluentia, stratum foveolatum spadicis parti superiori adnatum formantia ; antherarum loculi globosi, connectivo immersi, poris foveolis respondentibus dehiscentes et pollen in cavitatem emittentes. Fl. ♀ quam masculis multo majores. Ovarium oblongum, 1-loculare ; stigma sessile, 4–6-fidum, lobis subulatis incurvis demum patulis placentis superpositis ; ovula numerosa, orthotropa, patentia, placentis 4–6 parietalibus funiculis longiusculis 2-seriatim affixa, micropyle supera. Baccæ 3–6-gonæ, ope stigmatum connatæ, polyspermæ. Semina lineari-oblonga, pendula, testa crassula sulcata, strophiolo obsoleto, albumine copioso ; embryo axilis.—Herbæ parvulæ, tuberosæ, annis alternis v. post intervalla varia folia et flores proferentes, tuberibus glomeratis. Folia graciliter petiolata, peltata, ovato-cordata, v. basi emarginata. Pedunculus brevis, gracillimus. Spatha parva, erecta, cymbiformis, apiculata, aperta, basi vix convoluta, persistens. Spadix spatha brevior, dorso basi spathæ accretus, graciliter stipitatus ; inflorescentia ♂ appendiciformis, cylindracea, obtusa, poris connectivi foveolata, ♀ multo minor, pauciflora.

Species 2, montium subtropicorum Indiæ orientalis incolæ. *Engl. Arac.* 527. *Schott, Gen. Aroid. t.* 35. *Wight, Ic. t.* 900 (*Remusatia*). *Bot. Mag. t.* 4222.

28. **Remusatia,** *Schott, Melet.* i. 18; *Gen. Aroid. t.* 36; *et in Ann. Gand.* 1846, *t.* 66. —Flores in spadice inappendiculato monoici, ♂ et ♀ remoti, masculis sterilibus deplanatis compactis interjectis. Perianthium 0. Fl. ♂: Stamina 2–3, in corpus cuneato-clavatum vertice depresso-deplanatum ambitu sinuato-lobatum connata; antherarum loculi oblongi rimulis apicalibus dehiscente, connectivo crasso. Fl. ♀: Ovarium ovoideum v. obovoideum, 1-loculare v. superne 2-4-loculare; stigma sessile, pulvinare; ovula numerosa, orthotropa, patentia, funiculis brevibus placentis 3–4 parietalibus 2-seriatim affixa, micropyle supera. Baccæ, tubo spathæ inclusæ, parvæ, globosæ v. obovoideæ, polyspermæ. Semina ovoidea, apice retusa, testa crassa extus succulenta, albumine copioso; embryo axilis.—Herbæ tuberosæ, annis alternis folium sæpius solitarium et pedunculum proferentes; tubera turiones elongatas nudas vaginatas gemmiferas emittentia. Folia longe graciliterque petiolata, peltata, ovato-cordata v. lanceolata. Pedunculus brevis. Spathæ tubus convolutus, accrescens, persistens, fauce constricta, lamina explanata patente v. refracta demum disrupta et decidua. Spadix spatha brevior, sessilis, medio constrictus; inflorescentia ♂ clavata, stipitata, stipite floribus sterilibus operta; ♀ angustior, subcylindracea.

Species 3 v. 4, montium subtropicorum Indiæ orientalis et Javæ incolæ. *Engl. Arac.* 495. *Lodd. Bot. Cab. t.* 281 (*Caladium*). *Wight, Ic. t.* 798 (*Arum*).

29. **Gonatanthus,** *Klotzsch in Link. Kl. et Otto, Ic. Pl. Rar.* i. 33, *t.* 14.—Flores in spadice inappendiculato monoici, ♂ inferiores steriles ♀ contigui; organa neutra 0. Perianthium 0. Fl. ♂: Stamina 2–3, in corpus crassum pyramidatum vertice depresso-deplanatum ambitu sinuato-lobatum connata, loculis verticem versus corporis oblongis poris apicalibus dehiscentibus, connectivo crasso. Fl. ♀: Ovarium globosum, 1-loculare v. apice sub-2-3-loculare; stigma sessile, capitatum; ovula numerosa, suberecta, orthotropa, funiculis curvis brevibus placentæ basilari affixa, micropyle supera. Baccæ tubo spathæ inclusæ, subglobosæ, polyspermæ. Semina oblonga, testa verruculosa, extus succulenta . . .—Herbæ tuberosæ, foliis floribusque coætaneis, e tuberibus turiones graciles vaginatas ramosissimas gemmiferas emittentes. Folia longe graciliterque petiolata, peltata, ovato-cordata v. lanceolata. Pedunculus brevis. Spathæ tubus convolutus, medio constrictus et geniculatim flexus, accrescens, persistens, fauce constricta, lamina longissima angusta convoluta refracta. Spadix tubo spathæ inclusus; inflorescentia ♂ clavata, longe stipitata, stipite fl. ♂ imperfectis elongato-hexagonis deplanatis operta; ♀ brevis, subcylindracea, pauciflora.

Species 1 v. 2, montium Himalayæ et Khasiæ incolæ. *Engl. Arac.* 510. *Schott, Gen. Aroid. t.* 39. *Bot. Mag. t.* 5275.

30. **Colocasia,** *Schott, Meletem.* i. 18; *Gen. Aroid. t.* 37.—Flores in spadice appendiculato rarius inappendiculato monoici, ♂ et ♀ remoti, masculis imperfectis deplanatis compactis interjectis; ♀ steriles cum fertilibus intermixti. Perianthium 0. Fl. ♂: Stamina 3–5, in corpus crassum obpyramidatum vertice dilatato deplanatum ambitu sinuato-sulcatum, connata; antherarum loculi lineares, ad basin fere connectivi extensi, poris apicalibus dehiscentes. Fl. ♀; Ovarium obovoideum v. oblongum, 1-loculare; stigma sessile v. subsessile, depresso-capitatum; ovula numerosa, orthotropa, patentia, funiculis elongatis placentis 3–5 parietalibus 2-seriatim affixa, micropyle supera infera v. transversa. Baccæ oblongæ v. obconicæ, tubo spathæ inclusæ, polyspermæ. Semina oblonga, strophiolo cum funiculo elongato confluente, testa crassula sulcata epidermide diaphana, albumine copioso; embryo axilis.—Herbæ elatæ, caudice tuberoso v. crasso adscendente, foliis floribusque coætaneis. Folia longe petiolata, peltata, ovato-cordata v. sagittata. Pedunculi solitarii v. plures. Spathæ tubus ovoideus v. oblongus, crassus, accrescens et persistens, demum ruptus, fauce constricta; lamina oblonga v. lanceolata, demum soluta. Spadix spatha brevior, robustus, appendice erecta oblonga fusiformi v. conoidea sæpius elongata rarius obsoleta; inflorescentia ♂ cylindracea, elongata; ♀ brevis v. elongata.

Species 5, Asiæ tropicæ incolæ, una per regiones omnes calidas culta. *Engl. Arac.* 490; *in Bot. Jahrb.* i. 185. *Wight, Ic. t.* 786 (*Arum*), 808 (*Calla*).

Leucocasia, *Schott in Œstr. Bot. Wochenbl.* 1857, *t.* 34; *Gen. Aroid. t.* 38, non nisi caudice erecto a *Colocasia* distinguenda est.

31. **Alocasia,** *Schott in Œstr. Bot. Wochenbl.* 1852, 29; *Gen. Aroid. t.* 60.—Flores in spadice appendiculato monoici, ♂ et ♀ remoti, masculis imperfectis deplanatis compactis interjectis. Perianthium 0. Fl. ♂: Stamina 3–8, in corpus obpyramidatum vertice dilatato deplanatum ambitu hexagonum connata; antherarum loculi lineari-oblongi, ad basin fere connectivi extensi, poris apicalibus dehiscentes. Fl. ♀: Ovarium obovoideum v. oblongum, 1-loculare v. apice sub-3–4-loculare; stylus elongatus brevis v. 0, stigmate pulvinari 3–6-lobo; ovula pauca, orthotropa, erecta, funiculis brevibus placentæ basilari affixa, micropyle supera. Baccæ obovoideæ v. ellipsoideæ, tubo spathæ inclusæ, oligospermæ. Semina subglobosa, funiculo brevi, testa crassa lævi, albumine copioso basi intruso; embryo axilis.—Herbæ elatæ, caudice crasso cicatricato. Folia juniora v. omnia peltata, seniora sagittato-cordata, petiolo elongato longe vaginante. Pedunculi plures, sæpe fastigiati. Spathæ tubus ovoideus v. oblongus, convolutus, accrescens, persistens, demum crassus laceratus, lamina oblonga cymbiformis v. cucullata, demum soluta. Spadix spatha brevior, crassus, erectus, appendice crassa cylindracea v. conoidea sinuato-rugosa basi truncata; inflorescentia ♂ perfecta cylindracea, imperfecta angustata, ♀ brevis, conico-cylindracea.

Species ad 20, Asiæ tropicæ et Archipelagi Malayani incolæ. *Engl. Arac.* 497, *et in Mart. Fl. Bras.* iii. ii. *t.* 47. *N. E. Brown in Gard. Chron.* 1879, 296. *Brongn. in Nouv. Ann. Mus. Par.* iii. 145, *t.* 7 (*Colocasia*). *Lodd. Bot. Cab. t.* 416 (*Caladium*). *Griff. Ic. Pl. Asiat. t.* 167 (*Arum*). *Wight, Ic. t.* 787, 789, 792, 794, 796, 797 (*Arum*). *Lemaire, Ill. Hort. t.* 283. *Fl. des Serres*, 2204, 2206, 2208–9. *Bot. Reg. t.* 641 (*Caladium*). *Bot. Mag. t.* 3935 (*Colocasia*), 5190, 5376, 5497.

Ensolenanthe, *Schott in Bonpland.* ix. 368, includit species nonnullas *Alocasiæ* stigmate sessili 5-fido, segmentis conoideis erectis.

32. **Anubias,** *Schott in Œstr. Bot. Wochenbl.* 1857, 398; *Gen. Aroid. t.* 42.—Flores in spadice inappendiculato monoici, ♂ et ♀ remoti, masculis imperfectis deplanatis interjectis. Perianthium 0. Fl. ♂: Stamina 4–5, in corpus obpyramidatum vertice dilatato deplanatum ambitu hexagonum connata; antherarum loculi oblongi, ad basin fere attingentes, contigui, rima hiante dehiscentes. Fl. ♀: Ovarium hemisphæricum v. ovoideum, imperfecte 2-loculare; stylus brevis, stigmate pulvinari; ovula in loculis numerosa, semianatropa v. fere orthotropa, funiculis elongatis placentis latis basilaribus affixa, micropyle supera. Baccæ tubo incrassato spathæ inclusæ, obovoideæ, umbilicatæ, 2-loculares, polyspermæ. Semina ovoidea, funiculo elongato, testa crassiuscula, raphe basi dilatata, albumine copioso; embryo axilis.—Herbæ rhizomate prorepente, caudice brevi, foliis floribusque coætaneis. Folia lanceolata, basi acuta v. sagittato-cordata, costa valida, nervis tenuissimis crebris parallelis, nervulis transversis exilibus, petiolo gracili elongato longe vaginante apice geniculato. Pedunculi elongati. Spatha crassa, viridis, inferne convoluta, accrescens et persistens, superne hians, fauce non constricta, lamina oblonga acuta decidua. Spadix stipitatus, spatham superans, gracilis, totus cylindraceus; inflorescentia ♂ quam ♀ multo longior.

Species 3 v. 4, Africæ tropicæ occidentalis incolæ. *Engl. Arac.* 433.

33. **Peltandra,** *Rafin. in Journ. Phys.* lxxxix. 102. (Lecontia, *Torr. Compend.* 358. Renselaeria, *Beck, Bot. U. States,* 382.)—Flores in spadice obsolete appendiculato monoici, ♂ et ♀ arcte contigui; organa neutra 0. Perianthium 0. Fl. ♂: Stamina 4–5 in corpus prismaticum 4–6-gonum vertice dilatato deplanatum connata; antherarum loculi contigui, basi attingentes, lineari-oblongi, poris apicalibus dehiscentes. Fl. ♀: Staminodia 4–5, in urceolum truncatum connata. Ovarium urceolo fere immersum, ovoideum, 1-loculare, in stylum brevem conoideum angustatum; stigma pulvinare; ovula solitaria v. pauca, ortho-

tropa, erecta, funiculis brevissimis placentæ suprabasilari affixa, micropyle supera. Utriculi subglobosi, tubo carnoso spathæ inclusi, 1–oligospermi. Semina obovoidea, testa gelatinosa intus basi vacua, albumine 0; embryo globosus, macropodus.—Herbæ paludosæ, rhizomate crasso, foliis floribusque coætaneis. Folia subpeltata, hastata, costa valida, nervis densis tenuissimis, petiolo elongato longe vaginante. Spatha tota convoluta, tubo elongato accrescente persistente, fauce leviter constricta, lamina elongato-lanceolata recurva decidua, marginibus undulatis. Spadix spatha multo brevior, gracilis, erectus, totus cylindraceus, appendice brevi ovoidea v. obsoleta; inflorescentia densa, ♂ quam ♀ multo longior; fl. ♂ interdum ovario imperfecto comitati, inferiores casu imperfecti.

Species 2, Americæ boreali-orientalis incolæ. *Engl. Arac.* 329. *Schott, Gen. Aroid. t.* 41. *Hook. Exot. Fl. t.* 182 (*Caladium*).

34. **Caladium**, *Vent. in Rœm. Archiv.* ii. 347; *Jard. Cels. t.* 30.—Flores in spadice inappendiculato monoici, ♂ perfecti a ♀ remoti, masculis imperfectis elongatis compactis deplanatis interjectis. Perianthium 0. Fl. ♂: Stamina 3–8, in corpus sessile depressum vertice dilatato deplanatum ambitu hexagonum connata; antherarum loculi contigui, elongati, rimulis apicalibus dehiscentes, connectivo crasso. Fl. ♀: Ovaria omnia apice leviter cohærentia, obovoidea v. oblonga, 2- rarissime 3-locularia; stigma sessile, subhemisphæricum, integrum v. 2–4-lobum; ovula in loculis numerosa, anatropa v. semi-anatropa, patentia, funiculis brevibus placentis septo adnatis affixa, micropyle infera. Baccæ tubo spathæ inclusæ, pyriformes v. clavatæ, polyspermæ, stigmatibus coronatæ, pericarpio tenui. Semina ovoidea v. subglobosa, testa crassa sulcata extus succulenta, funiculo laterali, albumine copioso; embryo axilis.—Herbæ lactescentes, rhizomate perennante tuberoso, foliis annuis floribusque coætaneis, rarius alternatim provenientibus. Folia longe petiolata, sæpius peltata, oblonga v. sagittata, membranacea, nervosa et reticulatim venosa. Pedunculus sæpius solitarius. Spathæ tubus convolutus, accrescens, persistens, fructifer irregulariter ruptus, fauce constricta, lamina cymbiformi erecta alba. Spadix spatha brevior, stipitatus, erectus, dorso basi spathæ adnatus; inflorescentia ♂ subclavata, densiflora, quam ♀ cylindracea v. conoidea multiflora longior.

Species omnes Americam tropicam incolentes, ab auctoribus inordinate multiplicatæ, nuperrime ab Englero ad 7 reductæ. *Engl. Arac.* 452, ubi sectiones 2 ægre distinguendæ propositæ sunt:—

1. *Cyrtospadix.* Stigma ovarii vertice immersum, breviter 2–3-lobum. *Engl. in Mart. Fl. Bras.* iii. ii. *t.* 40. Cyrtospadix, *C. Koch, Ind. Sem. Hort. Berol.* 1853, *App.* 3.

2. *Eucaladium.* Stigma vix immersum, sub-3–4-sulcatum. *Engl. in Mart. Fl. Bras.* iii. ii. *t.* 41, 42. *Schott, Gen. Aroid. t.* 45. *Jacq. Hort. Schœnb.* ii. *t.* 186 (*Arum*). *Bot. Mag. t.* 2543, 5199, 5255, 5263. *Peyritsch, Aroid. Maximil. t.* 28.

35. **Xanthosoma**, *Schott, Melet.* i. 19; *Gen. Aroid. t.* 46.—Flores in spadice inappendiculato monoici, ♂ perfecti a ♀ remoti, masculis imperfectis compactis deplanatis interjectis. Perianthium 0. Fl. ♂: Stamina 4–6, in corpus sessile obpyramidatum hexagonum vertice dilatato deplanatum connata; antherarum loculi lineares v. cuneati, contigui, connectivo æquilongi, rimulis brevibus apicalibus infra verticem connectivi dehiscentes. Fl. ♀: Ovaria obovoidea v. oblonga, 2–3-locularia, vertice supra collum brevem in discum placentiformem dilatata et ibidem inter se confluentia, inferne distincta; stigma in centro disci sessile, pulvinare v. hemisphæricum; ovula in loculis plura, anatropa v. semianatropa, patentia et loculo transversa, funiculis elongatis placentis septo adnatis affixa, micropyle sæpius infera. Baccæ tubo spathæ inclusæ, cylindraceæ, superne connatæ, stigmatibus coronatæ, 3–4-loculares, loculis polyspermis. Semina ovoidea, funiculo breviusculo, testa sulcata epidermide diaphana, raphe incrassata, albumine copioso; embryo axilis.—Herbæ lactescentes, rhizomate tuberoso v. in caudicem crassum elongato, interdum elato, foliis perennantibus cum floribus coætaneis. Folia longe crasse petiolata, sagittata hastata v. pedatisecta. Pedunculi 1–∞, rarius elongati. Spathæ tubus oblongus v. ovoideus, convolutus, accrescens, persistens, demum irregulariter ruptus, fauce constricta, lamina cymbiformi. Spadix spatha brevior, basi spathæ adnatus; inflorescentia

♂ elongata, cylindracea v. clavata, parte imperfecta constricta; ♀ brevior, densiflora, superne attenuata.

Species 25, Americæ tropicæ incolæ. *Engl. Arac.* 468. Genus in sectiones 2 admodum naturales divisum:—

1. *Euxanthosoma*, Engl. l. c. 469, et in Mart. Fl. Bras. iii. ii. t. 43. Stigma depressum, breviter lobatum. Folii nervi laterales in unum margini parallelum confluentes. Caudex brevis v. elongatus. *Jacq. Hort. Vind. t.* 157, *et Hort. Schœnb. t.* 188 (*Arum*). *Vell. Fl. Flum. Ic.* ix. *t.* 107 (*Arum*). *Regel, Gartenfl. t.* 603. *Bot. Mag. t.* 4989. *Peyritsch, Aroid. Maximil. t.* 31 *ad* 33.

2. *Acontias*, Engl. l. c. 481, et in Mart. l. c. t. 44, 45. Stigma discoideum, tumidum. Folii nervi laterales margines versus arcuati in unum undulatum confluentes. Rhizoma tuberosum. *Vell. Fl. Flum. Ic.* ix. *t.* 104 (*Arum*). *Jacq. Ic. t.* 613 (*Arum*). Acontias, *Schott, Melet.* i. 19; *Gen. Aroid. t.* 47. ? Phyllotænium, *André in Ill. Hortic.* xix. *t.* 88. X.? mirabile, *Masters in Gard. Chron.* 1874, 258, *f.* 53, vix hujus generis, nobis ignotum est.

36. **Typhonodorum,** *Schott in Œstr. Wochenbl.* 1857, 70; *Gen. Aroid. t.* 43.—Flores in spadice elongato subappendiculato monoici, ♂ et ♀ remoti, floribus masculis imperfectis deplanatis compactis interjectis. Perianthium 0. Fl. ♂ (inferiores et superiores imperfecti): Stamina 4–8, in corpus obpyramidatum vertice dilatato deplanatum ambitu sinuato-angulatum connata; antherarum loculi lineares, contigui, connectivo æquilongi, rimulis apicalibus dehiscentes. Fl. ♀: Ovarium ovoideum v. subglobosum, 1-loculare; stigma subsessile, discoideum, 3–6-lobum, lobis recurvis; ovulum solitarium, breve, anatropum, funiculo brevi placentæ basilari affixum, micropyle infera. Baccæ tubo spathæ inclusæ, magnæ, compressæ, orbiculares, basi exsculptæ . . .—Herbæ robustæ, caudice crasso 4–10-pedali, vaginis vetustis onusto. Folia crasse petiolata, triangulari-ovata v. hastata, acuminata, crassissime costata et nervosa, creberrime venosa. Pedunculus crassus, petiolo brevior. Spathæ tubus oblongus, utrinque attenuatus, accrescens, persistens, fauce constricta, lamina tubo triplo longiore oblongo-lanceolata caudato-acuminata concava aperta. Spadix spatha brevior v. eam subæquans, rectus, strictus, totus cylindraceus; inflorescentia ♂ elongata, parte imperfecta inferiore perfecta æquilonga, superiore imperfecta multo longiore in formam appendicis conoideæ attenuatæ producta; ♀ brevis, cylindracea. Fructus magnitudine castaneæ, edulis.

Species 2, Madagascariæ incolæ quarum una in ins. Mauritio inquilina. *Engl. Arac.* 331, *et in Bot. Jahrb.* i. 188. Baccæ exemplaribus nostris nuculam crassam intus suberosam continent, embryone 0.

37. ? **Chlorospatha,** *Engl. in Regel, Gartenfl.* 1878, 97, *t.* 933; *Arac.* 487.—Flores in spadice inappendiculato monoici, ♂ a ♀ remoti, masculis imperfectis paucis 3–4-lobis interjectis. Perianthium 0. Fl. ♂: Stamina 3–5, in corpus obpyramidatum 3–5-gonum vertice planiusculum connata; antherarum loculi oblongi, ad basin connectivi crassi producti, sub vertice rimulis dehiscentes; pollen pulvereum. Fl. ♀: Ovaria brevia, distincta, dimidiato-ovoidea v. hemisphærica, 2–3-locularia; stigma sessile, discoideum, ultra ovarii marginem non exsertum. Ovula in loculis plura, anatropa, funiculis placentis subcentralibus 2-seriatim affixa; micropyle infera. Fructus . . .—Herba lactescens, rhizomate tuberoso. Folia pedatisecta, marginibus crispato-undulatis, costis in sinu denudatis, petiolo tereti. Pedunculi plures, petiolo breviores. Spathæ tubus elongatus, convolutus, fauce haud constricta in laminam lanceolatam apicem versus compressam sensim desinens. Spadix spatha brevior, stipite dorso spathæ adnato; inflorescentia ♂ perfecta conoidea, densiflora, parte imperfecta laxe pauciflora; ♀ laxiflora, ovariis irregulariter in verticillos 4–5 remotiusculos dispositis.

Species 1, Novæ Granatæ incola. Folia tantum a nobis visa. Genus ex Englero *Xanthosomati* proxime affine. Septa ovarii in icone vix non axin attingent.

38. ? **Hapaline,** *Schott in Œstr. Bot. Wochenbl.* 1857, 85. (Hapale, *Schott, Gen. Aroid. t.* 44.)—Flores in spadice inferne spathæ adnato inappendiculato monoici, ♂ et ♀ remoti, organis neutris perpaucis apiculatis interjectis. Perianthium 0. Fl. ♂: Stamina 3, in

corpus peltatum pelta tenuissima elongato-hexagona connata; antherarum loculi minutissimi, subglobosi, margini peltæ appensi, remoti, poris obovatis dehiscentes. Fl. ♀ pauci, unilaterales, 2-seriati. Ovarium 1-loculare, ovoideo-oblongum, sub apice constrictum; stigma latum, pulvinare; ovulum solitarium, erectum, anatropum, funiculo brevi placentæ parietali affixum, micropyle infera. Fructus . . .—Herba parvula, tenerrima. Folia hysteranthia, graciliter petiolata, sagittato-cordata, membranacea. Pedunculus gracillimus, petiolum superans. Spathæ tubus brevis, cylindraceus, convolutus, fauce vix constricta, lamina lanceolata acuminata demum recurva. Spadix elongatus, gracilis, spatham subæquans; inflorescentia ♂ libera, teretiuscula, quam ♀ robustior et quadruplo longior, peltis pro spadice maximis ter longioribus quam latis, 3-4 tantum in spira; ♀ 6-8-flora, ovariis remotis suberectis.

Species 1, Burmæ incola. *Engl. Arac.* 489.

39. ? **Scaphispatha,** *Brongn. mss. ex Schott, Prod. Syst. Aroid.* 214.—Flores in spadice inappendiculato monoici, ♂ et ♀ contigui. Perianthium 0. Fl. ♂: Stamina 4, filamentis in columnam antheris æquilongam 4-sulcatam connatis; antherarum loculi contigui, obovoidei, poris apicalibus dehiscentes, connectivo haud producto. Fl. ♀: Ovarium oblongum, 1-loculare; stylus brevis, stigmate capitato; ovula 4, anatropa, elongata, funiculis brevibus placentæ basilari affixa.—Fructus . . .—Herba. Folia ignota. Pedunculus gracilis, elongatus. Spathæ tubus laminam oblongam acutam æquans, inferne infundibularis, superne leviter constrictus. Spadix breviter stipitatus, basi spathæ oblique adnatus; inflorescentia ♂ densiflora, gracilis, cylindracea, quam ♀ oblongo-ovoidea duplo longior.

Species 1, Boliviæ incola. *Engl. Arac.* 526. Genus a nobis non visum, ex icone in Herb. Mus. Par. conservata spatha tota aperta est, nullibi convoluta, et spadix longe graciliterque stipitatus.

40. ? **Schizocasia,** *Schott in Bonplandia* x. 148.—Flores in spadice appendiculato monoici, ♂ et ♀ remoti, masculis imperfectis elongatis depressis et compressis interjectis. Perianthium 0. Fl. ♂: Stamina 4-7, in corpus subhexagonum ambitu profunde sulcatum vertice deplanato medio leviter excavato connata; antherarum loculi cylindracei, connectivo crasso fere æquilongi, poris apicalibus dehiscentes; pollen vermiforme. Fl. ♀: Ovarium depresso-globosum, 1-loculare; stigma sessile, depressum, sub-3-4-lobum; ovula plura, anatropa, funiculis brevibus placentæ basilari affixa. Baccæ subglobosæ, 2-6-spermæ. Semina obovoidea, subtrigona, funiculo brevissimo, albumine copioso duro; embryo subaxilis.—Herba caudice crasso. Folia ovato-cordata, pinnatipartita, petiolo elongato tereti. Pedunculus brevis, vaginatus. Spathæ tubus convolutus, lamina lineari-oblonga obtusa tubo triplo longiore, fauce constricta. Spadix appendice sursum attenuata; inflorescentia ♂ cum appendice æquilonga, dimidio inferiore constricto floribus imperfectis; ♀ multo brevior.

Species 2, Novæ Guineæ et insularum Philippinarum incolæ. Genus a nobis non visum, ab Englero (*Arac.* 645) ad *Alocasiam* reductum, serius (*Bot. Jahrb.* i. 185) reformatum et restitutum. An spathæ tubus persistens fructum involvens?, auctor silet.

TRIBUS VI. PHILODENDREÆ.

41. **Philodendron,** *Schott, Meletem.* i. 19; *Gen. Aroid. t.* 53; *Ic. Aroid. t.* i. *ad* 10.—Flores in spadice inappendiculato monoici, ♂ et ♀ remoti, masculis imperfectis compactis interjectis. Perianthium 0. Fl. ♂: Stamina 2-6, in corpus sessile obpyramidatum tetragonum v. 4-sulcatum vertice dilatato deplanatum connata; antherarum loculi oblongi v. lineares, connectivo crasso breviores, contigui, poris rimulisve apicalibus dehiscentes; pollen vermiforme. Fl. ♀ staminodiis clavatis interdum immixti. Ovarium ovoideum oblongum v. obovoideum, 2-10-loculare; stigma sessile, pulvinare v. hemisphæricum, integrum v. lobatum; ovula in loculis pauca v. numerosa, orthotropa, brevia

v. subelongata, funiculis elongatis placentis angulo interiori adnatis 2-seriatim affixa, micropyle supera. Baccæ in tubo spathæ involutæ, dense confertæ, 1–10-loculares, 1–10-spermæ. Semina ovoidea oblonga v. ellipsoidea, erecta, funiculo erecto v. curvo, testa crassa lævi v. costata integumento succulento induta, albumine copioso; embryo axilis.—Frutices et arbusculi scandentes, rarius herbæ acaules, caudicibus foliosis ad nodos radices æreas emittentibus. Folia vaginis opposita, coriacea, oblonga ovata cordata v. sagittato-hastata, integra lobata pinnatifida v. 1–2-pinnatisecta, nervis variis, nervulis tenuissimis; petiolus teres v. in foliis junioribus antice concavus canaliculatus v. excavatus, apice rarissime tumidus v. geniculatus, vagina persistente. Pedunculi terminales et axillares, sæpius breves, plerumque fasciculati. Spatha crassa, alba rubra v. flavida, tota persistens, tubo convoluto accrescente demum rupto, lamina cymbiformi post anthesin reconvoluta, demum succulenta, suaveolens. Spadix spatham subæquans v. brevior, sessilis v. breviter stipitatus; inflorescentiæ densifloræ, ♀ brevior quam ♂, in fructu dejecta.

Species ad 120, Americæ tropicæ incolæ. *Engl. Arac.* 355, *et in Mart. Fl. Bras.* iii. ii. *t.* 28 *ad* 37. *Jacq. Stirp. Amer. t.* 152 (*Arum*); *Hort. Schœnb. t.* 187, 189, 190 *et* 468 (*Arum*). *Rudge, Pl. Guian. t.* 33 (*Pothos*). *Hook. Exot. Fl. t.* 206 (*Caladium*). *Vell. Fl. Flum. Ic.* ix. *t.* 110 *ad* 112, 114 *ad* 116, 120 (*Arum*). *Regel, Gartenfl. t.* 159, 621, 789. *Lemaire, Ill. Hortic.* 76, 79, 149, 150, 262. *Bot. Reg. t.* 1958. *Bot. Mag. t.* 2314, 2643, *et* 3345 (*Arum*), 3621, 5071, 5899, 6021, 6375. *Peyritsch, Aroid. Maximil. t.* 34 *ad* 42.

Elopium, *Schott in Œstr. Bot. Zeit.* 1865, 35, est *P. surinamensis*, Engl. Arac. 361, species seminibus prælongis.

42. **Thaumatophyllum,** *Schott in Bonplandia,* 1859, 31.—Flores in spadice appendiculato monoici, ♂ et ♀ contigui. Perianthium 0. Fl. ♂: Stamina distincta, filamento stipitiformi; anthera lineari-elongata v. subclavata, obtusa, obtuse hexagona, loculis angustis contiguis poris apicalibus? dehiscentibus. Fl. ♀: Ovarium prismaticum v. obpyramidatum, vertice rotundato, 4-loculare?; stigma sessile, hemisphæricum; ovula numerosissima, orthotropa, funiculis elongatis supra basin ovuli insertis placentis elongatis 2-seriatim affixa, micropyle supera. Fructus . . .—Frutex alte scandens, caudice tereti ramoso lævi haud annulato. Folia longe petiolata, ampla, pinnatim pedatisecta, cruribus membranaceo-marginatis cum petiolo articulatis recurvis pinnas remotas gerentibus, pinnis sessilibus oblongo-lanceolatis acuminatis, costa prominula, nervis tenuibus creberrimis, petiolo valido elongato stricto ima basi crassa tantum vaginante; cataphylla pedalia, ensiformia, rigide coriacea. Pedunculus . . . Spatha crassa, lata. Spadix crassus; inflorescentiæ cylindraceæ, ♂ angustior, staminibus numerosissimis sensim magis imperfectis abbreviatis et in appendicem nudam cylindraceo-conoideam productis; ♀ masculo æquilonga, ovariis magnis haud densis.

Species 1, Brasiliæ borealis ad Rio Negro incola. Genus valde singulare, certe, ut suspicatur Engler, *Philodendron* proximum, sed staminibus diversissimis, spadice in appendicem nudam abeunte, et foliis insignibus. Exemplaria imperfecta tantum nobis suppetunt difficillime scrutata.

43. **Syngonium,** *Schott in Wien. Zeitschr.* iii. 780, *excl. sp.*; *Gen. Aroid. t.* 48.—Flores in spadice inappendiculato monoici, ♂ a ♀ remoti, masculis imperfectis compactis deplanatis interjectis. Perianthium 0. Fl. ♂: Stamina 3–4, in corpus sessile obpyramidatum ambitu 3–4-lobum, vertice deplanatum connata; antherarum loculi lineares, basin fere connectivi attingentes, contigui, rimulis apicalibus infra marginem connectivi dehiscentes. Fl. ♀: Ovaria oblongo-obovoidea, lateribus connatis, 2- v. abortu 1-locularia; stigma sessile, convexum, integrum v. 2–3-lobum; ovula in loculis solitaria, anatropa, suberecta, funiculo brevissimo placentæ basilari affixa, micropyle infera. Baccæ spathæ tubo inclusæ, in syncarpium mucilaginosum connatæ. Semina obovoidea v. globosa, funiculo brevissimo, strophiolo gibbo, testa lævi tenui nigra, albumine 0; embryo macropodus.—Frutices scandentes, vasis laticiferis instructi, caudice ad nodos radicante et foliifero. Folia petiolata, primaria sagittata, adulta pedatim 3–9-secta, petiolo elongato, vagina persistente

accrescente. Pedunculi solitarii v. fasciculati, breves. Spathæ tubus ovoideus, accrescens, persistens, fauce contracta, lamina cymbiformi tandem reflexa decidua. Spadix spatha multo brevior; inflorescentia ♂ clavata, quam ♀ conico-cylindracea multo longior.

Species ad 8, Americæ tropicæ incolæ. *Engl. Arac.* 292, *et in Mart. Fl. Bras.* iii. ii. *t.* 26, 27. *Peyritsch, Aroid. Maximil. t.* 17, 18. *Jacq. Hort. Schœnb. t.* 191 (*Arum*). Antheræ dorso tantum confluentes transitum monstrant ad *Philodendron,* ut etiam embryo macropodus.

44. **Porphyrospatha,** *Engl. Arac.* 289.—Flores in spadice inappendiculato monoici, ♂ a ♀ remoti, masculis imperfectis obconicis vertice depressis interjectis. Perianthium 0. Fl. ♂: Stamina 4, in corpus tetragonum subsessile connata; antherarum loculi lineares, basin et apicem connectivi non attingentes, basi subacuti, sub vertice connectivi incrassati rimulis dehiscentes. Fl. ♀: Ovaria distincta, ovoidea, truncata v. 2-cornuta, 2-locularia, loculis lateralibus; stigma transverse oblongum, 2-lobum; ovula in loculis 1–2, brevia, anatropa, erecta, funiculis brevissimis placentis centralibus affixa. Fructus . . . —Frutices scandentes, vasis laticiferis instructi, caudicibus elongatis, ramis ad nodos radicantibus foliosis. Folia juniora oblonga, basi rotundata v. breviter auriculata, adulta sagittata v. 3-secta, petiolo tereti, vagina elongata apice haud soluta. Pedunculus solitarius ?. Spathæ tubus ovoideus, quam lamina ovata acuta paullo brevior. Spadix spatha multo brevior; inflorescentia ♀ breviter cylindracea; ♂ 2–3-plo longior, apice obtusa.

Species 2, Costæ Ricæ incolæ. Genus a nobis non visum, includens *Syngonium Schottianum,* Wendl., et *S. Hoffmanni,* Schott, inter *Syngonium* et *Montrichardiam* ab auctore locatum.

45. **Culcasia,** *Beauv. Fl. Ow. et Ben.* i. 3, *t.* 3. (Denhamia, *Schott, Melet.* 19.)—Flores in spadice inappendiculato monoici, ♂ a ♀ remoti, masculis sparsis deplanatis interjectis. Perianthium 0. Fl. ♂: Stamina 3–4, distincta; antheræ sessiles, trigono-obpyramidatæ, dorso contiguæ, loculis contiguis oblongis obtusis connectivo crasso truncato paullo brevioribus, rimulis apicalibus dehiscentibus. Fl. ♀: Ovaria sparsa, depresso-globosa, 1–2-locularia; stigma sessile, dilatatum, ovario æquilatum, pulvinare, 4-sulcatum; ovula in loculis solitaria, brevia, anatropa, funiculis brevissimis placentis subbasilaribus affixa, micropyle infera. Baccæ globosæ, 1-spermæ. Semen ovoideum, subsessile, testa tenui, albumine copioso; embryo parvus, axilis.—Frutices scandentes, ramis gracilibus ad nodos radicantibus. Folia spiraliter inserta, ovato v. oblongo-lanceolata, basi acuta v. cordata, acuminata, coriacea, nervis patentibus tenuibus nervulis parallelis v. reticulatis, petiolo gracili longe interdum ad apicem vaginante. Pedunculi axillares, solitarii v. plures fastigiati, breves. Spatha parva, erecta, tota plus minusve convoluta, decidua. Spadix in spatha inclusus v. exsertus, sessilis, gracilis; inflorescentia ♂ elongata, fusiformis, superne densiflora; ♀ angustior et brevior.

Species 6 v. 7, Africæ tropicæ incolæ. *Engl. Arac.* 101. *Schott, Gen. Aroid. t.* 50.

46. **Cercestis,** *Schott in Œstr. Bot. Wochenbl.* 1857, 414; *Gen. Aroid. t.* 52.—Flores in spadice inappendiculato monoici, ♂ a ♀ remoti, masculis imperfectis deplanatis compactis interpositis. Perianthium 0. Fl. ♂: Stamina 4, distincta, sessilia, prismatico-trigona, dorso contigua, vertice deplanata; antherarum loculi lineari-oblongi, connectivo crassiore paullo breviores, loculis contiguis rimulis apicalibus dehiscentibus. Fl. ♀: Ovarium obovoideum v. globosum, 1-loculare; stigma magnum, sessile, orbiculare, pulvinare; ovulum solitarium, anatropum, funiculo brevissimo placentæ suprabasilari affixum, micropyle infera. Baccæ obovoideæ, stigmate coronatæ. Semen obovoideum, pendulum, umbilico excavato, albumine 0; embryo macropodus.—Frutices scandentes, vasis laticiferis instructi, ramis gracilibus ad nodos radicantibus. Folia spiraliter inserta, sagittato-cordata v. hastata; petiolo gracili, vagina elongata angusta. Pedunculi breves, solitarii v. plures, axillares. Spatha parva v. mediocris, erecta, tota plus minusve convoluta, decidua. Spadix spatha brevior, sessilis; inflorescentiæ densifloræ, ♂ longior crassior obtusa.

Species 3–4, Africæ tropicæ occidentalis incolæ. *Engl. Arac.* 300. Genus ad *Culcasiam* quam maxime affine, differt semine (quod non vidimus) exalbuminoso cum embryone macropodo.

47. **Rhektophyllum,** *N. E. Brown in Trim. Journ. Bot.* 1882, 194, *t.* 230.—Flores in spadice inappendiculato monoici, omnes perfecti, ♂ et ♀ contigui. Perianthium 0. Fl. ♂ : Stamina 3–5, trigono-prismatica, truncata, dorso contigua ; antherarum loculi lineares, contigui, connectivo crasso æquilongi, poris apicalibus dehiscentibus. Fl. ♀ : Ovaria ovoidea globosa v. oblique compressa, 1-locularia ; stigma sessile, pulvinare ; ovulum solitarium, breve, anatropum, funiculo brevissimo placentæ parietali elongatæ in loculum extensæ affixum, micropyle infera. Fructus . . . Frutex scandens. Folia longe petiolata, ampla, submembranacea, ambitu subhastata v. cordato-ovata, acuta, pertusa et in lacinias paucas latas irregulariter pinnatisecta, costa valida, nervis patentibus validis, petiolo 1–2-pedali basi vaginante. Pedunculi solitarii v. plures, breves, crassi. Spatha subcylindracea, tota convoluta, crasse coriacea, obtusa. Spadix sessilis, cylindraceus ; inflorescentia ♂ quam ♀ triplo longior, paullo crassior, obtusa.

Species 1, Africæ tropicæ occidentalis incola.

48. **Aglaonema,** *Schott, Melet.* i. 20 ; *Gen. Aroid. t.* 59.—Flores spadice inappendiculato monoici, omnes perfecti, ♂ et ♀ arcte contigui, rarissime interspatio staminodiis instructo disjuncti. Perianthium 0. Fl. ♂ : Stamina 2–4, distincta, obovoidea v. clavata, 3-gona v. cuneata, dorso contigua ; antherarum loculi filamento breviores v. longiores connectivo immersi, remoti, poris apicalibus dehiscentes. Fl. ♀ : Staminodia, si adsint, 1–3, prismatica, ovario breviora. Ovarium 1- rarissime 2-loculare ; stylus brevis, crassus, v. 0, stigmate magno orbiculari v. infundibulari, rarius parvo depresso ; ovula in loculis solitaria, brevia, anatropa, funiculis brevibus placentis subbasilaribus affixa, micropyle infera. Baccæ paucæ, sæpe magnæ, ovoideæ v. oblongæ, 1-spermæ. Semen ovoideum v. ellipsoideum, subsessile, erectum, testa membranacea lævi, albumine 0 ; embryo macropodus. —Herbæ, caudice erecto v. prostrato basi stolonifero v. rhizomate tuberoso. Folia ovato- v. oblongo-lanceolata, costa crassiuscula, nervis ad marginem attingentibus, nunc 4 v. pluribus crassiusculis arcuatis, nunc omnibus tenuissimis densis parallelis, petiolo elongato longe vaginante. Pedunculi fasciculati, plerumque breves. Spatha recta, tubo breviter convoluto superne in laminam ovatam v. ovato-lanceolatam apertam v. conchiformem et fere clausam v. subcylindraceam dilatato, demum marcescens. Spadix spatham æquans v. ea brevior, rarius longior, sessilis v. stipitatus ; inflorescentia ♂ elongata, cylindracea v. clavata, densiflora ; ♀ brevis, pauciflora. Fructus tubo spathæ non inclusus.

Species ad 20, omnes tropicæ, plurimæ Asiæ tropicæ et Archipelagi Malayani incolæ, paucæ Africanæ. *Engl. Arac.* 436. *Blume, Rumph.* i. *t.* 36, 65, 66. *Wight, Ic. t.* 804 *et* 806 (*Calla*). *Regel, Gartenfl. t.* 470. *Bot. Mag. t.* 5500, 5760. Stigma in speciebus Africanis parvum et ovarium 2-loculare.

Aglaodorum, *Schott, Gen. Aroid. t.* 58. *Engl. Arac.* 443, *et in Bull. Soc. Tosc. Ort.* 1879, 300, planta uliginosa, Malayensis, fructu ignoto, est ut videtur *Aglaonematis* species (*A. palustre,* Teysm. et Binn.) rhizomate tuberoso, petiolis pedunculisque crassissimis elongatis, fl. ♂ infimis paucis imperfectis, staminodiis 3–4 ovarium 1 2-loculare cingentibus et stigmate magno obscure 4-lobo. Habitus ex Griffithio (Notul. iii. 148) omnino *Cryptocorynis.*

49. **Philonotion,** *Schott, Gen. Aroid. t.* 54.—Flores in spadice inappendiculato monoici, ♂ et ♀ longe remoti, organis neutris paucis sparsis conicis interpositis. Fl. ♂ : Stamina 2, distincta, compressa, cuneata, truncata, filamento 0 ; antherarum loculi connectivum marginantes, eoque æquilongi, distantes, poris apicalibus dehiscentes. Fl. ♀ : Ovaria numerosissima, lineari-oblonga, subcylindracea, 1-locularia, in stylum brevem continuum producta, stigmate pulvinari ; ovulum solitarium, orthotropum, erectum, funiculo curvo parietali affixum, micropyle supera. Fructus . . .—Herba, rhizomate hypogæo. Folia longe petiolata, lanceolata, caudato-acuminata, nervis creberrimis tenuissimis marginem attingentibus, subtus pallida, petiolo gracili laminæ æquilongo sublonge vaginante. Pedunculus gracilis, petiolo æquilongus. Spatha erecta, tubo convoluto, fauce vix constricta, in laminam æquilongam subcymbiformem haud latiorem desinens, apice caudiculata, persistens ?. Spadix longe stipitatus, spatham æquans, gracilis ; inflorescentia ♂

elongato-cylindracea partem nudam cum ♀ æquans; parte nuda longitudinaliter costata costis obscure tuberculati; ♀ cylindracea quam ♂ crassior, ovariis densissimis.

Species 1, Amazonica. *Engl. Arac.* 431.

50. **Montrichardia**, *Crüger in Bot. Zeit.* 1854, 25.—Flores in spadice inappendiculato monoici, omnes perfecti, ♂ et ♀ contigui. Perianthium 0. Fl. ♂: Stamina 3–6, distincta; antheræ sessiles, obpyramidatæ, 3-gonæ, dorso contiguæ, loculis contiguis lineari-oblongis acutis connectivo crasso truncato brevioribus rimulis apicalibus retrorsum dehiscentibus; pollen pulvereum, globosum. Fl. ♀: Ovaria turbinata, connata, hexagona, vertice rotundato-sphinctriformi, 1-locularia; stigma areola depressa sessile, 4-lobum; ovula solitaria v. gemina, anatropa, brevia, funiculis brevissimis placentæ subbasilari affixa, v. semianatropa, micropyle hiante infera. Baccæ in syncarpium connatæ, spongiosæ, vertice intruso radiatim sulcato, 1-spermæ. Semen subglobosum v. oblongo-ovoideum et compressum, testa tenui, albumine 0; embryo macropodus, intra pericarpium germinans.—Frutices arborescentes, vasis laticiferis instructi, caudicibus erectis crassis annulatis interdum divisis lævibus v. aculeatis. Folia coriacea, sagittata, lobis posticis elongatis, costis crassiusculis, nervis tenuibus, petiolo robusto alte vaginante, vagina in ligulam producta. Pedunculi 1–2, foliis breviores. Spatha crassa, late ovata, acuta, erecta, basi convoluta, fauce aperta, tota decidua. Spadix spatha brevior, sessilis, erectus, crassus, obtusus; inflorescentiæ densissimæ, cylindraceæ, ♂ quam ♀ multo longior.

Species 3 v. 4, Americæ tropicæ incolæ. *Engl. Arac.* 287, *et in Mart. Fl. Bras.* iii. ii. *t.* 25. *Schott, Gen. Aroid. t.* 49. *Vell. Fl. Flum. Ic.* ix. *t.* 109 (*Arum*). *Peyritsch, Aroid. Maximil. t.* 21, 22.

Descriptio a Schottio ad *M. Fendleri* stabilitata, sed in specie typica *M. aculeata* (*Caladium aculeatum*, Meyer, Prim. Fl. Esseq. 274; *Philodendron? aculeatum*, Kunth, Enum. Pl. iii. 48), planta ab Englero prætermissa, ovaria libera et ovulum solitarium orthotropum a Crügero descripta sunt. In *M. linifera*, a Peyritschio descripta, ovulum solitarium semianatropum depictum est.

51. **Nephthytis**, *Schott in Œstr. Bot. Wochenbl.* 1857, 406; *Gen. Aroid. t.* 51.—Flores in spadice inappendiculato monoici, omnes perfecti, ♂ et ♀ arcte contigui. Perianthium 0. Fl. ♂: Stamina distincta, brevissima, prismatica v. subcubica, ambitu sulcata, vertice deplanata; antherarum loculi connectivo æquilongi, lineari-oblongi, poris apicalibus dehiscentes. Fl. ♀: Ovarium globosum, 1-loculare; stigma sessile, discoideum, centro depressum; ovulum solitarium, breve, anatropum, funiculo brevissimo placentæ parietali infra apicem loculi affixum, pendulum, micropyle infero. Baccæ magnæ, ellipsoideæ. Semen pendulum, obovoideum, umbilico excavato circulari, albumine 0; embryo macropodus.—Herbæ elatæ, vasis laticiferis instructæ, caudice prorepente v. rhizomate crasso. Folia proteranthia, ampla, longe petiolata, membranacea, triangulari-sagittata, lobis posticis incumbentibus v. divaricatis anticum æquantibus v. eo majoribus, petiolo gracili ima basi subvaginante. Pedunculus gracilis, erectus, folia superans. Spatha membranacea, elliptica, acuta, in pedunculum decurrens, basi breviter convoluta, dein aperta et reclinata, nervis reticulata. Spadix spatha brevior, erectus, stipitatus; inflorescentia ♂ cylindracea, obtusa, quam ♀ pauciflora triplo longior.

Species 2, Africæ occidentalis tropicæ incolæ. *Engl. Arac.* 301. *N. E. Brown in Gard. Chron.* 1881, 790. Descriptio ad flores *N. libericæ*, N. E. Br., et fructus ad analysin *N. Afzelii* in opere Schottii.

52. **Richardia**, *Kunth in Mém. Mus. Par.* iv. 437, *t.* 20. (Zantedeschia, *Spreng. Syst. Veg.* iii. 765 *pro parte*.)—Flores in spadice inappendiculato monoici, omnes perfecti, ♂ et ♀ arcte contigui. Perianthium 0. Fl. ♂: Stamina 2–3, distincta, filamento elongato crasso; antheræ obtusæ v. retusæ filamento breviores, loculis oblongis connectivo immersis poris apicalibus dehiscentibus; pollen vermiforme. Fl. ♀: Staminodia 3, spathulata, apice incrassata v. clavata. Ovarium ovoideum, 2–5 (rarius 1-) loculare; stylus brevis, cum ovario continuus v. 0, stigmate parvo pulvinari v. capitato; ovula in loculis ad 4, anatropa, brevia, funiculis brevibus placentis angulo interiori adnatis 2-seriatim affixa

v. superposita, micropyle infera. Baccæ tubo spathæ inclusæ, obovoideæ v. subglobosæ, 1–5-loculares, oligospermæ. Semina ovoidea v. subglobosa, funiculo brevi, testa costata, raphe elevata in strophiolum parvum desinente, albumine copioso; embryo axilis.—Herbæ paludosæ, rhizomate crasso, foliis floribusque coætaneis. Folia sagittata, interdum maculis albis translucidis fenestrata, costa valida, nervis marginem attingentibus, petiolo elongato crasso basi vaginato interdum asperulo. Pedunculi sæpe plures, validi, elongati. Spatha erecta, tubo brevi convoluto infundibulari accrescente persistente, fauce aperta; lamina oblique explanata, apice cuspidata recurva, marginibus eversis, marcescens, alba v. flavida. Spadix spatha brevior, substipitatus, erectus, cylindraceus; inflorescentiæ densifloræ, ♂ quam ♀ multo longior.

Species 5, Africæ australis incolæ. *Engl. Arac.* 326. *Schott, Gen. Aroid. t.* 62. *Gærtn. Fruct. t.* 84 (*Calla*). *Regel, Gartenfl. t.* 462. *Fl. des Serres, t.* 2258. *Lem. Ill. Hortic. t.* 255. *Bot. Mag. t.* 832 (*Calla*), 5140, 5176, 5765.

53. **Homalonema,** *Schott, Melet.* i. 20; *Gen. Aroid. t.* 61, *err. typ.* Homalomena. (Zantedeschia, *Spreng. Syst. Veg.* iii. 765, *pro parte.*)—Flores in spadice inappendiculato monoici, omnes perfecti rarius paucis ♂ infimis imperfectis, ♂ et ♀ arcte contigui, v. spatio brevi nudo separati. Perianthium 0. Stamina 3–4, rarius 5–6, distincta, brevia, prismatica, truncata, 3–4-gona, dorso contigua; antherarum loculi oblongi v. ovoidei, subremoti, prominuli, connectivo crasso multo breviores, rimulis subapicalibus dehiscentes; pollen vermiforme. Fl. ♀: Staminodia in spiras cum ovariis alternantibus disposita, clavata v. capitata, rarius 0. Ovarium oblongum v. obovoideum, vertice contractum, perfecte v. imperfecte 3–4-loculare; stigma sessile, orbiculare, integrum v. 3–4-lobum; ovula in loculis numerosa, anatropa v. semi-anatropa, funiculis elongatis erecto-patentibus placentis marginibus septorum v. angulo interiori loculi adnatis 2-seriatim affixa, micropyle laterali v. infera v. supera. Baccæ spatha totæ inclusæ, obovoideæ globosæ v. angulatæ, 3–4-loculares, polyspermæ. Semina ovoidea, funiculo elongato, testa costata atro-brunnea extus succosa, albumine copioso; embryo axilis.—Herbæ robustæ, rhizomate crasso, caudice brevi v. 0. Folia ovato- v. triangulari-cordata v. lanceolata, interdum pubescentia, nervis marginem attingentibus, petiolo sæpius elongato et longe vaginante. Spatha recta, cylindracea v. inferne convoluta, superne in laminam convolutam v. hiantem acuminatam protensa, tandem recta, tota accrescens et persistens. Spadix spatha inclusus, sæpius breviter stipitatus; inflorescentia ♂ cylindracea v. fusiformis; ♀ brevior et angustior.

Species ad 20, Asiæ et Americæ tropicæ incolæ. *Engl. Arac.* 332; *et in Bull. Soc. Tosc. Ortic.* 1879, 296. Genus ab Englero in sectiones 2 divisum:—

1. *Euhomalonema.* Spathæ brevis hiantis tubus indistinctus, lamina tubo vix longior. Fl. ♂ 3–4-andri. Folia utrinque glaberrima. Asiaticæ et Americanæ. *Lodd. Bot. Cab. t.* 12 (*Calla*). *Wight, Ic. t.* 805, 807 (*Calla*). *Griff. Notul.* iii. 152. *Regel, Gartenfl.* 634. *Bot. Mag. t.* 2279 (*Calla*) 6571. *Masters in Gard. Chron.* 1877, *fig.* 45, 46.

2. *Curmeria.* Spathæ tubus distinctus. Fl. ♂ sæpius 5–6-andri. Fl. ♀: Staminodia sæpe 0. Folia glabra v. pilosa. CURMERIA, *Lind. et André in Ill. Hortic.* 1873, 121, 303. *Regel, Gartenfl. t.* 891. *Masters in Gard. Chron.* 1874, *fig.* 159, 160, 1876, *fig.* 16.

CYRTOCLADON, *Griff. Notul.* iii. 147; *Ic. Pl. Asiat. t.* 173, *f.* 1, est verisimiliter species *Homalonematis.*

ADELONEMA, *Schott, Prod. Aroid.* 316, planta Amazonica, floribus ♂ imperfectis notis est ex Englero (in Mart. Fl. Bras. iii. ii. 171, t. 38) vix sine dubio *Homalonematis* species.

54. **Chamæcladon,** *Miq. in Bot. Zeit.* 1856, 564; *Fl. Ind. Bat.* iii. 212, *t.* 40.—Flores in spadice inappendiculato monoici, omnes perfecti, ♂ et ♀ arcte contigui. Perianthium 0. Fl. ♂: Stamina 2–3, distincta, brevia, late cuneata, compressa, retusa, filamentis brevissimis; antherarum loculi breves, connectivo immersi, remoti, rimulis apicalibus dehiscentes; pollen vermiforme. Fl. ♀: Staminodia 1–3, clavata, brevia. Ovarium ovoideum v. subglobosum, 2- rarius 3-loculare; stigma sessile, latum, orbiculare, pulvinare; ovula in loculis plura, anatropa v. semianatropa, brevia, funiculis subelongatis placentis angulo interiori adnatis 4-seriatim affixa, micopyle infera. Baccæ spatha inclusæ, ellipsoideæ,

2–3-loculares, loculis polyspermis. Semina elongata, funiculo laterali, testa tenui remote costata, raphe prominula, chalaza tumida, albumine copioso ; embryo axilis.—Herbæ parvæ v. inter minores, caudice brevi v. subnullo a basi diviso. Folia elliptico-ovata v. oblonga, v. triangulari-ovata v. lanceolata, raro basi cordata, nervis marginem fere attingentibus, petiolo elongato longe vaginante. Spatha parva, subcylindracea, inferne convoluta, superne hians, demum reclusa, tota persistens. Spadix spatha inclusus, stipitatus, subcylindraceus ; inflorescentia ♂ quam ♀ multo longior.

Species ad 12, Asiæ tropicæ et Archipelagi Malayani incolæ. *Engl. Arac.* ii. 343. *Schott, Gen. Aroid. t.* 60.

55. **Schismatoglottis,** *Zoll. et Morr. Syst. Verz. Pl. Jav.* 83. (Zantedeschia, *C. Koch, Ind. Sem. Hort. Berol.* 1854, *App.* 9.)—Flores in spadice inappendiculato monoici, ♂ superiores omnes et interdum pauci inferiores imperfecti, inferiores ♀ contigui v. fere contigui. Perianthium 0. Fl. ♂ : Stamina 2–3, distincta, brevia, prismatica subcuneata v. compressa, truncata, filamento late lineari ; antherarum loculi filamentum terminantes, ovoidei, remoti v. contigui, poris magnis apicalibus dehiscentes, connectivo apice verrucoso; pollen vermiforme. Fl. ♀ : Staminodia si adsint pauca, clavata. Ovarium oblongum, 1-loculare ; stigma sessile, discoideum ; ovula plurima, anatropa, funiculis elongatis placentis 2–4 parietalibus affixa, micropyle infera. Baccæ tubo spathæ inclusæ, oblongæ, polyspermæ. Semina ellipsoidea, arrecta, testa atro-viridi epidermide diaphano ; embryo . . .—Herbæ rhizomate stolonifero, caudice brevi. Folia oblongo- v. ovato-cordata, rarius hastata v. lanceolata, sæpe marmorata v. maculata, nervis marginem fere attingentibus, petiolo basi vaginante. Pedunculi solitarii v. fasciculati, petiolo breviores. Spatha cylindracea, tubo convoluto fauce vix constricto, lamina apiculata v. acuminata circumscisse decidua. Spadix sessilis, spatha inclusus, medio v. infra medium constrictus ; inflorescentia ♂ cylindracea v. clavata superne pro maxima parte (rarius inferne) imperfecta ; ♀ brevior v. angustior, cylindracea v. conica.

Species ad 15, Archipelagi Malayani incolæ. *Engl. Arac.* 349 ; *Bot. Jahrb.* i. 184, *et in Bull. Soc. Tosc. Ortic.* 1879, 297. *Ill. Hortic.* xxviii. *t.* 418. *Schott, Gen. Aroid. t.* 55. Ovula a Schottio (Gen. Aroid. l. c.) orthotropa depicta sed anatropa descripta. Genus in sectiones 2 divisum :—

1. *Euschismatoglottis,* Engl. l. c. 350. Flores ♀ omnes fertiles v. superiores tantum steriles. Antherarum loculi connectivum haud superantes. *Wight, Ic. t.* 799 (*Calla*); includit Apoballis, *Schott in Œstr. Bot. Zeitschr.* 1858, 318, genus nullo charactere distinguendum.

2. *Colobogynium,* Engl. l. c. 353. Inflorescentia ♀ ima basi staminodia ferens. Antherarum loculi connectivum superantes. Colobogynium, *Schott in Œstr. Bot. Zeitschr.* 1865, 34.

56. **Apatemone,** *Schott, Gen. Aroid. t.* 57.—Flores in spadice appendiculato monoici, ♂ et ♀ contigui ; organa neutra conica umbonata ovariis subsimilia appendicem cylindraceam vestientia. Fl. ♂ : Stamina 1–2, brevissima, distincta, compressa, latiora quam longa ; antherarum loculi hemisphærici, subremoti, connectivo tenui latiores, vertice planiusculo verrucoso centro poris apicalibus dehiscentes. Fl. ♀ : Ovarium diaphanum, ovoideum, 1-loculare ; stigma sessile, pulvinare v. hemisphæricum ; ovula numerosa, semianatropa, funiculis elongatis gracillimis placentis 2–3 tenuissimis parietalibus affixa, micropyle directione varia. Fructus . . .—Herbæ acaules, pusillæ. Folia ovata v. ovato- v. cordato-lanceolata, nervis tenuissimis, nervulis parallelis, petiolo gracili ima basi vaginante. Pedunculus petiolo brevior. Spatha membranacea, tubo angusto convoluto persistente, lamina paullo longiore lanceolata convoluta circumscisse decidua. Spadix spatha inclusus, stipitatus, totus cylindraceus ; inflorescentia ♂ neutro subæquilonga ; ♀ elongata, ovariis distinctis.

Species 2, Borneensis et Malaccensis. *Engl. Arac.* 354.

57. **Bucephalandra,** *Schott, Gen. Aroid. t.* 56.—Flores in spadice appendiculato monoici, ♂ et ♀ contigui ; organa neutra hexagona, verrucosa, floribus multoties majora, appendicem clavatam vestientia. Fl. ♂ : Stamina 1–2, brevia, obovoideo-cuneata, com-

pressa, filamentis crassis; antherarum loculi ovoidei, contigui, oblique oppositi, tubulis rectis divaricatis corniformibus basi annulo verrucoso cinctis dehiscentes. Fl. ♀: Ovarium globosum, diaphanum, imperfecte 2–3-loculare; stigma sessile, parvum, disciforme; ovula numerosa, semianatropa, funiculis tenuissimis elongatis flexuosis aciebus semiseptorum affixa, micropyle directione varia. Fructus . . .—Herba acaulis, pusilla. Folia numerosa, lineari-lanceolata, apiculata, subtus punctulata, nervis tenuissimis, nervulis parallelis, petiolo gracili ima basi vaginante. Pedunculus petiolo subæquilongus. Spathæ tubus brevis, convolutus, persistens, lamina lanceolata circumscisse decidua. Spadix spatha multo brevior, stipitatus, appendice crassa ellipsoidea organis neutris hexagono-areolata; inflorescentia ♂ brevis; ♀ longior et angustior, ovariis distinctis.

Species 1, Borneensis. *Engl. Arac.* 354.

MICROCASIA, *Engl. in Bull. Soc. Tosc. Ortic.* 1879, 299, genus indicatum, sed non descriptum, ex auctore *Bucephalandræ* quam maxime affine, differt ovulis placentæ basilari affixis. Species 2, Borneenses.

58. **Rhynchopyle,** *Engl. Bot. Jahrb.* i. 183.—Flores in spadice inappendiculato monoici, ♂ et ♀ contigui, omnes fœmineis infimis paucis masculisque summis exceptis perfecti. Perianthium 0. Fl. ♂: Stamina 2–3, distincta, compressiuscula; antheræ connectivo truncato æquilongæ, loculis poris apicalibus dehiscentibus. Fl. ♀: Ovarium 2–3-loculare; stigma sessile, suborbiculare, tenue; ovula numerosa, semianatropa, elongata, funiculis subæquilongis parti apicali septi affixa. Baccæ obovoideæ, 2–3-loculares, polyspermæ. Semina fusiformia, integumento exteriore pellucido ultra interius longe producto rostrata, albumine copioso; embryo axilis.—Herbæ caudice brevi. Folia lanceolata, apiculo tubuloso instructa, nervis plurimis patentibus subparallelis, petioli vagina fere a basi soluta elongata ligulæformi. Pedunculi elongati. Spatha bis terve convoluta, tubus persistens, cupularis, quam lamina dejecta 2–3-plo brevior. Spadix spatha brevior; inflorescentia ♀ quam ♂ brevior.

Species 2 (*Schismatoglottis marginata* et *S. elongata*, Engl. in Bull. Soc. Tosc. Ortic. 1879, 298), Borneenses. Genus a nobis non visum.

59. **Piptospatha,** *N. E. Brown in Gard. Chron.* 1879, 138, *f.* 20.—Flores in spadice inappendiculato monoici, ♂ et ♀ contigui; organa neutra infra fl. ♀ numerosa, dense compacta, clavata v. peltata, stipite crasso. Perianthium 0. Stamina 1–2, distincta, compressa, porrecta, filamento brevi; antherarum loculi ellipsoidei, subremoti, connectivum in rostrum loculis æquilongum productum marginantes, rimulis terminalibus dehiscentes. Fl. ♀: Ovarium subcylindraceum v. obtuse angulatum, truncatum, 1-loculare; stigma sessile, verticem totum ovarii occupans et cum eo æquilatum, pulvinare; ovula numerosa, orthotropa, erecta, funiculis elongatis placentis 2–3-parietalibus affixa, micropyle supera. Fructus . . .—Herba pusilla, cæspitosa, acaulis. Folia numerosa, coriacea, lanceolata, acuminata, cartilagineo-marginata, subtus punctulata, nervis tenuissimis nervulisque supra obscuris, petiolo lamina multo breviore gracili ima basi vaginante. Pedunculus petiolo longior, gracilis, apice decurvus. Spatha cernua, oblique ovoidea v. ellipsoidea, cuspide terminali recurva, convoluta, lamina a tubo obscuro circumscisse decidua. Spadix spatha inclusus, sessilis, brevis; inflorescentia ♂ ovoidea v. hemisphærica, vertice rotundata, ob connectiva rostrata quaquaversa subsquarrosa; ♀ lævis, brevissima, cylindracea, masculo angustior; neutralis cum fœminea continua et ea longior.

Species 1, Borneensis. *Bot. Mag. t.* 6598.

60. **Gamogyne,** *N. E. Brown in Trim. Journ. Bot.* 1882, 195.—Flores in spadice inappendiculato monoici, ♂ a ♀ remoti, masculis sterilibus ambitu undulatis dense compactis interpositis arcte contigui. Perianthium 0. Fl. ♂: Stamina 1–2, distincta, compressa, filamento brevi lato; antherarum loculi cylindracei, paralleli, pro maxima parte remoti, superne confluentes et verticem staminis truncatum efficientes, poris apicalibus in rimulam

confluentibus dehiscentes, connectivo loculis angustiore tenui non producto. Fl. ♀: Ovaria minuta, omnino connata, 1-locularia; stigma sessile, pulvinare; ovula numerosa, orthotropa, erecta, funiculis subelongatis placentis parietalibus affixa, micropyle supera. Fructus . . .—Herba. Folia lanceolata, coriacea, nervis nervulisque tenuissimis, petiolo lamina breviore ima basi vaginante. Pedunculus elongatus. Spatha inclinata, elliptico-ovoidea, breviter rostrata, arcte convoluta, rima apicali aperta, lamina a tubo obconico circumscisse decidua. Spadix spatha inclusus, robustus, totus cylindraceus, apice rotundatus; inflorescentia ♂ cum imperfecta quam ♀ triplo longior.

Species 1, Borneensis.

61. **Microcasia,** *Beccari in Bull. Soc. Tosc. Ortic.* 1879, 180, *cum ic. xylog.*; *et in Nuov. Giorn. Bot. Ital.* xi. 394.—Flores in spadice appendiculato monoici, fl. ♂ superiores et inferiores dilatati imperfecti, ♀ infimi steriles; appendix sessilis, nuda, globosa. Perianthium 0. Fl. ♂ perfecti pauci. Stamina sessilia; antheræ globoso-didymæ, loculis apice aristatis. Fl. ♀ pauci. Ovaria globosa, 1-locularia; stigma sessile, pulvinare; ovula ad 12, orthotropa, erecta, funiculis brevibus placentæ latæ basilari affixa, micropyle supera. Fructus spathæ tubo involucratus. Baccæ . . .—Herbæ perpusillæ, cæspitosæ, rhizomate repente brevi. Folia spathulata v. oblonga, petiolo longe v. breviter vaginante. Pedunculi solitarii v. pauci. Spathæ tubus convolutus, persistens; lamina ovato-lanceolata, acuminata, vix hians, circumscisse decidua. Spadix spatha inclusus, clavatus; inflorescentiæ breves, fl. ♂ imperfecti infra et supra fertiles iis multo majores, tenues, cuneato-obovatæ; fl. ♀ steriles pauci, minuti; appendix sessilis, inflorescentia crassior, v. subæquans.

Species 2, Borneenses. *Engl. in Bull. Soc. Tosc. Ortic.* 1879, 299. Genus a nobis non visum.

Tribus VII. Dieffenbachieæ.

62. **Dieffenbachia,** *Schott, Melet.* i. 20; *Gen. Aroid. t.* 63.—Flores in spadice inappendiculato monoici, ♂ a ♀ remoti, masculis imperfectis paucis sparsis interpositis. Perianthium 0. Fl. ♂: Stamina 4–5, in corpus crassum depressum sessile vertice deplanatum connata; antherarum loculi connectivo breviores, lineari-oblongi, contigui, rimulis apicalibus dehiscentes; pollen vermiforme. Fl. ♀: Staminodia 4–5, ovarium cingentia, incurva, inferne dilatata, apicibus clavatis. Ovarium globosum depresso-ovoideum v. 2–3-lobum, 1–3-loculare; stigma sessile, depresso-globosum, 2–3-lobum, medio concavum v. umbonatum; ovula in loculis solitaria, rarius altero imperfecto addito, anatropa, erecta v. subhorizontalia, funiculis brevibus placentis basilaribus v. angulo interiori adnatis affixa, micropyle infera. Baccæ spathæ tubo demum rupto inclusæ, globosæ, v. 2–3-dymæ, stigmate coronatæ, 1–3-loculares, loculis 1-spermis. Semina ovoidea v. globosa, testa crassiuscula lævi, chalaza magna orbiculari, albumine 0; embryo macropodus.—Herbæ v. suffructices crassi, caudicibus erectis v. basi decumbentibus. Folia subterminalia, oblonga v. oblongo-lanceolata, acuta, costa nervisque utrinque numerosis crassis, petiolo crasso ultra medium vaginante. Pedunculi plures, petiolo breviores. Spatha angusta, tubo elongato convoluto accrescente persistente, fauce leviter constricta, lamina tubo paullo longiore aperta anguste cymbiformi acuminata, demum recurva. Spadix spatha brevior, erectus, stipitatus, basi spathæ adnatus; inflorescentia ♂ cylindracea, densiflora; ♀ unilateralis, elongata, multi-remotiflora.

Species ad 6, Americæ tropicæ incolæ. *Engl. Arac.* 444, *et in Mart. Fl. Bras.* iii. ii. *t.* 39. *Schott, Ic. Aroid. t.* 21 *ad* 30. *Jacq. Stirp. Amer. t.* 151 (*Arum*). *Lodd. Bot. Cab. t.* 608 (*Caladium*). *Hook. Exot. Bot. t.* 1 (*Caladium*). *Lemaire, Ill. Hortic. t.* 387, 470, 471. *Regel, Gartenfl. t.* 672.

63. **Taccarum,** *Brongn. mss. ex Schott, Gen. Aroid. t.* 65. (Lysistigma, *Schott in Bonpland.* x. 222. Endera, *Regel, Gartenfl.* 1872, 226, *t.* 732.)—Flores in spadice inappendiculato monoici, omnes perfecti, ♂ et ♀ contigui. Perianthium 0. Fl. ♂: Stamina 4–∞, in corpus subsessile v. stipitatum peltatum vertice deplanato v. tumido connata; antherarum loculi peltæ appensi, v. circa v. infra apicem stipitis verticillati, lineari-

oblongi, contigui, rimulis apicalibus dehiscentes. Fl. ♀: Staminodia ovarium cingentia 4–6, e basi lata sensim angustata, incurva, apicibus clavellatis recurvis. Ovarium subglobosum v. late ovoideum, teres v. 3–6-lobum, 3–6-loculare, in stylum columnarem attenuatum; stigma crassum, capitatum, 3–6-lobum; ovula in loculis solitaria, anatropa, funiculis brevibus placentis angulo interiori adnatis affixa, micropyle infera. Fructus . . .—Herbæ elatæ, rhizomate tuberoso, foliis floribusque coætaneis. Folia longe petiolata, ambitu late hastato-ovata, bipinnatifida, pinnis undulatis. Pedunculus petiolo multo brevior. Spatha erecta, tubo brevi convoluto, fauce aperta, lamina hiante v. explanata oblonga acuta. Spadix spatha brevior, breviter stipitatus, laxiflorus; inflorescentia ♂ ovoidea v. elongata, quam ♀ longior.

Species 3–4, Brasiliæ incolæ. *Engl. Arac.* 519, 645, *et in Mart. Fl. Bras.* iii. ii. *t.* 49. *Arcang. in Nuov. Giorn. Bot. Ital.* xi. 312, *t.* 8. *N. E. Brown in Gard. Chron.* 1881, 654, *fig.* 134.

64. **Andromycia,** *A. Rich. Fl. Cub.* ii. 282, *t.* 89.—Flores in spadice inappendiculato monoici, omnes perfecti, ♂ et ♀ contigui? Perianthium 0, nisi discus in fl. ♀. Fl. ♂: Stamina 3–4; antheræ in ambitu corporis peltati hemisphærici immersæ, 2-loculares, loculis approximatis apice dehiscentibus. Fl. ♀ sparsi. Ovarium subglobosum, disco tumido obtuse 3-lobo sessile, 3-loculare, in stylum brevem crassum attenuatum, stigmate 3-cruri, cruribus elongatis recurvo-patentibus; ovula in loculis solitaria, in angulo interiore loculi basilaria, erecta, anatropa, funiculo brevi, micropyle infera. Fructus . . .—Herba. Folia hysteranthia, pedatisecta, lobo medio magno elliptico acuminato, lateralibus oblique lanceolatis, nervis arcuatis, petiolo elongato. Pedunculus cataphyllis acuminatis vaginatus. Spatha erecta, lanceolata, acuminata, basi convoluta, superne aperta. Spadix spatha brevior, gracilis, laxiflora.

Species 1, Cubensis, nobis ignota, ab Englero (Arac. 486) inter *Xanthosomatis* species inclusus.

65. **Staurostigma,** *Scheidw. in Otto et Dietr. Allgem. Gartenz.* xvi. 129.—Flores in spadice inappendiculato monoici, omnes perfecti, ♂ et ♀ contigui. Perianthium 0. Fl. ♂: Stamina 3–4, in corpus crasse stipitatum, peltatum, subhexagonum vertice umbonatum connata; antherarum loculi margine inferiore peltæ appensi, oblongi v. sacciformes, contigui, rimulis porisve demum hiantibus dehiscentes; pollen vermiforme. Fl. ♀: Staminodia 3–5, brevia, cuneata, truncata, plus minusve connata v. in cupulam lobatam confluentia. Ovarium globosum v. pyriforme, 2–5- rarius 1-loculare; stylus conoideus v. 0, stigmate 2–5-partito, lobis triangularibus v. clavatis stellatim patentibus; ovula in loculis solitaria, anatropa, obovoidea cylindracea v. lageniformia, funiculis brevibus placentis subbasilaribus affixa, micropyle infera v. transversa. Baccæ subglobosæ, profunde 2–5-sulcatæ, 2–5-loculares, loculis 1-spermis. Semina oblonga, obtuse 3-gona, testa tenui fusca lævi v. granulata epidermide diaphana, strophiolo conoideo, albumine copioso; embryo axilis.—Herbæ tuberosæ, stoloniferæ, foliis floribus coætaneis v. proteranthiis. Folia longe petiolata, ambitu hastato-cordata, pinnatisecta v. 1–2-pinnatipartita, pinnis sessilibus acuminatis. Pedunculi solitarii v. plures, foliis æquilongi. Spatha erecta, lanceolata, basi convoluta, superne hians v. aperta. Spadix cylindraceus, spatha brevior et inferne basi ejus adnatus; inflorescentiæ laxifloræ, ♂ quam ♀ longior.

Species 6, Americæ tropicæ incolæ. *Engl. Arac.* 513. Genus ab Englero in sectiones 2 divisum:—

1. *Asterostigma.* Stigma stellatim 3–5-partitum, segmentis 2-fidis. *Engl. in Mart. Fl. Bras.* iii. ii. *t.* 48. *Velloz. Fl. Flum. Ic.* ix. *t.* 103 (*Arum*). *Lodd. Bot. Cab. t.* 1590 (*Caladium*). ASTEROSTIGMA, *Schott in Œstr. Bot. Wochenbl.* 1852, 67; *Gen. Aroid. t.* 66. *Bot. Mag. t.* 5972. *Peyritsch, Aroid. Maximil. t.* 23 *ad* 26.

2. *Rhopalostigma.* Stigma 2–3-partitum, segmentis tereti-clavatis. RHOPALOSTIGMA, *Schott in Œstr. Bot. Zeitschr.* 1859, 39. *Prodr. Syst. Aroid.* 34 (*Rhopalostigmium*). *Peyritsch, Aroid. Maximil. t.* 27.

66. **Gearum,** *N. E. Brown in Trim. Journ. Bot.* 1882, 196, *t.* 231, *f.* 1.—Flores in spadice inappendiculato monoici, staminodiis interpositis arcte contigui. Perianthium 0.

Fl. ♂ : Stamina 4 (5 ?) in corpus sessile subhexagonum vertice tumido subpeltato connata ; antherarum loculi remoti, margini inferiori peltæ affixi, elliptico-oblongi, rimulis terminalibus dehiscentes. Fl. ♀ dense conferti. Staminodia compressa. Ovarium subglobosum v. globoso-3-gonum, 3–4-loculare ; stigma subsessile, 3–4-lobum ; ovula in loculis solitaria, basilaria, erecta, orthotropa. Fructus . . .—Herba rhizomate tuberoso. Folia hysteranthia, petiolata, pedata, segmento intermedio sessili, lateralibus pinnatifidis. Pedunculus brevissimus. Spatha erecta, elongata, infra medium constricta, convoluta, superne cymbiformis, acuta. Spadix elongatus, cylindraceus, spatha paullo brevior, sessilis, parte ♂ anguste fusiformi subacuta ; inflorescentia densa.

Species 1, prov. Goyaz, Brasiliæ, incola. Specimina imperfecta tantum nota foliis non certe ad inflorescentiam pertinentibus.

67. **Mangonia,** *Schott in Œstr. Bot. Wochenbl.* 1857, 77 ; *Gen. Aroid. t.* 64.—Flores in eodem spadice inappendiculato monoici ; ♂ inferiores dissiti, ♀ approximati, supremi imperfecti. Perianthium 0. Fl. ♂ : Stamina 3–5, in corpus peltatum stipitatum connatæ ; antheræ didymæ, ad apicem stipitis columnaris verticillatæ, loculis globosis contiguis poris apicalibus dehiscentibus. Fl. ♀ : Staminodia 3, ovarium cingentia, linearia, apicibus dilatatis. Ovarium ovoideum, 3-loculare ; stylus columnaris, stigmate 3-lobo centro depresso, lobis patenti-recurvis obtusis ; ovula in loculis gemina, anatropa, lageniformia, funiculis brevibus placentis angulo interiori adnatis affixa, micropyle supera. Fructus . . .—Herba tuberosa ?. Folia proteranthia, oblongo-sagittata, costa crassa, nervis arcuatis, petiolo elongato. Pedunculus elongatus. Spatha oblongo-lanceolata, inferne convoluta, superne reclinata. Spadix elongatus, spatham superans ; inflorescentia ♂ valde elongata, floribus perfectis laxis, imperfectis densis ; ♀ brevis, densiflora, floribus quam ♂ multo majoribus.

Species 1, Provinciæ Argentinæ incola. *Engl. Arac.* 518. Exemplum valde imperfectum foliis ademptis a nobis visum. Descriptio pro maxima parte ad analyses Schottii l. c.

68. **Steudnera,** *C. Koch in Wochenschr. Gærtn.* 1862, 114.—Flores in spadice inappendiculato basi spathæ adnato monoici, omnes perfecti, ♂ et ♀ contigui. Perianthium 0. Fl. ♂ : Staminodia 3–6, in corpus prismaticum v. subcylindraceum breviter stipitatum peltatum vertice depresso connata ; antherarum loculi subglobosi v. oblongi, contigui, basin connectivi non attingentes, rimulis porisve apicalibus dehiscentes ; pollen minutissimum. Fl. ♀ : Staminodia 2–5, brevia, clavata, rarius 0. Ovarium subglobosum, 1-loculare ; stigma sessile, stellatim 3–5-lobum, lobis triangularibus acutis ; ovula plurima, orthotropa, erecta, funiculis brevibus placentis parietalibus 2-seriatim conferta, micropyle supera. Baccæ ovoideæ, polyspermæ. Semina ovoidea, testa crassula sulcata, epidermide diaphana, raphe strophiolata, albumine copioso ; embryo axilis.—Herbæ, caudice crasso elongato ascendente membranaceo-vaginato. Folia longe petiolata, peltata, ovato-oblonga, basi emarginata. Pedunculus brevis. Spatha aperta, basi brevissime convoluta, ovato-lanceolata, demum supra medium reflexa, marcescens. Spadix spatha multoties brevior, parte ♀ dorso spathæ adnata ; inflorescentia densiflora, ♂ crassa, clavata, obtusa ; ♀ multo brevior.

Species 3 v. 4, Burmæ incolæ. *Engl. Arac.* 451 (*ubi ovarium errore 2–5-loculare descriptum*). *N. E. Brown in Gard. Chron.* 1875, ii. 708. *André in Ill. Hortic.* xix. *t.* 90. *Fl. des Serres, t.* 2201. *Griff. Ic. Pl. Asiat. t.* 164, *f.* 1 (*Arum*). *Bot. Mag. t.* 6076 (*excl. fig. ovarii*).

69. **Gorgonidium,** *Schott in Ann. Mus. Bot. Lugd. Bat.* i. 283.—Flores in spadice inappendiculato ? monoici, ♂ et ♀ arcte contigui. Perianthium 0. Fl. ♂ : Stamina 2–6–8, filamentis filiformibus florum inferiorum distinctis fasciculatis, superiorum alte connatis ; antherarum loculi globosi, infra apicem connectivi prominuli, truncati, oppositi, stipitati, poris apicalibus dehiscentes. Fl. ♀ : Staminodia 6–8, ovarium irregulariter cingentia et longe superantia, filiformia, apicibus incrassatis. Ovarium 4-loculare ; stylus filiformis, stigmate depresso 4-crenato ; ovula in loculis solitaria, orthotropa, placentis basi anguli

interioris adnatis affixa. Fructus . . .—Herbæ. Folia . . . Pedunculus brevis. Spatha persistens, navicularis, fere ad basin hians. Spadix spatha brevior, conico-cylindraceus, stipitatus; inflorescentia ♂ densiflora; ♀ stipiti spadicis æquilonga, ovariis in verticillos 4 remotiusculos dispositis.

Species 1, ins. Carari maris Sualici incola. Planta a Gaudichaudio detecta, a nobis non visa, ex sententia N. E. Brownii verisimiliter *Pseudodracontio* affinis.

TRIBUS VIII. SPATHICARPEÆ.

70. **Spathicarpa,** *Hook. Bot. Misc.* ii. 147, *t.* 77.—Flores in spadice inappendiculato per totam longitudinem spathæ adnato monoici, omnes perfecti, ♂ et ♀ seriebus paucis longitudinalibus dispositi, exteriores ♀. Perianthium 0. Fl. ♂: Stamina 3–4, cum ovarii rudimentum in corpus peltatum graciliter stipitatum connata; antheræ breves, peltæ suborbiculari v. obtuse quadratæ appensæ, loculis contiguis poris subapicalibus dehiscentibus; pollen vermiforme. Fl. ♀: Staminodia 3–6, minuta, globosa v. depresso-peltata, ovario accumbentia. Ovarium ovoideo-oblongum v. lageniforme, 1-loculare, in stylum conicum attenuatum, stigmate pulvinari integro v. obscure 3–4-sulcato; ovulum orthotropum, erectum, sessile, fundo loculi affixum, micropyle supera. Baccæ minutæ, ovoideæ, stylo coronatæ et staminodiis cinctæ. Semen ovoideum, erectum, funiculo crasso, testa brunnea extus viridi succosa, albumine copioso; embryo axilis.—Herbæ rhizomate tuberoso, foliis floribusque coætaneis. Folia membranacea, lanceolata, v. hastato- v. sagittato-cordata v. hastato-3-secta, petiolo elongato longe vaginante. Pedunculi graciles, folia superantes. Spatha oblongo-lanceolata, acuminata, membranacea, demum aperta, longitudinaliter nervosa, reticulata, basi apiceque convoluta, persistens. Spadix semicylindraceus, spatha brevior, densi- v. laxi-flora.

Species ad 8, Brasiliæ et Paraguayæ incolæ. *Engl. Arac.* 530, *et in Mart. Fl. Bras.* iii. ii. *t.* 51. *Schott, Gen. Aroid. t.* 67. *Peyritsch, Aroid. Maximil. t.* 12 *ad* 15.

71. **Spathantheum,** *Schott in Bonplandia*, 1859, 165.—Flores in spadice inappendiculato per totam longitudinem spathæ adnato monoici, omnes perfecti, ♂ et ♀ seriebus paucis longitudinalibus dispositi, exteriore ♀. Perianthium 0. Fl. ♂: Stamina 4–7 distincta v. filamentis connatis, v. tota in corpus peltatum stipitatum connata; antheræ oblongæ, liberæ v. apicem versus stipitis verticillatæ, loculis contiguis rimulis apicalibus dehiscentibus. Fl. ♀: Staminodia 4–∞, brevia, ovarium cingentia, basi dilatata, apice capitata. Ovarium lageniforme, 4–∞-loculare; stylus elongatus, stigmate 4–∞-lobo, lobis patenti-recurvis; ovula in loculis solitaria, anatropa, funiculis longiusculis placentis basi anguli interioris adnatis affixa, micropyle infera. Fructus . . .—Herbæ, rhizomate tuberoso, foliis floribusque coætaneis, v. uno post alterum evoluto. Folia longe graciliterque petiolata, cordata v. sagittato-ovata, integra v. pinnatifido-lobata. Pedunculus gracilis, folia subæquans. Spatha oblongo-lanceolata, acuminata, membranacea, demum aperta, longitudinaliter nervosa et reticulata, basi apiceque obscure convoluta, persistens. Spadix semicylindraceus, spatha brevior, laxiflora.

Species 2 nobis cognitæ, altera Boliviana, *S. Orbignyana*, Schott l. c.; Engl. Arac. 530, foliis integris floribus non coætaneis et staminibus in corpus peltatum connatis; altera, GAMOCHLAMYS *heterandra*, Baker in Gard. Chron. 1876, 164, et in Saund. Ref. Bot. v. t. 346, patria ignota, staminibus partim liberis partim connatis. Ovula in ambabus certe anatropa, nec ut descripserunt Schott et Engler orthotropa.

TRIBUS IX. CALLEÆ.

72. **Calla,** *Linn. Gen. n.* 1030. (Provenzalia, *Adans. Fam. Nat.* ii. 469.)—Flores in spadice stipitato inappendiculato omnes hermaphroditi, fertiles v. supremi ♂. Perianthium 0. Stamina ad 6, filamentis linearibus; antheræ brevissimæ, loculis connectivum terminantibus ellipsoideis divaricatis rimis elongatis dehiscentibus. Ovarium ovoideum,

1-loculare, in stylum brevem conicum attenuatum, stigmate parvo pulvinare; ovula 6–9, anatropa, erecta, funiculis brevibus placentæ basilari affixa, micropyle infera. Baccæ depresso-obconicæ, v. prismaticæ, vertice sulcatæ, polyspermæ. Semina oblonga, teretiuscula, raphe prominula, testa crassa micropylen versus striata, chalaza tumida, albumine copioso; embryo axilis.—Herba aquatica, rhizomate repente elongato annulato folia disticha et pedunculum basi vaginatum proferente. Folia ovato- v. rotundato-cordata, nervis numerosis tenuissimis arcuatis, cuspidata, petiolo elongato basi longe vaginante. Pedunculus petiolum subæquans. Spatha ovato-lanceolata v. elliptica, acuminata, tota aperta, basi in pedunculum breviter decurrens, alba, accrescens et persistens. Spadix brevis, spatha multo brevior, longe stipitatus, ellipsoideus v. cylindraceus, multidensiflorus.

Species 1, Europæ mediæ et borealis, necnon Americæ boreali-orientalis incola. *Engl. Arac.* 213. *Schott, Gen. Aroid. t.* 69. *Gærtn. Fruct.* ii. *t.* 84. *Nees, Gen. Fl. Germ. Monocot.* iii. *n.* 38. *L. C. Rich. in Guillem. Archiv.* i. *t.* 2. *Schkuhr, Handb. t.* 278. *Bot. Mag. t.* 1831.

73. **Stenospermation,** *Schott, Gen. Aroid.* 70.—Flores in spadice stipitato inappendiculato omnes hermaphroditi. Perianthium 0. Stamina 4, filamentis complanatis apicibus abrupte angustatis; antheræ parvæ, connectivum superantes, loculis oblongo-ovoideis divaricatis rimulis sublateraliter dehiscentibus; pollen pulvereum. Ovarium obpyramidatum v. prismaticum, vertice deplanato dilatato 4-gono, incomplete 2-loculare; stylus in centro verticis minutus, conoideus, stigmate lineari-oblongo; ovula in loculis 4–6, collateralia, anatropa, erecta, funiculis breviusculis placentis basi septi adnatis affixa, micropyle infera. Baccæ parvulæ, obovoideæ, truncatæ, 2-loculares, loculis 2–4-spermis, vertice operculatim dehiscentes. Semina clavata, teretiuscula, testa crassula, chalaza tumida, albumine copioso; embryo axilis.—Herbæ v. suffrutices raphidibus instructi, caudice elongato scandente ad nodos radicante. Folia disticha, coriacea, lanceolata, acuminata, nervis numerosis tenuissimis, petiolo brevi v. elongato interdum per totam longitudinem vaginante. Pedunculus terminalis, petiolo vaginatus, strictus. Spatha navicularis, convoluta, demum aperta, tota decidua. Spadix spatha multo brevior, longe stipitatus, cylindraceus.

Species ad 7, Americæ tropicæ incolæ. *Engl. Arac.* 235, *et in Mart. Fl. Bras.* iii. ii. *t.* 18. *Masters in Gard. Chron.* 1875, i. 558, *fig.* 116.

74. **Rhodospatha,** *Pœpp. et Endl. Nov. Gen. et Sp.* iii. 91, *t.* 300.—Flores in spadice stipitato inappendiculato omnes hermaphroditi v. inferiores ♀. Perianthium 0. Stamina 4, filamentis linearibus complanatis apicibus angustatis; antheræ terminales, loculis connectivum superantibus parallelis v. divergentibus ellipsoideis, rimis elongatis lateralibus dehiscentibus; pollen vermiforme. Ovarium obpyramidatum v. prismaticum, vertice dilatato-deplanato 2-loculare; stigma in centro verticis parvum, oblongum, depressum; ovula in loculis plura, semianatropa v. campylotropa, funiculis breviusculis placentis septo adnatis ad apicem loculi extensis 2-seriatim affixa, micropyle hiante infera. Baccæ parvulæ, oblongæ, 4–6-gonæ, truncatæ, 2-loculares, polyspermæ. Semina imbricata, reniformia, compressa, obtuse cristata, crista tuberculata, testa durissima granulata, albumine parco; embryo hippocrepicus.—Frutices scandentes, raphidibus instructi, ramis radicantibus. Folia disticha, elliptico-oblonga, acuminata, nervis numerosis arcuatis parallelis, petiolo cum lamina subæquilongo longe vaginante apice geniculato. Pedunculi basi longe vaginati, graciles. Spatha cymbiformis, rostrata, decidua. Spadix spatha brevior, cylindraceus, densiflorus, stipite elongato.

Species 6 v. 7, Americæ tropicæ incolæ. *Engl. Arac.* 231, *et in Mart. Fl. Bras.* iii. ii. *t.* 17. *Peyritsch, Aroid. Maximil. t.* 29, 30. Fructus a nobis non visus.

R. Wendlandii, Schott in ic. Herb. Vindob. ex Engl. Arac. 235, spathæ articulatæ vagina persistente et lamina decidua, cujus patria ignota, nobis ignota est.

Atimeta, *Schott, Gen. Aroid. t.* 71; *Peyritsch, Aroid. Maximil. t.* 19, 20, ad species *Rhodospathæ*

floribus inferioribus staminibus perfectis destitutis stabilitum, minime ut nobis videtur pro genere diverso habendum est.

Anepsias, *Schott, Gen. Aroid. t.* 73; *Engl. Arac.* 230; genus Venezuelanum a nobis non visum, ex descriptione et icone auctoris a *Rhodospatha* differt ovario 2–6-loculari.

75. **Heteropsis,** *Kunth, Enum. Pl.* iii. 59.—Flores in spadice stipitato inappendiculato hermaphroditi, v. infimi abortu ♀. Perianthium 0. Stamina 4 v. pauciora, filamentis brevibus latis compressis; antheræ connectivum superantes, loculis brevibus contiguis sacciformibus v. ellipsoideis rimulis hiantibus apicalibus dehiscentibus. Ovarium obpyramidatum, vertice dilatato deplanato, perfecte v. imperfecte 2-loculare; stylus in centro verticis minutus, conoideus, stigmate lineari; ovula in loculis 2, erecta, anatropa, funiculis elongatis placentis basi septi adnatis affixa, micropyle infera. Fructus . . .—Frutices scandentes, ramosi, ramis ramulisque gracilibus teretibus flexuosis haud annulatis ad nodos et alibi radices emittentibus. Folia alterna, lanceolata v. elliptico-lanceolata, acuminata, coriacea, costa prominula, nervis tenuissimis creberrimis, petiolo brevi v. brevissimo tereti, ima basi semiamplexicauli. Pedunculi breves, axillares, vaginis brevibus. Spatha parva, oblonga v. ellipsoidea, rostrata, convoluta, cito decidua. Spadix spatha inclusus, rectus, stipitatus, ellipsoideus v. cylindraceus.

Species 5 v. 6, Brasiliæ et Guianæ incolæ. *Engl. Arac.* 98, *et in Mart. Fl. Bras.* iii. ii. *t.* 6. *Schott, Gen. Aroid. t.* 76; *Aroid. t.* 58 *ad* 60.

76. **Anadendrum,** *Schott in Bonplandia*, 1857, 45; *Gen. Aroid. t.* 78. (Anadendron, *Prod. Syst. Aroid.* 389.)—Flores in spadice stipitato inappendiculato hermaphroditi. Perianthium 0, nisi urceolus brevis stamina et ovarium cingens. Stamina 4–6, filamentis brevissimis complanatis late linearibus v. quadratis; antheræ terminales, loculis connectivum superantibus erectis subreniformibus discretis rimis elongatis extrorsum dehiscentibus. Ovarium obconicum v. obpyramidatum, vertice dilatato deplanatum, 1-loculare; stigma sessile, parvum, oblongum, depressum; ovulum solitarium, anatropum, funiculo brevi adscendente placentæ basilari affixum, micropyle infera. Baccæ remotæ, globosæ v. turbinatæ. Semen subglobosum v. turbinatum, testa crassiuscula, albumine 0; embryo macropodus.—Fruticuli repentes v. scandentes, caudicibus gracilibus, ramis radicantibus. Folia disticha, oblique ovato-oblonga v. lanceolata, acuminata, integra pertusa v. pinnatifida, petiolo brevi v. elongato gracili longe vaginante apice geniculato, vaginis persistentibus v. deciduis, marginibus latis v. angustis. Pedunculi terminales, solitarii v. plures, breves v. elongati, sæpius graciles. Spatha ovato-oblonga, navicularis, rostrata, decidua. Spadix spatha inclusus, sæpius longe stipitatus, cylindraceus, densiflorus. Baccæ pisiformes, rubræ.

Species 4 v. 5, Archipelagi Malayani incolæ. *Engl. Arac.* 95. *Miq. Fl. Ind. Bat.* iii., *t.* 39 (*Scindapsus*).

77. **Monstera,** *Adans. Fam.* ii. 470. (Tornelia, *Gutierez ex Schlecht. in Linnæa*, xxvi. 382. Monsteræ *sect.* Heteropsis, *Miq. in Linnæa*, xviii. 79, *non Heteropsis*, Kunth. Serangium, *Wood*; *Salisb. Gen. Pl. Fragm.* 5.)—Flores in spadice sessili inappendiculato hermaphroditi; inferiores steriles conici, minuti, ovario effœto. Perianthium 0. Stamina 4–6, filamentis complanatis late linearibus apicibus abrupte angustis; antheræ breves, loculis connectivum superantibus oblongis apiculatis divaricatis rimis brevibus lateralibus dehiscentibus. Ovarium obconicum v. prismaticum, 4–6-gonum, vertice dilatato deplanato, 2-loculare; stigma sessile, parvum, depressum, oblongum v. lineare; ovula in loculis 2, anatropa v. semi-anatropa, funiculis brevissimis placentis tumidis basi septorum adnatis affixa, micropyle infera. Baccæ in syncarpium cohærentes, superficiebus conglutinatis sponte solvendis, 1–2-spermæ. Semina ovoidea v. subcordiformia, testa crassiuscula epidermide solubili, albumine 0; embryo macropodus.—Frutices scandentes, ramosi, raphidibus instructi, ramis radicantibus. Folia disticha, lanceolata v. oblonga, inæquilatera, integra pertusa v. pinnatifida, petiolo elongato vaginante, vagina persistente et

accrescente v. decidua. Pedunculi terminales, solitarii v. fasciculati. Spatha ovata v. oblonga, cymbiformis, apiculata, post anthesin reclusa, demum decidua. Spadix spatha brevior, sessilis, subcylindraceus, densiflorus.

Species ad 12, Americæ tropicæ incolæ. *Engl. Arac.* 255, *et in Mart. Fl. Bras.* iii. ii. *t.* 19 *ad* 21. *Schott, Gen. Aroid. t.* 74 (*Tornelia*). *Vell. Fl. Flum. Ic.* ix. *t.* 117 (*Dracontium*). *Jacq. Hort. Schœnb.* ii. *t.* 184, 185 (*Dracontium*). *Bot. Mag. t.* 5086.

ALLOSCHEMONE. *Schott, Prod. Syst. Aroid.* 358; *Engl. Arac.* 267, genus Brasilianum penitus ignotum, a Pœppigio incomplete descriptum, verisimiliter species est *Monsteræ*, sed stamina 10–12, ovarium dubie 1-loculare, et ovulum dubie anatropum.

78. **Scindapsus**, *Schott, Melet.* 21; *Gen. Aroid. t.* 81.—Flores in spadice sessili inappendiculato hermaphroditi, omnes fertiles. Perianthium 0. Stamina 4, filamentis latiusculis complanatis apicibus incrassatis; antheræ terminales, loculis connectivum superantibus oblongis parallelis v. divaricatis rimis lateralibus dehiscentibus. Ovarium prismaticum v. obpyramidatum, vertice dilatato deplanato, 1-loculare; stigma in centro verticis sessile, lineari-oblongum, depressum; ovulum solitarium, anatropum, funiculo brevi placentæ basilari affixum, micropyle infera. Baccæ obpyramidatæ, succosæ, 1-spermæ, vertice coriaceo secedente dehiscentes. Semen reniformi-rotundatum, basi arillo succulento instructum, testa dura tenui lævi v. verrucosa, albumine 0; embryo macropodus, hippocrepicus.—Frutices alte scandentes, robusti, raphidibus instructi, ramis radicantibus. Folia ovata oblonga v. oblongo-lanceolata, acuminata, nervis numerosis arcuatis, petiolo elongato longe lateque vaginante apice geniculato, vagina sæpe accrescente. Pedunculus terminalis, brevis, crassus. Spatha cymbiformis, rostrata, crassa, mox decidua. Spadix spatha brevior, sessilis, cylindraceus, densiflorus.

Species ad 9, Asiæ tropicæ, Archipelagi Indici, Nov. Guineæ, et ins. Fiji incolæ. *Engl. Arac.* 252; *Bot. Jahrb.* i. 182; *et in Bull. Soc. Tosc. Ortic.* 1879, 270.

Baccæ ex descriptionibus Schottii et Engleri arcte connexæ, sed in exemplaribus nostris *S. officinalis* (typi generis) aliisque certe distinctæ sunt, ut apparet ex Roxburghii icone (in Herb. Kew.). In *S. geniculata*, Engler (Bull. Soc. Tosc. l. c.) stigma orbiculare!

CUSCUARIA, *Schott in Bonplandia*, 1857, 45; *Gen. Aroid. t.* 80; *Engl. Arac.* 251, ut nobis videtur a *Scindapso* nullo charactere dato differt.

79. **Rhaphidophora**, *Schott, Gen. Aroid. t.* 77. (Raphidophora, *Hassk. in Flora*, 1842, ii. *Beibl.* 11, *quoad syn. Roxburghii.*)—Flores in spadice sessili inappendiculato hermaphroditi, v. pauci abortu ♀. Stamina 4–5, filamentis linearibus complanatis latiusculis apicibus abrupte angustatis; antheræ parvæ, loculis connectivum superantibus oblongis divergentibus rimis elongatis extrorsum dehiscentibus. Ovarium obpyramidatum v. prismaticum, vertice deplanato dilatato, 1- v. imperfecte 2-loculare; stylus in centro verticis parvus conicus, v. subelongatus, stigmate rotundato v. oblongo; ovula numerosa, anatropa, funiculis brevibus v. elongatis placentis parietalibus v. aciebus semiseptorum adnatis affixa, micropyle infera. Baccæ in syncarpium arcte cohærentes, verticibus conglutinatis sponte solvendis, polyspermæ. Semina lineari-oblonga, v. turbinato-cylindracea, funiculo elongato, testa tenui, epidermide solubili, albumine copioso; embryo axilis.—Frutices graciles v. robusti, scandentes, raphidibus instructi, ramis radices longissimas solum petentes emittentibus. Folia disticha, inæquilatera, sæpe ampla, lanceolata v. ovato-oblonga, coriacea v. submembranacea, integra pertusa v. pinnatifida rarius pinnatipartita, segmentis basi latis, petiolo brevi v. elongato longe vaginante apice geniculato. Pedunculi terminales, solitarii v. plures. Spatha crassa, cymbiformis, primum oblonga et convoluta, demum aperta, sæpius rostrata, marcescens, demum decidua. Spadix spatha inclusus, crassus, cylindraceus, densiflorus.

Species ad 30, Asiæ tropicæ, Archipelagi Malayani, Australiæ, et ins. maris Pacifici incolæ, cum paucis Africanis. *Engl. Arac.* 238, *excl. sp.* 18; *in Bot. Jahrb.* i. 180; *et in Bull. Soc. Tosc. Ortic.* 1879, 268. *Wight, Ic. t.* 779 *et* 781 (*Scindapsus*). *Wall. Pl. As. Rar.* ii. *t.* 156, 192 (*Pothos*). *Gard. Chron.* 1874, ii. *fig.* 124 (ubi ovula omnia basilaria depicta).

Genus ab Hasskarlio ad plantam Javanicam conditum quam prius in Flora l. c. absque dubio, postea

in Hœv. et Vriese, Tijdschr. cum dubio, ad *Pothon pertusum*, Roxb., retulit. Nomen a Schottio et Englero pro specie Roxburghiana congeneribusque receptum est. Planta javanica typus est generis *Epipremni*, Schott.

80. **Epipremnum**, *Schott in Bonplandia*, 1857, 45 ; *Gen. Aroid. t.* 79. (Raphidophora, *Hassk. Cat. Hort. Bogor.* 1844, 58 *partim, et in Hœv. et Vriese, Tijdschr.* 1842, 168.)—Flores in spadice sessili inappendiculato hermaphroditi, v. pauci inferiores ♀. Perianthium 0. Stamina 4, filamentis linearibus complanatis latiusculis ; antheræ parvæ, terminales, loculis connectivum superantibus lineari-oblongis contiguis parallelis v. divergentibus, rimis extrorsum dehiscentibus. Ovarium obpyramidatum v. prismaticum, 1- v. imperfecte 2-loculare, vertice dilatato deplanato ; stylus in centro verticis brevis v. 0, stigmate lineari-oblongo ; ovula 2 v. plura, anatropa, funiculis brevibus placentis basi semiseptorum v. parietalibus affixa, micropyle infera. Baccæ liberæ v. in syncarpium cohærentes, superficiebus conglutinatis sponte solvendis, monospermæ. Semen reniforme, compressum, hilo latiusculo albo, albumine crasso ; embryo axilis, curvus, gracilis.—Frutices scandentes, raphidibus instructi, caudicibus elongatis radices aereas longissimas solum petentes emittentibus. Folia disticha, ovata ovato-cordata v. lanceolata, sæpe ampla, inæquilatera, integra pertusa v. pinnatifida, petiolo elongato basi vaginante apice geniculato. Pedunculi terminales, breves v. elongati, solitarii v. plures. Spatha crassa, cymbiformis, primum oblonga et convoluta, demum aperta, sæpius rostrata, marcescens, decidua. Spadix spatha inclusus, crasssus, cylindraceus, densiflorus.

Species ad 8, Archipelagi Malayani et insularum maris Pacifici incolæ. *Engl. Arac.* 248 ; *Bot. Jahrb.* i. 182 ; *et in Bull. Soc. Tosc. Ortic.* 1879, 269. *N. E. Brown in Trim. Journ. Bot.* 1882, 332.

Genus male definitum, ulterius scrutandum, verisimiliter pro sectione *Rhaphidophoræ* habendum. Ex icone Schottii ovula 2 fertilia basilaria, cum innumeris abortivis aciei placentæ insertis. Ovula ex descriptione Hasskarlii (sub *Rhaphidophora*) 2-na. In speciebus nuperrime ab Englero descriptis (Bull. Soc. Tosc. Ort. l. c.) ovula 2-na v. plura, secus totam longitudinem placentis parallelis inserta. Baccæ liberæ ex Hasskarlio, sed fide Engleri connatæ.

81. ? **Amydrium**, *Schott in Miq. Ann. Mus. Lugd. Bat.* i. 127.—Flores in spadice brevissimo sessili inappendiculato hermaphroditi. Perianthium 0. Stamina 4, filamentis linearibus latiusculis ; antheræ terminales, loculis ovoideis rimulis extrorsum dehiscentibus. Ovarium obpyramidatum, 4-gonum ; stylus ovario crassior, vertice medio elevatus, stigmate parvo rotundato ; ovula in loculis solitaria, anatropa, funiculis brevibus placentis basi septi adnatis affixa. Fructus . . .—Herba prorepens, rhizomate tenui dense foliato. Folia ovato- v. rotundato-cordata, costa tenui, nervis ad 4, nervulis laxe areolatis, petiolo brevi sulcato apice geniculato. Pedunculus erectus, petiolo brevior. Spatha conchiformis, apiculata.

Species 1, Archipelagi Malayani incola. *Engl. Arac.* 100. Genus imperfecte cognitum, stigmate in tribu alieno, a nobis non visum.

TRIBUS X. ZAMIOCULCASIEÆ.

82. **Zamioculcas**, *Schott, Synops. Aroid.* 71.—Flores in spadice inappendiculato abortu monoici, superiores ♂ ovariis effœtis, inferiores ♀ staminibus effœtis v. 0, interspatio 0. Perianthii segmenta 4, cuneato-spathulata, apicibus truncatis incrassatis. Fl. ♂ : Stamina 4, filamentis brevibus subclavatis inclusis, apicibus angustatis ; antheræ minutæ, terminales, loculis connectivum superantibus rimulis apicalibus dehiscentibus ; pollen vermiforme. Ovarium effœtum. Fl. ♀ : Stamina 4, imperfecta. Ovarium oblongum v. ovoideum, 2-loculare, in stylum brevem attenuatum, stigmate pulvinari ; ovula in loculis solitaria, subamphitropa, funiculis brevibus placentis septo adnatis affixa, micropyle infera. Fructus . . .—Herbæ rhizomate brevi v. horizontali, inferne tubera sessilia emittente, superne folia 1–2-pedalia cum inflorescentia parva proferentes. Folia plura, crasse petiolata, imparipinnata, pinnis alternis 6–8-jugis, v. bipinnata pinnis pinnulisque oppositis cum rhachi articulatis deciduis reticulatis, petiolo supra medium nodoso-incrassato basi

tumido brevissime vaginante. Pedunculus elongatus v. foliis multoties brevior et petiolo tenuior. Spathæ tubus subglobosus, convolutus, fl. ♀ involvens, fauce constricta, lamina lanceolata v. cymbiformi dorso supra apicem cornuta horizontali recurva v. reflexa. Spadix sessilis, cylindraceus, spatha brevior, brevis v. elongatus, supra fl. ♀ constrictus ; inflorescentiæ densifloræ ; ♂ brevis et ellipsoidea v. elongata et cylindracea, floribus hexagonis ; ♀ brevis, floribus 4-gonis.

Species 2, Africæ tropicæ orientalis incolæ. Genus in sectiones 2 divisum :—

1. *Euzamioculcas.* Folia imparipinnata. Pedunculus brevis. Spatha cymbiformis. Inflorescentia ♂ brevis et cum ♀ conformis. Fl. ♀ staminodiis instructus. *Engl. Arac.* 208. *Lodd. Bot. Cab. t.* 1408 (*Caladium*). *Bot. Mag. t.* 5985.

2. *Gonatopus.* Folia bi-tri-pinnata. Pedunculus gracilis. Spatha lanceolata. Inflorescentia ♂ cylindracea, quam ♀ multo longior. Fl. ♀ staminodiis 0. *Bot. Mag. t.* 6026. GONATOPUS, *Engl. Arac.* 208.

TRIBUS XI. ORONTIEÆ.

83. **Orontium,** *Linn. Amœn. Acad.* iii. 17, *t.* 1, *f.* 3 ; *Gen. n.* 435.—Flores in spadice stipitato inappendiculato hermaphroditi, omnes fertiles. Perianthii segmenta in floribus superioribus 4, in inferioribus 6, brevia, transversim oblonga, fornicata, irregulariter imbricata. Stamina 4 v. 6, filamentis brevibus complanatis anthera latioribus apicibus abrupte angustatis ; antheræ parvæ, terminales, loculis connectivum superantibus ellipsoideis parallelis rimis extrorsum dehiscentibus. Ovarium depressum, angulatum, inferne in rhachi spadicis leviter immersum, 1-loculare ; stigma sessile, minutum, pulvinare ; ovulum solitarium, semi-anatropum, horizontale, funiculo brevi ascendente placentæ basilari affixum, micropyle transversa. Utriculi membranacei. Semen erectum, subglobosum v. leviter compressum, testa crassiuscula, albumine 0 ; embryo macropodus.—Herba aquatica, rhizomate descendente. Folia oblonga v. elliptico-oblonga, natantia, costa 0, nervis parallelis, petiolo elongato longe vaginante. Pedunculus submersus, elongatus. Spatha incompleta, membranacea, stipitem elongatum spadicis involvens, spadicem juniorem tantum includens, demum soluta. Spadix elongato-conoideus, densiflorus, sursum florens, stipite longissimo superne incrassato pedunculum mentiente.

Species 1, Americæ boreali-orientalis incola. *Engl. Arac.* 212. *Schott, Gen. Aroid. t.* 92. *Barton, Fl. N. Am.* ii. *t.* 37. *Lodd. Bot. Cab. t.* 402. *Hook. Exot. Fl. t.* 19.

84. **Lysichitum,** *Schott in Œsterr. Bot. Wochenbl.* 1857, 62 ; *Gen. Aroid. t.* 91. (Arctiodracon, *A. Gray in Mem. Amer. Acad. ser.* 2, vi. 408.)—Flores in spadice stipitato inappendiculato hermaphroditi, omnes fertiles. Perianthii segmenta 4, oblonga, vertice trigona, fornicata, irregulariter imbricata. Stamina 4, filamentis complanatis lineari-elongatis antheris angustioribus ; antheræ terminales, loculis connectivum superantibus ellipsoideis suberectis rimis elongatis extrorsum dehiscentibus. Ovarium elongatum, inferne rhachi spadicis immersum, perfecte v. imperfecte 2-loculare, in stylum breve conicum attenuatum, stigmate parvo capitellato ; ovula in loculis 1–2, orthotropa, ovoidea, funiculis dorso cristatis adscendentibus dein decurvis medio septo adnatis affixa, pendula, micropyle infera. Baccæ in rhachi spadicis immersæ, 2-loculares, loculis 1-spermis. Semina oblongo-rotundata a dorso convexo compressa, convexo-concava, umbilico ventrali intruso, testa firme membranacea embryoni arcte adhærente, albumine 0 ; embryo macropodus.—Herba paludosa, robusta, caudice crasso folioso horizontali. Folia magna, oblonga v. oblongo-lanceolata, crasse coriacea, acuta, sessilia v. in petiolum brevem crassum angustata, costa latissima, nervis arcuatis. Pedunculus brevis, robustus. Spatha membranacea, spadicem juniorem tantum includens demum stipitem ejus elongatum inferne involvens, lamina foliacea ovato-cucullata demum decidua. Spadix oblongo-cylindraceus, sæpe magnus, obtusus, sursum florens, stipite longissimo pedunculum simulante.

Species 1, Siberiæ orientalis, Japoniæ et Americæ boreali-occidentalis incola. *Engl. Arac.* 209.

85. **Symplocarpus,** *Salisb. in Nutt. Gen. N. Amer. Pl.* i. 105. (Ictodes, *Bigelow, Med. Bot.* ii. 41, *t.* 24. Spathyema, *Rafin. in New York Med. Repos.* ii. *ex Endl. Gen.* 240.)—Flores in spadice subgloboso stipitato inappendiculato hermaphroditi, omnes fertiles. Perianthii segmenta 4, elongato-cuneata, apicibus dilatatis fornicatis dorso pyramidatis imbricatis. Stamina 4, exserta, filamentis lineari-elongatis complanatis apicibus angustatis; antheræ breves, terminales, loculis connectivum superantibus oblongis parallelis rimis lateralibus dehiscentibus. Ovarium elongatum, inferne rhachi immersum, 1-loculare v. loculo altero effœto, in stylum elongatum, crassum, 4-gonum attenuatum, stigmate minuto capitellato; ovulum solitarium, subcampylotropum, ovoideum, funiculo brevissimo infra apicem loculi affixum, micropyle laterali. Baccæ in rhachi spadicis spongiosa immersæ, syncarpium globosum efficientes, monospermæ. Semen magnum, irregulariter rotundatum, obtuse angulatum, testa membranacea embryoni arcte adhærente, albumine 0; embryo macropodus.—Herba magna, robusta, fœtida, rhizomate crassissimo descendente annis alternis folia floresque proferente. Folia ampla, ovato-cordata, acuta, crasse coriacea, nervis crassis, petiolo robusto longe vaginante. Pedunculus brevissimus. Spatha ventricosa v. conchoidea, apice curva, crasse coriacea, fornicato-rostrata, acuminata, inferne cucullato-convoluta, marcescens, persistens. Spadix inclusus, longe crasseque stipitatus, spatha multo brevior, violaceus.

Species 1, Americæ, Asiæ boreali-orientalis et Japoniæ incolæ. *Engl. Arac.* 211. *Schott, Gen. Aroid. t.* 90. *Bot. Mag. t.* 836 (*Pothos*), 3224.

86. **Dracontium,** *Linn. Gen. n.* 1029.—Flores in spadice appendiculato hermaphroditi, omnes fertiles. Perianthii segmenta 4–8, cuneata v. spathulata, apicibus fornicatis imbricatis. Stamina 4–8, v. 9–12 et 3–4-seriata, filamentis linearibus dilatatis; antheræ terminales, loculis majusculis connectivum superantibus parallelis elliptico-oblongis rimulis apicalibus extrorsum dehiscentibus; pollen conglutinatum. Ovarium ovoideum v. globosum, perfecte v. imperfecte 2–4-loculare, in stylum brevem v. elongatum productum, stigmate in centro styli apicis integro v. 2–4-lobo; ovula in loculis solitaria, campylotropa, funiculis brevibus placentis medio anguli interioris adnatis affixa, micropyle infera. Baccæ sub-2–3-lobæ, 2–3-loculares, loculis 1-spermis. Semina reniformi-rotundata, cristata v. dorso tuberculata, umbilico intruso, testa crassa, albumine 0; embryo curvus, macropodus.—Herbæ magnæ v. giganteæ, vasis laticiferis instructæ, tubere hypogæo, unifoliatæ. Folium hysteranthium v. synanthium, giganteum, 3-partitum, segmentis 3-sectis pinnatipartitis, petiolo longissimo verrucoso ima basi vaginante. Pedunculus sub anthesi brevis, demum elongatus. Spatha erecta, oblonga, basi convoluta, dein aperta, fornicata, marcescens, persistens. Spadix spatha brevior, breviter stipitatus, cylindraceus, densiflorus, deorsum florens.

Species ad 6, Americæ tropicæ incolæ. *Engl. Arac.* 282, *et in Mart. Fl. Bras.* iii. ii. *t.* 24. *Schott, Gen. Aroid. t.* 87. *Lemaire, Ill. Hortic.* 1864, *t.* 424 (*Amorphophallus*). *Saund. Ref. Bot.* iv. *t.* 282. *Masters in Gard. Chron.* 1870, *f.* 58. *Bot. Reg. t.* 700. *Bot. Mag. t.* 6523. Typus generis est *D. polyphyllum*, Linn., a quo *D. asperum*, Koch (Chersydrium, *Schott in Œsterr. Bot. Zeit.* 1875, 72) non generice differt. Godwinia, *Seem. Journ. Bot.* 1869, 313, *t.* 96, 97; *Masters in Gard. Chron.* 1873, *fig.* 13, 14; *Bot. Mag. t.* 6048; *Fl. des Serres*, xxi. *t.* 2244–5, sectionem efficit *Dracontii* apud Englerum differt staminibus 3–4-seriatis.

Echidnium, *Schott in Œsterr. Bot. Wochenbl.* 1857, 62; *Gen. Aroid. t.* 88; *Engl. l. c.* 285. *Regel, Gartenfl.* 1866, *t.* 503, stigma habet parvum integrum (ut in *Godwinia*) ovulaque fere basilaria; includit species 2, Guianæ incolas (unius varietates?) quarum una tantum bene nota.

87. **Lasia,** *Lour. Fl. Coch.* 81.—Flores in spadice sessili inappendiculato hermaphroditi, omnes fertiles. Perianthii segmenta 4–6, obovata, apicibus truncatis fornicatis, lateralibus interiora tegentibus. Stamina 4–6, filamentis brevibus latis complanatis apice incrassatis; antheræ filamento paullo breviores, loculis connectivum superantibus ellipsoideis parallelis rimis elongatis extrorsum dehiscentibus. Ovarium ovoideum, 1-loculare, stigmate in vertice crasso tumido sessili depresso-capitato; ovulum solitarium, anatropum,

v. semi-anatropum, funiculo brevissimo ab apice loculi oblique appenso, micropyle supera. Baccæ hexagonæ, vertice truncato muricato. Semen subcuneatum, compressum, pendulum, testa crassa ad funiculum rugosa, albumine demum evanido; embryo campylotropus, macropodus.—Herba robusta, paludosa, vasis laticiferis instructa, rhizomate crasso ramoso repente cum petiolis foliorum nervis subtus pedunculoque spinosis. Folia juniora sagittata v. hastata, adulta pedato-pinnatifida, petiolo robusto basi vaginante. Pedunculus elongatus. Spatha valde elongata, carnosa, angusta, inferne breviter convoluta, dein longe arcte contorta, supra basin sub anthesi aperta, postea reclusa, decidua. Spadix brevis, cylindraceus, densiflorus.

Species 1, Asiæ tropicæ et Archipelagi Malayani incola. *Engl. Arac.* 272. *Schott, Gen. Aroid. t.* 82. *Wight, Ic. t.* 777.

88. **Podolasia,** *N. E. Brown in Gard. Chron.* 1882, ii. 70.—Flores in spadice stipitato inappendiculato hermaphroditi, omnes fertiles. Perianthii segmenta 4–6, obovato-cuneata, apicibus truncatis fornicatis imbricatis. Stamina 4–6, filamentis oblongo-quadratis apice incrassatis; antheræ terminales, filamento multo breviores angustioresque, didymæ, loculis globosis connectivum superantibus parallelis rimis extrorsum dehiscentibus; pollen pulvereum. Ovarium prismaticum, 4–6-gonum, 1-loculare, vertice crasso tumido; stigma sessile, pulvinare; ovulum solitarium, sessile, basilare v. subbasilare, anatropum. Fructus . . .—Herba gracilis, caudice brevi erecto. Folia graciliter petiolata, sagittata v. hastata, lobis elongatis angustis acuminatis, terminali medio costato nervis lateralibus utrinque 2, lateralibus terminali æquilongis horizontalibus v. deflexis, costa margini inferiori propinquiore, petiolo sparse aculeato. Pedunculus gracillimus, inermis v. aculeis paucis armatus. Spatha erecta, anguste cymbiformis, obtusa, purpurea, dorso infra medium 1-costata, crassiuscula, ab ima basi aperta. Spadix spatha brevior, longiuscule stipitatus, stipite basi dorso spathæ adnatus, parte florifera cylindracea obtusa, purpureus demum pallidus, densiflorus.

Species 1, Borneensis.

89. **Urospatha,** *Schott, Aroid.* 3, *t.* 7 *ad* 10; *Gen. Aroid. t.* 86.—Flores in spadice inappendiculato hermaphroditi, inferiores steriles. Perianthii segmenta 4–6, subtruncata, fornicata, varie imbricata. Stamina 4–6, filamentis brevibus latis complanatis apicibus abrupte angustatis; antheræ filamento breviores, terminales, loculis connectivum superantibus ovato-oblongis rimis subterminalibus extrorsum dehiscentibus. Ovarium ovoideum v. obconoideum, imperfecte 2-loculare; stigma sessile pulvinare; ovula 2–∞, funiculis subelongatis angulo interiori affixa, anatropa, erecta, micropyle parva. Baccæ obovoideæ, 2- v. abortu 1-loculares, 1–2-spermæ. Semina suberecta, meniscoidea, testa crassiuscula scrobiculata, umbilico majusculo, albumine carnoso; embryo curvus, teres.—Herbæ paludosæ, rhizomate crasso, petiolis pedunculisque lævibus v. verrucosis. Folia pauca, sagittato-hastata, nervis divergentibus v. costæ subparallelis, petiolo elongato basi vaginante. Pedunculus elongatus. Spatha erecta, basi clausa, dein aperta, superne longe angustata, recta decurva v. torta, persistens. Spadix sessilis v. subsessilis, spatha multo brevior.

Species ad 10, Americæ tropicæ incolæ. *Engl. Arac.* 275, *et in Mart. Fl. Bras.* iii. ii. *t.* 23. *Peyritsch, Aroid. Maximil. t.* 16. *Pœpp. et Endl. Nov. Gen. et Sp.* iii. *t.* 296 (*Spathyphyllum*). *Rudge, Pl. Gui. t.* 34 (*Pothos*). *U. desciscens*, Schott, species spatha brevi fornicata et ovario in stylum producto nobis ignotum est.

90. **Anaphyllum,** *Schott, Gen. Aroid. t.* 83.—Flores in spadice stipitato inappendiculato hermaphroditi, omnes fertiles. Perianthii segmenta 4, late obovata, apicibus latis subtruncatis fornicatis irregulariter imbricatis. Stamina 4, filamentis latis complanatis apicibus abrupte angustatis; antheræ terminales, loculis connectivum superantibus sacciformibus subparallelis poris latis apicalibus extrorsum dehiscentibus. Ovarium late ovoideum v. oblongum, 1-loculare; stigma sessile, disciforme; ovulum solitarium, semi-anatropum,

funiculo brevi placentæ parietali affixum, micropyle ampla infera. Baccæ obovoideæ . . . —Herba elata, caudice prorepente. Folia membranacea, ampla, juniora sagittato-hastata, adulta pedatipartita, segmentis remotis sessilibus v. inferioribus petiolulatis elongato-lineari-lanceolatis integerrimis acuminatis, petiolo valde elongato gracili ima basi vaginante. Pedunculus prælatus, gracillimus. Spatha lanceolata, longe acuminata, inferne breviter convoluta, superne torta, membranacea, decidua. Spadix spatha multo brevior, cylindraceus, stipite spathæ adnato.

Species 1, Peninsulæ Indiæ orientalis incola. *Engl. Arac.* 274.

91. **Ophione,** *Schott in Œsterr. Bot. Wochenbl.* 1857, 101; *Gen. Aroid. t.* 89.—Flores in spadice subsessili inappendiculato hermaphroditi, omnes fertiles. Perianthii segmenta 4-5, cuneata, apicibus late dilatatis truncatis dorso tuberculatis, irregulariter imbricata. Stamina 4-5, filamentis linearibus dorso subcarinatis, apicibus abrupte angustatis; antheræ terminales, loculis connectivum superantibus contiguis erectis obovoideis, rimis subapicalibus hiantibus dehiscentibus. Ovarium breviter ovoideum, 4-5-loculare, in stylum crassum conicum attenuatum, stigmate parvo obscure 4-lobo; ovula in loculis solitaria, semi-anatropa, funiculis brevibus placentis angulo interiori adnatis affixa, micropyle infera. Fructus . . .—Herba tuberosa. Folia . . . Pedunculus ultra vaginas exsertus, gracilis. Spatha lanceolata, superne convoluta, margine superiore reflexo. Spadix spatha multo brevior, brevissime stipitatus, cylindraceus, obtusus, deorsum florens.

Species 1, Novæ Grenadæ incola. *Engl. Arac.* 281. Exemplar mancum tantum vidimus. Descriptio ex icone et descriptione Schottii desumpta.

92. **Cyrtosperma,** *Griff. Notul.* iii. 149; *Ic. Pl. Asiat. t.* 169.—Flores in spadice inappendiculato hermaphroditi, omnes fertiles. Perianthii segmenta 4-8, subtruncata, fornicata, varie imbricata. Stamina 4–8, filamentis brevibus latis complanatis apicibus abrupte angustatis; antheræ filamento breviores, terminales, loculis connectivum superantibus ovato-oblongis rimis elongatis extrorsum dehiscentibus. Ovarium cylindraceo-ovoideum, 1-loculare; stigma sessile, pulvinare; ovula 1–2 v. plura, semi-anatropa, funiculis elongatis placentis parietalibus ad apicem loculi extensis 2-seriatim affixa, micropyle infera ampla. Baccæ globosæ, confertæ, læves, oligo- rarius 5–7-spermæ. Semina reniformia v. rotundata, compressa, cristata, testa crassula crustacea, albumine parco carnoso; embryo curvus.—Herbæ rhizomate tuberoso v. elongato, petiolis pedunculisque sæpissime spinulosis v. verrucosis. Folia hastata, lobis posticis elongatis, nervis patentibus arcuatis, petiolo elongato basi vaginante. Spatha ovato-lanceolata v. oblonga, ima basi convoluta, dein aperta, lamina recta v. torta, tota diu persistens. Spadix spatha brevior, sessilis v. stipitatus, cylindraceus v. globosus, densiflorus, deorsum florens.

Species ad 16, Asiæ, Africæ et Americæ tropicæ incolæ. *Engl. Arac.* 268, *et in Bull. Soc. Tosc. Ortic.* 1879, 295. Genus in sectiones sequentes divisum:—

1. *Eucyrtosperma*, Engl. Arac. 270. Sæpissime armatæ. Flores 6-meri. Ovarium 2-ovulatum. —Asiaticæ. *Schott, Gen. Aroid. t.* 84. *Ill. Hortic.* xxvii. t. 395 (*Alocasia*).

2. *Lasimorpha*, Engl. Arac. 269. Armatæ. Flores 5–6-meri. Ovarium pluri-ovulatum. LASIMORPHA, *Schott in Bonplandia*, v. 127; *Gen. Aroid. t.* 85.—Africanæ.

3. *Polytomophyllum*, Engl. Arac. 272. Flores 4-meri. Ovarium 1–2-ovulatum. Foliorum lobi postici pinnatifidi v. pinnatipartiti. *Engl. in Mart. Fl. Bras.* iii. ii. *t.* 22.—Americanæ.

93. **Spathiphyllum,** *Schott, Melet.* i. 22; *Gen. Aroid. t.* 93; *Aroid.* i. *t.* 1 *ad* 6.—Flores in spadice inappendiculato hermaphroditi, omnes fertiles. Perianthii segmenta 4, 6, v. 8, connata v. in cupulam truncatam v. lobatam cohærentia, apicibus truncatis v. fornicatis et regulariter imbricatis 3–4 exterioribus interiores tegentibus. Stamina 4, 6 v. 8, filamentis brevibus plano-convexis antheris angustioribus v. latioribus; antheræ terminales, loculis connectivum superantibus oblongis erectis rimis elongatis extrorsum dehiscentibus. Ovarium oblongum, 3–4-loculare, truncatum v. in stylum conicum brevem v. elongatum et longe exsertum productum, stigmate 3-6-lobo; ovula in loculis 2–8, anatropa, funiculis

brevibus adscendentibus placentis angulo interiori adnatis 2-seriatim affixa, micropyle infera. Baccæ globosæ v. oblongo-conicæ, 3-loculares, loculis 1–2-spermis. Semina oblonga, recta v. curvula, umbilico laterali, testa coriacea v. crasse crustacea striato-granulata v. -foveolata, raphe prominula, albumine copioso; embryo axilis.—Herbæ subacaules, raphidibus instructæ. Folia oblonga v. lanceolata, acuminata v. cuspidata, costa valida, nervis tenuibus arcuatis, petiolo elongato longe vaginante sæpissime apice geniculato. Spatha foliacea, membranacea, oblonga v. lanceolata, acuta acuminata v. caudato-acuminata, demum late explanata, accrescens et persistens. Spadix spatha brevior, sessilis v. stipitatus, stipite interdum spathæ adnato, cylindraceus, densiflorus, sursum florens.

Species ad 20, Americæ tropicæ incolæ, cum 2 Malayanis. *Engl. Arac.* 219, 641; *et in Bull. Soc. Tosc. Ortic.* 1879, 268. Genus ab Englero in sectiones sequentes male definitas divisum:—

1. *Euspathiphyllum*, Engl. Arac. 220, et in Mart. Fl. Bras. iii. ii. t. 16, f. 3. Perianthii segmenta 6–8, biseriata, sæpius distincta. Ovarium 3-4-loculare, stylo pyramidato exserto. *Schott, Aroid. t.* 3, 3 B, 5, 6. *Regel, Gartenfl. t.* 738. *Jacq. Coll.* iv. 118; *Ic. Rar.* iii. *t.* 612 (*Dracontium*). HYDNOSTACHYON, *Liebm. in Vidensk. Meddel.* 1849, 24.

2. *Amomophyllum*, Engl. Arac. 227. Perianthii segmenta distincta. Ovarium truncatum, stylo obsoleto; ovula in loculis 2, medio septo affixa. *Ill. Hortic.* 1877, *t.* 159 (*Anthurium*). *Masters in Gard. Chron.* 1875, i. *f.* 109 (*Anthurium*). AMOMOPHYLLUM, *Engl. in Gard. Chron.* 1877, i. 139. *Regel, Gartenfl.* 920.

3. *Massowia*, Engl. Arac. 228. Perianthii segmenta in cupulam truncatam v. 6-lobam connata. Stamina 6. Ovarium 3-loculare, vertice planiusculo, stigmate sessili triangulari, loculis 2–6-ovulatis. *Schott, Aroid. t.* 1. *Engl. in Mart. Fl. Bras.* iii. ii. *t.* 16, *f.* 1, 2. *Pœpp. et Endl. Nov. Gen. et Sp.* iii. *t.* 295. *Miq. in Ann. Mus. Lugd. Bat.* iii. *t.* 1, 2. *Lodd. Bot. Cab. t.* 471 (*Pothos*). *Bot. Mag. t.* 603 (*Pothos*). *André in Ill. Hort.* xxiv. *t.* 269 (*Anthurium*). MASSOVIA, *C. Koch in Bot. Zeit.* 1852, 277. SPATHIPHYLLOPSIS, *Teysm. et Binnend. in Nat. Tijdschr. Neerl. Ind.* xxvii. 16, *ex Miq. in Ann. Mus. Lugd. Bat.* iii. 79. LEUCOCHLAMYS, *Pœpp. in Herb.*

4. *Ambliscoon*, N. E. Brown, mss. Perianthii segmenta in urceolum oblongum 4-gonum truncatum connata. Ovarium oblongum, 2–4-loculare, stylo brevi; ovula angulo interiori affixa. Bacca monosperma.—*Ins. Aru.*

94. **Anthurium**, *Schott in Wien. Zeitschr.* iii. 828; *ex ejus Ic. Aroid. t.* 11 *ad* 20; *Gen. Aroid. t.* 94.—Flores in spadice inappendiculato hermaphroditi, omnes fertiles. Perianthii segmenta 4, cuneata v. oblonga, apicibus fornicatis, exteriora interiora sæpe includentia, post anthesin aucta. Stamina 4, filamentis complanatis ovatis linearibus oblongis v. triangularibus; antheræ terminales, loculis connectivum superantibus erectis v. divergentibus rimis porisve magnis dehiscentibus. Ovarium oblongum ovoideum v. obovoideum, 2-loculare, vertice truncato v. in stylum brevem conicum attenuato; stigma parvum, discoideum v. oblongum et 2-lobum, lobis conniventibus; ovula in loculis 1–2, anatropa v. campylotropa v. fere orthotropa, ovoidea v. lageniformia, funiculis brevibus placentis spongiosis medio v. apicem versus septi adnatis affixa, micropyle infera. Baccæ forma variæ, 2-loculares, loculis rarius 2-spermis, maturitate gradatim e perianthio protrusæ et filis binis e marginibus segmentorum solvendis spadici appensæ. Semina oblonga, planoconvexa v. hippocrepica, micropyle prominula, testa striata verrucosa granulata v. punctulata, albumine carnoso; embryo axilis.—Herbæ perennes, v. frutices caudice robusto brevi v. elongato suberecto v. scandente et radicante, vaginæ oppositifoliæ sæpe defectu foliorum superpositæ. Folia integra, lobata v. partita, crasse coriacea, petiolo brevi v. elongato tereti v. sulcato apice geniculato basi breviter vaginante. Pedunculi sæpius elongati. Spatha ovata elliptica v. lanceolata, crasse coriacea, explanata v. cucullata v. torta, in pedunculum sæpe desinens, persistens et accrescens. Spadix sessilis v. stipitatus, cylindraceus v. conicus, interdum valde elongatus, fructifer plerumque auctus, sursum florens.

Species ad 160 bene notæ, Americæ tropicæ incolæ. *Engl. Arac.* 103 *et* 637, *et in Mart. Fl. Bras.* iii. ii. *t.* 7 *ad* 15. *Pœpp. et Endl. Nov. Gen. et Sp.* iii. *t.* 293, 294. *H. B. et K. Nov. Gen. et Sp.* i. *t.* 18 *ad* 20 (*Pothos*). *Vell. Fl. Flum. Ic.* ix. *t.* 121 *ad* 126 (*Pothos*). *Saund. Ref. Bot. t.* 14, 257,

265 *ad* 281. *Lodd. Bot. Cab. t.* 567, 632, 1301, 1673 (*Pothos*). *Hook. Exot. Fl. t.* 55, 122, 210, 211 (*Pothos*). *Jacq. Stirp. Amer. t.* 153; *Ic. Rar.* iii. *t.* 609 *ad* 611; *Fragm. t.* 1 (*omnia sub Potho*). *Regel, Gartenfl. t.* 482, 501, 508, 519, 540, 558, 681, 702, 719, 720, 723, 873. *Fl. des Serres, t.* 1794–5. *Lemaire, Ill. Hortic. t.* 283 (*Alocasia*) *et t.* 314; 1873, *t.* 128; 1877, *t.* 271. *Peyritsch, Aroid. Maximil. t.* 4 *ad* 11. *Masters in Gard. Chron.* 1876, ii. *fig.* 139, 140; 1879, ii. *f.* 47. *Bot. Reg. t.* 1635. *Bot. Mag. t.* 2801, 2953, 2987 (*Pothos*), *et t.* 5319, 5848, 6261, 6339. Genus in sectiones 17 ab Englero, et in greges 28 a Schottio divisum, ad characteres valde complexas habitus, foliorum, inflorescentiæ et florum stabilitas.

95. **Pothos,** *Linn. Gen. n.* 1031.—Flores in spadice stipitato inappendiculato hermaphroditi, omnes fertiles. Perianthii segmenta 6, apicibus fornicatis. Stamina 6, filamentis brevibus v. elongatis linearibus v. dilatatis; antheræ terminales, loculis connectivum superantibus erectis ellipsoideis rimis extrorsum dehiscentibus. Ovarium ovoideum oblongum v. depressum, 3-loculare; stigma sessile, hemisphæricum; ovula in loculis solitaria, anatropa, funiculis brevibus adscendentibus placentis angulo interiori adnatis affixa, micropyle infera. Baccæ ellipsoideæ v. obovoideæ, 1–3-spermæ. Semina ellipsoidea v. obovoidea, sæpe compressa, umbilico laterali, testa crassiuscula, albumine 0; embryo macropodus.—Frutices alte scandentes, ramosissimi, ramulis inferioribus radicantibus, summis patentibus, gemmis axillaribus v. quasi infra-axillaribus et vaginam folii perforantibus. Folia disticha, oblique lineari- v. ovato-lanceolata, lamina interdum deficiente, costa distincta, nervis sæpissime a basi laminæ egredientibus, petiolo alato v. explanato et foliaceo, apice geniculato v. auriculato, basi vaginante. Pedunculi axillares v. infra-axillares, foliosi, vaginati v. nudi. Spatha parva, ovata v. conchoidea, rarius elongata, reflexa, viridis, accrescens v. persistens. Spadix spatha brevior, stipite elongato, clavatus globosus v. ovoideus, sæpe decurvus, interdum tortus v. flexuosus, sursum florens, floribus contiguis v. dissitis.

Species ad 40 enumeratæ, sed insigniter polymorphæ et verisimiliter ad 20 reducendæ, Asiæ tam continentalis quam insularis, Australiæ et insularum Pacificarum incolæ, una Madagascariensis. *Engl. Arac.* 78, *et in Bull. Soc. Tosc. Ortic.* 1879, 266. *Schott, Gen. Aroid. t.* 95; *Aroid. t.* 31 *ad* 56. *Wight, Ic. t.* 776. *Hook. Ic. Pl. t.* 133, 175.

GONIURUS, *Presl, Epimel. Bot.* 244, ad species spadice contorto et floribus spiraliter dispositis constitutus est.

96. **Pothoidium,** *Schott, Aroid.* i. 26, *t.* 57; *Gen. Aroid. t.* 96.—Flores in spadicibus paniculatis inappendiculatis hermaphroditi, omnes fertiles. Perianthii segmenta 6, concava, imbricata, apicibus fornicatis. Stamina 6, filamentis late ovatis complanatis dilatatis longe exsertis, apicibus acutatis; antheræ breves, terminales, loculis connectivum superantibus subglobosis erectis rimis hiantibus extrorsum dehiscentibus. Ovarium obovoideum, 1-loculare, vertice depresso; stigma sessile, hemisphæricum; ovulum solitarium, anatropum, funiculo brevi adscendente placentæ subbasilari affixum, micropyle infera. Fructus . . .—Frutex scandens, ramis gracilibus teretibus foliosis. Folia disticha, triangulari-lanceolata, acuminata, coriacea, petiolo lineari elongato laminæ æquilato et multo longiore plano basi semiamplexicauli, nervis parallelis laminam et petiolum percurrentibus. Spadices in ramos axillares elongatos basi vaginatos paniculati, graciliter pedicellati, cylindracei, longe stipitati, basi spatha parva conchiformi reflexa suffulti.

Species 1, Archipelagi Malayanæ incola. *Engl. Arac.* 94.

97. **Acorus,** *Linn. Hort. Cliff.* 137; *Gen. n.* 434.—Flores in spadice inappendiculato hermaphroditi, omnes fertiles. Perianthii segmenta 6, rotundata, concava, apicibus fornicatis, 3 exteriora interiora obtegentia. Stamina 6, filamentis linearibus complanatis apicibus angustatis; antheræ terminales, reniformes, loculis connectivum superantibus erectis late ellipsoideis rimis latis confluentibus dehiscentibus, valvis lateralibus demum recurvis. Ovarium oblongo-conoideum, truncatum v. obtusum, 2–3-loculare; stigma sessile, punctiforme; ovula in loculis plura, orthotropa, subfusiformia, funiculis brevibus ab apice loculi pendulis, micropyle infera. Baccæ oblongæ v. ovoideæ, 2–3-loculares, loculis

oligospermis. Semina oblongo-cylindracea, pendula, testa coriacea, micropyle interdum longissime fimbriata, albumine carnoso; embryo axilis.—Herbæ paludosæ, aromaticæ, rhizomate repente ramoso. Folia disticha, ensiformia, basi equitantia, longitudinaliter nervosa, pedunculis foliiformibus elongatis. Spatha obsoleta v. margini pedunculi adnata, ultra spadicem in laminam ensiformem producta. Spadix cylindraceus, densiflorus, sursum florens.

Species ab auctoribus inordinate multiplicatæ, ab Englero (*Arac.* 215) rite ad 2 reductæ, in regionibus temperatis hemispheriæ borealis obviæ. *Schott, Gen. Aroid. t.* 98. *Gærtn. Fruct.* ii. *t.* 84. *Lam. Illustr. t.* 252. *Schkuhr, Handb.* 1, *t.* 97. *Nees, Gen. Pl. Germ. Monocot.* iii. *n.* 37. *L. C. Rich. in Guillem. Archiv.* i. *t.* 3. *Smith, Spicileg. t.* 17. *Griff. Ic. Pl. Asiat. t.* 162.

98. **Gymnostachys**, *R. Br. Prod.* 337.—Flores in spadicibus racemosis inappendiculatis hermaphroditi, omnes fertiles. Perianthii segmenta 4, subquadrato-rotundata, apicibus fornicatis, 2 exteriora interiora obtegentia. Stamina 4, filamentis late oblongis complanatis; antheræ terminales, breves, loculis connectivum superantibus ellipsoideis divergentibus rimis extrorsum dehiscentibus. Ovarium ovoideo-oblongum, 1-loculare; stigma subsessile, pulvinare; ovulum orthotropum, ovoideum, funiculo brevissimo ab apice loculi pendulum, micropyle infera. Baccæ ellipsoideæ, apiculatæ. Semen ovoideum, pendulum, testa tenui, albumine duro copioso; embryo axilis.—Herba tuberibus fusiformibus, post folium caulem gracilem 4-gonum proferens. Folia radicalia elongata, angusta, graminea, longitudinaliter nervosa; caulina brevia, carinata. Spadices apicem versus caulis, graciles, cylindracei, solitarii v. 2–4 ni, pedunculati, pedunculo basi vaginis 2–3 lanceolatis bracteato, floribus numerosis remotis, fructiferi nutantes.

Species 1, Australiæ orientalis incola. *Engl. Arac.* 218. *Schott, Gen. Aroid. t.* 97.

Ordo CXCII. LEMNACEÆ.

Endl. Gen. Pl. 232. Hegelmeier, Die Lemnaceen, Leipzig, 1868. Pistiaceæ, partim, Lindl. Veg. Kingd. 124.

Flores monoici, e rimis marginalibus v. superficialibus herbulæ emergentes, nudi v. spatha membranacea monophylla primum clausa demum rupta instructi. *Perianthium* 0. Fl. ♂: *Stamina* 1 v. 2; filamenta filiformia v. medio incrassata v. 0. *Antheræ* 1-loculares, v. 2-loculares loculis subglobosis superpositis rimis transversis dehiscentibus; pollen globosum. Fl. ♀: *Ovarium* sessile, 1-loculare, in stylum late infundibularem attenuatum; stigma simplex. *Ovula* 1-7, fundo ovarii inserta, erecta v. horizontalia, anatropa semi-anatropa v. orthotropa. *Utriculus* subcarnosus, indehiscens v. circumscissus, 1–7-spermus. *Semina* erecta v. horizontalia; testa coriaceo-carnosa, costata, operculatim dehiscens, membrana interiore hyalina; albumen carnosum v. parcum v. 0. *Embryo* inclusus, axilis, rectus, radice supera infera v. vaga, plumula extremitati radiculari propior, rimula immersa; radicula germinatione operculum testæ auferens.

Herbulæ parvæ v. minutæ, gregariæ, natantes v. submersæ, simplicissimæ v. rimis marginalibus proliferæ, lenticulares v. subglobosæ, supra lævigatæ, subtus spongiosæ, bulbillis autumno fundum, vere superficiem, aquæ petentibus magis quam seminibus multiplicantes; radices 0, v. 1–∞, liberi, simplices, filiformes.

Species ad 20, in aquis dulcibus tam tropicis quam temperatis vigentes.

Ordo quoad characteres fructificationis cum *Aroideis* proxime cognatus, sæpeque pro harum tribu habitus, affinitas tamen arcta *Lemnacearum* cum *Pistia* a nonnullis ficta, nullo modo confirmatur, nec cum hoc genere connectuntur nisi characteribus cum omnibus *Aroideis* communibus. *Pistia* revera *Ambrosiniæ* proxime accedit, dum *Lemnaceæ*, vegetatione in omnibus *Monocotyledoneis* singulari, locum sibi vindicant ordinis proprii, *Aroideis* stricte finitimæ, etsi distinctæ.

CONSPECTUS GENERUM.

1. Lemna. Flores rimis marginalibus frondis inserti. Stamina 1–2, antheris 2-locularibus. Plantulæ radicibus instructæ.—*Reg. temp. et trop.*

2. Wolffia. Flores e superficie frondis erumpentes. Stamen 1, anthera 1-loculari. Plantulæ arhizæ.—*Europa, Ind. or., Africa, Amer.*

GENERA EXCLUSA.

Pistia, Linn., et Ambrosinia, Linn., a Lindleyo aliisque *Lemnaceis* associatæ, inter **Aroideas** quærendæ.

1. **Lemna,** *Linn. Gen. n.* 1038.—Fl. ♂ 2-ni, alter altero præcocior. Stamen 1, filamento filiformi v. medio dilatato recurvo; anthera 2-locularis, globosa, loculis rimis transversis dehiscentibus; pollen globosum, muricatum. Fl. ♀ solitarius, masculo contiguus. Ovarium 1–7-ovulatum; ovula anatropa semi-anatropa v. orthotropa. Utriculus 1–7-spermus. Semina erecta v. horizontalia; embryo conicus v. ovoideus.—Herbulæ ovoideæ v. lanceolatæ, radicibus instructæ, basi v. a latere proliferæ. Flores rimæ marginali herbulæ inserti, spatha minuta primum inclusi.

Species 7, aquarum dulcium totius orbis temperatæ et tropicæ incolæ. Genus in sectiones 3 divisum:—

1. *Eulemna.* Ovulum 1, orthotropum v. semi-anatropum. Semen horizontale, albumine copioso. Radix solitarius. *Hegelm. Lemn.* 134, *sp.* 1–6, *t.* 5 (*Lemna, sect. Hydrophace*). *Schkuhr, Handb. t.* 281. *Brongn. in Guillem. Archiv.* ii. *t.* 12, *f.* 1. *Hook. Fl. Lond. t.* 120. *Lam. Illustr. t.* 747, *f.* 1, 2. *Reichb. Ic. Fl. Germ.* vii. *t.* 14, 15. *Nees, Gen. Fl. Germ. Monocot.* iii. *n.* 42. *Griff. Ic. Pl. Asiat. t.* 262 *ad* 264.

2. *Telmatophace.* Ovula 2–7, erecta, anatropa. Semina erecta, anatropa, albumine parco v. 0. Radix solitarius. *Hegelm. Lemn.* 145, *t.* 11, 12, 13, *f.* 1–9. *Schkuhr, Handb. t.* 281. *Hook. Fl. Lond. t.* 119. *Hook. Bot. Misc. t.* 42. *Brongn. in Guillem. Archiv.* 1, *t.* 6, ii. *t.* 12, *f.* 2. *Lam. Illustr. t.* 747, *f.* 3. *Reichb. Ic. Fl. Germ.* vii. *t.* 14. *Nees, Gen. Fl. Germ. Monocot.* iii. *n.* 42. Telmatophace, *Schleid. in Linnæa,* xiii. 391.

3. *Spirodela.* Ovula 2, erecta, anatropa. Fructus . . . Radices plurimi. *Schkuhr, Handb. t.* 281. *Lam. Illustr. t.* 747, *f.* 4. *Reichb. Ic. Fl. Germ.* vii. *t.* 15. Spirodela, *Schleid. in Linnæa,* xiii. 391. *Hegelm. Lemn.* 147, *t.* 16.

2. **Wolffia,** *Horkel*; *Schleid. in Linnæa,* xiii. 389. (Horkelia, *Reichb. ex Bartl. Ord. Nat.* 76. Grantia, *Griff. Notul.* iii. 226; *Ic. Pl. Asiat. t.* 266 *ad* 268. Bruniera, *Franchet in Billotia,* 1864, 25.)—Fl. ♂ solitarius. Stamen 1, filamento brevi v. elongato; anthera globosa, 1-locularis; pollen læve. Fl. ♀ solitarius, stamini contiguus. Ovarium globosum v. ovoideum; ovulum 1, orthotropum. Utriculus sphæricus. Semen globosum, erectum, testa crassa, albumine parco; embryo oblongus.—Herbulæ minutissimæ, planiusculæ globosæ v. subtus in conum interdum elongatum productæ, arhizæ, basi proliferæ. Flores rimæ superficiali herbulæ inserti; spatha 0.

Species 12, in Europa, India orientali, Africa tropica et America tropica et temperata detectæ. *Hegelm. Lemn.* 121. *Welw. in Seem. Journ. Bot.* 1865, 110, *t.* 29. *Lam. Illustr. t.* 747 (*Lemna*). *Reichb. Ic. Fl. Germ.* vii. *t.* 14 (*Lemna*). *Hoffm. in Hœv. et Vriese, Tijdschr.* iv. 282, *t.* 3, *et in Ann. Sc. Nat. ser.* 2, xiv. 223, *t.* 10 *ad* 12, *excl. fig.* 6–8 *et* 9, *d–n.*

Ordo CXCIII. TRIURIDEÆ.

Lindl. Veg. Kingd. 213

Flores monoici dioici v. rarissime polygami. *Perianthium* 3-, 4-, 5-, 6- v. 8-partitum v. -lobatum; segmenta lobive 1-seriata, æqualia v. inæqualia, ovata subulata lanceolata v. e basi lata abrupte longe caudata, æstivatione valvata, apicibus inflexis v. induplicatis, post anthesin persistentia reflexa. Fl. ♂: *Stamina* 2, 3, 4 v. 6, receptaculo v. ima basi peri-

anthii inserta ; filamenta brevissima v. 0. *Antheræ* liberæ v. receptaculo discove crasso immersæ, 2-loculares, loculis subglobosis demum confluentibus, rimis confluentibus transverse dehiscentibus ; pollen globosum. *Ovarii rudimenta* minuta v. 0, rarius stylodia 3, subulata, erecta. Fl. ♀ : *Staminodia* 0, v. rarissime antheræ 2 v. plures imperfectæ. *Ovarii carpella* numerosa, in receptaculo tumido sessilia, 1-locularia. *Stylus* nunc terminalis subulatus, stigmate acuto v. truncato, nunc ventralis v. fere basilaris ovario brevior, stigmate clavellato v. aspergilliforme. *Ovula* in carpellis solitaria, in angulo interiore basilaria, sessilia, erecta, anatropa, raphe ventrali, integumento unico, micropyle majuscula. *Carpella matura* numerosa, in globum conferta, pyriformia v. obovoidea, recta v. curva, decidua, stylo persistente instructa ; pericarpium crasse coriaceum carnosum v. cellulosum, facie dorsali et vertice longitudinaliter dehiscens. *Semen* pericarpio conforme, erectum, pyriforme v. ellipsoideum, sessile ; testa crasse carnosa, cellulosa, nucleo adhærens, raphe percursa ; nucleus homogeneus, dense carnosus, albus, oleosus, e granulis arcte connatis ; embryo si adsit nos omnino effugit.

Herbulæ aphyllæ, simplices, tenues, rigidulæ, totæ albæ flavæ rubellæ v. roseæ, caule stricto v. flexuoso hic illic squamis paucis instructo, basi radices elongatas paucas simplices flexuosas rigidas emittente. Flores parvuli v. minuti, pauci et subcorymbosi, v. plures racemosi, pedicellis decurvis rigidulis basi bractea membranacea auctis. Perianthium stellatim-patens, segmentis non raro papillosis v. apicibus barbellatis.

Species ad 16, Americæ australi-orientalis, Indiæ orientalis et Archipelagi Malayani incolæ, ut videtur supra ligna et folia putrescentia vigentes, more *Voyriæ* et *Burmanniæ* specierum.

Ordo nulli arcte affinis, etsi *Alismaceis* plus quam ullis aliis floribus conveniens; ab illis recedit habitu terrestri, perianthii segmentis 1-seriatis valvatis, seminibusque. Seminis nucleus ulterius scrutandus, an albumine sit embryone inconspicuo, ut in *Balanophoreis*; vel embryo homogeneus ?.

CONSPECTUS GENERUM.

1. Triuris. Perianthium 3- v. 6-lobum. Antheræ receptaculo magno conoideo immersæ Stylus terminalis v. subterminalis.—*Brasilia*.

2. Sciaphila. Perianthium 3–8-partitum v. profunde lobatum. Antheræ ima basi perianthii sessiles v. subsessiles. Stylus in fructu ventralis v. basilaris.—*Amer. trop.*, *Ind. or.*, *ins. Malay.*

1. **Triuris,** *Miers in Trans. Linn. Soc.* xix. 78, *t.* 7 ; xxi. 57.—Flores dioici. Perianthium profunde 3- v. 6-lobum, lobi e basi lata triangulari-ovata in caudam filiformem lamina 3-4-plo longiorem æstivatione induplicatam inflexam abrupte attenuati. Fl. ♂ : Antheræ 3, sessiles, basin versus receptaculi centralis magni obtuse pyramidati immersæ, remotæ, didymæ, loculis confluentibus rima transversa dehiscentibus. Fl. ♀ : Staminodia 0. Ovarii carpella numerosa, in receptaculo tumido sessilia, anguste ovoidea, in stylum subulatum terminalem v. subterminalem attenuata, stigmate acuto v. oblique truncato. Fructus . . . —Herbæ exiguæ, albæ, diaphaneæ v. flavidæ, caule filiformi 2-4-floro, floribus graciliter pedicellatis, pedicellis basi bracteatis.

Species 2, Brasiliæ incolæ ; altera *T. hyalina*, Miers, *l. c.*, perianthio 3-mero, stigmatibus acutis ; altera, *T. lutea* (Peltophyllum *luteum*, Gardn. in Trans. Linn. Soc. xix. 157, t. 15. Hexuris *Gardneri*, Miers l. c. xxi. 44), perianthio 6-mero et stigmatibus oblique truncatis, cujus flores ♂ ignoti, a nobis non visa est.

2. **Sciaphila,** *Blume*, *Bijdr.* 514 ; *Mus. Bot.* i. 321, *fig.* 48.—Flores monoici v. dioici, rarissime polygami. Perianthium 3-8-partitum v. profunde lobatum ; segmenta ovato-lanceolata v. subulata, æqualia v. alterna paullo longius producta, interdum varie connata, apicibus nudis v. villosis, in æstivatione inflexis. Fl. ♂ : Antheræ 2-6, sessiles, v. filamento brevissimo receptaculo parvo insertæ, didymæ, latiores quam longæ rimis transversis singularibus v. confluentibus extus dehiscentes. Ovarii rudimenta 0 v. minuta v. 3 styliformia. Fl. ♀ : Ovarii carpella numerosa, in receptaculo tumido sessilia ; stylus ventralis, infra medium insertus, nunc brevis cum stigmate aspergilliformi v. clavellato, nunc elongatus et subulatus v. filiformis cum stigmate acuto. Carpella matura ventre et vertice

dehiscentia. Semen erectum, pyriforme v. ellipsoideum.—Herbæ simplices, albæ roseæ v. rubræ, radicibus paucis filiformibus elongatis flexuosis; caulis filiformis v. gracilis, rigidulus, flexuosus, squamis parvis membranaceis. Flores parvi v. minuti, racemosi, pedicellis basi bracteatis decurvis, v. subcorymbosi; bracteæ ad basin pedicellorum membranaceæ.

Species ad 14, Brasiliæ borealis, Venezuelæ, Indiæ orientalis, Archipelagi Malayani et Novæ Guineæ incolæ. *Thw. Enum. Pl. Zeyl.* 294. *Miq. Fl. Ind. Bat.* iii. 232. *Benth. in Hook. Kew Journ.* 1855, 11. Genus in sectiones 2 divisibile :—

1. *Eusciaphila.* Stylus ovario brevior, stigmate clavellato v. aspergilliformi. Sciaphila et Soridium, *Miers in Trans. Linn. Soc.* xxi. 47, 49, *t.* 6 *et* 7, *f.* 10–28. Aphylleia, *Champ. in Calc. Journ. Nat. Hist.* vii. 468.

2. *Hyalisma.* Stylus filiformis, stigmate acuto. Huc pertinet *S. janthina*, Thw. (Hyalisma, *Champ. in Calc. Journ. Nat. Hist.* vii. 468; *Miers in Trans. Linn. Soc.* xxi. 48, *t.* 7, *f.* 1–9), perianthio 8-partito, et species nova, *S. khasiana*, nob., perianthio 4–5-partito, et stylodiis 3 erectis subulatis antheris oppositis et longe superantibus.—Species Asiaticæ.

Ordo CXCIV. **ALISMACEÆ.**

Endl. Gen. Pl. 127 (excl. Juncagineis). Lindl. Veg. Kingd. 209. Butomaceæ, Endl. Gen. Pl. 129. Lindl. Veg. Kingd. 208. Alismaceæ et Butomaceæ, M. Micheli in DC. Monogr. Phanerog. iii. 29, 84. Buchenau in Engl. Bot. Jahrb. ii. 465.

Flores regulares, hermaphroditi, monoici v. polygami, rarissime dioici. *Perianthii segmenta* 6, 2-seriata, v. serie exteriore deficiente rarissime 3, imbricata; exteriora sæpissime herbacea, concava, nervosa, persistentia; interiora sæpius majora, petaloidea, decidua, rarius persistentia. *Stamina* 6 v. plura, rarissime 3, basi perianthii inserta v. hypogyna, verticillata v. spiraliter inserta, sæpius marcescentia, exteriora interdum anantherа; filamenta brevia v. subelongata, filiformi-subulata, teretia v. complanata. *Antheræ* basi v. dorso paullo supra basin affixæ, didymæ oblongæ v. lineares, erectæ utrinque obtusæ v. breviter 2-fidæ, v. connectivo apiculatæ, loculis contiguis rimis lateralibus v. plus minusve dorsalibus dehiscentibus; pollen sphæricum v. obtuse 3-gonum. *Ovarii carpella* 6 v. plura, rarissime 3, receptaculo parvo v. magno plano tumido oblongo v. globoso 1–∞-seriatim inserta, distincta v. basi connata, sessilia v. inferne in stipitem brevem attenuata, 1-locularia. *Stylus* subterminalis v. ventralis, brevis v. subelongatus, rarius 0; stigma terminale punctiforme capitellatum v. ventre rarius dorso styli v. carpelli decurrens. *Ovula* in carpellis solitaria v. 2 superposita, v. numerosa, angulo interiori affixa v. rarissime basilaria et solitaria, in *Butomeis* in placentis reticulatis parietalibus sparsa, anatropa semi-anatropa campylotropa v. amphitropa, micropyle infera. *Carpella matura* distincta v. basi connata, 1-locularia, nucea crustacea coriacea v. membranacea, stylo v. stigmate sæpius terminata, indehiscentia v. sutura ventrali dehiscentia, rarissime ima basi circumscissa. *Semina* parva v. minuta, erecta v. patentia, ovoidea oblonga v. compressa; testa membranacea v. coriacea, lævis rugosa v. subechinata; albumen 0. *Embryo* conduplicatim hippocrepicus, extremitate radiculari sæpius incrassata, cotyledonari attenuata, rarissime rectus; plumula inconspicua, extremitate cotyledonari immersa.

Herbæ aquaticæ v. paludosæ, erectæ v. rarius natantes, sæpissime glabræ, pleræque lactescentes, scapigeræ v. caulescentes, perennes, rarius annuæ; rhizoma brevissimum v. elongatum, interdum surculosum. Folia erecta, rarius natantia, radicalia v. ad nodos caulis repentis conferta, petiolata, linearia lanceolata oblonga v. sagittata, sæpe pellucide punctata v. lineolata, nervis paucis v. plurimis curvis in apicem laminæ convergentibus, nervulis transversis crebris v. distantibus simplicibus v. reticulatis; petiolus sæpissime elongatus, vagina fissa brevi v. elongata. Inflorescentia indefinita, verticillatim racemosa

v. spicata, rarius pseudo-umbellata v. floribus subsolitariis, umbellis verticillisque basi bracteatis; bracteæ 3 v. plures, membranaceæ, bracteolas in axillis parvas foventes. Flores parvi mediocres v. majusculi, pedicellati, basi ebracteolati, albi rosei raro flavi v. azurei.

Species ad 60, in aquis dulcibus totius orbis frigidis exceptis obviæ.

Ordo *Naiadeis* arctissime affinis, et potius pro subordine inflorescentia floribusque magis evolutis habendus; sed habitu, floribus sæpissime verticillatim v. umbellatim paniculatis v. pseudo-umbellatis, perianthio 2-seriato interiore petaloideo, aliisque notis facile recognoscendus. Ab *Hydrocharideis* differt defectu spathæ, inflorescentia, perianthio infero, et embryone sæpissime hippocrepiformi.

Tribus I. Alismeæ. Ovula solitaria, basilaria, v. plura angulo interiori carpelli affixa. Carpella matura indehiscentia v. (in *Damasonio*) basi circumscissa.

* *Ovarii carpella distincta, basi parva inserta, 1-ovulata, matura indehiscentia.*

† *Perianthii foliola interiora petaloidea, exterioribus majora.*

a. *Carpella receptaculo parvo inserta.*

1. Alisma. Flores ☿. Stamina 6–9. Ovuli raphe ventralis. Herbæ foliis erectis, floribus verticillatis v. umbellatis.—*Europ., As. bor., Afr. trop., Amer. bor., Australia.*

2. Elisma. Flores ☿. Stamina 6–9. Ovuli raphe dorsalis. Herba foliis natantibus, floribus subsolitariis.—*Europ. occident.*

3. Limnophyton. Flores monoici, ☿ et ♀. Stamina 6. Ovuli raphe ventralis. Herba succulenta, foliis erectis, floribus verticillatis.—*As. et Afr. trop.*

b. *Carpella receptaculo magno oblongo v. globoso multiseriatim dense conferta.*

4. Sagittaria. Flores monoici v. dioici. Carpella matura lata, valde compressa. Herbæ, verticillis sæpissime 3-floris.—*Reg. trop. et temp.*

5. Echinodorus. Flores ☿. Carpella matura stylo rostrata, in capitulum echinatum congesta, alte costata. Herbæ, verticillis sæpissime multifloris.—*Amer. bor. et trop., Senegambia.*

†† *Perianthii foliola interiora exterioribus multo minora v. 0.*

6. Burnatia. Flores dioici, verticillatim paniculati. Stamina 9. Carpella ∞.—*Afr. trop.*

7. Wisneria. Flores monoici, verticillatim subspicati. Stamina 3. Carpella 3–6.—*Ind. or., Afric. trop, Madagasc.*

** *Ovarii carpella basi lata connata, 2–∞-ovulata, matura basi circumscisse dehiscentia.*

8. Damasonium. Flores ☿. Perianthii foliola interiora magna, petaloidea. Carpella 1-seriata. Herbæ, floribus verticillatim paniculatis.—*Europ., Asia occid., Austral.*

Tribus II. Butomeæ. Ovula numerosa, placentis parietalibus reticulatim ramosis inserta. Carpella matura sutura ventrali dehiscentia.

9. Butomus. Petala marcescentia. Stamina 9. Carpella 6. Embryo rectus. Herba rhizomate repente, foliis 3-quetris erectis.—*Europ., As. med. et bor., Ind. or.*

10. Butomopsis. Petala decidua. Stamina 8–9. Carpella 6–9. Embryo hippocrepicus. Herba annua, foliis ellipticis.—*Asia, Afric. et Austral. trop.*

11. Hydrocleis. Petala decidua. Stamina numerosa. Carpella 2–6, erecta, angusta, stylo elongato. Herbæ, foliis natantibus.—*Amer. trop.*

12. Limnocharis. Petala decidua. Stamina numerosa. Carpella 15–20, dimidiato-ovata, compressissima, in globum conferta; stigma sessile. Herbæ erectæ.—*Amer. trop.*

Tribus I. Alismeæ.

1. **Alisma,** *Linn. Gen. n.* 460.—Flores hermaphroditi. Perianthii foliola 6, 2-seriata, 3 exteriora herbacea, persistentia, post anthesin patentia reflexa v. erecta; 3 interiora majora, petaloidea, decidua. Stamina 6, rarius 9, subperigyna, filamentis subulato-filiformibus; antheræ dorso basi insertæ, oblongæ v. didymæ, subextrorsum dehiscentes. Ovarii carpella pauca v. plurima, receptaculo parvo inserta, distincta; styli ventrales v. subapicales, brevissimi v. subelongati, decidui v. persistentes, stigmatibus terminalibus parvis; ovula solitaria, anatropa, basilaria, funiculo brevi, raphe ventrali. Carpella

matura pauca v. plurima, a latere compressa v. turgida, dorso sæpissime 3-costata, pericarpio coriaceo v. indurato indehiscente. Semina basilaria, erecta, compressa, testa membranacea; embryo complicato-hippocrepicus, extremitate radiculari incrassata.—Herbæ paludosæ, perennes, scapigeræ, acaules. Folia erecta, petiolata, elliptica lanceolata v. sagittata, interdum pellucide punctata v. lineolata. Scapus brevis v. elongatus. Flores umbellati v. in paniculæ ramis ramulisque verticillatis dispositi, nodis 3-bracteatis, longe pedicellati, albi v. pallide rosei.

Species ad 10, Europæ, Asiæ temperatæ et tropicæ, Africæ tropicæ, Australiæ et Americæ incolæ. *Micheli in DC. Monogr. Phanerog.* iii. 31 *et* 46 (*Echinodori sp.* 1–4). *Benth. Fl. Austral.* vii. 184.

Species sub sectionibus sequentibus distributæ:—

1. *Eualisma.* Stamina 6. Ovarii carpella numerosa, 1-seriatim verticillata, matura perianthio patente v. reflexo subtensa, valde compressa, dorso canaliculata. Flores verticillatim paniculati. Species 1 (*A. Plantago*, L.), Europæ, Asiæ et Americæ temperatæ et Australiæ incolæ. *Gærtn. Fruct.* ii. *t.* 84. *Schnitzl. Ic. t.* 49. *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 25. *Mirb. in Ann. Mus. Par.* xvi. *t.* 18. *Red. Lil. t.* 452. *Reichb. Ic. Fl. Germ. t.* 57. *Buchen. in Pringsh. Jahrb.* vii. *t.* 2, *f.* 14 *ad* 20, *et in Engl. Bot. Jahrb.* ii. 480.

2. *Caldesia.* Stamina 6. Ovarii carpella pauca v. numerosa, conferta, matura perianthio patente v. reflexo subtensa, compressa, dorso 3–5-costata. Flores verticillatim paniculati. Species 4 (*A. parnassifolium*, Linn., *A. nymphæifolium*, Griseb., *A. oligococcum*, F. Muell., et *A. acanthocarpum*, F. Muell.), Europæ, Asiæ, Australiæ et Africæ incolæ. *Reichb. Iconogr. Bot. t.* 228; *Ic. Fl. Germ. t.* 56. *Wight, Ic. t.* 322. CALDESIA, *Parlat. Fl. Ital.* iii. 598. *Buchen. in Engl. Bot. Jahrb.* ii. 479, 480.

3. *Baldellia.* Stamina 6. Ovarii carpella numerosa, conferta, matura perianthio reflexo subtensa, dorso crasso 3- ventre 1-costata, lateribus depressis. Flores umbellati. Species 1 (*A. ranunculoides*, Linn.) Europæ et Africæ borealis incola. *Red. Lil.* v. *t.* 268. *Reichb. Iconogr. Bot. t.* 37; *Ic. Fl. Germ. t.* 55. *Cav. Ic.* i. *t.* 55. BALDELLIA, *Parlat. Nuov. Gen. Pl. Monocot.* 1854, 57; *Fl. Ital.* iii. 595. *Buchen. in Pringsh. Jahrb.* vii. *t.* 2, *f.* 1–4 (*Echinodorus*).

4. *Helanthium.* Stamina 9. Ovarii carpella pauca, matura perianthio involuta, turgida, costata. Flores umbellati, Species 2 (*A. tenellum*, Mart., et *A. intermedium*, Mart.), Americæ borealis et australis incolæ. *Seub. in Mart. Fl. Bras.* iii. i. *t.* 13, *f.* 2, *t.* 14. HELANTHIUM, *Engelm. mss.*

2. **Elisma,** *Buchen. in Pringsh. Jahrb.* vii. 25, *t.* 2, *f.* 5–12; *et in Engl. Bot. Jahrb.* ii. 481.—Flores hermaphroditi. Perianthii segmenta 6, 2-seriata, 3 exteriora membranacea, post anthesin patentia, persistentia; 3 interiora majora, petaloidea, decidua. Stamina 6, basi perianthii inserta, filamentis planis subulatis; antheræ breviter oblongæ, subbasifixæ, loculis extrorsum dehiscentibus. Ovarii carpella 10–12, in receptaculo planiusculo conferta, distincta, ovoidea, in stylum brevem terminalem persistentem attenuata, stigmate capitellato; ovula solitaria, basilaria, erecta, anatropa, funiculo brevi, raphe dorsali. Carpella matura oblonga v. ovoideo-oblonga, fere recta, leviter compressa, multicostata, coriacea, stigmate terminali. Semen oblongum, compressum, testa membranacea; embryo complicato-hippocrepicus, extremitate radiculari clavata, cotyledonari attenuata.—Herba pusilla, surculosa, surculis gracilibus fluitantibus ad nodos radicantibus. Folia primordialia subulata, 1-nervia; caulina petiolata, natantia, elliptica, pellucide punctata, 3-nervia, nervis secundariis remotis. Flores ad nodos 1–5, longe pedicellati, albi, 3-bracteati, pedicellis post anthesin decurvis.

Species 1, Europæ occidentalis incola. *Micheli in DC. Monogr. Phanerog.* iii. 40. *Red. Lil.* v. *t.* 285. *Reichb. Ic. Fl. Germ. t.* 54; *Iconogr. Bot. t.* 37 (*omnes, Micheli excepto, sub Alismate*).

3. **Limnophyton,** *Miq. Fl. Ind. Bat.* iii. 242. (Dipseudochorion, *Buchen. in Flora*, 1865, 241.)—Flores polygami, ☿ et ♂. Perianthii segmenta 6, 2-seriata; 3 exteriora herbacea, persistentia, post anthesin reflexa; 3 interiora majora, petaloidea, decidua. Stamina 6, perigyna (in fl. ♂ majora), filamentis filiformi-subulatis compressis; antheræ lineari-oblongæ, dorso basifixæ, loculis subextrorsum dehiscentibus. Ovarii carpella (in fl. ♂ obsoleta) 15–20, in receptaculo parvo planiusculo conferta, distincta, ovoidea; stylus ventralis, brevis, crassus, deciduus, stigmate capitellato; ovula basilaria, anatropa, funiculo brevi, micropyle extera. Carpella matura plurima, distincta, obovoidea,

turgida, dorso 3-costata, pericarpio intus osseo lateribus utrinque cavis. Semina basilaria, erecta, oblonga, compressa, testa membranacea; embryo conduplicatim hippocrepicus, extremitate radiculari incrassata.—Herba erecta, robusta, perennis, acaulis, scapigera, lactescens. Folia erecta, longe crasseque petiolata, late sagittata, pellucide punctulata, nervis 7–11, nervulis obliquis ramosis. Scapus crassus. Flores verticillatim racemosi v. paniculati, nodis 3-bracteatis; superiores in panicula ♂ minores, graciliter pedicellati; inferiores ☿ cum ♂ paucis intermixti, pedicellis crassis post anthesin decurvis.

Species 1, Asiæ et Africæ tropicæ incola. *Micheli in DC. Monogr. Phanerog.* iii. 38. *Baker in Trans. Linn. Soc.* xxix. *t.* 102 (*Alisma*). *Buchen. in Engl. Bot. Jahrb.* ii. 481. Genus habitu floribusque *Echinodoro* affine sed receptaculo et fructu *Alismatis*.

4. **Sagittaria,** *Linn. Gen. n.* 1067.—Flores monoici dioici v. polygami. Perianthii segmenta 6, 2-seriata; 3 exteriora herbacea, persistentia, post anthesin reflexa, erecta v. patentia; 3 interiora majora, petaloidea, decidua. Stamina 9 v. plura, sæpius numerosa, hypogyna v. receptaculo inserta, filamentis filiformi-subulatis compressis; antheræ oblongæ v. lineares, dorso basi affixæ, erectæ, lateraliter v. extrorsum dehiscentes. Ovarii carpella numerosissima, distincta, receptaculo magno globoso v. oblongo densissime spiraliter imbricata, capitata, infima interdum imperfecta; stylus ventralis v. apicalis, brevis v. longiusculus, persistens, stigmatibus papillosis; ovula solitaria, basilaria, anatropa, micropyle extera. Carpella matura perplurima, in receptaculo elevato in globum congesta, orbicularia securidiformia v. dolabriformia, valde compressa, ambitu costata v. alata, alis integris dentatis v. in processus productis, faciebus ecostatis v. costatis sæpe glandulosis. Semina basilaria, erecta, testa membranacea v. tenuiter coriacea, sæpe punctata; embryo conduplicatim hippocrepicus, extremitate radiculari incrassata.—Herbæ paludosæ, sæpissime erectæ, perennes rarissime annuæ, acaules scapigeræ. Folia longe v. sæpius crasse petiolata, elliptico-lanceolata v. sagittata, sæpe pellucido-punctata v. -lineolata. Scapus erectus, gracilis v. robustus. Flores sæpius 3-natim verticillati, spicati v. paniculati, breviter v. longe pedicellati, albi, nodis 3-bracteatis bracteolatisque, in specie unica 1-bracteati.

Species ad 15, in regionibus temperatis et tropicis amphigeæ, in sectiones sequentes dispositæ:—

1. *Eusagittaria.* Flores monoici v. dioici, in verticillos sæpius 3-flores dispositi, superiores ♂, inferiores ♀. Perianthii foliola exteriora post anthesin erecta patentia v. reflexa. Stamina numerosa. Carpella matura valde compressa. *Micheli in DC. Monogr. Phanerog.* iii. 64. *Buchen. in Engl. Bot. Jahrb.* ii. 485. *Gærtn. Fruct.* ii. *t.* 84. *Reichb. Ic. Fl. Germ. t.* 53. *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 26. *Red. Lil.* v. *t.* 279, 280, 411. *Lam. Illustr. t.* 776. *Schkuhr, Handb. t.* 298. *Seub. in Mart. Fl. Bras.* iii. *t.* 15, 16. *Andr. Bot. Rep. t.* 333. *Bot. Mag. t.* 1631, 1632, 1792. *Bot. Reg. t.* 1141.

2. *Lophiocarpus.* Flores monoici, ☿ et ♀ in verticillos 1–3-floros dispositi, ♂ superiores. Perianthii foliola exteriora post anthesin erecta. Stamina 9–15. Carpella matura valde compressa, alata. Lophiocarpus, *Micheli in DC. Monogr. Phanerog.* iii. 60. *Buchenau in Engl. Bot. Jahrb.* ii. 485.

5. **Echinodorus,** *L. C. Rich. in Mém. Mus. Par.* i. 365, *nomen tantum.*—Flores hermaphroditi. Perianthii segmenta 6, 2-seriata; 3 exteriora herbacea, persistentia, post anthesin reflexa v. erecta; 3 interiora petaloidea, majora, decidua. Stamina numerosa, 20 v. plura, hypogyna, filamentis filiformi-subulatis compressis; antheræ oblongæ v. lineari-oblongæ, dorso basifixæ, subextrorsum dehiscentes. Ovarii carpella perplurima, distincta, receptaculo elevato oblongo imbricatim capitata, obovoidea, in stylum oblique apicalem persistentem attenuata, stigmate minuto; ovula basilaria, erecta, anatropa, micropyle extera. Carpella matura numerosa, in capitulum rigide echinatum congesta, obovoidea v. oblanceolata, stylo rigido aristata, plus minusve compressa, alte costata. Semina oblonga, compressa, testa membranacea; embryo conduplicatim uncinatus, extremitate radiculari incrassata.—Herbæ, sæpe elatæ, annuæ v. perennes, acaules, scapigeræ, Folia longe petiolata, elliptica cordata lanceolata v. sagittata, sæpissime pellucide-punctata v. -lineolata. Flores in racemos strictos angustos verticillatos dispositi, verticillis plerumque multifloris, pedicellis breviusculis rigidis, nodis 3-bracteatis, bracteolis numerosis.

Species ad 14, Americæ tropicæ et borealis temperatæ incolæ et una (an potius *Sagittariæ* species) Senegambica. *Micheli in DC. Monogr. Phanerog.* iii. 44, *excl. sp.* 1–4. *Buchenau in Engl. Bot. Jahrb.* ii. 483. *Seub. in Mart. Fl. Bras.* iii. *t.* 13, *f.* 4 (*Alisma*). *Vell. Fl. Flum. Ic.* x. *t.* 31 (*Sagittaria*).

6. **Burnatia,** *Micheli in DC. Monogr. Phanerog.* iii. 81.—Flores dioici, parvuli. Fl. ♂: Perianthii foliola 6, 2-seriata, marcescentia, 3 interiora multo minora. Stamina 9, basi perianthii inserta, filamentis filiformi-subulatis; antheræ lineari-oblongæ, filamentis æquilongæ, basi dorso affixæ, subextrorsum dehiscentes. Carpella rudimentaria ad 12, dolabriformia, compressa. Fl. ♀: Perianthii foliola 3, parva, orbicularia, membranacea, post anthesin patentia. Stamina 0 v. 1–2 imperfecta. Ovarii carpella ad 12, in receptaculo parvo conferta, oblique dimidiato-orbicularia; stigma ventrale, subsessile, papillosum; ovula solitaria, basilaria, anatropa, micropyle ventrali. Carpella matura 6–8, obovato-orbicularia, compressa, ambitu 3-cristata, stigmate minuto ventrali rostrata, pericarpio coriaceo. Semen immaturum late oblongum, testa membranacea; embryo conduplicatim hippocrepicus, extremitate radiculari incrassata.—Herba paludosa, erecta, *Alismatis* facie, acaulis, scapigera. Folia longe petiolata, lineari- v. elliptico lanceolata, acuta, tenuiter 7–9-nervia, nervulis gracillimis obliquis. Paniculæ verticillatim ramosæ, axillis 3-bracteatis, ♂ amplæ, floribus globosis graciliter pedicellatis; ♀ contractæ, floribus multo minoribus subsessilibus.

Species 1, Nubiæ incola.

7. **Wisneria,** *M. Micheli in DC. Monogr. Phanerog.* iii. 82.—Flores monoici, minuti. Perianthii foliola membranacea, v. 3 persistentia, v. 5–6 2-seriata, 3 exterioribus æqualibus v. 2 ceteris minoribus concavis persistentibus, 2 v. 3 interioribus multo minoribus deciduis? Fl. ♂: Stamina 3, receptaculo parvo inserta, filamentis subulatis v. filiformibus; antheræ basifixæ, didymæ v. breviter oblongæ, rimis lateralibus v. subdorsalibus dehiscentes; pollen globosum. Ovarii rudimenta subulata. Fl. ♀: Staminodia setiformia. Ovarii carpella 3–6, ovoidea, receptaculo parvo tumidulo inserta; stylus 0 v. terminalis, subulatus, stigmate minuto; ovulum solitarium, basilare, anatropum. Carpella matura subglobosa, late oblonga v. ellipsoidea, compressa v. turgida, obscure costata, obtusa v. stylo terminali rostrata, pericarpio tenui v. crassiusculo spongioso. Semen oblongum v. subglobosum, testa membranacea; embryo conduplicatim hippocrepicus, extremitate radiculari incrassata.—Herbæ paludosæ v. aquaticæ, acaules, scapigeræ, rhizomate parvo fibras crassas articulatas emittente. Folia longe petiolata, filiformia, lamina 0, v. lamina parva v. majuscula lanceolata v. oblanceolata, costa valida, nervis tenuibus, nervulis obliquis reticulatis. Flores minuti, secus rhachin scapi gracillimi remoti, verticillati, verticillis involucris campanulatis truncatis membranaceis inclusis, floribus seriatim emergentibus, ♂ in involucris superioribus pedicello basi 2-bracteolato, ♀ in inferioribus pedicello ebracteolato.

Species 3: 1. *W. triandra*, Micheli, Malabarica, perianthii foliolis 6, carpellis maturis globosis, stigmate sessili. 2. *W. Schweinfurthii*, Hook. f., Africæ centralis incola, perianthii foliolis 3, carpellis maturis compressis rostratis. 3. *W. filifolia*, Hook. f., Madagascarensis, perianthii foliolis exterioribus 3, uno ceteris multo majore, interioribus 4, carpellis maturis rostratis.

8. **Damasonium,** *Juss. Gen.* 46. (Actinocarpus, *R. Br. Prod.* 342.)—Flores hermaphroditi. Perianthii foliola 6, 2-seriata; 3 exteriora tenuiter membranacea, persistentia, post anthesin patentia v. reflexa; 3 interiora majora, petaloidea, decidua. Stamina 6, perigyna, filamentis subulatis v. filiformibus; antheræ sub-basifixæ, didymæ, loculis extrorsum dehiscentibus. Ovarii carpella 6–10, verticillata, basi lata leviter connata, subulata, in stylum rectum brevem persistentem attenuata, stylo introrsum sub apice stigmatifero; ovula in carpellis 2 superposita v. 8–20, anatropa, inferiora basilaria, erecta, micropyle ventrali, superiora angulo interiori affixa, adscendentia, micropyle dorsali. Carpella matura 6–9, stellatim patentia, a basi lata leviter connata, subulata, rigide coriacea, a latere compressa, lævia v. costata, pungentia, indehiscentia v. supra basin tarde circumscisse dehiscentia, 1-polysperma. Semina inferiora erecta, superiora horizontalia, testa castanea crasse coriacea transverse rugosa, funiculo capillari; embryo hippocrepicus,

extremitate radiculari incrassata.—Herbæ annuæ v. radicibus perennantibus, paludosæ, erectæ, acaules, scapigeræ, lactescentes. Folia omnia radicalia, petiolata, ovata oblonga cordata v. lanceolata, costa valida, nervis utrinque solitariis. Flores in racemos paniculasve amplas ramis verticillatis dispositi, 3-bracteati, albi, pedunculis pedicellisque fructiferis incrassatis.

Species 4, quarum 2 Europæ, Africæ borealis, Asiæque occidentalis incolæ, tertia Australiensis, quarta Californica. *Micheli in DC. Monogr. Phanerog.* iii. 41. *Buchen. in Pringsh. Jahrb.* vii. *t.* 2, *f.* 21 *ad* 27 ; *et in Engl. Bot. Jahrb.* ii. 482. *Benth. Fl. Austral.* vii. 186. *Red. Lil.* vi *t.* 289 (*Alisma*). *Torr. Bot. Whippl. Exped. t.* 21. Ovulum inferius fere campylotropum invenimus in *D. stellato.* Petala in *D. californico* inciso-dentata.

Tribus II. Butomeæ.

9. **Butomus,** *Linn. Gen. n.* 507.—Flores hermaphroditi. Perianthii segmenta 6, 2-seriata, persistentia, petaloidea, imbricata, concava, post anthesin erecta. Stamina 9, hypogyna, 6 per paria foliolis exterioribus 3 singulatim interioribus opposita, filamentis a basi ad apicem attenuatis ; antheræ erectæ, basifixæ, lineari-oblongæ, obtuse 4-gonæ, post anthesin didymæ, rimis lateralibus dehiscentes ; pollen minutissimum, subglobosum. Ovarii carpella 6, in receptaculo plano verticillata, sessilia, basi ventre connata, 1-locularia, in stylum brevem recurvum attenuata, stigmate ventrali incrassato longitudinaliter sulcato ; ovula numerosa, in placentis parietalibus reticulatim ramosis dense conferta, sessilia, adscendentia, anatropa. Carpella matura 6, perianthii basi involuta, coriacea, rostrata, basi ventre cohærentia, sutura ventrali dehiscentia, polysperma. Semina parietalia, lineari-oblonga, adscendentia, testa coriacea profunde sulcata ; embryo elongato-ovoideus, rectus, extremitate radiculari infera paullo angustiore, plumula in extremitate cotyledonari immersa.—Herba glaberrima, paludosa, scapigera, vasis laticiferis destituta, rhizomate repente dense folioso perennante. Folia lineari-elongata, 3-quetra, sensim acuminata, flaccida. Scapus axillaris, cylindraceus, erectus, teres. Flores numerosi, umbellati, rosei ; umbella bracteis brevibus subspathaceis involucrata, pedicellis inæquilongis.

Species 1, Europæ et Asiæ temperatæ incola. *Micheli in DC. Monogr. Phanerog.* iii. 85. *Gærtn. Fruct.* 1, *t.* 19. *Mirbel in Ann. Mus. Par.* xvi. *t.* 18. *Lam. Illustr. t.* 324. *Red. Lil. t.* 209. *Schnizl. Ic.* i. *t.* 50. *Spach, Suites Buff. t.* 115. *Reichb. Ic. Fl. Germ.* vii. *t.* 58. *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 17. *Buchen. in Engl. Bot. Jahrb.* ii. 468.

10. **Butomopsis,** *Kunth, Enum. Pl.* iii. 164. (Tenagocharis, *Hochst. in Flora*, 1841, 369.)—Flores hermaphroditi. Perianthii segmenta 6, 2-seriata, imbricata ; exteriora (sepala) viridia, concava, post anthesin erecta, persistentia ; interiora (petala) majora, petaloidea, tenuissima, decidua. Stamina 8 v. 9, hypogyna, 6 exteriora per paria sepalis 3 interiora singulatim petalis opposita, filamentis membranaceis a basi dilatata sensim attenuatis ; antheræ lineari-oblongæ, basifixæ, rimis lateralibus dehiscentes ; pollen minutissimum. Ovaria carpella 6-9, in receptaculo plano verticillata, sessilia, basi ventre connata, 1-locularia, in stylum brevem attenuata, stigmate capitellato apicem versus styli externo ; ovula numerosa, minima, in placentis parietalibus reticulatim ramosis dense conferta, adscendentia, anatropa. Carpella matura 6-7, sepalis involuta, basi ventre connata, coriacea, sutura ventrali dehiscentia, polysperma. Semina minuta, parietalia, late oblonga, compressa, testa tenuiter coriacea pallida pellucida ; embryo conduplicatim hippocrepicus.—Herba annua, aquatica, simplex, erecta, scapigera, lactescens, rhizomate parvo subtuberoso fibras densas emittente. Folia omnia radicalia, petiolata, elliptica v. elliptico-lanceolata, acuta, 3-7-nervia, petiolo basi vaginante. Scapus folia superans. Flores umbellati ; bracteæ breves, spathaceæ, interiores parvæ, pedicelli inæquilongi. Perianthii foliola exteriora et carpella reticulatim venosa.

Species 2, Asiæ, Africæ et Australiæ tropicæ incolæ. *Micheli in DC. Monogr. Phanerog.* iii. 87. *Benth. Fl. Austral.* vii. 187. *Royle, Ill. Bot. Himal. t.* 95 (*Butomus*). *Buchen. in Engl. Bot. Jahrb.* ii. 468.

11. **Hydrocleis**, *L. C. Rich. in Mém. Mus. Par.* i. 368, *t.* 18, *et* 19, *f.* 1 (*Limnocharis*). (Vespuccia, *Parlat. Nuov. Gen. e Sp. Monocot.* 55.)—Flores hermaphroditi. Perianthii segmenta 6, 2-seriata, 3 exteriora (sepala) herbacea, post anthesin erecta, persistentia ; 3 interiora (petala) majora, tenuissima, decidua. Stamina numerosa, hypogyna, multiseriata, filamentis filiformi-subulatis exterioribus sæpissime anantheris ; antheræ lineares, basifixæ, erectæ, rimis sublateralibus v. extrorsum dehiscentes ; pollen minutissimum. Ovarii carpella 2–8, distincta, in receptaculo planiusculo verticillata, sessilia, elongato-lanceolata, 2-locularia, in stylum brevem attenuata, stigmate terminali et in ventrem styli decurrentia ; ovula numerosa, in placentis parietalibus reticulatim ramosis conferta, sessilia, anatropa v. campylotropa. Carpella matura 6–20, sepalis involuta, distincta, angusta, teretiuscula, tenuiter coriacea, rostrata, sutura ventrali dehiscentia, polysperma. Semina minuta, adscendentia, obovoidea, compressa, testa coriacea brunnea reticulatim impressa lævi v. hispida ; embryo conduplicatim hippocrepicus, crure cotyledonari paullo majore.—Herbæ glaberrimæ, aquaticæ, stoloniferæ, lactescentes, caulibus natantibus ramosis, ramis ad nodos radicantibus et vaginis oblongis spathaceis involucratis. Folia fasciculata, natantia, ovato- v. cordato-orbicularia, nervis ad apicem convergentibus ; petiolo crasso basi vaginante et costa folii inflatis. Flores solitarii, longe crasse pedunculati, magni. Petala flava.

Species 3 v. 4, Americæ tropicæ australis incolæ. *Micheli in DC. Monogr. Phanerog.* iii. 91 (*Limnocharis sp.* 2, 3, 4). *Buchen. in Engl. Bot. Jahrb.* ii. 469. *Vell. Fl. Flum. Ic.* x. *t.* 32. *Endl. Iconogr. t.* 37. *Seub. in Mart. Fl. Bras.* iii. i. *t.* 13, *f.* 1, *t.* 16. *Bot. Mag. t.* 3248, *et Bot. Reg. t.* 1640 (*uterque sub Limnocharite*). Ovula in specie Neogranatensi (La Paila, Holton, n. 129), anatropa, ut in exemplaribus in horto Kewensi cultis, sed in exemplaribus *H. Humboldtii* in Hort. Van Houtte cultis, certe campylotropa evadunt.

12. **Limnocharis**, *H. B. et K. Pl. Æquin.* i. 116, *t.* 34.—Flores hermaphroditi. Perianthii segmenta 6, 2-seriata, patentia, imbricata ; 3 exteriora (sepala) herbacea, post anthesin erecta, persistentia ; 3 interiora (petala) majora, tenuissima, decidua. Stamina numerosa (ad 20), hypogyna, filamentis filiformi-subulatis exterioribus anantheris ; antheræ lineares, basifixæ, erectæ, rimis lateralibus dehiscentes ; pollen minutissimum, obtuse 3-gonum. Ovarii carpella 15–20, distincta, dimidiato-ovata, acuta, compressissima, confertim verticillata et in capitulum globosum compacta, apicibus acutis convergentibus ; stylus 0, stigmate ad apicem carpelli dorsali ; ovula numerosa, in placentis parietalibus reticulatim ramosis sparsa, campylotropa. Carpella matura 15–20, sepalis involuta, in capitulum globosum conferta, compressa, lunato-curvata, dorso plana, lateribus membranaceis, sutura ventrali dehiscentia, polysperma. Semina parva, sparsa, late v. subquadrato-oblonga, testa crassiuscula extus spongiosa et processubus mollibus echinata ; embryo conduplicatim hippocrepicus, crure cotyledonari paullo minore.—Herbæ glaberrimæ, paludosæ, scapigeræ, rhizomate tuberoso fibras emittente. Folia longe crasseque petiolata, elliptico-lanceolata v. ovato-cordata, nervis paucis ad apicem convergentibus. Scapus brevis, nunc brevissimus floribus fere radicalibus, nunc elongatus, erectus, teres, 3-gonus v. 3-alatus, basi vaginatus. Flores umbellati, umbella bracteis latis spathaceis involucrata, pedicellis crassis inæquilongis. Petala flava.

Species descriptæ 3 v. 4, Americæ tropicæ incolæ. *Micheli in DC. Monogr. Phanerog.* iii, 88 (*Limnocharis sp.* 1). *L. C. Rich. in Mém. Mus. Par.* i. *t.* 19, *f.* 2, *t.* 20. *Endl. Iconogr. t.* 26. *Buchen. in Engl. Bot. Jahrb.* ii. 469. *Bot. Mag. t.* 2525.

Ordo CXCV. NAIADACEÆ.

Endl. Gen. Pl. 229. Lindl. Veg. Kingd. 143. Juncagineæ, Endl. Gen. Pl. 127. Lindl. Veg. Kingd. 210. Zosteraceæ, Lindl. Veg. Kingd. 145.

Flores hermaphroditi, monoici v. dioici. *Perianthium* 0, v. e segmentis 1–4 v. 6 distinctis æqualibus v. inæqualibus herbaceis coloratis v. hyalinis persistentibus v. deci-

duis æstivatione valvatis v. imbricatis, rarius perianthium tubulosum tenuissimum. *Stamina* 1–6, rarissime plura, in floribus hermaphroditis distincta, hypogyna, v. basibus segmentorum perianthii inserta, in unisexualibus solitaria v. connata; filamenta varia. *Antheræ* basifixæ, erectæ, nunc 2-loculares loculis globosis oblongis v. linearibus, rimis elongatis extrorsum v. a latere rarius transverse dehiscentes; nunc ad loculum solitarium reductæ; pollen globosum ellipsoideum v. breviter tubulosum v. confervoideum. *Ovarii carpella* 1–6, distincta v. rarius ventre connata, sessilia v. stipitata, 1-locularia, obtusa v. in stylum brevem v. elongatum nunc longissimum attenuata; stigmata nunc apices versus carpellorum discoidea v. paullo decurrentia, nunc stylum terminantia et pulvinaria v. dilatata; nunc stylus in stigmata 2–3 capillaria fissus. *Ovula* 2–∞, rarissime solitaria, basi v. apice rarius angulo interiore loculi inserta, rarissime 2-seriata, sessilia, orthotropa anatropa v. campylotropa, micropyle semper infera. *Carpella matura* membranacea coriacea carnosula v. nucea, distincta v. rarius connata, stylo v. stigmate persistente terminata, indehiscentia v. angulo ventrali dehiscentia, 1–∞-sperma. *Semina* erecta pendula v. angulo interiori carpelli peltatim affixa, sessilia, recta v. curva; testa coriacea carnosula v. membranacea; albumen 0. *Embryo* carnosus, sæpissime macropodus, extremitate radiculari infera, cotyledonari consimili v. in processum vermiformem involutum v. induplicatum attenuata; plumula in fissura processus v. extremitatis cotyledonaris abscondita, v. in sinu faciei ventralis embryonis imposita et plus minus evoluta.

Herbæ, nunc acaules paludosæ et scapigeræ rhizomate tuberoso v. repente, nunc aquaticæ rhizomate repente nodoso caulibus dichotome ramosis submersis v. fluitantibus. Folia submersa emersa v. natantia, in generibus scapigeris radicalia, linearia v. junciformia, in caulescentibus opposita alterna v. rarissime 3-natim verticillata, sessilia v. petiolata, oblonga v. linearia v. capillaria, basi vaginantia, *vaginis sæpe stipuliformibus v. in auriculas membranaceas productis. Stipulæ veræ 0, v. intrapetiolares, membranaceæ, tubulosæ v. fissæ, amplexicaules. Flores parvi, sæpissime inconspicui, spicati racemosi v. in spadicibus pedunculatis terminalibus v. axillaribus dispositi, bracteati v. ebracteati.*

Species ad 120, aquis paludibusque tam dulcibus quam salsis orbis terrarum incolæ. Ordo vere naturalis, quamvis primo aspectu heterogeneus, *Alismaceis* quam maxime affinis, ab *Aroideis* non longe distans et non nisi habitu facile distinguendus; *Hydrocharideas* multis notis revocans etsi valde diversus.

FORMÆ ABNORMES.

Folia defectu parenchymatis parallelogrammatice fenestrata in *Aponogetone fenestrali* et *A. Berneriana*; apice tubulosa in *Scheuchzeria*.

Flores ♀ dimorphi, alii minuti spicati stigmatibus subsessilibus, alii ad basin foliorum multo majores stylo longissime instructi in *Lilæa*.

CONSPECTUS GENERUM.

Series A. Stigma discoideum v. decurrens.

Tribus I. Juncagineæ. Flores spicati v. racemosi, hermaphroditi v. unisexuales. Perianthii (rarissime 0) segmenta 6, 2-seriata, herbacea. Stamina 6, rarissime 1. Ovarii carpella 3–∞, 1–2-ovulata; ovula basilaria, erecta, anatropa. Carpella matura indehiscentia v. dehiscentia. Embryo rectus.—Herbæ erectæ foliis junciformibus, in paludibus dulcibus salsisque vigentes.

1. Triglochin. Flores hermaphroditi, ebracteati. Perianthii segmenta 3 v. 6. Stamina 6, basi perianthii inserta. Carpella 3–6, 1-ovulata.—*Reg. temp.*

2. Scheuchzeria. Flores hermaphroditi, bracteati. Perianthii segmenta 6. Stamina 6, subhypogyna. Carpella 3, pauci-ovulata.—*Europ.*, *Amer. bor.*

3. Tetroncium. Flores dioici, ebracteati. Perianthii segmenta 4. Stamina 4, basi perianthii inserta. Ovarii carpella 4, 1-ovulata.—*Amer. antarct.*

4. Lilæa. Flores monoici, bracteati, perianthium 0; ♂ stamen 1: ♀ alii spicati stigmate subsessili, alii ad basin foliorum solitarii stylo longissimo. Carpellum 1, 1-ovulatum.—*Amer. aust. et bor.-occid.*

Tribus II. Aponogetoneæ. Flores spicati, hermaphroditi, sæpius albo-bracteati. Perianthium 0, v. e segmentis bracteisve 1–3 coloratis. Stamina 6 v. plura, hypogyna. Ovarii carpella 3–5, 3–∞-ovulata; ovula basilaria v. subbasilaria. Carpella matura dehiscentia. Embryo rectus.—Herbæ rhizomate tuberoso, foliis submersis v. natantibus, in aquis dulcibus vigentes.

5. Aponogeton. *Reg. trop. et temp., Asiæ, Africæ et Australiæ.*

Tribus III. Potameæ. Flores spicati, hermaphroditi. Perianthium 0, v. segmenta 4, herbacea. Stamina 2 v. 4, basi perianthii inserta. Ovarii carpella 4, 1-ovulata; ovulum sub apice pendulum v. suturæ ventrali loculi peltatim affixum, campylotropum. Carpella matura indehiscentia. Embryo curvus.—Herbæ submersæ v. foliis natantibus in aquis dulcibus rarius salsis vigentes.

6. Potamogeton. Perianthii segmenta 4. Carpella matura sessilia.—*Orbis fere totus.*

7. Ruppia. Perianthium 0. Carpella matura longe stipitata.—*Orbis fere totus.*

Tribus IV. Posidonieæ. Flores spicati, unisexuales. Perianthium 0, v. segmenta 2. Stamina 2–4; antheræ liberæ v. in corpus oblongum v. ellipsoideum connatæ, polline confervoideo. Ovarii carpella solitaria, 1-ovulata; ovulum basilare v. parietale. Embryo macropodus.—Herbæ maritimæ, submersæ.

8. Posidonia. Stamina distincta, connectivo maximo. Stigma disciforme, muricatum v. spinosum. Embryo oblongus, extremitate cotyledonari obtusa, plumula apicali.—*Mare Mediterr. et Australiæ.*

9. Amphibolis. Stamina connata. Stigma subglobosum, ovario crassius. Embryo macropodus, extremitate cotyledonari oblique attenuata subulata.—*Mare Austral.*

Tribus V. Zannichellieæ. Flores axillares, unisexuales. Perianthium 0 v. hyalinum. Fl. ♂: Stamen 1, filamento elongato, v. antheræ 2–3 sessiles connatæ, polline globoso. Fl. ♀: Ovarii carpella 2–9, 1-ovulata; ovulum ab apice loculi pendulum, orthotropum. Embryonis extremitas cotyledonaris apicalis v. infra-apicalis, attenuata induplicata v. involuta.—Herbæ aquaticæ, submersæ.

10. Zannichellia. Perianthium 0. Stamen 1, filamento gracili. Ovarii carpella 2–9, curvula.—*Orbis fere totus.*

11. Althenia. Perianthium e squamulis 3. Antherarum columna sessilis. Ovarii carpella 3, recta. Embryonis extremitas cotyledonaris infra-apicalis, attenuata, involuta.—*Mare Mediterr.*

12. Lepilæna. Perianthium e squamulis 3. Antherarum columna sessilis. Ovarii carpella 3, recta. Embryonis extremitas cotyledonaris terminalis, induplicatus.—*Australia.*

Series B. Stigma v. stigmata subulata v. capillacea.

Tribus VI. Zostereæ. Flores in spadice complanato secundi, unisexuales. Perianthium 0 Fl. ♂: Anthera sessilis, 1-locularis, polline confervoideo. Fl. ♀: Carpellum solitarium, sessile, 1-ovulatum; ovulum pendulum. Embryonis extremitas cotyledonaris vermiformis, sulco inserta.—Herbæ marinæ submersæ, foliis gramineis.

13. Zostera. Flores monoici. Capellum ovoideum.—*Orb. vet.*

14. Phyllospadix. Flores dioici. Carpellum cordiforme.—*Amer. bor.-occid.*

Tribus VII. Naiadeæ. Flores axillares, unisexuales. Perianthium hyalinum. Fl. ♂: Anthera 1, sessilis, v. 2 connatæ, polline globoso. Fl. ♀: Carpellum solitarium, 1-ovulatum; ovulum basilare, anatropum. Embryo oblongus, symmetricus.—Herbæ submersæ, in aquis dulcibus vigentes.

15. Naias.—*Orbis fere totus.*

Tribus VIII. Cymodoceæ. Flores axillares, unisexuales. Perianthium 0. Fl. ♂: Antheræ in corpus longe stipitatum connatæ, polline confervoideo. Fl. ♀: Ovarii carpella 2, ovoidea, 1-ovulata; ovula sub apice loculi pendula, orthotropa. Embryonis extremitas cotyledonaris vermiformis, adscendens, dorso embryonis incumbens.—Herbæ submersæ, marinæ, foliis gramineis.

16. Cymodocea.—*Mare trop.*

GENERA EXCLUSA.

EPIGYNANTHUS, Blume (quæ *Hydrilla*, L. C. Rich.), et THALASSIA, Soland., supra sub **Hydrocharideis** memorantur. LEMNOPSIS, *Zipp. in Flora*, 1829, 285 (nomen). *Zoll. Syst. Verz. Pfl. Zolling.* 74, est *Halophila*, Thou., pariter ad **Hydrocharideas** pertinens, synonymon supra p. 455, prætermissum.

TRIBUS I. JUNCAGINEÆ.

1. **Triglochin**, *Linn. Gen. n.* 453.—Flores hermaphroditi, rarius polygami. Perianthii segmenta 3 v. 6, rarius pauciora, herbacea, concava, decidua, 3 interiora altius inserta. Stamina 6, basi segmentorum inserta v. 3 interioribus rarissime obsoletis; antheræ sessiles, in media facie affixæ, extus dehiscentes. Ovarii carpella 6, distincta v. plus minus connata, 1-locularia, omnia fertilia v. 3 alterna imperfecta v. ad laminas tenues reducta; styli breves v. sub 0, liberi v. connati, stigmatibus plumosis v. papillosis; ovula in carpellis solitaria, basilaria, erecta, anatropa. Fructus subcylindracei obovoidei v. columnaris carpella distincta v. connata, angulata costata v. teretia, apicibus rectis v. recurvis, basibus simplicibus v. 2-calcaratis, indehiscentia v. ventre dehiscentia, perfecta sæpius ab axi persistente a basi solvenda, imperfecta dum adsint persistentia, pericarpio sicco v. succulento. Semina erecta, cylindracea v. ovoideo-oblonga, teretia v. compressa, testa tenuiter membranacea; embryo semini conformis, extremitate cotyledonari recta, plumula prope basin extremitatis radicularis inserta.—Herbæ erectæ, scapigeræ, rhizomate tuberoso v. sub 0, in paucis stolonifero, radicibus interdum tuberosis. Folia elongata, plana v. teretiuscula, interdum natantia. Flores parvi v. majusculi, spicati v. pedicellis brevibus racemosi, erecti, ebracteati et ebracteolati.

Species ad 12, in paludibus aquæ dulcis et salsæ regionum temperatarum et frigidarum utriusque hemisphæræ vigentes. *Micheli in DC. Monogr. Phanerog.* iii. 96. *Buchen. in Engl. Bot. Jarhb.* ii. 505. *Benth. Fl. Austral.* vii. 165. *Gærtn. Fruct.* ii. *t.* 84. *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 23. *Mirb. in Ann. Mus. Par.* xvi. *t.* 16. *L. C. Rich. in Ann. Mus. Par.* xvii. *t.* 5. *Schnizl. Icon.* i. *t.* 49. *Schkuhr, Handb. t.* 102. *Reichb. Ic. Fl. Germ.* vii. *t.* 51, 51 *b*, 52. *Griff. Ic. Pl. Asiat. t.* 271. *Engl. in Mart. Fl. Bras.* iii. i. *t.* 12. *Jacq. Ic. Rar. t.* 454. *Hook. Ic. Pl. t.* 416, 579, 728, 731. *Bot. Mag. t.* 1445. Genus in sectiones 3 divisum:—

1. *Eutriglochin.* Carpella perfecta 3, decidua, imperfecta in axi persistentia. Stamina sæpissime 3, v. in flore supremo 6.

2. *Cycnogeton.* Carpella distincta, perfecta 3–6, imperfecta 0. Stamina sæpissime 6. CYCNOGETON, *Endl. in Ann. Wien. Mus.* ii. 210; *Iconogr. t.* 73.

3. *Maundia.* Carpella 3–4, post anthesin coalita. MAUNDIA, *F. Muell. Fragm. Phytogr. Austral.* i. 23.

2. **Scheuchzeria**, *Linn. Gen. n.* 452.—Flores hermaphroditi. Perianthii segmenta 6, oblonga, acuta, coriacea, subcolorata, persistentia, 3 interiora angustiora. Stamina 6, basi perianthii inserta, filamentis flaccidis; antheræ basifixæ, lineares, apiculatæ, extus dehiscentes, exsertæ. Ovarii carpella 3–6, inferne ventre connata, compressa, 1-locularia; stigmata sessilia, obliqua, papillosa, extrorsum spectantia; ovula in loculis 2 v. pauca, basilaria, erecta, anatropa. Carpella matura sæpius 3, divaricata, suborbicularia, inflata, coriacea, ventre dehiscentia, 1–2-sperma. Semina ellipsoidea v. obovoidea, erecta, testa coriacea crassa, membrana interna tenui; embryo semini conformis, extremitate radiculari infera, cotyledonari rotundata, plumula minuta infra medium sita. Herba junciformis, glaberrima, rhizomate repente in caulem erectum foliorum flexuosum producto. Folia semiteretia, apice pervia, basi longe vaginantia. Flores pauci, laxe racemosi, pedicellis basi bracteatis, bracteis basi vaginantibus.

Species 1, paludibus turfosis Europæ, Asiæ et Americæ borealis obvia. *Micheli in DC. Monogr. Phanerog.* iii. 95. *Buchen. in Engl. Bot. Jahrb.* ii. 503. *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 24. *Reichb. Ic. Fl. Germ.* x. *t.* 419. *Schkuhr, Handb. t.* 100.

3. **Tetroncium**, *Willd. in Gen. Nat. Fr. Berl. Mag.* ii. 17. (Cathanthes, *L. C. Rich. in Mém. Mus. Par.* i. 365.)—Flores dioici, deflexi. Perianthii obliqui colorati segmenta 4, inæqualia, late ovata, in fl. ♀ angustiora, concava, colorata, 2 superiora altius inserta supremo majore. Stamina 4 (in fl. ♀ 0), basi perianthii inserta; antheræ subsessiles, basi affixæ, late didymæ, extrorsum dehiscentes. Ovarii carpella 4, in fl. ♂ 0, loculis ima basi confluentibus, subulata, supra medium distincta, in stylos subulatos sensim attenuata, 1-locularia, stigmatibus punctiformibus; ovula in loculis solitaria, basilaria, erecta, anatropa. Fructus elongatus, deflexus, subulatus, apice 4-cornutus, imperfecte 4-locularis, sæpissime 1-spermus, Semen erectum, subcylindraceo-clavatum, obtuse trigonum, testa tenuissima; embryo rectus, teretiusculus, extremitate radiculari attenuata.—Herba parvula, junciformis, glaberrima, rhizomate repente in caulem erectum foliosum flexuosum producto. Folia disticha, equitantia, anguste ensiformia, rigida, acuta, vaginis membranaceis. Flores pauci, spicati, ebracteati, perianthii segmentis rufo-fusco-maculatis, ebracteati.

Species 1, Fuegiæ et insularum Maclovianarum incola. *Micheli in DC. Monogr. Phanerog.* iii. 110 (*Catanthes*). *Buchen. in Engl. Bot. Jahrb.* ii. 494. *Hook. Ic. Pl. t.* 534. *Hook. f. Fl. Antarct.* ii. *t.* 128.

4. **Lilæa**, *Humb. et Bonpl. Pl. Æquin.* i. 221, *t.* 63. (Heterostylus, *Hook. Fl. Bor. Am.* ii. 171, *t.* 185.)—Flores monoici, perianthio 0. Fl. ♂ in spicis unisexualibus v. androgynis dispositi, bracteati. Stamen 1, minutum, bracteæ basi insertum; anthera sessilis, didyma, loculis membranaceis a latere dehiscentibus, connectivo apice latiusculo obtuso hyalino, polline globoso. Fl. ♀: alii minuti, in spicis pedunculatis dispositi, alii majores, ad basin foliorum solitarii, sessiles. Ovarium sessile, lanceolatum, compressum, 1-loculare; stylus in floribus spicatis 0, stigmate disciformi, in solitariis longissimus, filiformis, stigmate capitato; ovulum solitarium, basilare, erectum, anatropum. Fructus oblongo-lanceolatus, compressus, coriaceus, costatus, indehiscens, in fl. spicatis anguste alatus, in solitariis incurvus, 3-gonus, exalatus, apice uno latere dentatus. Semen pericarpio conforme, erectum, testa membranacea; embryo elongatus, rectus, angustus, extremitate radiculari infera, cotyledonari paullo attenuata.—Herba cæspitosa, glaberrima, aquatica v. paludosa, flaccida, rhizomate brevissimo, radicibus fibrosis. Folia lineari-ligulata, submembranacea, integerrima; obtusiuscula, basi vaginantia, nervis parallelis. Spicæ ovoideæ, longe pedunculatæ; bracteæ caducæ. Flores ♀ radicales quam spicati multo majores, stylo interdum 3-pollicari.

Species 1 v. 2, Americæ tropicæ et subtropicæ australis et boreali-occidentalis incolæ. *Micheli in DC. Monogr. Phanerog.* iii. 111. *Lam. Illustr. t.* 993. *S. Wats. Bot. Calif.* ii. 193. *Schnizl. Iconogr.* i. *t.* 49. An bractea pro perianthii segmentum habenda?

Tribus II. Aponogetoneæ.

5. **Aponogeton**, *Thunb. Diss.* i. 73, *t.* 4. (Spathium, *Edgew. in Journ. As. Soc. Beng.* 1842, 145, *cum ic.*; *et in Calc. Journ. Nat. Hist.* iii. 533, *t.* 15, 16, *non Lour.*)—Flores hermaphroditi, rarius abortu unisexuales, spicati. Perianthii segmenta (v. bracteæ) 2–3, rarius 1 v. 0, petaloidea, æqualia v. inæqualia, ovata obovata v. oblonga, basi lata inserta, persistentia v. tarde decidua. Stamina 6–∞, hypogyna, filamentis inæquilongis subulatis v. filiformibus crassiusculis persistentibus; antheræ parvæ, didymæ; pollen subglobosum v. ellipsoideum. Ovarii carpella 3–6, distincta, oblique ovoidea, sessilia, in stylum brevem v. subelongatum (rarius 0) attenuata, stigmate oblique disciformi v. breviter decurrente; ovula 2–∞, basilaria, sutura ventrali 2-seriatim inserta, erecta v. adscendentia, anatropa. Carpella matura 3 v. plura, oblonga lageniformia v. subglobosa, obtusa v. stylo apiculata, ventre dehiscentia, 2–∞-sperma. Semina erecta, oblongo-lanceolata v. cylindracea, testa carnosa v. membranacea; embryo rectus, nunc oblongus plumula polyphylla in sinu ventrali infra medium inserta, nunc cylindraceus et homogeneus plumula germinatione tardius evoluta.—Herbæ submersæ, scapigeræ, rhizomate tuberoso interdum stolonifero, radicibus fibrosis. Folia longe petiolata, oblonga v. linearia, erecta v. natantia. Spicæ solitariæ v.

(scapo apice 2-cruri) 2-næ, ad apicem scapi sessiles, prima juventute spatha extinctoriformi v. fissa hyalina caduca inclusæ. Flores in rhachin spicæ unilaterales et distichi, v. polystichi et undique rhachi inserti, perianthii segmentis (bracteisve) amplis albis v. rarius roseis aut violaceis.

Species ad 20, Asiæ et Africæ tropicæ et temperatæ Australiæque incolæ. *Planch. in Ann. Sc. Nat. Ser.* 3, i. 107. *Benth. Fl. Austral.* vii. 188. *Baker in Trans. Linn. Soc.* xxix. 158, *et in Journ. Linn. Soc.* xviii. 279. *Roxb. Cor. Pl. t.* 81. *Edgew. in Hook. Lond. Journ.* iii. *t.* 17; *et t.* 18 (*Ouvirandra*). *Bot. Mag. t.* 1268, 1293, 6399.

Ouvirandra, *Thou. Gen. Nov. Madag.* 2 (Hydrogeton, *Pers. Syn.* i. 400) ab *Aponogetone* nullo charactere differt nisi defectu parenchymatis inter nervos folii. *Deless. Ic. Sel.* iii. *t.* 99, 100. *Bot. Mag. t.* 4894, 5076 (*ic. in Fl. des Serres, t.* 1107–8, 1421–2, *iteratæ*). *Ill. Hortic. t.* 300. *Regel, Gartenfl. t.* 387. Edgeworth, in Hook. Lond. Journ. iii. 402, distinguit *Aponogetonem* ab *Ouvirandra* (char. reform.) evolutione embryonis, cotyledone in priore sub germinatione elongata plumulam tardius e basi latere evolvente; in posteriore plumula magna 2-folia in sinu elongato embryonis latet. Nos enim sectiones tres *Aponogetonis* ad indolem seminis distinguere possumus sed nullis aliis characteribus congruentes: 1. Testa carnosula v. subcoriacea, embryone oblongo v. lanceolato ventre excavato, plumula simplici in fissura abscondita; includit *A. elongatum*, F. Muell., *A. spathaceum*, E. Mey., aliosque. 2. Testa carnosula, embryone oblongo, plumula sinui ventrali imposita valde evoluta 2–poly-phylla; includit *A. crispum*, Thunb., *A. fenestralem*, Hook. f., *A. Bernerianum*, Hook. f., *A. undulatum*, Roxb., aliosque. 3. Seminum integumentum duplex, exterius laxum hyalinum et longitudinaliter plicatum, interius coriaceum, brunneum, embryone cylindraceo obtuso homogeneo, germinatione in cornu elongato, plumula basin versus cornu tarde evoluta; includit *A. monostachyum*, Linn. f., *A. distachyum*, Thunb., *A. vallisnerioidem*, Baker, aliosque.

Tribus III. Potameæ.

6. **Potamogeton,** *Linn. Gen. n.* 174.—Flores hermaphroditi, spicati. Perianthii segmenta 4, rotundata, brevissime unguiculata, concava, herbacea, æstivatione valvata. Stamina 4, unguibus segmentorum inserta; antheræ sessiles, didymæ, loculis connectivo crassiusculo v. tenui sejunctis lateraliter dehiscentibus. Ovarii carpella 4, sessilia, distincta, 1-locularia, in stylum brevem v. brevissimum attenuata, stigmate peltato v. stylo apice introrsum stigmatoso; ovula solitaria, medio v. supra medium anguli interioris carpelli ventre v. apice affixa, campylotropa, micropyle infera. Carpella matura 4, parva, ovoidea v. subglobosa, obtusa v. stigmatibus recurvis apice uncinata, 1-sperma, pericarpio crasse coriaceo spongioso v. indurato, rarissime membranaceo. Semen subreniforme, hilo ventrali v. subapicali, testa membranacea; embryo macropodus, extremitate cotyledonari attenuata uncinata v. involuta, plumula inclusa.—Herbæ aquaticæ, rhizomate repente, ramis dichtomis demersis teretibus v. compressis. Folia disticha alterna v. rarissime opposita, demersa membranacea, emersa natantia, membranacea v. coriacea; stipulæ intrafoliaceæ, ligulatæ, liberæ v. basi folii v. petioli adnatæ. Pedunculi axillares, emersi, basi spatha membranacea stipati. Flores parvi, virescentes v. rufescentes, ebracteati et ebracteolati.

Species ad 50, cum subspeciebus et varietatibus numerosis quarum multæ pro speciebus auctoribus variis habitæ. *Kunth, Enum. Pl.* iii. 127. *Robbins in A. Gray, Man. Bot. N. U. St. ed.* v. 484. *Walp. Ann.* i. 766, iii. 504. *Benth. Fl. Austral.* vii. 169. *Gærtn. Fruct.* ii. *t.* 84. *Mirb. in Ann. Mus. Par.* xv. *t.* 18; *L. C. Rich. ibid.* xvii. *t.* 5, *f.* 31 *ad* 37. *Nees, Gen. Fl. Germ. Monocot.* iii. *n.* 48. *Schnizl. Iconog. t.* 71. *Reichb. Iconogr. Bot. t.* 175, 176, 184, 185; *Ic. Fl. Germ. t.* 18 *ad* 50. *Cosson, Atlas, ed.* 2, *t.* 35 *ad* 37. *Ruiz et Pav. Fl. Per. et Chil. t.* 106. *Raoul, Fl. Nov. Zel. t.* 7.

Spirillus, *J. Gay in Comptes Rend. Acad. Sc. April*, 1854, genus ad *P. hybridum*, Mich. (*P. Spirillum*, Tuckerm.), conditum floribus ♀ solitariis submersis una cum emersis spicatis hermaphroditis, pericarpio membranaceo, embryone involuto et rhizomate continuo (nec sympodiali).

Groenlandia, *J. Gay l. c.* ad *P. densum*, L., condita, a congeneribus plerisque differt, pericarpio membranaceo, et embryone apice circumvoluto.

Peltopsis, *Rafin. Journ. Phys.* lxxxix. 101, genus ad *P. perfoliatum* stabilitum fuit.

7. **Ruppia,** *Linn. Gen. n.* 175.—Flores hermaphroditi, spicati. Perianthium 0. Stamina 2, opposita (v. 4 antheris 1-locularibus), filamentis brevissimis latis; antheræ

dorsifixæ, loculis reniformibus connectivo disjunctis rimis extrorsum dehiscentibus; pollen tubulosum, curvulum. Ovarii carpella 4 v. plura; stigmata sessilia, peltata v. umbilicata; ovula solitaria, ab apice loculi pendula, campylotropa. Carpella matura 4 v. pauciora, pedunculo elongato spiraliter torto inserta, longe stipitata, oblique ovoidea, truncata, indehiscentia, pericarpio duro extus carnosulo. Semina pendula, uncinata, testa membranacea; embryo macropodus, extremitate cotyledonari infra apicem attenuata inflexa, plumula immersa.—Herbæ aquaticæ, cæspitosæ, dichotome ramosæ, rhizomate filiformi, caulibus filiformibus foliosis. Folia opposita et alterna, longe et anguste linearia v. setacea, basi vaginantia, vaginis stipuliformibus. Spica terminalis, 2–6-(sæpissime 2-) flora, primum vagina folii inclusa, demum valde elongata. Flores et fructus parvuli, ebracteati et ebracteolati.

Species 1 v. plures, paludibus salsis per regiones temperatas et subtropicas incolæ. *Kunth, Enum. Pl.* iii. 122. *Walp. Ann.* i. 766. *Gærtn. Fruct.* ii. *t.* 84. *Nees, Gen. Fl. Germ. Monocot.* iii. *n.* 47. *Mirbel in Ann. Mus. Par.* xvi. *t.* 18; *L. C. Rich. ibid.* xvii. *t.* 5. *Reichb. Iconogr. Bot. t.* 174. *Ic. Fl Germ.* vii. *t.* 17. *Griff. Ic. Pl. Asiat. t.* 257 *ad* 259. *Durieu, Expl. Alger. t.* 46.

Tribus IV. Posidonieæ.

8. **Posidonia,** *Kœn. in Kœn. et Sims, Ann. Bot.* ii. 95, *t.* 6. (Kernera, *Willd. Sp. Pl.* iv. 947. Tænidium, *Targ. Tozz. Cat. Veg. Mar.* 80, *t.* 1. Caulinia, *DC. Fl. Fr.* iii. 156, *non Willd.*)—Flores hermaphroditi, spicati. Perianthii segmenta 0, v. 3 membranacea caduca. Stamina 3–4, hypogyna; antheræ magnæ, sessiles, hastato-cordatæ, connectivo crasso ovato-lanceolato loculis prope basin remotis, v. orbiculari et longe aristato loculis costæ utrinque positis; pollen confervoideum. Ovarium elongato-ovoideum, sessile, compressum, 1-loculare; stigma sessile, incrassatum, discoideum, muricatum v. inæqualiter dentatum; ovulum elongatum, parieti loculi adnatum, apice et basi liberum, micropyle infera. Fructus ovoideus, crasse carnosus, paullo compressus. Semen oblongum, teretiusculum, testa evanida (v. pericarpio adnata); embryo solidus, ventre longitudinaliter depressus, extremitate cotyledonari recto.—Herbæ submersæ, rhizomate robusto repente vestigiis fibrosis foliorum vetustorum operto, ramis nodosis. Folia ad apices ramorum congesta, distiche imbricata, lineari-elongata, obtusa, integerrima v. serrulata, nervosa et transverse venosa, vaginarum marginibus anguste inflexis. Pedunculi plures, axillares et terminales, stricti, rigidi, compressi, basi foliis abbreviatis vaginati. Flores pauci, alterni, terminali interdum masculo, bracteati.

Species 2, altera Mediterranea, altera marium Australiæ incola. *Kunth, Enum. Pl.* iii. 221. *Benth. Fl. Austral.* vii. 175. *Brongn. et Gris. in Bull. Soc. Bot. Fr.* vii. 472. *St. Pierre, ibid.* iv. 577 *et* vii. 474. *J. Gay, ibid.* vii. 453. *Aschers. in Linnæa,* xxxv. 170, *et in Nuov. Giorn. Bot. Ital.* i. 185. *Reichb. Ic. Fl. Germ.* viii. *t.* 5. In specie Europæa perianthium 0, antheræ 4 latissimæ convolutivo-imbricatæ aristatæ, et stigma creberrime muricatum; in exemplaribus male conservatis speciei Australasicæ (an genus distinctum?) si nos non fallimus perianthii foliola 3 reniformia ad basin staminum, antheræ ovato-cordatæ loculis (imperfectis?) inconspicuis, et stigma crassum, spinulis paucis crassis erectis instructum.

9. **Amphibolis,** *Agardh. Syst. Alg.* 192. (Graumuellera, *Reichb. Consp.* 43.)—Flores unisexuales. Fl. ♂: Perianthium 0. Stamina 4, filamentis brevibus in stipitem connatis; antheræ sessiles, in corpus oblongum connatæ, apicibus liberis 2-fidis, loculis rimis longitudinalibus dehiscentibus; pollen confervoideum. Fl. ♀ spicati, bracteati. Perianthii foliola 2, ovato- v. oblongo-lanceolata. Ovarii carpellum solitarium, sessile, crassum, obtusum; stigma sessile, subglobosum, ovario crassius, obscure 4-lobum; ovulum . . .—Fructus oblique ellipsoideo-lanceolatus, compressus, apice longe attenuatus, pericarpio crasse carnoso. Semen erectum, loculum implens, testa tenuiter membranacea; embryo macropodus, oblique ovoideo-oblongus, extremitate cotyledonari infra apicem embryonis attenuata subulata recta apice flexuosa.—Herba submersa, rhizomate rigido repente, ad articulos nodoso et radicante, caulibus parce ramosis rigidis annulatis. Folia apices versus ramorum distiche imbricata, ligulata, apicibus truncatis v. excisis, plurinervia, basi vagi-

nantia, vaginis superne in ligulam brevem productis marginibus infractis. Spicæ ♀ pedunculus subcompressus, floribus 3–4 alternis sessilibus; bracteæ perianthii segmentis consimiles, tandem deciduæ.

Species 1, orum Australiæ incolæ. *Aschers. in Linnæa,* xxxv. 164. *F. Muell. Fragm. Phyt. Austral.* iv. 113. *Labill. Pl. Nov. Holl.* ii. *t.* 264 (*Ruppia*). *Gaud. in Freyc. Voy. Bot. t.* 40, *f.* 2 (*Ruppia*).

Flores a nobis non visi; descriptio fl. ♂ ad Gaudichaudium, fl. ♀ et fructus ad Muellerum. Genus ut nobis videtur *Posidoniæ* quam maxime affine.

TRIBUS V. ZANNICHELLIEÆ.

10. **Zannichellia,** *Linn. Gen. n.* 1034.—Flores monoici, axillares, ♂ et ♀ vaginis hyalinis inclusi. Fl. ♂ infra fœmineum solitarius. Perianthium 0. Stamen 1, filamento gracili elongato; anthera basifixa, linearis, connectivo apiculato, 2–3-locularis, loculis rimis lateralibus dehiscentibus; pollen globosum. Fl. ♀ sessilis. Perianthium breve, cupulare, hyalinum. Ovarii carpella 2–9, sessilia, oblongo-reniformia, in stylum brevem v. elongatum attenuata, stigmatibus magnis oblique peltatis; ovula solitaria, ab apice loculi pendula, orthotropa. Carpella matura sæpius 4, sessilia v. stipitata, oblongo-reniformia, compressa, dorso undulata v. crenata, stylo terminata. Semen pendulum, loculo conforme, testa tenuissima; embryo subcylindraceus, curvulus, extremitate cotyledonari attenuata ter induplicata.—Herbæ aquaticæ, submersæ, tenerrimæ, rhizomate repente filiformi nodoso-incrassato, caulibus intertextis ramosis capillaceis. Folia submersa, plerumque opposita, linearia, basi vaginantia, vaginis stipuliformibus. Flores minuti, primum terminales, sed evolutione rami axillares.

Species 1 v. plures, in paludibus salsis totius orbis obviæ. *Kunth, Enum. Pl.* iii. 123. *Walp. Ann.* i. 766, vi. 1. *Gærtn. Fruct.* i. *t.* 19. *Nees, Gen. Fl. Germ. Monocot.* iii. *n.* 46. *Schnizl. Iconog. t.* 71. *Mirb. in Ann. Mus. Par.* xvi. 18. *L. C. Rich. ibid.* xvii. *t.* 5, *f.* 38 *ad* 41. *Reichb. Iconogr. Bot. t.* 756 *ad* 760; *Ic. Fl. Germ.* vii. *t.* 16. *Treviran. Symbol. t.* 45 *ad* 47. *Steinh. in Ann. Sc. Nat. Ser.* 2; ix. 87, *t.* 3, 4. *Griff. Notul.* iii. 190; *Ic. Pl. Asiat. t.* 255, 256.

11. **Althenia,** *Petit in Ann. Sc. Observ.* i. 451, *cum ic.*—Flores monoici, axillares, ♂ cum ♀ vaginis elongatis hyalinis inclusi. Fl. ♂ ad basin pedicelli ♀ solitarius, longe pedicellatus. Perianthii squamulæ 3, minimæ. Stamen 1; anthera sessilis, oblonga, 1?-locularis, longitudinaliter dehiscens, valvis demum solutis; pollen globosum. Fl. ♀ pedicellatus. Perianthii segmenta 1–3, angusta, hyalina, integra v. lacera. Ovarii carpella 3, distincta, oblonga, stipitata, in stylos validos filiformes attenuata, stigmatibus magnis obliquis capitatis; ovulum solitarium, ab apice loculi pendulum, orthotropum. Carpellum maturum lanceolatum v. oblongum, compressum, marginibus incrassatis v. alatis, styli basi terminatum, pericarpio coriaceo indehiscente v. tarde dehiscente. Semen pendulum, oblongum, compressum, testa membranacea; embryo rectus, oblongus, extremitate cotyledonari infra apicem attenuata spiraliter involuta, radiculari crassa infera.—Herbæ aquaticæ, submersæ, tenerrimæ, rhizomate repente filiformi nodoso-articulato, caulibus cæspitosis ramosis capillaceis. Folia ad nodos congesta, breviuscula, setacea, basi late vaginantia, vaginis in ligulam latam elongatam concavam productis, floralia ad vaginas hyalinas demum fissas reducta. Flores minuti.

Species 2, aquarum mortuarum salsarum Galliæ meridionalis, Hispaniæ, Siciliæ, et Algeriæ incolæ. *Kunth, Enum. Pl.* iii. 125. *Reichb. Iconogr. Bot. t.* 755. *Prillieux in Ann. Sc. Nat. Ser.* 5, ii. 169, *t.* 15, 16. *Duval Jouve in Bull. Soc. Bot. Fr.* xix. 80, *t.* 5.

12. **Lepilæna,** *J. Drummond ex Harv. in Hook. Kew Journ.* vii. 58. (Hexatheca, *Sond. ex F. Muell. Fragm. Phyt. Austral.* viii. 217.)—Flores monoici v. dioici, axillares, vaginis hyalinis inclusi. Fl. ♂ solitarius, pedicellatus. Perianthii squamulæ 3, minutæ, truncatæ. Antheræ 2–3, sessiles, ope connectivorum in columnam ellipsoideo-oblongam apiculatam connatæ, 2-loculares, loculis longitudinaliter dehiscentibus; pollen globosum. Fl. ♀ sessilis v. pedicellatus. Perianthii segmenta 3, oblonga, obtusa, hyalina. Ovarii

carpella 3, distincta, sessilia v. breviter stipitata, in stylum brevem v. elongatum attenuata, stigmatibus oblongis v. spathulatis; ovula solitaria, ab apice loculi pendula, orthotropa. Carpella matura oblonga, stylo apiculata, indehiscentia, pericarpio coriaceo. Semen oblongo-cylindraceum, testa membranacea; embryo macropodus, elongatus, extremitate cotyledonari ter inflexa, radicula obtusa.—Herbæ submersæ, tenerrimæ, rhizomate repente filiformi nodoso-articulato, caulibus cæspitosis ramosis capillaribus. Folia ad nodos congesta, tenuissima, integerrima v. serrulata, basi lata vaginantia, vagina in ligulam elongatam simplicem v. 2-fidam producta, floralibus ad vaginas reductis. Flores minuti.

Species 3, in aquis salsis et dulcibus Australiæ vigentes. *Benth. Fl. Austral.* vii. 179.

TRIBUS VI. ZOSTEREÆ.

13. **Zostera,** *Linn. Gen. n.* 1032. (Alga, *Lam. Fl. Fr. ed.* i. iii. 539.)—Flores in eodem v. diversis spadicibus complanatis monoici, secundi. Perianthium 0. Fl. ♂: Anthera 1, in spadicem prona, dorsifixa, cylindracea, curva, utrinque obtusa, 1-locularis, membranacea, rima antica dehiscens; pollen confervoideum. Fl. ♀: Carpellum solitarium, in spadicem pronum et supra medium puncto affixum, in stylum brevem subulatum attenuatum, stigmatibus 2 capillaribus; ovulum solitarium, ab apice loculi pendulum, orthotropum. Carpellum maturum lageniforme, membranaceum, pendulum, irregulariter ruptum. Semen pendulum, oblongum v. subglobosum, testa firme membranacea, striata; embryo ellipsoideo-oblongus, antice profunde longitudinaliter sulcatus, extremitate cotyledonari medio sulco imposita caudiformi sigmoidea.—Herbæ submersæ, rhizomate tenui repente ad nodos radicante, caulibus simplicibus v. ramosis gracilibus foliosis, ramis intricatis. Folia disticha, anguste linearia, 1–5 nervia, basi vaginantia, vaginæ stipulæformes marginibus inflexis. Spadix linearis, foliiformis, marginibus nudis v. bracteis oblongis instructis, primum in spatha elongata apice in folium producta inclusus. Flores in superficie spadicis 2-seriati, alterni, oblique oppositi, stylis ♀ intus spectantibus.

Species 4, marium temperatarum orbis veteris incolæ. *Kunth, Enum. Pl.* iii. 115. *Walp. Ann.* vi. 1. *Lanessan in Assoc. Franc. Sc. Congrès, Nantes*, 1875. *Benth. Fl. Austral.* vii. 175. *Aschers. in Linnæa*, xxxv. 165, *et in Nuov. Giorn. Bot. Ital.* ii. 162. *Gærtn. Fruct.* i. *t.* 19. *Schnizl. Iconogr. t.* 71. *Nees, Gen. Fl. Germ. Monocot.* iii. *n.* 43. *Mirb. in Ann. Mus. Par.* xvi. *t.* 19. *Reichb. Ic. Fl. Germ.* vii. *t.* 2 *ad* 4. *Ehrenb. et Hempr. Symb. t.* 5, 6.

14. **Phyllospadix,** *Hook. Fl. Bor. Am.* ii. 171, *t.* 186.—Flores dioici, in spadicibus complanatis secundi. Perianthium 0. Fl. ♂: Anthera in spadicem prona, dorsifixa, cylindracea, curva, utrinque obtusa, 1-locularis, membranacea, rima antica dehiscens; pollen confervoideum. Fl. ♀: Carpellum solitarium, late ovoideo-cordatum, a dorso compressum, basi intrusa spadici insertum, in stylum brevem attenuatum, stigmatibus 2 capillaribus; ovulum ab apice loculi pendulum, orthotropum. Fructus late sagittato-cordatus, basi utrinque acute productus, coriaceus, indehiscens. Semen pendulum, obtuse rhomboideum, paullo à dorso compressum, testa membranacea; embryo semini conformis, dorso rotundatus, ventre obscure 2-lobus, extremitate cotyledonari parvula linguiformi inter lobos posita decurva.—Herbæ submersæ, rhizomate tuberoso lobato reliquiis rigidis fibrosis foliorum vetustorum onusto; caulibus gracilibus simpliciusculis elongatis. Folia longe angusteque linearia, coriacea, basi longe angusta vaginantia, vaginis sursum in ligulam brevem productis, marginibus stipuliformibus. Spadix linearis, dorso nudus, marginibus bracteis oblongis imbricatis primum floribus incumbentibus demum patentibus onustis, spatha elongata apice in folium producta primum inclusus. Flores in spadice 2-seriati, alterni, oblique oppositi, fœmineorum stigmatibus intus spectantibus.

Species 2, oræ Americæ boreali-occidentalis incolæ. *S. Wats. Bot. Calif.* ii. 192. *Rupr. in Mem. Acad. Petersb.* ix. *t.* 1, 2.

Tribus VII. Naiadeæ.

15. **Naias**, *Linn. Gen. n.* 1096.—Flores monoici v. dioici, axillares. Fl. ♂ sessilis v. pedicellatus. Perianthium duplex, exterius tubulosum v. ventricosum integrum v. 4-fidum; internum tenuissime hyalinum, antheræ coadunatum. Stamen 1; anthera sessilis, ellipsoidea v. oblonga, 1–4-locularis, apiculata v. 2-cuspidata, loculis rimis longitudinalibus dehiscentibus; pollen globosum. Fl. ♀: Perianthium 0, v. tenuissimum, carpello adhærens. Ovarii carpellum solitarium, sessile, ellipsoideum v. lanceolatum, apice angustatum, stigmatibus 2–4-subulatis v. capillaribus; ovulum basilare, erectum, anatropum. Carpellum maturum oblongum v. ellipsoideum, indehiscens, pericarpio crustaceo v. subdrupaceo. Semen pericarpio conforme, erectum, testa tenuissima; embryo semini conformis, rectus, extremitate cotyledonari supera radiculari consimili, plumula immersa.—Herbæ teneræ, submersæ, rhizomate filiformi repente, caulibus ramosis sæpius filiformibus interdum molliter muricatis. Folia opposita alterna v. 3-natim verticillata, linearia, integerrima serrulata v. sinuato-dentata, enervia, basi breviter vaginantia. Flores solitarii v. glomerati.

Species ad 10, aquarum dulcium regionum tropicarum et temperatarum incolæ. *Kunth, Enum. Pl.* iii. 111. *Benth. Fl. Austral.* vii. 181. *Magnus in Nuov. Giorn. Bot. Ital.* ii. 187. *Griff. Notul.* iii. 181; *Ic. Pl. Asiat. t.* 237 *ad* 254.

Genus in sectiones 2 divisum:—

1. *Eunaias.* Flores dioici, subsolitarii. Anthera 4-locularis, pedicellus spathella calyptriformi demum fissa apice 2-cuspidata inclusus, perianthio 4-fido. Fl. ♀ *perianthio* 0. Caules et folia molliter muricata. Naias, *Willd. in Mem. Acad. Sc. Berlin*, 1798, 87. *Schnizl. Iconogr. t.* 71. *Nees, Gen. Fl. Germ. Monocot.* iii. *n.* 44. *Schkuhr, Handb. t.* 296. *L. C. Rich. in Ann. Mus. Par.* xvii. *t.* 1. *Theden. in Flora*, 1840, 305, *t.* 5. *Delile, Fl. Eg. t.* 50. *Griff. Ic. Pl. Asiat. t.* 251 *ad* 254. *Hook. Fl. Bor. Am. t.* 184. Fluvialis, *Michel, Nov. Gen. t.* 8.

2. *Caulinia.* Flores monoici, glomerati. Anthera 1–4-locularis, perianthio apice denticulato. Fl. ♀ perianthio carpello adhærente. Caulis et folia inermia. *Delile, Fl. Eg. t.* 50, *f.* 3. *Schkuhr, Handb. t.* 296. Caulinia, *Willd. in Mem. Acad. Sc. Berlin*, 1798, 87, *et in Kœn. et Sims, Ann. Bot.* ii. 48, *t.* 1, 2. *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 45. Fluvialis, *Pers. Syn.* ii. 530. *Balb. et Nocca, Fl. Ticin.* ii. *t.* 15. Ittnera, *Gmel. Fl. Bad.* iii. *t.* 4.

Tribus VIII. Cymodoceæ

16. **Cymodocea**, *Kœn. in Kœn. et Sims Ann. Bot.* ii. 96, *t.* 7.—Flores monoici v. dioici, axillares, vaginis membranaceis v. foliaceis inclusi. Perianthium 0. Fl. ♂: Antheræ 2, ad apicem stipitis (filamenti?) elongati sessiles, a dorso in corpus oblongum connatæ, loculis basi et apice distinctis rimis longitudinalibus extrorsum dehiscentibus; pollen confervoideum. Fl. ♀: Ovarii carpella 2, distincta, subsessilia, ovoidea, compressa v. tumida, in stylum attenuata, stigmatibus elongato-subulatis recurvis; ovula solitaria, sub apice loculi pendula, orthotropa. Carpella matura oblique ovoidea, sessilia v. stipitata, tumida v. compressa marginibus rotundatis, v. complanata et marginata, indehiscentia, pericarpio coriaceo v. subsucculento intus indurato. Semen pendulum, late ovoideum v. oblongum, compressum v. complanatum, testa crassiuscula; embryo semini conformis, extremitate cotyledonari medio lateri posita caudiformi adscendente margini embryonis applicita.—Herbæ submersæ, rhizomate rigido repente, nodis articulatis et radicantibus, caulibus brevibus simplicibus erectis v. elongatis et dichotome ramosis. Folia graminea, ad nodos fasciculata v. apices versus ramorum dense distiche imbricata, brevia v. elongata, obtusa, integerrima v. serrulata, basi vaginantia, vaginis stipuliformibus in ligulam brevem productis. Flores in axillis infimis solitarii v. in ramis floriferis numerosi.

Species 3, orum maritimorum tropicorum et subtropicorum orbis veteri et Australiæ incolæ, *Kunth*,

Enum. iii. 118. *Benth. Fl. Austral.* vii. 177, *excl. sp.* 1. *Ascherson in Linnæa*, xxxv. 160, *et in Nuov. Giorn. Bot. Ital.* ii. 180.

Genus ab Aschersonio in sectiones sequentes divisum:—

1. *Phycagrostis.* Flores in ramos foliosos terminales, axibus floriferis spicam foliosam mentientibus. Folia plana, plurinervia, apicem versus plus minusve dentata. CYMODOCEA, *Kœn. l. c.* PHUCAGROSTIS, *Willd. Sp. Pl.* iv. 649. *Bornet in Ann. Sc. Nat. Ser.* v. i. 5, *t.* 1 *ad* 11. *Carolini in Usteri, Neue Ann.* v. 42, *t.* 3, *errore* 4 (*P. major*).

2. *Physoschœnus.* Inflorescentia dichotome cymosa, multiflora, floribus bracteis haud foliosis stipatis. Folia subulato-teretiuscula, carnosula. Species 1, Indica (*C. isoetæfolia*, Asch.).

HALODULA, *Endl. Gen. Pl.* 1368. *Miq. Fl. Ind. Bat.* iii. 227. *Aschers. in Linnæa*, xxxv. 163. *Solms-Laub. in Schweinf. Beitr. Fl. Æthiop.* 196. (DIPLANTHERA, *Thou. Gen. Nov. Madagasc.* 3. *Steinh. in Ann. Sc. Nat. Ser.* 2, ix. 98, *t.* 3 B). Genus prorsus ignotum ex descriptionibus *Cymodoceæ* valde affine. Species enumeratæ sunt: 1. *H. australis*, Miq., Madagascariæ et ins. Malayanarum incola. 2. *H. Wrightii*, Aschers., Cubensis. Harum fructum *H. Wrightii* tantum vidimus minutus est, globosus, stylo capillari persistente, pericarpio crasse coriaceo; semen globosum, parietale, basi lata loculo affixum, testa crassiuscula; embryo globosus, superne 2-lobus, extremitate cotyledonari brevi vermiformi adscendente in sinu embryonis posita.

ORDO CXCVI. **ERIOCAULEÆ.**

Endl. Gen. Pl. 122. Lindl. Veg. Kingd. 122. Kœrnicke, Monogr. in Linnæa, xxvii. 564; et in Mart. Fl. Bras. iii. i. 273.

Flores minimi, regulares v. vix irregulares, unisexuales, in capitulis sæpissime androgynis densissime aggregati. *Perianthium* scariosum hyalinum v. tenuiter membranaceum, duplici serie 3-merum v. 2-merum, exterioris segmenta 3 v. 2, distincta v. rarius præsertim in fl. ♂ basi v. altius connata v. in fl. ♀ in speciebus paucis desunt; interius in fl. ♂ sæpissime stipitatum (ad apicem tori stipitiformis v. clavati affixum), cyathiforme v. tubuloso-campanulatum, 3- v. 2-lobum v. e segmentis 3 v. 2 distinctis compositum, rarius deficiens; in fl. ♀ perianthium interius ab exteriore sæpius parum distat interdum tamen ut in mare longiuscule stipitatum, e segmentis 3 v. 2 distinctis v. medio cohærentibus compositum, v. rarius deficiens. *Stamina* in fl. ♂ basi v. prope basin perianthii interioris affixa, ejusque lobis segmentisve nunc numero æqualia et opposita, nunc numero dupla segmentis opposita et alterna, v. interdum abortu pauciora, perianthio inclusa v. breviter exserta; filamenta distincta, filiformia v. leviter complanata. *Antheræ* parvulæ, ovatæ v. oblongæ, prope basin dorsifixæ, loculis sæpius 2 discretis parallelis rimis longitudinalibus dehiscentibus; rarius sub-1-loculares, antice sulcatæ et rima unica dehiscentes, polline emisso apertæ evidenter 1-loculares; staminodia in fl. ♀ rara, minima. *Ovarium* in fl. ♀ intra perianthium interius sessile v. rarius breviter stipitatum, breve, 3- v. 2-loculare sæpeque 3- v. 2-lobum. *Stylus* terminalis, filiformis, superne v. jam infra medium in ramos 3 v. 2 indivisos v. 2-fidos superne introrsum stigmatosos divisus, interdumque lobis intermediis polymorphis appendiculatus. *Ovula* in loculis solitaria, pendula, orthotropa. *Fructus* ovario conformis nec multum auctus, membranaceus, 3- v. 2-locularis, loculis longitudinaliter dehiscentibus. *Semina* in loculis solitaria, pendula, ovoidea oblonga v. subglobosa, testa appressa sæpius striata v. minute tuberculata. *Albumen* farinaceum v. laxe carnosum. *Embryo* parvus, lenticularis turbinatus v. obovoideus, ab hilo remotus, albumini applicitus.

Herbæ paludosæ uliginosæ aquaticæ v. campestres, perennes v. rarius annuæ, nunc caule brevissimo cæspitosæ, acaules dictæ, nunc caule foliato plus minus evoluto simplici v. ramoso. Folia angusta, sæpius breviter linearia, haud raro laxe fenestrato-venosa subpellucida v. fistulosa, interdum rigidule membranacea, in caule brevissimo v. ad apicem

caulis dense conferta, v. secus caulem sparsa. Scapi v. pedunculi in cæspite radicali solitarii v. plures, v. ad axillas foliorum superiorum sparsi, interdum fasciculum seu umbellam densam formantes, singuli monocephali v. rarius apice confertim pleiocephali, basi vagina cylindracea clausa inclusi, cæterum nudi. Capitula primum sæpe hemisphærica v. depressa, demum haud raro globosa, rarius oblonga v. breviter cylindracea. Bracteæ exteriores vacuæ, sæpius 2-∞-seriatim imbricatæ floribus breviores v. paullo longiores, rarius præsertim seriei interioris plus minus elongatæ radiato-patentes; interiores sub quoque flore sæpius perianthii exterioris segmentis subsimiles. Flores sæpius numerosissimi, minimi, in receptaculo concavo dilatato convexo v. subgloboso sessiles v. brevissime pedicellati, perianthiis cum bracteis interioribus nunc apice dense ciliato-villosis villis haud raro candidis, nunc parce pilosulis v. glabris; flores ♂ et ♀ in capitulo irregulariter mixti v. ♀ plures in ambitu ♂ in centro, rarius in capitulis distinctis separati. Capitula fructifera sæpius florentibus magis globosa, cæterum paullo tantum majora.

Species notæ ad 325, per regiones calidiores utriusque orbis late dispersæ, paucæ ultra tropicos in Asia orientali, Australia, Africa australi, America australi v Americæ borealis civitatibus orientalibus obviæ; in Asia Rossica in Europa et in Africa boreali desunt, una excepta ex Americanis in Hibernia et Scotia maxime occidentali vigente.

Ordo naturalis et bene limitatus, olim in *Restiaceis* inclusus, a quibus facile distinguitur habitu, inflorescentia, et perianthii minimi segmentis hyalinis v. scariosis nec glumaceis. Species a Kœrnickio diligenter scrutatæ et in locis citatis fusius descriptæ; genera tamen in quibus post Martiusum et Kunthium distribuuntur minus definita sunt, nec quoad omnes species naturalia evadunt. Species nonnullæ *Eriocauli*, *Pæpalanthi* et *Lachnocauli* inter se adeo similes ut non nisi scrutatione accuratissima separandæ, dum nonnullæ generum duo majorum imprimis *Pæpalanthi* habitum valde polymorphum exhibent, et auctores nonnulli ordinem totum præter *Toninam* pro genere unico habent. Hic tamen, distributionem a Kœrnickio propositam pro maxima parte secuti sumus, meliore nobis non occurrente.

CONSPECTUS GENERUM.

* *Antherarum loculi 2, discreti, rimis distinctis 2-valvatim dehiscentes.*

1. **Eriocaulon.** Perianthium interius e segmentis v. dentibus distinctis sæpius intus glandula notatis compositum, rarius in fl. ♀ 0. Stamina in flore 3-mero 6 in flore 2-mero 4, v. abortu pauciora. Stylus inappendiculatus. Herbæ sæpissime subacaules, foliis radicalibus confertis, scapis monocephalis (rarius caule submerso foliato elongato). Bracteæ involucrantes non radiantes.—*Area tota ordinis.*

2. **Mesanthemum.** Perianthium interius in fl. ♂ tubulosum, 3-merum. Stamina 6, tubo 2-seriatim inclusa. Stylus inappendiculatus. Habitus *Eriocauli* specierum validiorum. Bracteæ involucrantes interiores plus minus radiato-patentes.—*Afr. trop., ins. Mascarens.*

3. **Pæpalanthus.** Perianthium interius eglandulosum. Stamina in flore 3-mero 3, in flore 2-mero 2. Stylus sæpius inter ramos stigmatosos appendiculis alternis instructus. Habitus nunc omnino *Eriocauli*, nunc sæpius caule foliato plus minus evoluto, interdum robusto ramosoque.—*Amer. austr., Ind. occid., cum specie una bor.-Amer. et una Afr. austr.*

** *Antheræ antice sulcatæ, rima unica dehiscentes, apertæ 1-loculares.*

4. **Philodice.** Perianthium interius eglandulosum. Stamina in flore 3-mero 3 v. 2. Stylus inter ramos stigmatosos appendiculis alternis instructus. Herbæ humiles, foliosæ, habitu specierum minorum foliatarum *Pæpalanthi.*—*Brasilia, Guiana.*

5. **Lachnocaulon.** Perianthium interius 0. Stamina in flore 3-mero 3. Stylus inter ramos stigmatosos appendiculis alternis minimis instructus. Habitus *Eriocauli.*—*Amer. bor.*

6. **Tonina.** Perianthium interius minimum, eglandulosum, in fl. ♀ longissime ciliato-fimbriatum. Stamina in flore 3-mero 3. Stylus inter ramos stigmatosos appendiculis alternis instructus. Caules foliosi longe procumbentes, basi radicantes. Capitula globosa, bracteis perianthiorumque segmentis exterioribus quasi echinata, ad axillas breviter pedunculata v. subsessilia.—*Amer. trop.*

1. **Eriocaulon,** *Linn. Gen. n.* 100. (Randalia, Sphærochloa *et* Symphachne, *Beauv. ex Desv. in Ann. Sc. Nat. ser.* 1, xiii. 47, *t.* 5. Nasmythia, *Huds. Fl. Angl.* (*ed.* 2) 414.

Leucocephala, *Roxb. Fl. Ind.* iii. 612. Electrosperma, *F. Muell. in Trans. Phil. Soc. Vict.* i. 23. Lasiolepis, *Bœckeler in Flora*, 1873, 90, *quoad L. brevifoliam et L. aquaticam.* Chætodiscus, *Steud. Syn. Pl. Gl.* ii. 261, *ex char. manco.*)—Perianthii exterioris segmenta 3 v. 2, distincta v. in floribus ♂ varie connata, cæterum in utroque sexu polymorpha, rarius in floribus ♀ 0; perianthium interius ad apicem stipitis e segmentis v. dentibus 3 v. 2, sæpius præsertim in fl. ♂ intus glandula notatis, rarius in fl. ♀ 0. Stamina in fl. ♂ numero segmentorum dupla v. abortu pauciora, 3 v. 2 segmentis interioribus opposita, 3 v. 2 alterna; antheræ distincte 2-loculares; staminodia in fl. ♀ 0. Ovarium in fl. ♀ sessile, 3- v. 2-lobum, 3- v. 2-loculare; stylus columnaris v. filiformis, apice 3- v. 2-fidus inappendiculatus; pistilli rudimentum in fl. ♂ parvum 3-fidum, v. rarius 0. Fructus et semina ordinis.—Herbæ sæpius paludosæ v. aquaticæ, annuæ v. perennes, sæpius sic dictæ acaules, caule nempe brevissimo foliis quasi radicalibus rosulatis v. cæspitosis; in *E. setaceo*, Linn., paucisque affinibus aquaticis caulis elongatus undique tenuiter foliatus, et in *E. striati*, Kœrn., varietate caulis elongatus robustus ramosusque. Scapi v. pedunculi ad axillas foliorum superiorum semper 1-cephali, foliis multo longiores. Bracteæ involucrantes imbricatæ, floribus breviores v. vix longiores, rarius longiores scariosæque nec radiantes; bracteæ interiores et perianthii segmenta exteriora dense ciliata villosa pubescentia v. glabra. Flores plerique masculi in centro capituli, fœminei in ambitu, interdum tamen undique mixti. Antherarum loculi semper bene distincti, sæpius nigricantes.

Species a Kœrnickio enumeratæ 100, per totam aream ordinis dispersæ, fere omnes tropicæ v. subtropicæ, in Asia, Africa et Australia numerosæ et plures Kœrnickianis addendæ, perpaucæ extra tropicos in Africa australi, Asia orientali et Australia extensæ, in America australi minus copiosæ, in America boreali-occidentali desunt, in civitatibus orientalibus paucæ adsunt, quarum una etiam in Britannia boreali-occidentali invenitur. *Kunth, Enum. Pl.* iii. 539. *Mart. in Wall. Pl. As. Rar.* iii. 25, *t.* 248, 249. *Benth. Fl. Austral.* vii. 190. *Kœrn. in Linnæa*, xxvii. 577, *et in Mart. Fl. Bras.* iii. i. 473, *t.* 60 *ad* 63. *Lam. Illustr. t.* 50, *f.* 1, 2. *Hook. Fl. Lond.* iv. *t.* 52. *Royle, Illustr. Bot. Himal. t.* 97. *Griff. Ic. Pl. Asiat. t.* 159 *ad* 161. *Bot. Mag. t.* 3126. *Lodd. Bot. Cab. t.* 1310.

Species etsi numerosæ, inter se habitu parum differunt nec bene in sectiones distinctas distribuendæ. Series 2 nimis artificiales distinguuntur: 1, floribus semper 2-meris; et 2, floribus 3-meris, et Kœrnicke subgenera nonnulla proposuit imprimis ad formam bractearum et perianthii segmentorum, quæ tamen sæpe variant de specie in speciem, nec cum differentiis habitus comitantur.

2. **Mesanthemum,** *Kœrn. in Linnæa*, xxvii. 572.—Perianthii exterioris segmenta 3, distincta, hyalina, in fl. ♂ ovalia basi interdum breviter cohærentia, in fl. ♀ breviora latiora; interioris segmenta in tubum breviter 3-lobum connata, v. in fl. ♀ unguibus basi breviter solutis, apice in fl. ♂ longe in fl. ♀ breviter ciliata, intus infra apicem glandula instructa. Stamina in fl. ♂ 6, tubo 2-seriatim inclusa; antheræ distincte 2-loculares. Ovarium in fl. ♀ sessile, 3-loculare; stylus superne 3-fidus, appendiculis 0; pistilli rudimentum in fl. ♂ parvum, 3-partitum. Semina subglobosa, papilloso-tuberculosa.—Plantæ robustæ habitu *Eriocauli decangularis*, Linn., sæpius plus minus pilis laxis pubescentes. Rhizoma crassum, rarius infra foliorum cæspitem breviter productum. Folia longiuscula. Scapi rigiduli, 1-cephali. Capitulum hemisphæricum, bracteis involucrantibus coriaceis v. rigidulis late ovatis arcte imbricatis, seriei interioris in laminam patentem productis quasi radicantibus. Bracteæ interiores sub floribus singulis breviter v. longe lineari-filiformes, apice dilatatæ, clavatæ, albæ, minute ciliatæ v. glabræ.

Species 3, Africæ tropicæ et Madagascariæ nec Brasiliæ incolæ. Genus errore a Kœrnickio in Mart. Fl. Bras. iii. i. 471, t. 60, f. 1 inclusum. Specimina a Lindleyo cum Benthamio communicata et mediante Prescottio ad Herb. Mus. Petrop. missa, e Sierra Leone nec e Rio Janeiro provenerunt, et a Benthamio cum aliis ex Africa tropica sub nomine *Eriocauli radiantis* descripta fuerunt, sed infauste errore typographico sub *E. radicante* in Hook. Fl. Nigr. 547 edita. Genus sat naturale et bene distinctum, a Kœrnickio in species 3 divisum: 1. *M. Prescottianum*, Kœrn., e solis speciminibus supra memoratis a Lindleyo distributis notum, bractearum involucrantium laminis radiantibus longiuscule oblongis. 2. *M. radicans*, Kœrn., in Africa tropica occidentali late copioseque dispersum,

bractearum laminis radiantibus brevius ovatis. 3. *M. pubescens*, Kœrn., e Madagascaria, bractearum laminis minimis vix prominulis. *M. Rutenbergianum*, Kœrn. in Rel. Rutenberg., e Madagascaria, est verisimiliter *M. pubescentis* forma glabrior.

3. **Pæpalanthus,** *Mart. in Nov. Act. Nat. Cur.* xvii. 13. (Dupatya, *Vell. Fl. Flum.* 35, *Ic.* i. *t.* 85 *ad* 87. Lasiolepis, *Bœckel. in Flora*, 1873, 90, *quoad L. pilosam.*)—Perianthii exterioris segmenta 3 v. 2, distincta, v. rarius in fl. ♀ basi v. medio connata, plana v. concava; interius, in fl. ♂, ad apicem stipitis sæpius brevis interdum superne clavati, tubuloso-campanulatum v. cyathiforme, breviter v. rarius fere ad basin 3- v. 2-fidum; in fl. ♀ ab exteriore parum distans, e segmentis 3 v. 2 distinctis v. rarius medio connatis. Stamina in fl. ♂ infra medium v. basi perianthii interioris affixa, lobis numero æqualia (3 v. 2) iisque opposita, sæpius breviter exserta, filamentis filiformibus; antheræ ovatæ v. oblongæ, sæpius parvæ pallidæque, loculis 2 distinctis parallelis longitudinaliter dehiscentibus; staminodia in fl. ♀ rara minima. Ovarium in fl. ♀ intra perianthium interius sessile, 3- v. 2-lobum, 3- v. 2-loculare; stylus columnaris v. filiformis, apice 3- v. 2-fidus, ramis subulatis stigmatosis sæpius 2-fidis, additis sæpius lobis v. appendiculis 3 v. 2, cum stigmatosis alternantibus iisque nunc multo brevioribus apice penicillatis v. glandulosis nunc elongatis nudisque; pistilli rudimentum in fl. ♂ e lobis v. glandulis 3 v. 2 nunc appendiculis styli subsimilibus, nunc sæpius minimis v. interdum obsoletis. Fructus et semina ordinis.—Herbæ perennes v. rarius annuæ, campestres paludosæ v. rarius aquaticæ, habitu polymorpho nunc omnino *Eriocauli*, nunc sæpius caule foliato plus minus evoluto interdum robusto ramosoque. Scapi v. pedunculi ad axillas foliorum superiorum solitarii, sæpius longi 1-cephali, in sectione *Platycaulo* apice ∞-cephali, in paucis speciebus foliis breviores. Bracteæ variæ. Flores utriusque sexus sæpius in capitulo irregulariter mixti, fœminei tamen in ambitu masculi in centro copiosiores, rarius capitula omnino unisexualia videntur.

Species enumerat Kœrnicke 215, fere omnes *Americæ tropicæ incolæ, perpaucæ in America australi extratropica extensæ*, una sola in Americæ borealis civitatibus austro-orientalibus obvia, et una ex Africa australi a Kœrnickio ut videtur rite ad *Pæpalanthum* potius quam *Eriocaulum* relata. *P. repens*, Kœrn., tamen, ex insulis Mascarensibus, nobis omnino ad *Eriocaulum* restituendum videtur. Inter species Americanas a Kœrnickio descriptas paucæ verisimiliter melius notæ reducendæ erunt, nonnullæ tamen novæ tam Brasilienses quam Guianenses v. Colombianæ adhuc addendæ. *Kunth, Enum. Pl.* iii. 498. *Kœrn. in Mart. Fl. Bras.* iii. i. 305, *t.* 39 *ad* 60. *Bongard in Mem. Acad. Imp. Sc. Petersb. ser.* 6, i. 601, *t.* 1 *ad* 10; ii. 219, *t.* 11 *ad* 19; iii. 545, *t.* 20 *ad* 27; v. (*Bot.*) 9, *t.* 28 *ad* 32 (*Eriocaulon*). Species a Bongardio illustratæ, omnes Brasilienses, ad *Pæpalanthum* pertinent, præter *E. cuyabensem*, de quo confer infra sub *Philodice*.

Genus a Kœrniekio in series 2 (sectiones dictas) et in sectiones 14 (subgenera dictas) dividitur quarum aliæ naturales v. accurate limitatæ, aliæ nimis artificiales v. male definitæ v. monotypicæ. Series prima, capitulis sæpius nec semper dense villosis continet sectiones 5:—

1. *Dimeranthus.* Flores 2-meri, 2-andri (in cæteris sectionibus 3-meri 3-andri). Herbæ robustæ v. rarius humiles, nunc ramosæ umbelliferæ *Actinocephali*, nunc subacaules habitu *Eupæpalanthi* v. *Eriocauli*. In speciebus umbelliferis umbellæ more *Actinocephali* ramos terminant sæpiusque simul ad apicem caulis ipsius evolvuntur, quod rarissime in *Actinocephalo* observatur. *Kœrn. in Mart. Fl. Bras.* iii. i. *t.* 39 *ad* 42.

2. *Actinocephalus.* Caules foliati sæpius robusti ramosi. Umbellæ ramos terminantes, pedunculis numerosissimis confertis subæqualibus, bracteis sub umbella paucis involucrum parum distinctum formantibus. Sectio naturalis sæpius bene distincta, etsi *P.* (*Dimerantho*) *specioso* et *P.* (*Eupæpalantho*) *polygono* habitu accedit. *Kœrn. in Mart. Fl. Bras.* iii. i. *t.* 43 *ad* 46. *Hook. Ic. Pl. t.* 512, 527.

3. *Xeractis.* Bracteæ capitula involucrantes rigidulæ, acutæ, interiores flores superantes patentes v. recurvæ vix tamen radiantes. Caules nunc brevissimi foliis subradicalibus *Eupæpalanthi* v. *Eriocauli*, nunc evoluti superne foliati pedunculis axillaribus. Sectio minime naturalis. *Kœrn. in Mart. Fl. Bras.* iii. i. *t.* 47, *f.* 1, *t.* 57, *f.* 4. *Delass. Ic. Sel.* iii. *t.* 97. *Hook. Ic. Pl. t.* 523.

4. *Eupæpalanthus.* Species numerosæ habitu diversissimæ nunc sæpe subacaules foliis rosulatis scapisque subradicalibus *Eriocauli*, nunc caule foliato evoluto, pedunculis paucis axillaribus elongatis v. brevissimis, rarius numerosis in umbellam terminalem confertis. Sectio polymorpha distinguitur

potius absentia characterum aliis sectionibus propriorum quam charactere v. habitu proprio. In *P. dichotomo*, Kl. (a quo *P. guianensis*, Kl., non differre videtur), *P. selaginoide*, Kœrn., *P. sessilifloro*, Mart., paucisque aliis caules humiles cæspitoso-ramosi fere muscoidei dense foliati et capitula ad axillas subsessilia v. pedunculis folio brevioribus fulta; in *P. Gardneriano*, Kœrn. (CLADOCAULO, *Gardn. in Hook. Ic. t.* 528), caulis foliatus elongatus ramosus, capitula ad axillas superiores breviter pedunculata, bracteæ involucrantes imbricatæ rigidæ et obtusæ flores non superantes; in *P. argyrolino*, Kœrn., caules elongati, pedunculi longi tenues cum foliis dissite fasciculati fere *Stephanophylli*; in *P. Schomburgkii*, Kl., habitus omnino *Andraspidopsidis*, foliis subradicalibus rosulato-cæspitosis, scapis apice umbellam rigidam foliaceo-involucratam ferentibus cæterum nudis; in *P. polygono*, Kœrn., caulis robustus foliatus *Actinocephali*, et pedunculi pariter numerosi, ad apicem caulis conferti fere umbellati, sed foliis quam pedunculi paullo brevioribus intermixti. *Lam. Illustr. t.* 50, *f.* 3 (*Eriocaulon*). *H. B. et K. Nov. Gen. et Sp. t.* 69, *f.* 2. *Deless. Ic. Sel.* iii. *t.* 95, 96. *Miq. Stirp. Surin. t.* 65. *Hook. Ic. Pl. t.* 510. *Kœrn. in Mart. Fl. Bras.* iii. i. *t.* 47 *ad* 50.

De *P. albido* et *P. rupestre*, Gardn. in Hook. Ic. Pl. t. 525, a Kœrnickio in *Eupœpalantho* inclusis, confer infra sub *Philodice*.

5. *Platycaulon.* Scapi aphylli v. pedunculi apice ∞-cephali (in cæteris omnibus sectionibus 1-cephali), capitulis breviter pedicellatis v. arcte sessilibus, corymbum parvum v. capitulum compositum formantibus. Cætera *Eupœpalanthi*. Caulis sæpius brevissimus crassus v. subnullus. Folia rigidula, rosulata v. conferta. Scapi v. pedunculi more generis basi vaginati; pedicelli in corymbo nudi, rarissime bractea unica adest ad apicem scapi sub corymbo. Sectio distinctissima, species plures Andinas cum Brasilianis includens. *Mart. in Nov. Act. Nat. Cur.* xvii. *t.* 1. *Kœrn. in Mart. Fl. Bras.* iii. i. *t.* 51, 52.

Series altera (sectio *Kœrn.*) distinguitur capitulis glabriusculis, sæpe præter pilos paucos receptaculi glaberrimis, et a Kœrnickio in sectiones (subgenera, *Kœrn.*) 9 dividitur. Species tamen plures speciebus respondentibus *Eupœpalanthi* simillimæ sunt, et character seriei minime constans est. In *P. arenario*, Kœrn., et *P. heterophyllo*, Kœrn., capitula dense villosa sunt et in pluribus aliis plus minus pilosa. Inter has sectiones, 3 magis distinctæ videntur:—

6. *Stephanophyllum*, caule primario brevissimo subnullo, ramis flagelliformibus elongatis hinc inde foliorum pedunculorumque fasciculos ferentibus quasi proliferis cæterum nudis. *Kœrn. in Mart. Fl. Bras.* iii. i. *t.* 54. STEPHANOPHYLLUM, *Guillem. in Deless. Ic. Sel.* iii. 61, *t.* 98. Sectio *P.* (*Eupœpalantho*) *argyrolino*, Kœrn., prope accedit.

7. *Eulepsis.* Capitulorum bracteæ involucrantes exteriores breviusculæ, latæ, imbricatæ, subcoriaceæ, interiores elongatæ, radiato-patentes, albæ, scariosæ v. fere petaloideæ. Kœrnicke, in Mart. Fl. Bras. iii. i. t. 57, f. 1, sectionem restrixit ad species subacaules habitu *Eriocauli*, nobis tamen melius definita videtur si includimus *P. anthemidiflorum*, Kunth.; Kœrn. in Mart. Fl. Bras. iii. i. t. 57, f. 2, et *P. laricifolium*, Gardn. in Hook. Ic. Pl. t. 524, quorum capitula peculiaria *Eulepidis*, cum habitu *Andraspidopsidis*.

8. *Andraspidopsis*, apud Kœrnickium (in Mart. Fl. Bras. iii. i. 439, t. 57, 58), species plures continet foliis ut in subacaulibus dense rosulatis, scapo tamen apice fasciculum densum foliorum pedunculorumque ferente cæterum aphyllo v. paucifoliato. *Lam. Illustr. t.* 50, *f.* 4 (*Eriocaulon*). Species tamen Kœrnickianæ inter se parum affines sunt. *P. anthemidiflorum* et *P. laricifolium* jam supra ad *Eulepidem* retulimus; in *P. fertili*, Kœrn., et *P. verticillato*, Kœrn., foliorum fasciculi secus caulem plures fere *Stephanophylli*; in *P. Steudeliano*, Kœrn., caules infra fasciculum terminalem folia parva sparsa v. hinc inde fasciculata fert et species *P.* (*Eupœpalantho*) *fasciculato* accedit; in *P. arenario*, Kœrn. (*Eriocaulo arenario*, Gardn. in Hook. Lond. Journ. i. t. 13) capitula dense villosa seriei primæ. *P. densiflorus*, Kœrn., habitum præbet omnino *P.* (*Eupœpalanthi*) *Schomburgkii*, Kl., cujus etiam capitula fere glabra.

Sectiones parvæ v. monotypicæ *Lophophyllum*, *Psilocalyx*, *Trichocalyx*, *Thysanocephalus*, *Psilocephalus* et *Carphocephalus*, Kœrn. in Mart. Fl. Bras. iii. i. t. 53, 55, 56, 59, speciebus respondentibus *Eupœpalanthi* prope accedunt, nec nisi bracteis perianthiisque sæpissime nec semper glabris ab hac sectione separantur.

4. **Philodice,** *Mart. in Nov. Act. Nat. Cur.* xvii. 16, *t.* 3.—Perianthii exterioris segmenta 3, distincta, plana, sæpius unguiculata, tenuissime hyalina; interius in fl. ♂ cum stipite sæpius apice incrassato continuum, cyathiforme, brevissime 3-lobum v. 3-dentatum; in fl. ♀ ab exteriore parum distans, e segmentis 3 unguibus distinctis, laminis in cyathum quam in mare majorem connatis v. liberis conniventibusque. Stamina in fl. ♂ 2 v. 3,

intra basin cyathi affixa, breviter exserta, filamentis filiformibus; antheræ parvæ, ovato-oblongæ, antice sulcatæ, rima unica dehiscentes, apertæ 1-loculares; staminodia in fl. ♀ 0. Ovarium in fl. ♀ intra perianthium interius sessile, 3-lobum, 3-loculare; stylus filiformis, 3-fidus, ramis stigmatosis indivisis, appendiculis 3 cum ramis stigmatosis alternantibus iisque multo brevioribus; pistilli rudimentum in fl. ♂ minimum. Fructus et semina ordinis.—Herbæ humiles, tenues, caulibus dense foliatis cæspitoso-ramosis v. infra inflorescentiam simplicibus. Folia brevia, lineari-filiformia. Pedunculi filiformes, 1-cephali. Capitula parva, fructifera globosa. Perianthia glabra v. exteriora parce ciliata. Receptaculum breviter pilosum.

Species 5 (v. 2?) Guianæ et Brasiliæ incolæ. *Kunth, Enum. Pl.* iii. 495. *Kœrn. in Mart. Fl. Bras.* iii. i. 304, *t.* 38.

Genus *Pæpalantho* valde affine, nec habitu nec floribus fœmineis a speciebus nonnullis generis istius polymorphi distinguendum. Kœrnicke genus retinuit ad species 2 limitatum floribus ♂ 2-andris in perianthio 3-mero, nobis melius definitum videtur si includimus *Pæpalanthum albidum* et *P. rupestrem*, Gardn. in Hook. Pl. t. 525, floribus ♂ 3-andris, antheris tamen apertis 1-locularibus. Species typica *P. Hoffmanseggii*, Mart., habitu speciminibus minoribus *Pæpalanthi Schraderi* simillima est, et bracteæ involucrantes pariter angustæ acutæque, caulis foliatus basi simplex plus minus evolutus etsi humilis, apice corymbosus dense foliosus, pedunculis filiformibus folia parum excedentibus; in hac stamina semper 2 tantum vidimus. In *P. albida* et *P. rupestre*, caules foliati dense cæspitoso-ramosi basi breviter tantum simplices, pedunculi capillares quam in *P. Hoffmanseggii* longiores et bracteæ involucrantes breviores latioresque. Stamina ut videtur constanter 3. *Philodice cuyabensis*, Kœrn. (*Eriocaulon cuyabense*, Bong. in Mem. Acad. Petersp. ser. 6, i. t. 10), floribus ♂ ex Bongardio 3-andris, ex Kœrnickio 2-andris, et *Pæpalanthus prostratus*, Kœrn., floribus ♂ 3-andris, antheris tamen 1-locularibus, nobis ignoti sunt.

5. **Lachnocaulon,** *Kunth, Enum. Pl.* iii. 497.—Perianthii exterioris segmenta 3, distincta, ovalia v. spathulata, concava; interius 0. Stamina in fl. ♂ ad apicem stipitis perianthio exteriore inclusa 3, circa pistilli rudimentum minimum 3-partitum inserta, filamentis brevibus persistentibus; antheræ oblongæ, rima unica dehiscentes, apertæ 1-loculares. Ovarium in fl. ♀ intra perianthium exterius fere sessile, pilis numerosis cinctum, 3-loculare; stylus superne crassiusculus, breviter 3-fidus, appendicibus alternis minimis. Semina ovoideo-globosa, striata.—Habitus *Eriocauli* normalis. Folia radicalia v. in rhizomate breviter evoluto cæspitoso-rosulata, tenuia, acuminata. Scapi tenues, 1-cephali. Capitulum primum interdum depressum, perfecte evolutum globosum v. ovoideo-globosum. Bracteæ involucrantes floribus breviores, scariosæ, sub capitulo perfecte evoluto occultæ, interiores sub floribus spathulatæ, hyalinæ, interdum medio nigricantes. Perianthii exterioris segmenta nunc in fl. ♂ solis, nunc in utroque sexu, medio nigricantia, margine nunc conspicue albo-ciliata, nunc ciliis minutissimis glabra apparent. Pili receptaculi et stipitum copiosi.

Species nobis adsunt 2, Americæ borealis civitatum austro-orientalium incolæ, nec plures ab auctoribus Americanis recognitæ. Kœrnicke tamen in Linnæa, xxvii. 564, 4 descripsit quarum 2 novæ *L. Beyrichianum*, Kœrn., e Georgia, cujus characteres omnino convenire videntur speciminibus bene evolutis *L. Michauxi*, Kunth; et *L. digynum*, Kœrn., pistillo 2-mero, ad specimina Drummondiana prope Covington lecta descriptum, quæ nobis videntur specimina depauperata *L. Michauxi*, capitulis parvis nondum bene evolutis, floribus 3-meris pistillo sæpe imperfecto.

6. **Tonina,** *Aubl. Pl. Gui.* 856, *t.* 330. (Hyphydra, *Schreb. Gen. Pl.* 666.)—Perianthii exterioris segmenta 3, in fl. ♂ membranacea, rotundata, concava, in globum conniventia, basi subconnata, in fl. ♀ lanceolata, acuta, carinata, rigidula, a basi distincta; interius in fl. ♂ ad apicem stipitis clavati minimum, cyathiforme, minute 3-dentatum v. truncatum, in fl. ♀ e segmentis 3 distinctis hyalinis brevissimis longe ciliato-fimbriatis. Stamina in fl. ♂ 3; antheræ parvæ, ovatæ, antice sulcatæ, rima unica dehiscentes, apertæ 1-loculares; staminodia in fl. ♀ 0. Ovarium in fl. ♀ sessile, 3-lobum, 3-loculare; stylus filiformis, 3-fidus, ramis stigmatosis 2-fidis, appendiculis 3 cum ramis stigmatosis alternantibus iisque parum brevioribus rigidulis; pistilli rudimenta in fl. ♂ minuta glanduliformia. Fructus et semina ordinis.—Caules foliati, longe procumbentes, basi radicantes. Folia brevia,

linearia v. sublanceolata, patentia v. recurva, basi complicata amplexicaulia v. breviter vaginantia. Pedunculi axillares, 1-cephali, nunc brevissimi v. vix ulli, nunc capitulo paullo longiores, vagina basilari brevi sæpius in laminam foliaceam linearem producta. Capitulum globosum, bractearum perianthiorumque exteriorum segmentorum acuminibus quasi echinatum. Bracteæ omnes acute acuminatæ, exteriores perpaucæ vacuæ, v. interdum omnes florem fovere videntur. Flores ♂ et ♀ in speciminibus pluribus examinatis irregulariter mixtos invenimus, nec per paria oppositos ut a Martiuso descripti.

Species 1, in paludibus, campis inundatis, locis arenosis, ad margines aquorum per Americam tropicam late dispersa, caulibus basi sæpe submersis radicantibus, ramis florentibus longis demersis in limo v. arena procurrentibus nec fluitantibus. *Mart. in Nov. Act. Nat. Cur.* xvii. 15, *t.* 4. *Kunth, Enum. Pl.* iii. 494. *Kœrn. in. Mart. Fl. Bras.* iii. i. 301, *t.* 38.

Ordo CXCVII. **CENTROLEPIDEÆ.**

Endl. Gen. Pl. 119. Hieronymus, Beiträge zur Kentnisse der Centrolepidaceen, Halle, 1873, cum tabb. 4, in Abhandl. Nat. Gesellsch. Halle xii. Desvauxiaceæ, Lindl. Veg. Kingd. 120.

Flores hermaphroditi v. polygami, in spiculis v. capitulis parvis plures v. rarius solitarii, sessiles, glumis v. bracteis sub quoque flore 1–3 v. 0. *Perianthium* 0. *Stamen* 1, v. rarissime stamina 2; filamenta filiformia. *Antheræ* oblongæ v. lineares, versatiles, rima unica longitudinali dehiscentes, apertæ 1-loculares. *Ovarium* 1, 1-loculare v. collateraliter 2–3-loculare, v. loculis carpellisve 2–∞ 1–2-seriatim superpositis. *Styli* tot quot loculi v. carpella, distincti v. plus minus connati, v. rarius in ovario 1-loculari 2–3, lineari-filiformes, indivisi, superne 1-lateraliter stigmatosi. *Ovula* in loculis solitaria, pendula, orthotropa. *Fructus* parvus, ovario conformis, paullo auctus, pericarpio membranaceo, loculis v. carpellis extrorsum in longitudinem dehiscentibus. *Semina* in loculis carpellisve solitaria, pendula sæpeque axi lateraliter adnata, testa tenui appressa. *Albumen* subfarinaceum. *Embryo* parvus, obovoideus v. obconicus, ad marginem albuminis ab hilo remotus.

Herbæ parvæ, nunc minimæ, modo annuæ caule brevissimo v. subnullo, modo perennes cæspitoso-ramosæ fere muscoideæ. Folia linearia v. filiformia, in speciebus annuis radicalia dense cæspitosa, in perennibus secus ramos breves imbricato-subpatentia. Scapi radicales v. pedunculi terminales, tenues, 1-cephali.

Species vix 30, fere omnes Australianæ, cum una in Asia orientali australi reperta et 3 (v. 4?) Novæ Zelandiæ v. Americæ antarcticæ propriis.

Ordo parvus, olim *Restiaceis* adjunctus, fructu et seminibus *Eriocauleis* affinis, quibus etiam habitu mediante *Trithuria* accedit, ub utroque ordine tamen facile distinguitur perianthio prorsus deficiente.

CONSPECTUS GENERUM.

* *Herbæ annuæ subacaules, foliis scapisque radicalibus.*

1. Trithuria. Capitulum depressum, bracteis ∞ (ad 6) involucratum. Stamina cum ovariis 1-locularibus in receptaculo subplano mixta, absque bracteis interioribus. Styli in ovario 2–3.—*Australia austro-occid.*, *Victoria*, *Tasmania*.

2. Aphelia. Spicula complanata, bracteis (v. glumis) ∞ distichis 1-floris v. infimis 2–∞-floris. Ovarium 1-loculare, stylo unico.—*Australia austro-occid.*, *Victoria*, *Tasmania*.

3. Centrolepis. Spiculæ bracteæ (v. glumæ) 2, alternæ, 1–∞-floræ. Ovarii loculi v. lobi 3–∞, 2-seriatim superpositi, rarius ad 1 v. 2 reducti, styli totidem.—*Australia*, *Asia austr. or.*

** *Herbæ perennes, cæspitoso-ramosæ, dense foliatæ fere musciformes, pedunculis terminalibus.*

4. Gaimardia. Spiculæ bracteæ (v. glumæ) 2, alternæ, 1–2-floræ. Ovarii loculi v. carpella stylique 2, rarius 3–4.—*Nov. Zelandia*, *Amer. antarct.*

1. **Trithuria**, *Hook. f. Fl. Tasm.* ii. 78, *t.* 138. (Juncella, *F. Muell. Sec. Gen. Rep.* 16, *nomen tantum*.)—Flores in capitulo depresso numerosi, in receptaculo subplano sessiles

ovariis staminibusque densissime confertis specie irregulariter mixtis, absque bracteis interioribus. Staminum filamentum filiforme; anthera oblonga. Ovaria 3-quetra v. compressa, 1-locularia, 1-ovulata; styli 3 v. 2, filiformia, distincta v. basi breviter connata. Fructus 2–3-angulatus, a basi sursum in valvas totidem ab angulis filiformibus solvendas dehiscens.—Herbæ annuæ, nanæ, subacaules. Folia filiformia, radicalia, cæspitoso-conferta. Scapi tenues, radicales. Capitulum parvum, bracteis ∞ (ab 6) angustis acutis involucratum.

Species 2, Victoriæ, Tasmaniæ et Australiæ austro-occidentalis incolæ.—*Benth. Fl. Austral.* vii. 199.

2. **Aphelia,** *R. Br. Prod.* 251. (Brizula *et* Aphelia, *Hieron. Centrolep.* 92, 94.)—Spicula plano-compressa, bracteis (v. glumis) distichis. Flores hermaphroditi v. polygami, sub quaque bractea sessiles, solitarii v. sub bracteis inferioribus 2–∞, singuli sæpius squamellis 1–2 hyalinis minimis stipati. Stamen 1, filamento filiformi; anthera linearis v. oblonga. Ovarium 1-loculare, in stylum indivisum lineari-filiformem superne stigmatosum desinens. Fructus ex ovario parum auctus, pericarpio membranaceo, in longitudinem dehiscens.—Herbæ annuæ, parvulæ, subacaules. Folia lineari-filiformia, radicalia, cæspitoso-conferta. Scapi tenues, radicales. Spicula ovata v. lanceolata, bracteis angustis complicatis, distiche patentibus, laxe v. arcte imbricatis. Flores sub bracteis inferioribus sæpe 2 v. ∞, unus v. omnes masculi, superiores sæpius solitarii hermaphroditi.

Species 6, Australiæ austro-occidentalis Victoriæ et Tasmaniæ incolæ. *Benth. Fl. Austral.* vii. 199. *Desv. in Ann. Sc. Nat. ser.* 1, xiii. *t.* 2. *Hook. f. Fl. Tasm. t.* 138.

Hieronymus genus limitavit ad *A. cyperoidem*, Br., floribus omnibus hermaphroditis ad bracteas solitariis. Nos tamen in hac specie semper ad bracteam infimam et interdum etiam ad secundam flores 2 invenimus, altero v. utroque masculo. Cæteræ species genus *Brizulam*, Hieron., formant.

3. **Centrolepis,** *Labill. Pl. Nov. Holl.* i. 7, *t.* 1. (Desvauxia, *errore* Devauxia, *et* Alepyrum, *R. Br. Prod.* 252, 253.)—Spicula e bracteis (v. glumis) sæpius 2, alternis. Flores hermaphroditi, sub quaque bractea sessiles plures v. rarius solitarii v. sub bractea inferiore 0, singuli sæpius squamellis 1–3 hyalinis minimis stipati. Stamen 1, filamento filiformi; anthera oblongo-linearis. Ovarium e carpellis 3–∞ (rarius ad 2 v. 1 reductis) in receptaculo lineari a latere adnatis superpositeque 2-seriatis 1-ovulatis; styli tot quot carpella, distincti v. basi connati, lineari-filiformes, indivisi, superne stigmatosi. Fructus ovario conformis parumque auctus, pericarpio membranaceo, carpellis extrorsum in longitudinem dehiscentibus.—Herbæ (an semper?) annuæ, humiles interdum nanæ, subacaules. Folia lineari-filiformia, radicalia, cæspitoso-conferta. Scapi tenues, radicales. Spicula erecta v. basi recurva, bracteis 2 arcte approximatis v. inter se parum distantibus, inferiore sæpius majore acuminato, in una specie deficiente.

Species 17, quarum una a L. Pierre in Cambodia detecta, cæteræ omnes Australianæ. *Benth. Fl. Austral.* vii. 202. *Hieron. Centrolep.* 95. *Desv. in Ann. Sc. Nat. ser.* 1, xiii. *t.* 2. *Rudge in Trans. Linn. Soc.* x. *t.* 12. *Guillem. Ic. Pl. Austral. t.* 17 (*Devauxia*). *Endl. Iconogr. t.* 49. *Hook. f. Fl. Tasm. t.* 138. *Hance in Trim. Journ. Bot.* 1876, 14.

4. **Gaimardia,** *Gaudich. in Freyc. Voy. Bot.* 418, *t.* 30.—Spicula e bracteis (v. glumis) 2 alternis. Flores in spicula 2, sessiles v. stipitati, hermaphroditi v. inferior ♀ v. imperfectus. Stamina 1 v. 2, filamentis filiformibus; antheræ oblongæ. Ovarium 2- rarius 3-loculare, loculis collateralibus connatis v. vix apice discretis; styli 2 v. 3, filiformes, fere a basi stigmatosi. Capsula apice loculicide 2-valvis, v. loculis axi adhærentibus rima dorsali dehiscentibus.—Herbæ perennes, humiles, densissime cæspitoso-ramosæ foliosæque, fere muscoideæ. Folia linearia v. setacea, undique imbricata. Spiculæ intra folia summa brevissime v. longiuscule pedunculatæ.

Species 3 v. 4, Americæ antarcticæ et Novæ Zelandiæ incolæ. *Hieron. Centrolep.* 104. *Hook. f. Fl. Antarct.* i. 85; *Handb. N. Zel. Fl.* 295.

Species inter se habitu simillimæ, pluribus notis tamen valde diversæ. In *G. pallida*, Hook. f.,

postea ab auctore *Fl. N. Zel.* i. 268; *t.* 62 C, ad *Alepyrum* relata (genus ALEPYRUM, *Hieron. Centrolep.* 103, *non R. Br.*), spiculæ brevissime pedicellatæ folia non superantes; ovaria utriusque floris sessilia, 2–3-locularia; stamen in spicula unicum ad florem superiorem, v. 2 unum ad quemque florem; capsulæ juniores iis *G. australis* subsimiles, maturæ ignotæ. In specie typica, *G. australi*, Gaud., spiculæ brevissime pedunculatæ, folia vix v. non superantes, 1–2-floræ; stamina ad florem superiorem 2; ovaria 2-locularia, basi in stipitem contracta, floris inferioris dum adsit sterile; capsula apice 2-valvatim dehiscens. In *G. setacea*, Hook. f., spiculæ (*Centrolepidis*) longe pedunculatæ, exsertæ, acuminatæ, 1-floræ; stamina sæpius 2; ovarium sessile, 2-loculare; capsula membranacea loculis dorso in longitudinem dehiscentibus.

ORDO CXCVIII. RESTIACEÆ.

Endl. Gen. Pl. 120. Lindl. Veg. Kingd. 121. Masters in DC. Monogr. Phanerog. i. 218.

Flores dioici, rarius monoici, rarissime hermaphroditi, in spiculas e glumis (seu bracteis) siccis rigidisve v. rarius tenuibus varie imbricatis v. rarius dissitis dispositi, sub quaque gluma solitarii sessiles v. rarius stipitati, v. præsertim ♀ in spicula solitarii. *Perianthium* regulare, segmentis 6 rarius ad 5, 4 v. 3 reductis glumaceis rigidis scariosis v. hyalinis plus minus distincte 2-seriatis. *Stamina* in fl. ♂ 3; filamenta filiformia, distincta v. rarius basi in columnam connata; antheræ oblongæ, pro perianthio majusculæ dorsifixæ, in paucis generibus distincte 2-loculares, loculis parallelis, in plerisque 1-loculares, loculis in omnibus rima longitudinali dehiscentibus; staminodia in fl. ♀ 3 parva interdum clavata v. 0. *Ovarium* in fl. ♀ sessile v. stipite crasso fultum, 1–3-loculare. *Styli* tot quot loculi, v. in ovario 1-loculari 1–3, a basi discreti v. plus minus connati, filiformes, superne v. fere a basi introrsum in longitudinem stigmatosi, sæpeque villoso-subplumosi. *Ovula* in loculis solitaria, pendula, orthotropa. *Fructus* siccus, sæpius parvus, nuceus v. capsularis, teres compressus v. 3-queter, indehiscens v. a latere v. ad angulos dehiscens, 1–3-locularis, 1–3-spermus. *Semina* in loculis v. in fructu solitaria, pendula, apice v. sub apice affixa, sæpius striata v. tenuiter tuberculato-rugosa, testa appressa. *Albumen* copiosum, farinaceum v. plus minus carnosum. *Embryo* parvus, lenticularis v. obovoideus, ab hilo remotus, albumini applicitus.

Herbæ sæpissime perennes, basi cæspitosæ v. rhizomate duro horizontali v. repente sæpius squamis imbricatis obtecto. Caules rigidi, simplices v. ramosi, erecti flexuosi v. varie contorti. Folia interdum pauca radicalia longe cyperoidea, sæpissime tamen omnia ad vaginas rigidas convolutas secus caulem dissitas reducta v. prorsus deficientia; vaginæ hæc variant nunc arcte appressæ tubuliformes, marginibus tamen non connatis ut in *Cyperaceis*, nunc laxiores plus minus apertæ, persistentes v. cito deciduæ cicatricem annularem v. brevissime tubulosum relinquentes; summæ sæpe in bracteas primarias inflorescentiæ seu spathas abeuntes. Inflorescentia polymorpha, in planta ♂ et ♀ conformis v. valde diversa, in priore sæpius laxior ramosiorque, in illa simplicior, interdum ad spiculam unicam reducta. Flores quoad spiculas *Cyperaceis*, quoad perianthium *Junco* accedunt. Bracteæ primariæ seu spathæ sub ramis inflorescentiæ nunc amplæ rigidulæ coloratæ laxæ citoque deciduæ, nunc minores appressæ vaginiformes v. acuminatæ, sub spiculis singulis sæpius parvæ. Spiculæ sæpe compressæ, glumis tamen (v. bracteis) undique imbricatis omnibus florem sessilem foventes v. infimis paucis vacuis; interdum vero laxæ, glumis dissitis floribusque breviter pedicellatis fere racemiformes, v. præsertim in planta fœminea 1-floræ, glumis pluribus vacuis undique imbricatis quaquaversis. Bracteolæ interdum præsertim in spicula laxiflora adsunt 1–2 parvæ sub quoque flore. Perianthia sæpius glumas excedunt; interdum vero omnino inclusa.

Species ad 230, pro maxima parte Africæ austro-occidentalis v. Australiæ incolæ, perpaucæ in Nova Zelandia inveniuntur, una sola in Chile; una in Cochinchina; omnes extratropicæ, exceptis 5 inter Australianas cum Cochinchinensi in regione tropica obviis.

Ordo habitu et inflorescentia *Cyperaceis* accedit, perianthio *Juncaceis*, ab utroque ordine facile distinguitur ovulis pendulis orthotropis, et seminum structura, a *Juncaceis* insuper constanter differt staminum seriei exterioris defectu, et a *Cyperaceis* vaginarum marginibus etsi sæpe clausis nunquam (quantum adhuc observatis) connatis. Differentias *Eriocaulearum* et *Centrolepidearum* supra sub his ordinibus indicavimus.

Generum specierumque definitio accurata et ordinatio opus est difficillimum. Inflorescentia ♂ sæpe in generibus distinctis simillima v. in eodem genere polymorpha. Flores ♂ in generibus haplantheris characteres paucos distinctivos præbent. Inflorescentia et flores ♀ melius definiuntur, sed specimina ♀ in herbariis nostris haud numerosa v. male maribus suis adæquata. Præter specimina in herbario Kewensi servata, Masters numerosa Africana in variis herbariis, Bentham Australiana in Herb. R. Br. et F. Muell. observavit comparavitque, in speciebus tamen perplurimis, modo flos ♀ sub anthesi, modo fructus maturus adhuc ignotus v. imperfecte scrutatus est, et ordo botanicis australibus quibus fas est plantas vivas in loco natali observare intente commendatur.

FORMÆ ABNORMES.

Folia saltem radicalia evoluta in *Anarthria*.

Flores interdum monoici in *Ecdeiocolea*, *Lepyrodia*, et *Leptocarpo*, hinc inde hermaphroditi in una specie *Lepyrodiæ*.

Spiculæ laxæ, glumis dissitis, floribus sæpe pedicellatis in *Anarthria*, *Lepyrodia* et in infl. ♂ *Willdenowiæ* et *Ceratocaryi*.

CONSPECTUS GENERUM.

* *Antheræ distincte 2-loculares, loculis rimis distinctis dehiscentibus* (*Diplantheræ*).

1. Lygınia. Spiculæ ♂ paucæ, spicatæ, ∞-floræ, glumis imbricatis. Filamenta in columnam alte connata. Spiculæ ♀ sæpe solitariæ, 1-floræ, glumis vacuis ∞ imbricatis. Capsula 3-angularis. Vaginæ persistentes.—*Australia austro-occid.*

2. Ecdeiocolea. Spiculæ utriusque sexus (interdum androgynæ) terminales, solitariæ, oblongo-cylindraceæ, multifloræ, glumis numerosis obtusis arcte imbricatis. Filamenta distincta. Ovarium 2-loculare. Vagina unica, persistens.—*Australia austro-occid.*

3. Anarthria. Spiculæ utriusque sexus paucæ, spicatæ v. anguste paniculatæ, laxe ∞-floræ, glumis dissitis v. vix imbricatis. Filamenta distincta. Capsula 3-angularis. Caules sæpe complanati. Folia radicalia evoluta. Vaginæ in caule simplici 0, in caule ramoso persistentes foliiferi.—*Australia austro-occid.*

** *Antheræ 1-loculares, rima unica dehiscentes* (*Haplantheræ*). *Styli v. styli rami* 2 *v.* 3. *Fructus 2–3-angulatus, ad angulos dehiscens v. rarius indehiscens.*

4. Lepyrodia. Spiculæ utriusque sexus (rarius hermaphroditæ) laxe ∞-floræ, paniculatæ v. interrupte spicatæ, glumis plus minus dissitis, floribus sæpe pedicellatis. Bracteolæ sæpe 2. Vaginæ persistentes v. deciduæ.—*Australia extratrop., Nov. Zel.*

5. Restio. Spiculæ utriusque sexus ∞-floræ v. ♀ interdum 1-floræ, glumis imbricatis. Inflorescentia varia, ♂ sæpius paniculata, ♀ similis v. simplicior, interdum 1-stachya. Capsula 2–3-locularis. Vaginæ persistentes.—*Afr. austr.*, *Australia.*

6. Dovea. Spiculæ utriusque sexus paucifloræ v. præsertim ♀ 1-floræ, spicatæ v. anguste paniculatæ, glumis imbricatis. Capsula 3-locularis. Vaginæ bracteæque spathaceæ, caducissimæ.—*Afr. austr.*

7. Askidiosperma. Spiculæ utriusque sexus paucifloræ v. præsertim ♀ 1-floræ, spicatæ v. breviter denseque paniculatæ, glumis imbricatis. Capsula 2-locularis. Vaginæ caducæ. Bracteæ spathaceæ longe setaceo-acuminatæ margineque ciliatæ.—*Afr. austr.*

8. Elegia. Spiculæ ♂ paucifloræ, ♀ 1-floræ, spicatæ capitatæ v. breviter denseque paniculatæ, glumis imbricatis. Fructus 3-queter v. 3-costatus, 1- rarius 2–3-spermus, vix v. non dehiscens. Vaginæ caducæ v. rarius persistentes. Bracteæ spathaceæ majusculæ, more *Doveæ* deciduæ.—*Afr. austr.*

9. Leptocarpus. Spiculæ utriusque sexus ∞-floræ v. ♀ rarius 1-floræ, paniculatæ spicatæ v. capitatæ, glumis imbricatis. Fructus sæpissime 3-queter, 1-spermus, indehiscens v. ad angulos dehiscens. Vaginæ persistentes. Bracteæ spathaceæ sæpius parum conspicuæ.—*Afr. austr.*, *Australia*, *Nov. Zel.*, *Chile*, *Cochinchina.*

*** *Antheræ 1-loculares, rima unica dehiscentes (Haplantheræ). Stylus simplex, filiformis. Fructus teres, nec angulatus nec costatus, pericarpio duro indehiscens (rarissime hinc fissus?) Glumæ imbricatæ.*

10. Loxocarya. Spiculæ parvæ, ♂ ∞-floræ, ♀ 1-floræ. Caules ramosi, sæpius flexuoso-ramosissimi. Vaginæ persistentes.—*Australia.*

11. Lepidobolus. Spiculæ utriusque sexus ∞-floræ, capituliformes, terminales, solitariæ v. in ♂ rarius 1–2 inferiores additæ. Caules sæpius simplices. Vaginæ caducissimæ.—*Australia extratrop. austr.*

12. Chætanthus. Spiculæ ♂ ignotæ; ♀ parvæ, ∞-floræ, in glomerulum terminalem congestæ. Caules tenues, simplices. Vaginæ persistentes.—*Australia austro-occid.*

13. Onychosepalum. Spiculæ utriusque sexus ∞-floræ, terminales, solitariæ. Perianthii segmenta 3, hyalina, unguiculata. Caules tenues, simplices, præter squamas basales nudi.—*Australia austro-occid.*

14. Thamnochortus. Spiculæ utriusque sexus ∞-floræ, ♂ ovatæ in panicula paucæ pedicellatæ, ♀ oblongæ, erectæ, in spica paucæ, sessiles. Flores plano-compressi. Perianthii segmenta 2 exteriora late alato-carinata. Caules sæpe ad nodos ramulis sterilibus fasciculato-ramosissimis instructi. Vaginæ persistentes.—*Afr. austr.*

**** *Antheræ 1-loculares, rima unica dehiscentes (Haplantheræ). Styli v. styli rami 2–3. Fructus teres v. leviter compressus, nec angulatus nec costatus, pericarpio duro indehiscens. Vaginæ persistentes.*

† *Glumæ imbricatæ.*

15. Staberoha. Spiculæ utriusque sexus ∞-floræ, ♂ ovatæ in panicula paucæ pedicellatæ, ♀ oblongæ, erectæ, sæpius solitariæ. Flores plano-compressi. Perianthii segmenta 2 exteriora alato-carinata. Styli 2. Caules simplices v. virgato-ramosi.—*Afr. austr.*

16. Hypolæna. Spiculæ parvulæ, ♂ sæpius ∞-floræ, secus ramos sessiles v. paniculatæ, ♀ 1-floræ, terminales, solitariæ v. geminæ. Perianthii segmenta ♂ linearia, ♀ brevia hyalina. Styli 2–3. Caules sæpius flexuoso-ramosissimi.—*Afr. austr., Australia.*

17. Hypodiscus. Spiculæ ♂ subglobosæ, ∞-floræ, solitariæ spicatæ v. paniculatæ; ♀ 1-floræ, solitariæ v. paucæ spicatæ. Glumæ aristatæ. Perianthii segmenta ♂ angusta, ♀ brevia hyalina. Stylus 2-fidus. Caules simplices juncei.—*Afr. austr.*

18. Cannomois. Spiculæ ♂ ∞-floræ, paniculatæ; ♀ paucifloræ, solitariæ v. geminæ. Perianthii ♂ segmenta plus minus scariosa; perianthium ♀ latum, scarioso-hyalinum, demum lacerum v. fissum. Styli 2. Caules simplices v. ramosi.—*Afr. austr.*

†† *Spiculæ ♂ laxæ subracemiformes, glumis dissitis.*

19. Willdenowia. Spiculæ ♂ ∞-floræ, interrupte spicatæ, ♀ 1-floræ, solitariæ v. geminæ, glumis ad 6 amplis coriaceis florem involventibus. Perianthii segmenta ♂ linearia, ♀ brevia, hyalina, demum squamiformia, basi fructus arcte appressa. Styli 2. Fructus (an semper?) lævis. Caules virgati, simplices v. ramosi.—*Afr. austr.*

20. Ceratocaryum. Inflorescentia ♂ composita, dense thyrsoidea v. oblonga, glumis perianthiisque scariosis argenteo-nitens. Fructus (an semper?) papilloso-tuberculatus. Cætera *Willdenowiæ.*—*Afr. austr.*

GENERA EXCLUSA.

Eriocaulon, Linn., et Centrolepis, Labill., olim *Restiaceis* inclusæ, hodie pro ordinibus propriis acceptæ, **Eriocauleæ** et **Centrolepideæ.**

Chætodiscus, Steud., ex descriptione manca auctoris, videtur *Eriocaulon Smithii,* Br., inter **Eriocauleas.**

Eurostorhiza, Steud., est *Caustis pentandra,* Br., inter **Cyperaceas.**

1. **Lyginia,** *R. Br. Prod.* 248. (Schœnodum, *Labill. Pl. Nov. Holl.* ii. 79, *t.* 29, *quoad plantam* ♂.)—Flores dioici, spiculis ♂ -floris, ♀ 1-floris, glumis imbricatis, inferioribus paucis in ♂ pluribus in ♀ vacuis. Perianthii segmenta 6, glumacea, glumas non excedentia. Fl. ♂: Stamina 3, filamentis alte in columnam connatis apice breviter liberis; antheræ 2-loculares, loculis distinctis parallelis basi apiceque discretis medio breviter

affixis rimis distinctis dehiscentibus. Pistilli rudimentum 0. Fl. ♀: Staminodia 0. Perianthii segmenta quam in mare latiora, rigida, acuta, circa ovarium late convoluta. Ovarium 3-loculare; styli basi breviter connati, crassiuscule filiformes, introrsum plumoso-stigmatosi. Capsula depressa, dura, prominenter 3-angulata, ad angulos demum dehiscens. —Caules e basi v. rhizomate duro decumbente v. repente ramoso squamosoque erecti, simplices, rigidi, sæpe flexuosi, vaginis paucis dissitis persistentibus interdum setaceo-acuminatis, ore dense ciliato-barbatis v. subnudis. Spiculæ paucæ, secus rhachin simplicem spicæ terminalis sessiles, fœmineæ haud raro ad unam terminalem reductæ. Bracteæ spathaceæ a vaginis caulinis parum mutatæ, pariterque ciliato-barbatæ v. subnudæ, sæpius acuminatæ.

Species 1, Australiæ austro-occidentalis incola. *Benth. Fl. Austral.* vii. 210. *Mast. in DC. Monogr. Phanerog.* i. 302, *t.* 1, 5, *f.* 3.

2. **Ecdeiocolea,** *F. Muell. Fragm. Phytogr. Austral.* viii. 236.—Flores unisexuales, in spicula terminali oblongo-cylindracea androgyna v. unisexuali numerosi, glumis undique arcte imbricatis. Perianthii segmenta 6, glumacea, glumas non excedentia. Fl. ♂: Stamina 3, filamentis liberis; antheræ 2-loculares, loculis distinctis parallelis basi apiceque discretis medio breviter affixis, rimis distinctis dehiscentibus. Pistilli rudimentum vix conspicuum. Fl. ♀: Staminodia 3, parva, nunc minuta. Ovarium 2-loculare; styli 2, distincti, longi, filiformes, fere a basi stigmatosi. Fructus . . . —Rhizoma reptans, squamosum. Caules erecti, simplices, basi squamis coriaceis nitidis imbricatis obtecti, quarum intima in vaginam cylindraceam sæpius producitur. Vagina caulina cæterum unica, cylindracea, arcte appressa persistensque, ab inflorescentia distans. Spicula unica terminalis, erecta, illi *Lepironiæ* aliarumque nonnullarum *Cyperacearum* simillima, glumis numerosis ∞-seriatim arcte imbricatis flores obtegentibus infimis paucis minoribus vacuis. Bractea spathacea nulla sub spicula.

Species 1, Australiæ austro-occidentalis incola. *Benth. Fl. Austral.* vii. 211. *Mast. in DC. Monogr. Phanerog.* i. 304, *t.* 1.

3. **Anarthria,** *R. Br. Prod.* 248.—Flores dioici v. rarius hinc inde monoici, spiculis laxe ∞-floris interdum subracemiformibus. Perianthii segmenta 6, glumacea, glumis sæpius longiora. Fl. ♂: Stamina 3, filamentis distinctis; antheræ 2-loculares, loculis distinctis parallelis apice basique breviter discretis medio dorso affixis, rimis distinctis dehiscentibus, Pistilli rudimentum 0. Fl. ♀: Staminodia 0 v. rarius 3 parva. Ovarium 3-loculare; styli 3, elongati, discreti, fere a basi stigmatosi. Capsula 3-angularis v. 3-loba, dura, demum ad angulos dehiscens.—Caules e rhizomate squamoso nunc erecti, rigidi, simplices, plus minus complanati, nunc ramosi, ramis virgatis strictis v. flexuoso-diffusis compressis v. teretibus. Folia radicalia v. ad basin caulium longa, linearia, basi vaginantia, secus caulem simplicem desunt, in caule ramoso sæpe plura; bracteæ spathaceæ sub inflorescentia v. sub ramis primariis foliis similes. Spiculæ seu racemuli in inflorescentia terminali spiciformi v. anguste paniculata ad nodos rhacheos sæpe complanatæ sessiles, erectæ v. in speciebus ramosis sæpe in ramulis solitariæ. Glumæ seu bracteæ in spiculis parvæ, plus minus dissitæ v. subimbricatæ. Bracteolæ 2 sub quoque flore.

Species 6, omnes Australiæ austro-occidentali propriæ. *Benth. Fl. Austral.* vii. 211. *Mast. in DC. Monogr. Phanerog.* i. 310, *t.* 2.

4. **Lepyrodia,** *R. Br. Prod.* 247.—Flores dioici monoici v. rarius hermaphroditi, spiculis laxe ∞-floris interdum subracemiformibus. Perianthii segmenta 6, glumacea v. tenuia, interdum fere hyalina, glumis sæpius longiora. Fl. ♂: Stamina 3, filamentis distinctis; antheræ oblongæ, dorsifixæ, 1-loculares, rima unica dehiscentes. Pistilli rudimentum parvum v. 0. Fl. ♀: Staminodia sæpius 3, filiformia clavata v. anthera cassa terminata, rarius antheris perfectis flos ☿ evadit. Ovarium 3-queter, 3-loculare; styli 3, distincti v. basi plus minus connati, lineares, superne v. fere a basi introrsum stigmatosi, sæpe plumosi. Capsula 3-loba v. 3-angularis, ad angulos dehiscens.—Caules e rhizomate

squamoso erecti, simplices juncei v. virgato-ramosi, aphylli. Vaginæ secus caulem plures, persistentes v. (in *L. macra* et *L. Drummondii*) deciduæ. Inflorescentia utriusque sexus subconformis. Panicula nunc dense polystachya, sæpius tamen angusta v. ad spicam interruptam reducta. Bracteæ sub paniculæ ramis v. spicularum fasciculis lanceolatæ v. angustæ, nec magnæ spathaceæ ut in *Dovea*. Spiculæ laxæ, glumis angustis v. parvis dissitis ut in *Anarthria*; bracteolæ sub floribus sæpius 2, in speciebus paucis desunt.

Species 15, quarum una Novo-Zelandica, cæteræ omnes Australiæ extratropicæ incolæ. *Benth. Fl. Austral.* vii. 214. *Mast. in DC. Monogr. Phanerog.* i. 224, *t.* 1. *Beauv. ex Desv. in Ann. Sc. Nat. ser.* 1, xiii. *t.* 3, *f.* 3. *Hook. f. Fl. Tasm. t.* 135.

Sporadanthus, *F. Muell. in Trans. N. Zeal. Inst.* vi. 389; *Kirk, ibid.* x. *App.* 41, est *Lepyrodia Traversii*, F. Muell., Fragm. Phytogr. Austral. viii. 79, species Novo-Zelandica, serius ab auctore generice distincta ob fructum nuceum 1-spermum. Nobis videtur, tanquam adhuc nota, *Lepyrodiæ* species vera, *L. scariosæ*, Br., proxime affinis, sed elatior, panicula majore floribunda. Specimina mascula non vidimus, fœminea quæ a Cheesmannio e Nova Zelandia accepimus omnia fructifera sunt, stylis jam delapsis. Fructus obliquus, inæqualiter 3-queter (abortu?) 1-locularis 1-spermus, pericarpio tenui prominenter 3-costato, demum hinc in longitudinem dehiscens.

5. **Restio,** *Linn. Syst. Veg. ed.* 13, ii. 735. (Rhodocoma, *Nees in Lindl. Introd. Nat. Syst. ed.* 2, 450. Megalotheca, *F. Muell. Fragm. Phytogr. Austral.* viii. 98. Ischyrolepis, *Steud. Syn. Pl. Glum.* ii. 249. Craspedolepis, *Steud. l. c.* 264.)—Flores dioici, spiculis utriusque sexus ∞-floris v. fœmineis rarissime masculis 1-floris, glumis imbricatis, bracteolis 0. Perianthii segmenta 6 v. interdum 5 v. 4, rarissime in fl. ♀ deficientia, 2 exteriora sæpius carinata. Fl. ♂: Stamina 3, filamentis distinctis; antheræ oblongæ, dorsifixæ, 1-loculares, rima unica dehiscentes. Pistilli rudimentum minimum v. sæpius 0. Fl. ♀: Staminodia 3 v. 0. Ovarium 2- v. 3-loculare; styli 2 v. 3, distincti v. basi breviter connati, fere a basi introrsum stigmatosi, sæpe plumosi. Capsula compressa v. 3-quetra, ad angulos dehiscens.—Caules e rhizomate squamoso erecti, simplices v. ramosi, virgati v. flexuoso-ramosissimi, aphylli. Vaginæ sæpius plures dissitæ persistentesque. Inflorescentiæ ♂ et ♀ nunc subconformes, nunc valde diversæ; spiculæ ♂ sæpius paniculatæ, secus ramos pedicellatæ v. sessiles; ♀ sæpe sessiles v. subsessiles, solitariæ fasciculatæ v. spicatæ, interdum tamen uti ♂ paniculatæ. In planta juniore vaginæ inferiores interdum lamina brevi instructæ, planta adulta semper aphylla videtur.

Species descriptæ ad 100, plures tamen adhuc imperfecte notæ, Africæ australis et Australiæ incolæ. *Kunth, Enum. Pl.* iii. 382. *Mast. in DC. Monogr. Phanerog.* i. 232, *t.* 1 (*excl. R. loxocaryo*), *et in Journ. Linn. Soc.* viii. *t.* 15. *Benth. Fl. Austral.* vii. 220. *Rottb. Descr. et Ic. Pl. t.* 2, *f.* 2, 4, *t.* 3, *f.* 1. *Labill. Pl. Nov. Holl. t.* 226, 227. *Hook. f. Fl. Tasm. t.* 135.

Genus a Mastersio post Kunthium in sectiones 2 ad pistillum 2- v. 3-merum divisum, a Benthamio ad spiculas ♀ 1- v. ∞-floras, charactere utroque nec semper constante nec habitu diverso comitato. Inflorescentia ♂ quam maxime polymorpha, sed vix sectiones distinctas præbet.

6. **Dovea,** *Kunth, Enum. Pl.* iii. 457.—Flores dioici, spiculis utriusque sexus pauci-floris v. præsertim ♀ 1-floris, glumis imbricatis, bracteolis 0. Perianthii segmenta 6, glumacea, 2 extima paullo breviora acute carinata, cætera subplana. Fl. ♂: Stamina 3, filamentis distinctis; antheræ oblongæ, dorsifixæ, 1-loculares, rima unica dehiscentes. Pistilli rudimentum minimum, 3-fidum. Fl. ♀: Staminodia minima v. 0. Ovarium 3-loculare; styli 3, distincti, crassiusculi, recurvi, introrsum piloso-stigmatosi. Capsula dura, subgloboso-3-dyma, loculis 3 in longitudinem dehiscentibus.—Caules in rhizomate brevi conferti, erecti, rigidi, simplices, robusti v. tenues, ima basi squamati. Vaginæ secus caulem dissitæ, laxæ, deciduæ, ad nodos annulum fuscum relinquentes. Inflorescentia terminalis, spiculis spicatis, spicis brevibus subsessilibus densis simplicibus ramosisve, in paniculam nunc angustam densam hinc inde interruptam nunc breviorem laxiuscule pyramidatam dispositis; inflorescentia ♀ masculo simplicior, cæterum similis. Bracteæ spathaceæ magnæ, coriaceæ, coloratæ, sub spicis ramisve inflorescentiæ, sed cito deciduæ.

Species 6, Africæ australis incolæ. *Mast. in DC. Monogr. Phanerog.* i. 305, *t.* 2, *et in Journ. Linn. Soc.* x. *t.* 7 B.

7. **Askidiosperma,** *Steud. Syn. Pl. Glum.* ii. 257.—Flores dioici, spiculis utriusque sexus paucifloris v. præsertim ♀ 1-floris, bracteolis 0. Perianthii segmenta 6, glumacea, lanceolata, plus minus setaceo-acuminata, extima carinata subdimidio breviora. Fl. ♂: Stamina 3, filamentis liberis; antheræ dorsifixæ, oblongo-lanceolatæ, 1-loculares, rima unica dehiscentes, polline emisso late apertæ medio incrassatæ. Fl. ♀: Staminodia minima. Ovarium ovato-oblongum, retusum, compressum, 2-loculare; styli 2, distincti, lineares, recurvi, fere a basi introrsum plumoso-stigmatosi. Capsula compressa, 2-locularis, loculis margine in longitudinem dehiscentibus.—Herba juncea, aphylla, vaginis deciduis habituque *Elegiæ junceæ*, a qua parum differt bracteis sub spicis spiculisque angustis margine v. undique scariosis longe setaceo-acuminatis margineque longe ciliatis, et fructu compresso distincte dehiscente.

Species 1, Austro-Africana. *Mast. in DC. Monogr. Phanerog.* i. 304, excl. speciminibus Burchellianis n. 8719, potius ad *Elegiam junceam* pertinentibus.

8. **Elegia,** *Linn. Mant. n.* 1331. (Chondropetalum, *Rottb. Descr. et Ic. Pl.* 10, *t.* 3, *f.* 2, 3.)—Flores dioici, spiculis ♂ paucifloris, ♀ sæpe 1-floris, glumis imbricatis, bracteolis 0. Perianthii segmenta 6, glumacea, obtusa v. rarius setaceo-acuminata, exteriora breviora v. rarius in fl. ♀ interioribus longiora. Fl. ♂: Stamina 3, filamentis distinctis; antheræ oblongæ, dorsifixæ, 1-loculares, rima unica dehiscentes. Fl. ♀: Staminodia minima v. 0. Ovarium 3-quetrum v. rarius compressum, sæpius 1-loculare 1-ovulatum, interdum vere 2–3-loculare loculis 1-ovulatis; styli 3, rarius 2, distincti, lineares v. breves, recurvi, introrsum a basi piloso-stigmatosi. Fructus 3-queter v. 3-costatus, rarius compressus, pericarpio crustaceo nitente, intus interdum albo-incrassato, indehiscens, sæpe tamen ad angulos facillime solubilis, sæpissime 1-locularis 1-spermus, interdum vero in *E. juncea* fructum invenimus 2–3-spermum.—Caules e rhizomate nunc abbreviato crasso lignoso nunc repente squamoso erecti, simplices, nisi in *E. verticillari* et interdum in *E. propinqua* ramulis sterilibus ad nodos densissime fasciculatis instructi. Vaginæ secus caulem dissitæ, sæpius deciduæ annulum brevem relinquentes, in paucis tamen speciebus more *Restionis* diu persistentes. Spiculæ utriusque sexus parvulæ, in glomerulas spicas v. paniculas breves dense confertæ, spicis v. paniculis ad apicem caulis pluribus sessilibus in capitulum confertis v. paniculam angustam densam v. interruptam formantibus. Bracteæ spathaceæ sub spicis v. paniculis partialibus amplæ, rigide membranaceæ, castaneæ, caducissimæ, sub spiculis parvæ, glumaceæ. Glumæ perianthio breviores.

Species enumeratæ 13, omnes Austro-Africanæ. *Kunth, Enum. Pl.* iii. 460. *Mast. in DC. Monogr. Phanerog.* i. 351, *t.* 3. In speciminibus 2 speciei typicæ *E. junceæ* fructum 2–3-spermum invenimus, in specimine tertio tamen 1-spermus erat qualis in speciebus cæteris pluribus nec in omnibus observatur. Specimina tamen bene fructifera in herbariis rara.

LAMPROCAULOS, *Mast. in DC. Monogr. Phanerog.* i. 349, *t.* 3, genus ad *E. grandem*, Kunth, et *E. Neesii*, Mart., stabilitum, quoad characteres essentiales et habitum omnino *Elegiam* refert, a qua differre dicitur vaginis persistentibus et præsertim fructu compresso stylis 2 brevibus triangularibus coronato. Vaginæ tamen non diutius persistunt quam in *E. deusta* et præsertim in *E. asperifolia*, et styli in aliis speciebus variant 2 v. 3 et interdum valde abbreviati sunt. Specimina nostra *Lamprocauli* (etiam Dregeana n. 1650) omnia ♂ sunt; hæc insignia sunt glumis perianthiique segmentis exterioribus angustissimis fere setaceis, sed jam in *E. asperifolia* longe setaceo-acuminata sunt.

9. **Leptocarpus,** *R. Br. Prod.* 250. (Calopsis, *Beauv.*; *Desv. in Ann. Sc. Nat. ser.* 1, xiii. 44, *t.* 3, *f.* 2. Schœnodum, *Labill. Pl. Nov. Holl.* ii. 79, *t.* 229, *quoad plantam* ♀.)—Flores dioici v. rarius monoici, spiculis utriusque sexus ∞-floris v. ♀ rarius 1-floris, glumis imbricatis, bracteolis 0 v. rarius in ♀ 2. Perianthii segmenta 6, rarius pauciora, sæpius glumacea, 2 exteriora interdum carinata. Fl. ♂: Stamina 3, rarius 2, filamentis filiformibus; antheræ oblongæ, dorsifixæ, 1-loculares, rima unica dehiscentes. Pistilli rudimentum parvum v. 0. Fl. ♀: Staminodia 3, parva v. 0. Ovarium 3-quetrum, 1-loculare, (an semper?) 1-ovulatum; styli 3, rarius 2, elongati, tenues, distincti v. ad

medium connati, introrsum stigmatosi. Fructus angustus v. ovoideus, pericarpio tenui v. crassiusculo, indehiscens v. uno latere v. ad angulos dehiscens.—Caules e rhizomate repente squamoso simplices v. ramosi. Vaginæ sæpius breves, cauli arcte appressæ, persistentes. Inflorescentia varia, ♂ v. utriusque sexus sæpius paniculata. Bracteæ spathaceæ, sæpius parum conspicuæ.

Species enumeratæ 21, quarum 1 Novo-Zelandica, 1 Cochinchinensis, 1 Chilensis, cæteræ Africæ australis v. Australiæ incolæ. *Mast. in DC. Monogr. Phanerog.* i. 329, *t.* 2. *Benth. Fl. Austral.* vii. 230. *Rottb. Descr. et Ic. Pl. t.* 2, *f.* 1, 3. *Hook. f. Fl. N. Zel. t.* 61; *Fl. Tasm. t.* 136.

Genus in sectiones 3 parum distinctas dividitur:—

1. *Calopsis.* Caules sæpius ramosi nunc ramosissimi, inflorescentia utriusque sexus subsimili. Spiculæ præsertim in specie typica *L. paniculato* numerosæ ample paniculatæ, v. in panicula angustiore secus rhachin parum ramosam subsessiles, in *L. modesto* fide Mastersii flos in spiculis ♀ unicus tantum fertilis. Vaginæ præsertim superiores quam in sectionibus sequentibus laxiores. Species omnes austro-Africanæ.

2. *Diplanthesis.* Caules simplices v. parum ramosi. Spiculæ ♂ pedicellatæ, paniculatæ v. fasciculatæ, ♀ sessiliores, capitatæ spicatæ v. dense paniculatæ. Species Australiæ extratropicæ et Novæ Zelandiæ incolæ. Huc etiam potius quam ad *Calopsidem* referenda videtur species Chilensis unica in ordine. Styli rami a Mastersio l. c. t. 2, f. 40, 41, 44 crassiusculi delineantur et introrsum villosi, in speciminibus Bridgesianis n. 853 more generis longos tenuesque invenimus. Specimina nostra typica Lechleriana omnia ♂ sunt.

3. *Homœanthesis.* Caules parum ramosi. Spiculæ utriusque sexus minimæ, secus ramos paniculæ fasciculatæ. Species 4, Australianæ tropicæ, quibus additur *L. disjunctus*, Mast. in Journ. Linn. Soc. xvii. 344, species Cochinchinensis *L. ramoso*, Br., valde affinis, sed monoica dicitur.

10. **Loxocarya,** *R. Br. Prod.* 249? *Benth. Fl. Austral.* vii. 240. (Haplostigma, *F. Muell. Fragm. Phytogr. Austral.* viii. 100.)—Flores dioici v. monoici, spiculis parvis ♂ plurifloris, ♀ 1-pauci-floris, glumis imbricatis, bracteolis 0. Fl. ♂: Perianthii segmenta 6, angusta, tenuiter glumacea v. præsertim interiora hyalina. Stamina 3, filamentis filiformibus v. complanatis; antheræ oblongæ, dorsifixæ, 1-loculares, rima unica dehiscentes. Pistilli rudimentum 0 v. in flore terminali minutum. Fl. ♀: Perianthii segmenta 3–6, tenuia, hyalina, brevia lataque, ovario appressa, v. 0. Staminodia 0. Ovarium angustum, 1-loculare, 1-ovulatum, in stylum simplicem filiformem introrsum a medio stigmatosum desinens. Fructus parvus, ovoideus v. oblongus, subteres, ecostatus, indehiscens (v. in *L. cinerea* demum uno latere dehiscens?).—Caules e rhizomate erecti, ramosi, sæpe flexuosi et intricato-ramosissimi. Vaginæ persistentes. Spiculæ ad apices ramulorum solitariæ v. præsertim in maribus 2 v. paucæ, secus ramulum sessiles dissitæ, omnes unisexuales sæpiusque dioicæ, interdum vero inferiores 1–2 ♀ in speciminibus cæterum ♂.

Species 7, Australiæ austro-occidentalis incolæ.

Masters speciem typicam *L. cineream*, R. Br., ad *Restionem* refert ob fructum dehiscentem, et cæteras pro sectione cum *Hypolæna* jungit. *L. cinerea* tamen habitu, inflorescentia, floribus ♀ perianthio orbatis, ovario et stylo *L. flexuosæ* simillima est, nec nostro sensu generice separanda. Fructus ex R. Br. est 'folliculus cartilagineus margine convexo dehiscens,' maturus nobis deest, immaturus ei *L. flexuosæ* simillimus est, et dehiscentiæ natura ulterius scrutanda. Pistillum in omnibus speciebus a Benthamio sub *Loxocarya* descriptis constanter monocarpicum; nec ut in *Hypolæna* syncarpicum.

Desmocladus, *Nees in Pl. Preiss.* ii. 56, est *L. fasciculatus*, Benth., species insignis ramulis sterilibus numerosis brevibus simplicibus ad nodos fasciculatis, spiculis ♂ pedunculatis v. ♀ sessilibus intermixtis. Spicularum florum fructuumque structura omnino *Loxocaryæ*.

11. **Lepidobolus,** *Nees in Pl. Preiss.* ii. 66.—Flores dioici, spiculis utriusque sexus ∞-floris globosis v. demum oblongis, glumis imbricatis numerosis, bracteolis 0. Perianthii segmenta 5–6, angusta, glumacea v. scariosa, 2 extima interdum rigidiora carinataque. Fl. ♂: Stamina 3, filamentis filiformibus; antheræ oblongæ, dorsifixæ, 1-loculares, rima unica dehiscentes. Pistilli rudimentum 0. Fl. ♀: Staminodia 0. Ovarium ovoideum,

1-loculare, 1-ovulatum; stylus simplex, filiformis, jam infra medium uno latere stigmatosus. Fructus ovoideus v. obovoideo-oblongus, teres, ecostatus, pericarpio duro, indehiscens.—Caules e rhizomate horizontali v. repente squamoso sæpius lanato-piloso erecti, simplices, virgati v. flexuosi. Vaginæ rigidulæ, deciduæ, annulum nigrum more *Doveæ* relinquentes. Spiculæ terminales, capituliformes, solitariæ v. in maribus additis 1–3 inferioribus sessilibus; ♀ quam ♂ sæpius angustiores. Glumæ inferiores in utroque sexu præsertim in ♀ vacuæ. Bracteæ spathaceæ sub inflorescentia 1–2, floribus breviores.

Species 3, Australiæ extratropicæ australis incolæ. *Benth. Fl. Austral.* vii. 244.

12. **Chætanthus,** *R. Br. Prod.* 251. (Prionosepalum, *Steud. Syn. Pl. Glum.* ii. 266.)—Flores dioici, masculi ignoti. Spiculæ ♀ parvæ, ∞-floræ, in glomerulum terminalem confertæ, glumis imbricatis, bracteolis 0. Perianthii segmenta 6, exteriora linearia hyalina, interiora capillacea. Staminodia 0. Ovarium 1-loculare, 1-ovulatum; stylus simplex, filiformis, jam infra medium uno latere stigmatosum. Fructus indehiscens?, maturus ignotus.—Caules tenues, erecti, simplices, dense cæspitosi. Vaginæ tenues, cylindraceæ, arcte appressæ, persistentes. Inflorescentia terminalis, parvula, oblonga, densa etsi ramosa, e spiculis sat numerosis sessilibus confertisque. Glumæ exteriores fusco-brunneæ, interiores hyalinæ. Flores 6–8 v. plures, brevissime pedicellati.

Species 1, Australiæ austro-occidentalis incola. *Benth. Fl. Austral.* vii. 245.

13. **Onychosepalum,** *Steud. Syn. Pl. Glum.* ii. 249.—Flores dioici, spiculis utriusque sexus solitariis terminalibus ∞-floris, glumis imbricatis, bracteolis 0. Perianthii segmenta 3, tenuiter hyalina, unguiculata. Fl. ♂: Stamina 3, filamentis filiformibus; antheræ oblongæ, dorsifixæ, 1-loculares, rima unica dehiscentes. Pistilli rudimentum 0. Fl. ♀: Staminodia 0. Ovarium stipitatum, 1-loculare, 1-ovulatum; stylus elongatus, filiformis, indivisus, a medio uno latere stigmatosus. Fructus maturus ignotus.—Caules e rhizomate v. basi cæspitoso-ramosa squamosa erecti, simplices, tenues, præter squamas basales imbricatas nudi. Spiculæ ovoideæ, erectæ; glumæ inferiores plures præsertim in ♀ sæpe numerosæ vacuæ, florentes tamen in utroque sexu plures, sæpe deciduæ florem denudantes.

Species 1, Australiæ austro-occidentalis incola. *Benth. Fl. Austral.* vii. 246.

14. **Thamnochortus,** *Berg. Pl. Cap.* 353.—Flores dioici, spiculis utriusque sexus ∞-floris, glumis imbricatis, bracteolis 0. Spiculæ ♂ paniculatæ, glumis margine plus minus scariosis, inferioribus paucis vacuis. Perianthii segmenta 2 exteriora complicato-carinata, 3–4 interiora hyalina. Stamina 3, filamentis filiformibus; antheræ oblongæ, dorsifixæ, 1-loculares, rima unica dehiscentes. Pistilli rudimentum 0. Spiculæ ♀ masculis crassiores, in spica paucæ, erectæ, sessiles, glumis inferioribus pluribus v. perpaucis vacuis. Perianthium plano-compressum, segmentis 2 exterioribus complicatis carinis late alatis, interioribus hyalinis. Staminodia 0. Ovarium sessile, 1-loculare, 1-ovulatum; stylus simplex, elongatus, superne uno latere stigmatosus, basi interdum dilatatus. Fructus ovatus, complanatus, indehiscens.—Caules florentes e rhizomate repente v. brevi erecti, juncei, indivisi, vaginis paucis distantibus persistentibus, ad nodos tamen sæpe ramulos breves steriles dense fasciculatos ramosissimosque emittunt. Spiculæ in panicula ♂ haud numerosæ, sæpius pedicellatæ nutantes, in spica ♀ secus rhachin simplicem v. breviter ramosam paucæ. Spiculæ utriusque sexus, uti ramorum sterilium fasciculi, nunc argenteo-nitentes nunc brunnei. Flores plano-compressi.

Species 10, Africæ australis incolæ. *Kunth, Enum. Pl.* iii. 428. *Mast. in DC. Monogr. Phanerog.* i. 314, *quoad* § 1; *t.* 2, *f.* 16 *ad* 27. *Rottb. Descr. et Ic. Pl. t.* 1, *f.* 1 (*Restio*).

15. **Staberoha,** *Kunth, Enum. Pl.* iii. 442.—Flores dioici, spiculis utriusque sexus ∞-floris, glumis imbricatis, bracteolis 0. Spiculæ ♂ paniculatæ, ovatæ, glumis brunneis nitidis, inferioribus paucis vacuis. Perianthii segmenta angusta, subæqualia, 2 exteriora

complicato-carinata, interiora tenuiora plana. Stamina 3, filamentis filiformibus; antheræ oblongæ, dorsifixæ, 1-loculares, rima unica dehiscentes. Pistilli rudimentum 0. Spiculæ ♀ oblongæ v. angustæ, solitariæ v. 2, erectæ, sessiles, glumis rigidulis demum apice patentibus, inferioribus paucis vacuis. Perianthium valde compressum, segmentis tenuibus sæpe hyalinis, exterioribus complicatis carinis late alatis. Staminodia 0. Ovarium sessile, compressum, 1-loculare, 1–2-ovulatum, ovulo altero tamen mox abortiente; styli 2, a basi distincti, superne v. fere a basi introrsum subplumoso-stigmatosi. Fructus nuceus, subteres, leviter compressus, ecostatus, nitidus, pericarpio duro indehiscente.—Caules e rhizomate squamoso erecti, juncei, simplices v. in ramos paucos virgatos divisi. Vaginæ paucæ, dissitæ, persistentes. Bracteæ spathaceæ sub inflorescentia ♂ et sub spicula ♀ angustæ, erectæ, complicatæ, persistentes. Spiculæ ♂ in panicula paucæ, ad axillam spathæ pedicellatæ, nutantes; ♀ erectæ, sæpius solitariæ terminales, additis rarius 1–2 inferioribus sessilibus, omnes brunneæ nitidulæ nec scariosæ.

Species 6, Africæ australis incolæ. *Mast. in DC. Monogr. Phanerog.* i. 323 (*Thamnochorti* § 2). *Rottb. Descr. et Ic. Pl. t.* 2, *f.* 5, *t.* 3, *f.* 5 (*Restio*).

Masters hoc genus cum *Thamnochorto* jungit, cui certe proxime affine, sed character e pistillo syncarpico nec monocarpico constans videtur, et quodammodo habitu et characteribus nonnullis minoribus comitatur.

16. **Hypolæna**, *R. Br. Prod.* 251. (Calorophus, *Labill. Pl. Nov. Holl.* ii. 78, *t.* 228. Calostrophus, *F. Muell. Fragm. Phytogr. Austral.* viii. 86, 88.)—Flores dioici, spiculis ♂ ∞-floris rarius 1-floris, ♀ 1-floris, glumis imbricatis, bracteolis 0. Fl. ♂: Perianthii segmenta sæpius 6, angusta, glumacea v. tenuia. Stamina 3, filamentis filiformibus; antheræ oblongæ, dorsifixæ, 1-loculares, rima unica dehiscentes. Pistilli rudimentum 0. Fl. ♀: Perianthii segmenta 6, tenuissima, fere hyalina, brevia lataque v. rarius lanceolata. Staminodia 3 minima v. 0. Ovarium 1-loculare, 1-ovulatum, apice sæpius plus minus corneo-incrassatum; styli v. styli rami 2, filiformes, introrsum stigmatosi. Fructus nuceus, ovoideus v. obovoideus, teres, ecostatus, apice incrassatus v. æqualis, pericarpio duro indehiscente.—Caules e rhizomate repente tenues, ramosi, interdum ramosissimi, subflexuosi. Vaginæ persistentes. Spiculæ sæpius parvæ, ♂ nunc secus ramos solitariæ v. geminæ, sessiles, sæpe distantes, nunc ad apices ramorum paniculatæ; ♀ ad apices ramorum solitariæ v. 2–3-næ.

Species 17, Africæ australis, Australiæ extratropicæ v. Novæ Zelandiæ incolæ. *Mast. in DC. Monogr. Phanerog.* i. 364, *excl.* § 1; *in Journ. Linn. Soc.* x. *t.* 7 A. *Benth. Fl. Austral.* vii. 237. *Hook. f. Fl. Tasm. t.* 137.

Genus in series 3 sequentes dividendum:—

1. *Tenues.* Spiculæ ♂ secus ramos dissitæ sub bractea spathacea solitariæ sessilesque v. geminæ altera sessili altera breviter pedicellata. Styli v. styli rami 3 v. 2. Species Australianæ cum una Novo-Zelandica.

2. *Restioideæ.* Spiculæ ♂ in paniculam parvulam laxam dispositæ, omnes pedicellatæ. Styli rami 3. Species 2, Australianæ. Planta ♂ a speciebus nonnullis *Restionis* v. *Leptocarpi* ægre distinguenda.

3. *Africanæ.* Spiculæ ♂ subsessiles, paniculatæ v. secus ramos dissitæ. Styli rami 2. Species 11, austro-Africanæ.

17. **Hypodiscus**, *Nees in Lindl. Introd. Nat. Syst. ed.* 2, 450. (Leucoplœus, *Nees in Lindl. l. c.* Boeckhia, *Kunth, Enum. Pl.* iii. 448.)—Flores dioici, spiculis ♂ multifloris, ♀ 1-floris, glumis imbricatis, bracteolis 0. Spiculæ ♂ globosæ v. ovoideæ, glumis rigidulis subulato-acuminatis. Perianthii segmenta 6, rarius 5, angusta, 2 exteriora subcarinata. Stamina 3, filamentis filiformibus; antheræ oblongæ, dorsifixæ, 1-loculares, rima unica dehiscentes. Pistilli rudimentum 0. Spiculæ ♀ masculis angustiores, glumis ∞ vacuis arcte imbricatis brevius quam in masculis aristatis. Torus intra perianthium nunc brevissimus nunc crassus, papillis carnosis tuberculatus. Perianthii segmenta 3–6, tenuia v. fere hyalina, nunc ad basin stipitis brevia, nunc basi stipiti adnata, ovario paullo breviora. Ovarium ovoideum, basi v. fere ad apicem papillis carnosis obtectum, junius sæpe 2-locu-

lare 2-ovulatum, sed jam sub anthesi abortu 1-loculare 1-ovulatum ; stylus crassiusculus, superne v. infra medium in ramos 2 rigidulos introrsum stigmatosos divisus. Fructus ovoideus v. oblongus, lævis v. plus minus carnoso-tuberculosus, ecostatus, pericarpio duro indehiscente, endocarpio (in speciminibus perpaucis examinatis) membranaceo, solubili, 1–2-loculari 1–2-spermo.—Caules e rhizomate squamoso erecti, simplices, juncei. Vaginæ paucæ, dissitæ, persistentes. Bracteæ spathaceæ sub inflorescentia v. sub spiculis rigidulæ, sæpe albo-marginatæ, deciduæ. Spiculæ ♂ variant solitariæ terminales crassæque, v. paucæ sessiles dissite spicatæ, v. plures minoresque dense paniculatæ ; ♀ solitariæ v. paucæ simpliciter spicatæ.

Species 11, Africæ australis incolæ. *Mast. in DC. Monogr. Phanerog.* i. 379, *t.* 4 ; *et in Journ. Linn. Soc.* x. *t.* 7 C.

Lepidanthus, *Nees in Linnæa*, v. 665, charactere manco ex specimine ♂ solo deducto, est, fide Mastersii, *Hypodisci* species antheris perperam 2-locularibus dictis.

18. **Cannomois,** *Beauv.* ; *Desv. in Ann. Sc. Nat. ser.* 1, xiii. 43, *t.* 3, *f.* 1. (Mesanthus et Cucullifera, *Nees in Lindl. Introd. Nat. Syst. ed.* 2, 451.)—Flores dioici, spiculis ♂ ∞-floris ♀ paucifloris, glumis imbricatis, bracteolis 0. Spiculæ ♂ paniculatæ, ovoideæ v. oblongæ, glumis latis, inferioribus paucis vacuis. Perianthium plano-compressum, segmentis 5–6, 2 exterioribus complicato-carinatis margine scariosis, interioribus angustioribus magis scariosis. Stamina 3, filamentis filiformibus ; antheræ oblongæ, dorsifixæ, 1-loculares, rima unica dehiscentes. Pistilli rudimentum 0. Spiculæ ♀ masculis multo majores, ovoideo-acuminatæ, terminales, solitariæ v. geminæ, glumis latissimis valde convolutis subulato-acuminatis, inferioribus minoribus vacuis. Flores sessiles v. stipiti brevi crasso impositi, laterales 2–3 obliqui fertilesque, terminalis æqualis at sæpius sterilis videtur. Perianthium hyalinum, latissimum, ovarium obtegens, mox varie lacerum v. divisum, sub fructu plus minus persistens. Ovarium 1-loculare, 1-ovulatum ; styli 2, a basi discreti, longe lineares, fere a basi stigmatosi. Fructus ovoideus v. subglobosus, teres, ecostatus, lævis, pericarpio duro crasso indehiscens ; endocarpium? in fructu nondum perfecte maturo laxum membranaceum.—Caules e rhizomate squamoso erecti, nunc rigidi virgati simplicesque, nunc valde ramosi. Vaginæ persistentes. Panicula ♂ densa, nunc ample thyrsoidea, nunc contracta fere spiciformis, spiculis fere semper numerosis. Spiculæ ♀ erectæ, sæpius in ramulis seu pedunculis solitariæ, addita rarius altera inferiore, et in *C. virgato* caulis interdum repetite ramosus, ramis etsi apice monostachyis paniculam laxam formantibus.

Species 3, Africæ australis incolæ. *Kunth, Enum. Pl.* iii. 447. *Mast. in DC. Monogr. Phanerog.* i. 360, *t.* 3 (*Cannamois*).

19. **Willdenowia,** *Thunb. in K. Vet. Acad. Nye Handl. Stockh.* 1790, 26, *t.* 2, *ex ejusd. Gen. Nov.* 103. (Nematanthus, *Nees in Linnæa*, v. 661.)—Flores dioici, spiculis ♂ laxe ∞-floris, ♀ 1-floris, bracteolis 0. Fl. ♂ intra glumas breves lineares v. lineari-lanceolatas dissitas breviter pedicellati. Perianthii segmenta 6, linearia, acute acuminata, subæqualia. Stamina 3, filamentis brevibus ; antheræ oblongæ, dorsifixæ, 1-loculares, rima unica dehiscentes. Pistilli rudimentum 0. Fl. ♀ glumis ∞ (ad 6) vacuis spathiformibus coriaceis acute acuminatis imbricatis inclusus, intra glumas stipite crasso sæpe carnoso-6-lobo fultus. Perianthii segmenta 6, brevia, tenuia, hyalina, basi stipiti adnata, post anthesin basi ovarii arcte appressa, squamiformia. Staminodia 0. Ovarium obtusum, 1-loculare, 1-ovulatum, addito interdum ovuli alterius rudimento parvo ; styli 2, a basi distincti, crassiuscule filiformes, caducissimi. Fructus ovoideus, obtusus, teres, ecostatus, ima basi perianthii segmentis persistentibus squamatus, cæterum lævis, pericarpio crasso duro indehiscente.—Caules e rhizomate squamoso rigidi, virgati, simplices v. ramosi. Vaginæ laxæ, persistentes. Spiculæ ♂ ad apicem caulis sæpius plures, interrupte spicati, bracteis spathaceis coriaceis deciduis interstincti. Spiculæ ♀ terminales, solitariæ v. 2 inter se parum distantes, sessiles.

Species 8, Africæ australis incolæ. *Mast. in DC. Monogr. Phanerog.* i. 391, *t.* 2 ; *in Journ. Linn. Soc.* x, *t.* 8 D.

ANTOCHORTUS, *Nees in Lindl. Introd. Nat. Syst. ed.* 2, 451 (ANTHOCHORTUS, *Kunth, Enum. Pl.* iii. 484), genus ad specimen ♂ solum conditum et ideo valde incertum, est tamen ex charactere dato verisimiliter *Willdenowiæ* species, *W. striatæ*, Thunb., valde affinis nisi eadem.

20. **Ceratocaryum,** *Nees in Lindl. Introd. Nat. Syst. ed.* 2, 451.—Flores dioici, spiculis ♂ laxe ∞-floris, ♀ 1-floris, bracteolis 0. Fl. ♂ intra glumas longe lineares subscariosas dissitas pedicellati. Perianthii segmenta 6, linearia, acuta, interiora margine scariosa. Stamina 3, filamentis brevibus; antheræ oblongæ, dorsifixæ, 1-loculares, rima unica dehiscentes. Pistilli rudimentum 0. Fl. ♀ glumis ∞ (ad 6) magnis acutis rigide subscariosis imbricatis inclusus. Perianthii segmenta 6, parva, hyalina, sub fructu ovata, squamiformia, arcte appressa. Ovarium obtusum, 1-loculare, 1-ovulatum; styli 2, a basi distincti, longiusculi, crassi, undique papilloso-stigmatosi. Fructus ovoideus, leviter compressus, ecostatus, papillis tuberculiformibus undique obtectus, stylis diu persistentibus coronatus, basi squamis 6 orbiculatis appressis (perianthii segmentis ?) stipatus.—Caules e rhizomate squamoso rigidi, erecti, simplices. Vaginæ in tubum arcte convolutæ, persistentes, apice demum scariosæ laceræque. Spiculæ ad apicem caulis subsessiles, ♂ plures in spicam compositam oblongam dense thyrsoideam confertæ, glumis perianthiisque argenteo-nitentibus insignes; ♀ paucæ, magnæ, rigidæ. Bracteæ spathaceæ paucæ, magnæ, rigidæ, nitidæ, sæpius purpurascentes, caducæ.

Species 2, Africæ australis incolæ. *Mast. in DC. Monogr. Phanerog.* i. 390, *t.* 4. Genus vix ac ne vix a *Willdenowia* distinctum.

ORDO CXCIX. CYPERACEÆ.

Endl. Gen. 109. Lindl. Veg. Kingd. 117.

Flores hermaphroditi v. unisexuales, in spicas parvas *spiculas* dictas dispositi, singuli ad axillam bracteæ parvæ *glumæ* dictæ solitarii, sessiles v. subsessiles. *Glumæ* in spicula distiche v. undique imbricatæ, inferiores 1–2 rarius plures vacuæ, cæteræ flores obtegentes, v. rarius spicula ♀ ad glumam floremque 1 reducta. *Perianthium* perfectum 0 (nisi in *Oreobolo*), sed in floribus ☿ generum nonnullorum adsunt setæ v. squamellæ 6 v. pauciores rarius plures hypogynæ dictæ, sed semper extra stamina affixæ sæpeque sub-2-seriatæ, quæ verisimiliter perianthio homologæ. *Stamina* 3 v. pauciora, rarius 4–6 v. ∞, filamentis liberis filiformibus v. leviter complanatis. *Antheræ* e spicula sæpissime exsertæ, basifixæ, oblongæ v. lineares, loculis 2 parallelis longitudinaliter dehiscentibus. *Ovarium* integrum, erectum, in centro floris sessile v. stipiti brevi interdum incrassato v. in discum dilatato impositum, 1-loculare. *Stylus* terminalis centralis, cum ovario continuus v. rarius articulatus, filiformis v. basi incrassatus, a basi v. supra basin persistentem deciduus, superne v. jam infra medium in ramos 2–3 v. rarius ∞ filiformes introrsum a basi stigmatoso-papillosos sæpe stigmata dictos divisus v. rarius apice subulato indivisus v. minute 2–3-dentatus. *Ovulum* 1, a basi ovarii erectum, anatropum. *Fructus* parvus, gluma obtectus v. exsertus, nuceus, indehiscens, sub stylo 2-fido plus minus complanatus v. 2-convexus; sub stylo 3-fido obscure v. distincte 3-queter; pericarpium crustaceum induratum v. interdum subdrupaceum, exocarpio tenui v. suberoso-incrassato, endocarpio duro. *Semen* a basi erectum, a pericarpio (an semper ?) liberum, testa tenui. *Embryo* intra basin albuminis copiosi farinacei v. carnosi parvus, lenticularis globosus v. ovoideus.

Herbæ perennes rarius annuæ, habitu *Gramineis* accedentes, sæpius tamen rigidiores, interdum juncoideæ, restioideæ v. fluitantes, sæpius cæspitosæ, v. rhizoma repens v. stolones emittens, vaginisque brevibus membranaceis demum marcescentibus obtectum. Caulis solidus v. rarius cavus, tenuis humilisque v. elongatus validus interdum orgyalis,

infra inflorescentiam simplex v. rarius ramosus. Folia vulgo pro maxima parte in cæspite v. ad basin caulis conferta, extima v. radicalia basi in vaginas apertas dilatata v. ad vaginas illas rhizomatis subsequentes reducta, interiora et caulina superiora dum adsint e vaginis tubulosis clausis caulem amplectentibus in laminam angustam gramineam v. carinatam scabramque producta; ligula rarissime ad apicem vaginæ laminæ opposita; interdum folia pleraque v. omnia ad vaginas tubulosas reducta v. caules præter vaginam unicam basalem aphylli. Spiculæ distinctæ v. in fasciculos v. capitula aggregatæ sessilesque. Capitula, fasciculi, v. spiculæ singulæ nunc solitaria terminaliaque, nunc plura secus caulem dissita, v. varie umbellata paniculata v. rarius spicata; si umbellata centrale sessile, cætera pedicellis seu radiis sæpius valde inæqualibus fulta. Bracteæ sub ramis inferioribus inflorescentiæ sæpe foliis caulinis similes, sub umbella 2–3 exteriores etsi valde inæquales involucrum patens sæpe formant; sub inflorescentia capitata v. simpliciter fasciculata bractea exterior haud raro erecta, cum caule continua, inflorescentiam infra apicem caulis specie lateralem præbet; bracteæ superiores minores, sub spiculis ipsis v. interdum fere omnes parvæ glumiformes.

Species descriptæ ultra 3000, quarum tamen vix 2200 retinendæ videntur, per orbem terrarum copiose dispersæ, in locis uliginosis paludosisve frequentes, usque ad regiones frigidas alpinas arcticas antarcticasque extensæ, nec in calidioribus inter tropicos raræ, nonnullæ ipsæ cosmopolitanæ.

Ordo vastus et facillime distinctus, etsi primo aspectu nunc *Gramineis* nunc *Restiaceis* accedere videtur; a prioribus tamen abunde differt caule solido sæpe angulato, foliorum vaginis clausis, florum structura, stigmatibus et embryone, et species nulla inter hos ordines media adhuc detecta est. A *Restiaceis Cyperaceæ* distinguuntur ovulo v. semine erecto sæpissimeque perianthio imperfecto v. nullo, et hac ratione *Oreobolo* solo cum illis connectuntur. Distributio in tribus et genera minus definita evadit, jam diu optime elaborata fuit a Brownio et Kunthio, etsi characteres nonnulli quibus usi sunt (e.g. setarum hypogynarum absentia v. præsentia) ex observationibus posterioribus minus certi præstant. Divisio primaria ad flores fertiles hermaphroditos v. fœmineos a Boeckelero aliisque adoptata optime definita apparet, sed limites tribuum generumque majorum interdum obscuriores sunt, et species intermediæ haud raro observantur.

De generibus Beauvoisianis *Cyperacearum* confer Benth. in Journ. Linn. Soc. xviii. 360.

FORMÆ ABNORMES.

Perianthium regulare adest in *Oreobolo*.

Stamina numerosa in *Evandra*, *Chrysitrice*, *Chorisandra* et *Lepironia*.

Styli rami 8 in *Evandra*, 4–5 in speciebus nonnullis *Elynanthi*, *Gahniæ*, *Lagenocarpi*.

Flores ♀ ad basin caulis pedunculati in speciminibus extra-europæis *Scirpi supini* indicavit A. Gray, in speciminibus Europæis deesse videntur.

CONSPECTUS TRIBUUM (exceptis neglectis).

A. Monoclines. *Flores fertiles hermaphroditi v. rarissime filamentis anantheris subfœminei.*

Tribus I. Scirpeæ. Spiculæ pluri- sæpius multi-floræ, glumis inferioribus 1, rarius 2 vacuis. Setæ v. squamæ hypogynæ filiformes planæ v. 0.

Tribus II. Hypolytreæ. Spiculæ pluri- sæpius multi-floræ, glumis inferioribus 1–∞ vacuis. Squamæ hypogynæ nunc 2 laterales complicato-carinatæ liberæ v. connatæ, nunc ∞, 2 exterioribus lateralibus complicato-carinatis.

Tribus III. Rhynchosporeæ. Spiculæ sæpissime 1–2-floræ, glumis inferioribus 2–∞-vacuis. Setæ v. squamæ hypogynæ filiformes planæ v. 0.

B. Diclines. *Flores stricte unisexuales, staminodiis 0 in fœmineis, pistillo 0 in masculis.*

Tribus IV. Cryptangieæ. Spiculæ unisexuales, fœmineæ 1-floræ terminales v. in parte superiore paniculæ, masculæ inferiores 2–∞-floræ.

Tribus V. Sclerieæ. Flores fœminei ad basin spiculæ androgynæ solitarii, v. spiculæ unisexuales, fœmineæ 1-floræ in parte inferiore paniculæ; masculæ superiores 2–∞-floræ.

Tribus VI. Cariceæ. Spiculæ fœmineæ 1-floræ, spicatæ, gluma unica utriculiformi clausa v. hinc fissa florem includente; masculæ 2–∞-floræ, terminales v. cum spicæ fœmineæ apice rarius basi continuæ.

CONSPECTUS GENERUM.

Tribus I. Scirpeæ. Spiculæ pluri- sæpius multi-floræ, floribus omnibus hermaphroditis v. summo rarius masculo. Glumæ omnes florentes v. 1 rarius 2 infimæ vacuæ. Setæ v. squamæ hypogynæ dum adsint 6 v. pauciores, rarius ∞, filiformes v. planæ. Stylus 2–3-fidus.

Excepta: Spiculæ 1–2-floræ in *Cyperi* sect. *Marisco* et in *Kyllinga* et *Courtoisia.*

* *Glumæ distichæ.*

1. CYPERUS. Spiculæ ∞-floræ v., si 1-floræ, gluma supera vacua v. florem ♂ fovens e gluma florente protrusa. Setæ hypogynæ 0. Stylus basi haud incrassatus. Inflorescentia terminalis, 1-stachya capitata v. irregulariter umbellata.—*Orbis utriusque reg. trop. subtrop. et temp.*

2. KYLLINGA. Spiculæ 1–2-floræ. Glumæ 3, infima parva, 2 superiores majores, flores glumamque quartam parvam vacuam v. florem ♂ dum adsit arcte includentes. Setæ hypogynæ 0. Inflorescentia terminalis, capitata.—*Orbis utriusque reg. calid.*

3. COURTOISIA. Spiculæ plano-compressæ, 1-floræ. Glumæ 2, complicatæ, naviculares, florem includentes. Setæ hypogynæ 0. Spicularum capitula in umbellam compositam disposita. —*Ind. or.*

4. ANDROTRICHUM. Spiculæ ∞-floræ. Setæ hypogynæ 0. Filamenta post anthesin longissime accreta crispaque, comam longe exsertam formantia. Caules junciformes, aphylli, umbella terminali.—*Bras. austr., Republ. Argent.*

5. DULICHIUM. Spiculæ ∞-floræ. Setæ hypogynæ 8, longæ, rigidæ. Spiculæ in spicas breves ad axillas foliorum subsessiles dispositæ.—*Amer. bor.*

(Cfr. etiam 14, *Hemichlænam* et 37, *Schœni* species paucas floribus 3–4.)

** *Glumæ undique imbricatæ (exceptis sp. paucis Fimbristylis et Hemichlæna). Spiculæ pluri- sæpius multi-floræ.*

6. HELEOCHARIS. Setæ hypogynæ 3–8. Nux styli (2–3-fidi) basi bulboso-incrassata persistente coronata. Caules aphylli, vagina appressa stipati. Spicula solitaria, terminalis, bractea infima glumiformi.—*Area tota ordinis.*

7. DICHROMENA. Setæ hypogynæ 0. Nux styli (2-fidi) basi dilatata persistente coronata. Caules foliati. Spiculæ in capitulo terminali paucæ, sessiles v. brevissime pedicellatæ, albæ, bracteis exterioribus involucrantibus foliaceis basi albis v. rarius brevissimis.—*Amer. bor. et austr.*

8. PSILOCARYA. Setæ hypogynæ 0. Nux styli (2-fidi) basi dilatata persistente rostrata. Caules foliati. Spicularum corymbi densi v. laxi subcompositi, terminales v. in axillis pedunculati; spiculis fuscis v. rarius pallidis.—*Amer. bor.*

9. FIMBRISTYLIS. Setæ hypogynæ 0. Styli basis bulboso-incrassata v. conica, cum stylo decidua v. (in sect. *Oncostyle*) in nuce diu persistens. Folia ad basin caulis conferta. Inflorescentia terminalis, spiculis sæpius irregulariter umbellatis, rarius capitatis v. solitariis.—*Orbis utriusque reg. trop. et temp.*

10. PENTASTICHA. Setæ hypogynæ 6. Nux stipitata, styli basi incrassata persistente acuminata. Caules stricti, foliis brevibus. Spiculæ glumis quinquefariam imbricatis fere angulatæ, in capitulo terminali plures, in pedunculis axillaribus 1–5-næ.—*Afr. trop., Madagasc.*

11. SCIRPUS. Setæ hypogynæ 3–8 v. 0, rarius in squamulas lineares plumosas dilatatæ. Stylus basi non v. vix dilatatus. Nux apice nuda, v. styli basi parva tuberculata v. mucronata. Spiculæ sæpius pseudolaterales, solitariæ fasciculatæ v. in umbella paucæ, rarius solitariæ terminalesque, v. in panicula terminali numerosæ.—*Area tota ordinis.*

12. ERIOPHORUM. Setæ hypogynæ 6 v. numerosæ, post anthesin longissime excrescentes, crispo-flexuosæ v. gossypinæ. Inflorescentia terminalis, spiculis solitariis capitatis v. paniculatis.—*Eur., Asia extratrop., Amer. bor.*

13. FICINIA. Setæ hypogynæ 0. Ovarii stipes in discum cartilagineum plus minus dilatatus. Stylus basi haud incrassatus. Spiculæ terminales, solitariæ v. capitatæ, varie bracteatæ, sæpe nigricantes, rarius secus caulem laxe spicatæ.—*Afr. austr., Abyssinia.*

14. Hemichlæna. Omnia *Ficiniæ* nisi spiculæ subcomplanatæ, glumis distichis.—*Afr. austr.*

15. Fuirena. Squamellæ hypogynæ 3, latæ, sæpe stipitatæ, interdum cum setis totidem alternantes, rarius minutæ v. evanidæ. Inflorescentia sæpius pubescens, spicularum fasciculis terminalibus v. axillaribus paniculam angustam foliatam formantibus.—*Utriusque orbis reg. trop. et subtrop.*

16. Hemicarpha. Squama hypogyna 1, minuta, sæpe 2-dentata. Spiculæ minimæ, globosæ, dense multifloræ, sæpius ternæ, in capitulo pseudolaterali.—*Utriusque orbis reg. trop. et subtrop.*

17. Lipocarpha. Squamæ hypogynæ 2, hyalinæ, glumis parallelæ, ovario et nuci appressæ. Spiculæ parvæ, densissime multifloræ, 3–5 in capitulo terminali sessiles.—*Utriusque orbis reg. trop. et subtrop.*

Tribus II. Hypolytreæ. Spiculæ pluri- sæpius multi-floræ, floribus omnibus hermaphroditis v. nonnullis abortu masculis. Glumæ undique imbricatæ, omnes florentes v. inferiores paucæ vacuæ. Squamæ hypogynæ nunc 2, laterales, complicato-carinatæ, liberæ v. in unam antice plus minus apertam connatæ, nunc ∞, lineares, planæ, duabus exterioribus lateralibus sæpius complicato-carinatis, flore cum squamis semper complanato gluma obtecto (sententia aliorum spica spiculiformis, androgyna, composita, spiculis androgynis bractea glumiformi obtectis ∞-floris, floribus exterioribus masculis 1-andris, cum glumis linearibus florem fœmineum centralem nudum circumdantibus). Stylus 2–3-fidus.

Excepta: Spiculæ 1–2-floræ, squamis hypogynis linearibus staminibusque numerosis in *Chrysitrice.*

Squamæ hypogynæ in unam connatæ, glumas excedunt, in *Ascolepide.*

18. Ascolepis. Squamæ hypogynæ cujusve floris in unam complanatam introrsum (v. supra) fissam glumam sæpius excedentem et florem includentem connatæ. Spiculæ terminales, nunc solitariæ, depressæ, radiantes v. subglobosæ candidæ v. coloratæ, nunc ovoideæ v. globosæ, more *Kyllingæ* sæpius ternæ.—*Afr. trop. et austr.*

19. Hypolytrum. Squamæ hypogynæ 2, laterales, complicato-carinatæ, liberæ v. basi connatæ absque squamis interioribus planis. Spiculæ in panicula irregulariter corymbosa rarius in fasciculum densum contracta numerosæ.—*Utriusque orbis reg. trop. et subtrop.*

20. Diplasia. Squamæ hypogynæ 2 exteriores laterales complicato-carinatæ, 2 interiores planæ glumæ parallelæ. Stamina 6–8. Stylus 2-fidus. Spiculæ elongatæ, corymboso-paniculatæ.—*Amer. austr. trop., Ind. occid.*

21. Mapania. Squamæ hypogynæ 2 exteriores laterales complicato-carinatæ, 4 interiores planæ v. concavæ angustæ v. ∞-nerves. Stamina 3. Stylus 3-fidus. Spiculæ magnæ, terminales, solitariæ v. aggregatæ, v. in una specie minores numerosæ laxe paniculatæ.—*Utriusque orbis reg. trop.*

22. Scirpodendron. Squamæ hypogynæ 2 exteriores laterales complicato-carinatæ, ∞ interiores angustæ planæ v. concavæ, facillime partitæ. Stamina 6 (v. ∞?). Stylus 2–3-fidus. Nux magna, exserta, costis 6–8 valde prominentibus. Spicularum fasciculi in paniculam dense thyrsoideam dispositi.—*Zeylania, Archip. Malay.*

23. Exocarya. Squamæ hypogynæ 2 exteriores laterales complicato-carinatæ, 2 interiores planæ v. concavæ, glumæ parallelæ. Stamina 3. Stylus 2-fidus. Nux exserta, ecostata, styli basi persistente coronata. Spiculæ minimæ, graciliter umbellatæ, nuce sæpius unica perfecta quam spicula ipsa multo majore.—*Australia.*

24. Lepironia. Squamæ hypogynæ 2 exteriores laterales complicato-carinatæ, interiores numerosæ angustæ. Stamina 8–∞. Stylus 2-fidus. Herba junciformis, spicula magna pseudolaterali solitaria.—*Reg. Indo-Austral. et Madagascaria.*

25. Chorisandra. Squamæ hypogynæ numerosæ, angustæ, omnes planæ v. concavæ, v. 2 exteriores laterales complicato-carinatæ. Stamina 6–12. Stylus 2-fidus. Spicula globosa v. ovoidea, pseudo-lateralis, solitaria, sessilis v. semi-immersa.—*Australia, Nov. Caled.*

26. Chrysithrix. Squamæ hypogynæ numerosissimæ, anguste lineares. Stamina ∞. Stylus 3-fidus. Spicula pseudolateralis, solitaria, sessilis v. semi-immersa, 1–2-flora, glumis paucis coriaceis nigris.—*Afr. austr.*

(Cfr. etiam *Scirpi membranacei* formam Dregeanam (*Hellmuthiam*) squamis hypogynis *Hypolytri.*)

Tribus III. Rhynchosporeæ. Spiculæ pauciflorae, sæpius 1–2-floræ, rarius floribus 4–6, sæpeque uno solo fertili, qui semper hermaphroditus. Glumæ 2–∞ inferiores vacuæ. Setæ hypogynæ 6 v. pauciores v. 0, rarius squamiformes.

Excepta: Flores hermaphroditi fertiles 3–6 in speciebus perpaucis *Rhynchospori* et *Schœni*.
Setæ hypogynæ in perianthium perfectum 6-partitum mutatæ in *Oreobolo*.

27. Oreobolus. Spiculæ 1-floræ, in pedunculo erecto solitariæ v. rarius 2. Glumæ 3. Squamæ hypogynæ v. potius perianthii segmenta 6, angusta, rigida, subæqualia, post glumas delapsas persistentia. Herbæ nanæ, dense foliatæ, cæspitosæ.—*Australia austr.*, *N. Zel.*, *Amer. antarct.*

28. Remirea. Spiculæ 1-floræ, in capitulo denso sessili v. pedunculato bracteis foliaceis involucrato numerosæ. Glumæ 4. Setæ hypogynæ 0. Stylus 3-fidus. Herba maritima, repens, dense foliata.—*Utriusque orbis reg. trop.*

29. Arthrostylis. Spiculæ 1-floræ, in capitulo parvo bracteis brevibus rigidis involucrato numerosæ. Glumæ (ad 7) undique imbricatæ. Setæ hypogynæ 0. Stamina 6. Stylus 3-fidus, undique gossypino-lanatus, cum basi incrassata deciduus. Caules aphylli, tenuiter junciformes. —*Australia trop.*

30. Actinoschœnus. Spiculæ angustæ, 1-floræ, in capitulo parvo globoso numerosæ, radiantes, exteriores subreflexæ bracteas parvas occultantes. Glumæ 4–5. Setæ hypogynæ 0. Stamina 3. Stylus 3-fidus, glaber, cum basi incrassata deciduus. Caules aphylli, tenuiter junciformes.—*Madagascaria*, *Zeylania*, *China*.

31. Rhynchospora. Spiculæ sæpius angustæ v. acuminatæ, 1–2- rarius 3–6-floræ, varie capitatæ fasciculatæ v. corymbosæ, capitulis 1–∞, nunc paniculatis. Glumæ undique imbricatæ, vacuæ 2–∞. Setæ hypogynæ tenues v. 0. Stylus indivisus v. 2-fidus. Nux basi styli dilatata persistente rostrata. Inflorescentia terminalis v. simul axillaris.—*Utriusque orbis reg. trop. subtrop. et temp.*

32. Cyathochæte. Spiculæ longæ, 2-floræ, flore superiore fertili, intra vaginas bractearum subinclusæ v. in panicula angusta foliata pedunculatæ. Glumæ 4, undique imbricatæ. Setæ hypognæ 4, rigidæ, subæquales. Stylus 2-fidus, basi incrassata in nuce persistente.—*Australia.*

33. Carpha. Spiculæ 1-floræ, in corymbum terminalem densum subcapitatum confertæ. Glumæ 4–5, distichæ, membranaceæ. Setæ hypogynæ 6, subæquales, plumosæ, sub nuce patentes pappum simulantes. Stylus 3-fidus, basi incrassata in nuce persistente.—*Australia austr.*, *N. Zel.*, *Amer. austr. frigid.*

34. Mesomelæna. Spiculæ 1–2-floræ, flore superiore fertili, in capitulum terminale densum confertæ, sæpius nigricantes, bracteis involucrantibus rigidis brevibus obtusis v. rigide acuminatis. Glumæ ∞, distichæ v. subdistichæ. Setæ hypogynæ 3, æquales, rigidulæ v. complanatæ. Stylus 3-fidus. Nux gynophoro imposita sæpius rostrata.—*Australia.*

35. Trianoptiles. Spiculæ 1–2-floræ, flore superiore fertili, laxe spicatæ, bracteis 1–3-foliaceis. Glumæ 4–5. Squamæ hypogynæ 3, lineares, basi plumoso-ciliatæ, apice inæqualiter 3-dentatæ. Stylus 3-fidus. Nux styli basi coronata.—*Africa austr.*

36. Asterochæte. Spiculæ 1–3-floræ, rhachilla non producta dense capitatæ, capitulis exinvolucratis in panicula composita numerosis v. in panicula simplici paucis. Glumæ paucæ, vix distichæ, pallidæ. Setæ hypogynæ tenues. Stylus 3-fidus. Nux 3-quetra, acutiuscula v. apiculata.—*Afr. austr.*, *ins. Mascar.*

37. Schœnus. Spiculæ pauciflorae, flore infimo fertili, rhachilla inter flores v. supra florem unicum producta flexuosa, sæpius fasciculata nigricantesque, fasciculis varie capitatis spicatis paniculatis v. solitariis. Glumæ ∞, distichæ. Setæ hypogynæ tenues v. complanatæ v. 0. Stylus 3-fidus. Nux 3-quetra v. 3-costata, erostris.—*Utriusque orbis reg. temp. hemisph. bor. et austr.*, *Archip. Malay.*

38. Cyclocampe. Spiculæ 2–3-floræ, rhachilla inter v. ultra flores producta flexuosa, in panicula ampla numerosæ distinctæ. Glumæ ∞, distichæ. Setæ hypogynæ 6, longæ, rigidulæ, plumoso-pilosæ. Stylus 3-fidus. Nux 3-quetra, breviter apiculata.—*Ins. Mascar.*, *Molucc.*, *N. Caled.*

39. Elynanthus. Spiculæ 2–3-floræ, flore superiore fertili, rhachilla non producta, sæpius fasciculatæ fuscæ v. nigricantes, fasciculis sæpius in paniculam angustam strictamque dispositis. Glumæ ∞, distichæ. Setæ hypogynæ tenues membranaceæ v. 0. Stylus 3–4-fidus. Nux obtusa, plus minus drupiformis.—*Afr. austr.*, *Australia austr.*, *N. Zel.*, *N. Caled.*, *Amer. austr. frigida.*

40. Tricostularia. Spiculæ parvæ, 1–3-floræ, flore superiore fertili, rhachilla non producta, paucæ v. breviter paniculatæ. Setæ hypogynæ breves, tenues v. rigidæ, non accrescentes. Stylus 3-fidus. Nux obovoidea, erostris.—*Australia, Zeylania, Borneo.*

41. Lepidosperma. Spiculæ 1–3-floræ, flore superiore fertili, sæpius nigræ, distinctæ v. fasciculatæ, anguste v. ample paniculatæ. Glumæ subdistichæ. Setæ v. squamæ hypogynæ sub anthesi parvæ, mox accrescentes, incrassatæ, acuminatæ v. setigeræ. Stylus 3-fidus. Nux apice indurata, erostris.—*Australia, N. Zel. Archip. Malay., China austr.*

42. Cladium. Spiculæ 1–3-floræ, flore inferiore fertili, brunneæ v. nigræ, paniculatæ. Glumæ undique imbricatæ. Setæ hypogynæ 0, v. rarius tenues. Stylus 3-fidus, basi dilatata ab ovario vix distincta. Nux obtusa, plus minus drupiformis.—*Utriusque orbis reg. trop. et temp.*

43. Gahnia. Spiculæ 1–3-floræ, flore superiore fertili, nigræ v. rarius brunneæ, varie paniculatæ. Glumæ undique imbricatæ. Setæ hypogynæ 0. Stylus 3–5-fidus. Nux sæpius nitida, dura, ecostata. Folia sæpius teretia, longa, subulato-acuminata.—*Australia, N. Zel., N. Caled., Archip. Malay., China, ins. maris Pacif.*

44. Caustis. Spiculæ 1–2-floræ, flore superiore fertili, v. abortu unisexuales subdioicæ. Glumæ paucæ, undique imbricatæ. Setæ hypogynæ 0. Stylus 3-fidus. Caulis ramosus, ramis erectis strictis v. flexuoso-ramosissimis.—*Australia.*

45. Reedia. Spiculæ ovatæ, 1–2-floræ, flore superiore fertili, in spicis longis intra vaginas laxas bractearum foliacearum occultis densissime confertæ. Glumæ undique imbricatæ. Setæ hypogynæ 0. Stylus 3-fidus. Caulis altissimus, simplex.—*Australia austr. occid.*

46. Evandra. Spiculæ majusculæ, nigræ, 2-floræ, flore superiore fertili, laxe paniculatæ v. in fasciculo terminali sessiles. Glumæ undique imbricatæ. Setæ hypogynæ 0. Stamina 15–20. Stylus 8-fidus.—*Australia austr. occid.*

Tribus IV. Cryptangieæ. Spiculæ unisexuales, fœmineæ 1-floræ, inter masculas 1–∞-floras terminales, v. in parte superiore inflorescentiæ. Setæ hypogynæ 0.

* *Spiculæ paniculatæ, omnes dissitæ v. ♂ glomerulatæ.*

47. Lagenocarpus. Panicula longa, ampla, laxe composita, superne fœminea, in parte inferiore mascula. Stylus 3–5-fidus. Nux ovoidea v. globosa, non angulata.—*Amer. trop.*

48. Cryptangium. Pedunculi secus caulem dense foliatum v. subnudum graciles v. breves, parum compositi, spiculis fœmineis præsertim in pedunculis superioribus cum masculis irregulariter mixtis. Stylus 3-fidus. Nux 3-angulata.—*Amer. trop.*

** *Spiculæ minimæ, in capitulis globosis v. spiculiformibus sæpius androgynis sessiles.*

49. Fintelmannia. Spiculæ utriusque sexus 1-floræ, in spicas parvas spiculiformes confertæ, superioribus fœmineis, spicis graciliter paniculatis. Glumæ 2.—*Brasilia.*

50. Cephalocarpus. Spiculæ in fasciculis capituliformibus ad axillas graciliter pedunculatis sessiles, fœmineæ 1–2, masculis 3–7 ∞-floris cinctæ. Glumæ vacuæ 1–2. Folia dense conferta, angusta, patentia, rigidula, inflorescentiis multo longiora.—*Brasilia.*

51. Pterosclería. Spiculæ in capitulo denso terminali involucrato sessiles, numerosæ, subfasciculatæ; fœminea in quoque fasciculo 1 masculis ∞ cincta, rarius spiculæ utriusque sexus in capitulo subirregulariter mixtæ. Glumæ vacuæ 1–2. Spicularum capitula 1–3 infra terminalem ad axillas sessilia sæpius adsunt.—*Amer. trop.*

*** *Spiculæ minimæ, in fasciculis parvis corymbosis v. capitatis sessiles, fœminea in quoque fasciculo 1, masculis paucis cincta.*

52. Calyptrocarya. Spicularum fasciculi in capitula parva conferti, capitulis corymboso-paniculatis, paniculis terminalibus axillaribusque. Spicula ♀ ad florem nudum reducta, glumis 0, v. 1–2 minutis vix conspicuis.—*Amer. trop.*

53. Becquerelia. Spicularum fasciculi dense cymosi, cymis corymboso-paniculatis, paniculis terminalibus sæpeque axillaribus. Spiculæ ♀ glumæ 4–5, mox auctæ, subæquales, florem involventes, nucem fere obtegentes.—*Amer. trop.*

54. Hoppia. Spicularum fasciculi dense capitati, capitulis in capitulo composito confertis v. in umbella irregulari dispositis. Spiculæ ♀ glumæ (3 ?) in urceolum clausum apice minute perforatum florem et nucem arcte includentem connatæ. Caulis brevis, dense foliatus. Scapi florentes inter folia infima elongati, aphylli.—*Bras. bor., Guiana.*

Tribus V. Sclerieæ. Flores unisexuales, fœminei ad basin spiculæ androgynæ solitarii v. in spiculis distinctis 1-floris in parte inferiore inflorescentiæ. Setæ hypogynæ 0.

55. Eriospora. Spiculæ minimæ, 1–3-floræ, in spicas spiculiformes densissime confertæ, spicis ipsis numerosis parvis in panicula longa laxa sessilibus v. pedicellatis. Ovarium pilis longis numerosis cinctum.—*Africa trop.*

56. Scleria. Spiculæ parvæ, sæpe fasciculatæ, fasciculis nunc minimis axillaribus, nunc in cymas v. paniculas terminales v. axillares dispositis. Nux sæpius alba, gynophoro in discum dilatato v. rarius obsoleto.—*Utriusque orbis reg. trop. et subtrop., Amer. bor.*

57. Kobresia. Spiculæ in spicam terminalem simplicem v. parum compositam dispositæ. Folia ad basin caulis sæpius cæspitosa.—*Europa, Asia bor. et mont.*

Tribus VI. Cariceæ. Spiculæ unisexuales, fœmineæ 1-floræ, spicatæ, gluma unica utriculiformi clausa v. hinc fissa florem sæpeque rhachillam includente; masculæ 2–∞-floræ, spiciformes, terminales distinctæque, v. spicam fœmineam apice v. rarius basi continuantes. Setæ hypogynæ 0.

58. Hemicarex. Spiculæ fœmineæ utriculus introrsum ad medium v. fere ad basin fissus; rhachilla setiformis v. complanata utriculum non excedens.—*Ind. or., Africa austr.*

59. Schœnoxiphium. Spiculæ fœmineæ utriculus usque ad os 2-dentatum clausus; rhachilla exserta, apice glumas vacuas v. flores masculos ferens.—*Afr. austr.*

60. Uncinia. Spiculæ fœmineæ utriculus usque ad os obliquum v. 2-dentatum clausus; rhachilla exserta, apice uncinata v. reflexo-glochidiata.—*Hemisph. austr. reg. temp. et frigid., Amer. andina, Mexico, Ind. occid.*

61. Carex. Spiculæ fœmineæ utriculus usque ad os obliquum v. 2-dentatum clausus; rhachilla inclusa, setiformis v. complanata v. 0.—*Utriusque orbis reg. temp. et frigid.; inter tropicos species paucæ.*

GENERA DUBIA V. EXCLUSA.

Acoridium, *Nees in Pl. Meyen.* 131, genus ab auctore inter *Philydraceas* collocatum, a Bœckelero in Flora 1879, 158, ex specimine authentico ad *Cyperaceas* transfertur. Character Bœckeleri a Neesiano notis pluribus essentialibus longe discrepat. Forte Nees specimina confudit ad plantas duo distinctas pertinentia et genus suum delendum est. Planta a Bœckelero descripta e verbis suis a *Scirpo* (*Isolepide*) non differre videtur, nisi spiculæ rhachi post anthesin valde elongata. An status abnormis, an stirps distincta, adhuc dubium remanet.

Aulacorhynchus, *Nees in Linnæa*, x. 198, ex Africa australi, e charactere notis fere omnibus *Rhynchosporæ* convenit. Spiculæ tamen unisexuales dicuntur, masculæ plurifloræ in capitulum terminale aggregatæ, fœmineæ in pedunculo axillari solitariæ v. geminæ omnino *Rhynchosporæ* excepta staminum deficientia. In specimine descripto anthesis ex auctore peracta fuit, et stamina forte jam delapsa. Si spiculæ revera unisexuales, inflorescentia *Scleriam* indicat, genus tamen nobis valde dubium apparet.

Lasiolepis, Bœckel. ad **Eriocauleas** referenda est. *L. brevifolia*, ad specimen Indicum Wightianum tenue depauperatumque descriptum, est *Eriocauli* species. *L. pilosa*, e Guiana, ex descriptione fusiore nobis videtur *Pæpalanthus Lamarckii*, Kunth, et *L. aquatica*, ex eadem regione, *Eriocaulon melanocephalum*, Kunth. Flores masculi tamen ab auctore prætervisi sunt, et ovarium non rite scrutatum.

Thryocephalon, *Forst. Char. Gen.* 129, *t.* 65, ab Endlichero Gen. 119 (sub *Tryocephalo*), ad *Kyllingam* refertur, et inflorescentia depicta satis conformis, sed spiculæ structura ab auctore descripta, et analysis in icone delineata, nec huic nec ulli generi *Cyperacearum* nobis noto convenit.

Tribus I. Scirpeæ.

1. **Cyperus**, *Linn. Gen. n.* 66.—Spiculæ pluri- sæpius multi-floræ rarissime 1–2-floræ, floribus omnibus hermaphroditis v. terminali rarius masculo. Glumæ distichæ, naviculares v. concavæ, infimæ 1–2 sæpius parvæ vacuæque, cæteræ subæquales florentes v. summa rarius parva vacua. Setæ v. squamæ hypogynæ 0. Stamina 3 v. pauciora. Stylus cum ovario continuus, basi haud incrassatus, deciduus, breviter v. alte in ramos 2 v. 3 stigmatosos filiformes divisus v. rarius subinteger. Nux sessilis v. basi in stipitem brevem solidum cum pericarpio continuum contracta, complanata 2-convexa v. 3-quetra, lævis v.

minute granulosa.—Herbæ perennes v. rarius annuæ, caulibus cæspitosis v. e rhizomate repente distinctis, infra inflorescentiam simplicibus. Folia ad basin caulis pauca v. rarius vaginis caulem altius obtegentibus, sæpe longa, infima haud raro et interdum omnia ad vaginas reducta. Spiculæ sæpissime in spicas densas fasciculiformes capituliformes v. elongatas confertæ, spicis v. rarius spiculis singulis in umbellam terminalem irregularem simplicem v. compositam dispositis, spica centrali sessili, cæteris ad apices ramorum v. radiorum valde inæqualium umbelli v. umbelluli sitis, v. interdum inflorescentia tota in capitulum sessile compositum contracta; rhachis primaria rarissime inter radios umbellæ breviter producta. Sub quoque radio adest sæpissime bractea linearis, persistens; harum exteriores paucæ foliaceæ inæqualiter elongatæ involucrum sub inflorescentia formant; intimæ et quæ spiculas singulas subtendunt parvæ, squamiformes, v. sub spiculis interdum omnino desunt.

Species enumeratæ ultra 700, sed perplurimæ e regionibus diversis sub nominibus diversis repetitæ et verisimiliter vix 400 bene distinctæ, per regiones tropicas subtropicasque utriusque orbis copiose dispersæ, cum paucis ad regiones temperatas extensis, nec in frigidis nec in alpinis inveniuntur. *Rottb. Descr. et Ic. Pl.* 17 *cum ic. specierum* 32. *Kunth, Enum.* ii. 2 *et* 115 (*Mariscus*). *Liebm. Mex. Halogr.* 8, *et* 40 (*Mariscus*). *Steud. Syn. Pl. Glum.* ii. 2, *et* 59 (*Mariscus*). *Bœckel. in Linnæa*, xxxv. 436; xxxvi. 271. *Benth. Fl. Austral.* vii. 253.

Genus pro maxima parte facillime distinctum, etsi cum *Scirpo* mediante *C. pygmæa*, et cum *Schœno* mediante *C. ægyptiaco* connexum, in sectiones sequentes non semper stricte definitas dividitur:—

1. *Pycreus.* Spiculæ ∞-floræ, complanatæ, glumis navicularibus carinatis, rhachi exalata v. foveolis angustissime marginatis. Stylus sæpissime 2-fidus. Nux glumæ contrarie complanata, 2-convexa, margine rhachillam spectans. *Host, Gram. Austr.* iii. *t.* 72, iv. *t.* 67. *Reichb. Ic. Fl. Germ. t.* 278, 279. *Sibth. Fl. Gr. t.* 47. *Torr. Fl. N. York t.* 135. *Vahl, Ic. Pl. Amer. t.* 12. *C. Gay, Fl. Chil. t.* 70. Pycreus, *Beauv. Fl. Ow. et Ben.* ii. 48, *t.* 86. Torreya *et* Distimus, *Rafin. in Journ. Phys.* lxxxix. 105.

2. *Juncellus* (Griseb. Fl. Brit. W. Ind. 562). Spiculæ ∞-floræ, compressæ, sæpius tamen crassiusculæ, glumis concavis, rhachi exalata. Stylus 2-fidus v. hinc inde 3-fidus. Nux ovata v. lata, glumæ parallele compressa, facie plana v. concava rhachillam spectante, dorso convexa v. angulo centrali obtuso parum elevato. *Host, Gram. Austr.* iii. *t.* 70. *Jacq. Fl. Austr.* v. *App. t.* 6. *Sibth. Fl. Gr. t.* 49. *Desf. Fl. Atl. t.* 7, *f.* 1. *Cav. Ic. t.* 204, 588.

Dichostylis, *Nees in Linnæa*, ix. 289; *Gen. Fl. Germ. Monocot.* ii. *n.* 13, *non Beauv.*, est *Cyperus pygmæus*, Rottb., sæpe ad *Scirpum* relatus, cujus glumæ variant distichæ tristichæ v. rarius irregulariter imbricatæ. *Reichb. Ic. Fl. Germ. t.* 311. *Host, Gram. Austr.* iii. *t.* 69.

Anosporum, *Nees in Linnæa*, ix. 287 (Trentepohlia, *Bœckel. in Bot. Zeit.* 1858, 249), genus propositum fuit ad *C. cephalotum*, Vahl (*C. Hookerianum*, Thw. Enum. Pl. Zeyl. 342), ex India orientali, cui pericarpium sub semine et plus minus secus angulos nucis incrassatur et stipitem durum format inepte perigynium dictum, et stylus sæpissime (nec semper fide Bœckeleri) indivisus. Huic addidit Bœckeler in Linnæa, xxxvi. 411, species 2 ex Africa tropica, inclusa *C. colymbete*, Kotsch. in Pl. Tinn. t. 24, cum *C. pallido*, Heyne, ex India Orientali, cui pericarpium totum plus minus incrassatum subcartilagineum, et *Scirpum cubensem*, Kunth. In *C. podocarpo*, Bœckel., ex Africa tropica, nux pariter in stipitem contracta sed stipes tenuior. *Oxycaryum*, Nees, a Bœckelero in *Anosporo* inclusum, characteres *Scirpi* nec *Cyperi* præbet. Stylus indivisus in cæteris *Cyperis* rarissime occurrit.

Atomostylis, *Steud. Syn. Pl. Glum.* ii. 315, e Senegambia, *Leprieur*, est verisimiliter *C. pectinatus*, Vahl (*C. nudicaulis*, Poir.), a Bœckelero ad *Anosporum* relatus.

C. alopecuroides, Rottb. (*C. dives*, Delile, Fl. Eg. t. 4), habitu *C.* (*Papyro*) *exaltato*, Retz, accedit, sed nux omnino *Juncelli*, variat tamen stylo 2-fido v. præsertim in speciminibus africanis 3-fido.

3. *Eucyperus.* Spiculæ ∞-floræ, complanatæ v. rarius subteretes, glumis navicularibus v. concavis sæpius carinatis, rhachilla exalata, v. rarius foveolæ membrana angustissima hyalina marginatæ. Stylus 3-fidus. Nux æqualiter 3-quetra, v. rarius a dorso depressa. *Host, Gram. Austr.* iii. *t.* 71 73, 74. *Reichb. Ic. Fl. Germ. t.* 280, 284. *Jacq. Ic. Rar. t.* 295, 298, 299; *Hort. Vind.* iii. *t.* 12 *Webb. Phytogr. Canar. t.* 240. *Ten. Fl. Nap. t.* 101. *Sibth. Fl. Gr. t.* 46, 48. *Delile, Fl. Eg. t.* 5. *Desf. Fl. Atl. t.* 9. *Jaub. et Spach. Ill. Pl. Or. t.* 101. *Debeaux, Fl. Tchefou, t.* 3. *Beauv. Fl. Ow. et Ben. t.* 20, *t.* 97, *f.* 1. *Grant in Trans. Linn. Soc.* xxix. *t.* 108. *Torr. Fl. N. York, t.* 138. *Presl, Rel. Hænk. t.* 31, *f.* 1, *t.* 32, *f.* 1. *Saund. Ref. Bot. t.* 240. *Fenzl, in Denkschr. Akad. Wiss. Wien* viii. *t.* 1, 2.

SOROSTACHYS, *Steud. Syn. Glum.* ii. 71, est *C. pulchellus*, Br. (*C. sorostachys*, Bœckel. in Linnæa, xxxv. 588); species vix a *C. leucocephalo*, Retz, distincta, spiculis in capitulum globosum confertis *Kyllingam* simulantibus.

GALILEA, *Parlat. Fl. Palerm.* i. 297, *Fl. Ital.* ii. 45, est *C. ægyptiacus*, Glox. Obs. Bot. 20, t. 3 (*Schœnus mucronatus*, Linn., Reichb. Ic. Fl. Germ., t. 286, f. 680, Host, Gram. Austr. iv. t. 70), a Parlatore generice distinctus est stylo plano et gluma inferiore vacua cæteris longiore. Stylum tenuem tamen vidimus vix magis complanatum quam in speciebus pluribus sectionis *Juncelli*, et bractea spiculam subtendens glumiformis est, nec gluma infera cæteris major. Hæc species cæterum *Eucyperum* cum *Juncello* quodammodo connectit. Nucis facies interior lata plana, exterior obtusangula fere *Juncelli* sed stylus constanter 3-fidus videtur. *C. sinensis*, Debeaux, Fl. Tchefou, 141, t. 2, videtur *C. ægyptiaci* varietas v. species annua ei valde affinis.

BOBARTIA, *Linn. Fl. Zeyl.* 17, *Lam. Illustr. t.* 40, est *Cyperi* species *C. arenario*, Retz, affinis, quam Linnæus serius cum *Moræa spathacea*, Thunb. (*Bobartia*, Ker), confusit.

4. *Papyrus.* Spiculæ ∞-floræ, complanatæ v. subteretes, glumis navicularibus v. concavis, rhachillæ foveolis v. angulis membrana hyalina a gluma superiore decurrente marginatis, membrana sæpe demum decidua squamiformi. Stylus 3-fidus. Nux æqualiter 3-quetra v. rarius a dorso depressa. *Host, Gram. Austr.* iii. *t.* 75, 76. *Reichb. Ic. Fl. Germ. t.* 281 *ad* 283. *Jacq. Ic. Rar. t.* 296, 297. *Moggr. Fl. Ment. t.* 97. *Desf. Fl. Atl. t.* 7, *f.* 2, *t.* 8. *Ten. Fl. Nap. t.* 207, 208. *Parlat. in Mem. Pres. Acad. Sc. Par.* xii. *t.* 1, 2. *Sibth. Fl. Gr. t.* 44, 45. *Beauv. Fl. Ow. et Ben. t.* 97, *f.* 2. *Hook. f. Fl. Tasm. t.* 139, 140. *A. Rich. Fl. Nouv. Zel. t.* 17. *Torr. Fl. N. York, t.* 136, 137. *Nees in Mart. Fl. Bras.* ii. i. *t.* 3 (*Papyrus*).

PAPYRUS, *Willd. in Abhandl. Acad. Wiss. Berl.* 1812–13, 70, genus prius ad *Cyperum Papyrum*, Linn., stabilitum, a Kunthio Neesio auctoribusque pluribus pro genere v. sectione ad species *Cyperi* extensum fuit, quibus membranæ hyalinæ ad margines foveolorum rhachillæ spiculæ deciduæ sunt, et pro squamellis distinctis descriptæ, et species ubi persistunt in *Eucypero* retinuerunt, sed character quam maxime incertus est, et variat in eadem spicula, et *Cyperus rotundus* cum affinibus jam ad sectionem *Papyrum* referuntur in *Benth. Fl. Austral.* vii. 278.

BORABORA, *Steud. Syn. Pl. Glum.* ii. 71, est *Mariscus macrophyllus*, Brongn. in Duperr. Voy. Bot. 179, t. 33, rite ad *Cyperum* a Bœckelero, in Linnæa, xxxvi. 376, refertur, sed potius ad sect. *Papyrum* quam ad *Mariscum* pertinere videtur, nam spiculas invenimus semper 3–4-floras ut a Brongniartio descriptas et delineatas, nec 1-floras ut a Steudelio et Bœckelerio dicuntur. Species est statura et inflorescentia insignis, *C. ligulari*, Linn., subaffinis. *Mariscum appendiculatum*, Brongn. l. c. 178, t. 34, ab ipso *C. ligulari* distinguere nequimus.

HYDROSCHŒNUS, *Zoll. et Mor. Verz. Pl. Zoll.* 95, planta javanica paludosa a nobis non visa, est ex descriptione verisimiliter *Cyperi* species *C. dubio*, Rottb., affinis. Flores inferiores spiculæ fœminei dicuntur staminodiis elongatis, annon potius hermaphroditi filamentis demum elongandis antheris delapsis?.

5. *Diclidium.* Spiculæ 1–∞-floræ, angustissimæ, teretes v. subteretes, glumis distantibus angustis erectis appressis, rhachilla sæpe flexuosa, alis hyalinis nuces amplectentibus. Stylus 3-fidus. Nux æqualiter 3-quetra. Post anthesin spiculæ rhachilla sæpe prope basin articulatim delabitur, stipitem brevem in rhachi spicæ ut in *Kyllinga* relinquens. *Rudge, Pl. Gui. t.* 20, 21. DICLIDIUM, *Schrad. ex Nees in Mart. Fl. Bras.* ii. i. 51, *t.* 1, 2. TORULINIUM. *Desv. in Hamilt. Prod. Pl. Ind. Occid.* 15.

6. *Mariscus.* Spiculæ parvæ, numerosæ, teretes v. subteretes, 1–2-floræ, ut in *Kyllinga* sæpius articulatim deciduæ stipitem brevem relinquentes, sed gluma florens, cæteris major, inferne tantum obtegit rhachillæ acumen v. glumam alteram florentem semper plus minus exsertam, et spicularum spicæ plures irregulariter umbellatæ, nec in capitulo sessiles v. solitariæ. *Jacq. Ic. Rar. t.* 300 (*Kyllinga*). *Beauv. Fl. Ow. et Ben. t.* 55 (*Kyllinga*). *Anders. in Eugen. Resa, Bot. t.* 13. MARISCUS, *Vahl, Enum.* ii. 372. ADUPLA, *Bosc. in Jaume St. Hil. Expos. Fam. Nat.* i. 65.

OPETIOLA, *Gærtn. Fruct.* i. 14, *t.* 2, ab Endlichero ut videtur rite ad *Cyperum* quemdam e sectione *Marisci* relata est, spiculis in specimine delineato omnibus delapsis callum in rhachi spicæ relinquentibus, quod a Gærtnero pro fructu descriptum est.

2. **Kyllinga,** *Rottb. Descr. et Ic. Pl.* 12, *t.* 4. (Kyllingia, *auct. plur.*)—Spiculæ parvæ, flore unico hermaphrodito, addito interdum altero parvo masculo v. rarius hermaphrodito. Glumæ 3 v. 4, distichæ, infima parva vacua, 2 majores æquales v. inæquales, florem ☿ cum v. absque alterum parvum ♂ rarius ☿ v. rudimentarium glumamque minimam includentes. Setæ hypogynæ 0. Stamina 3 v. pauciora. Stylus cum ovario continuus, basi haud

incrassatus, sæpius deciduus; rami stigmatosi 2, filiformes. Nux sessilis, complanata, glumis majoribus arcte inclusa, quibuscum maturitate decidua, rhachilla spiculæ articulata stipitem brevem in rhachi spicæ relinquente; rarius nuces perfectæ 2, glumis tamen majoribus arcte inclusæ.—Herbæ perennes rhizomate repente v. rarius annuæ, caulibus sæpius tenuibus. Folia ad basin caulis conferta v. in una specie ad vaginas breves reducta. Spiculæ minimæ, numerosissimæ, in spicas breves oblongas v. globosas densissime confertæ. Spicæ v. capitula e spicis 3–5 sessilibus composita, terminalia, intra bracteas 2–4 lineares foliaceas inæquales sessilia.

Species enumeratæ fere 60, vix tamen ultra 20 bene distinguendæ, per regiones calidiores utriusque orbis latissime dispersæ. *Kunth, Enum. Pl.* ii. 127. *Steud. Syn. Pl. Glum.* ii. 66. *Bœckel. in Linnæa*, xxxv. 403. *Beauv. Fl. Ow. et Ben. t.* 8, 31. *Jacq. Hort. Vind. t.* 97 (*Scirpus*).

Spiculæ rhachillæ pars infra articulationem persistens stipitiformis a Bœcklero *discus* dicitur, eadem in *Cyperis* nonnullis imprimis sectionis *Marisci* observatur; *Kyllinga* his valde affinis, distinguitur tamen flore secundo dum adsit v. gluma terminali vacua intra glumas majores arcte inclusa, nec ut in *Marisco* exserta.

3. **Courtoisia,** *Nees in Linnæa*, ix. 286.—Spiculæ plano-compressæ, flore unico hermaphrodito, addito rarius altero parvo imperfecto. Glumæ 2, membranaceæ, complicatæ, naviculares, carina ad medium v. altius alata, exterior vacua interiorem vix minorem florentem amplectens. Setæ hypogynæ 0. Stamina 3. Stylus cum ovario continuus, basi haud incrassatus, deciduus, ramis stigmatosis 3 filiformibus. Nux glumis inclusa quibuscum decidua, oblongo-fusiformis, acute 3-quetra, basi apiceque acuta, erostris, lævis.—Herba cæspitosa, 1–2-pedalis, aspectu *Cyperum assimilem*, Hochst., referens. Folia ad basin caulis elongata, angusta, flaccida. Umbella terminalis, irregulariter composita, bracteis exterioribus longe foliaceis involucrata, radiis numerosis valde inæqualibus, exterioribus umbelluliferis. Spiculæ parvæ, in capitulis subglobosis ad apices radiorum pluribus numerosæ, sessiles, singulæ bractea membranacea hyalina subtensæ.

Species 1, Indiæ orientalis incola. *Kunth, Enum. Pl.* ii. 127. *Steud. Syn. Pl. Glum.* ii. 71. *Bœckel. in Linnæa*, xxxv. 434. *Benth. in Hook. Ic. Pl. t.* 1341.

Gluma exterior ab auctoribus descripta est potius bractea spiculam subtendens, et post spiculam fructiferam delapsam semper in receptaculo seu rhachi communi persistit.

4. **Androtrichum,** *Brongn. in Duperr. Voy. Coq. Bot.* 176, *t.* 32, *sub* Abildgaardia. (Comostemum, *Nees in Linnæa*, ix. 283, *pro parte*.)—Spiculæ ∞-floræ, floribus omnibus hermaphroditis. Glumæ distichæ, naviculares, carinatæ, angustæ, 1 v. 2 inferiores vacuæ paullo majores. Setæ hypogynæ 0. Stamina 3, filamentis post anthesin longissime accretis crispis comam longe exsertam formantibus. Stylus basi minute bulbiformis, cum ovario subarticulatus, ramis stigmatosis 3 longe filiformibus. Nux angusta, æqualiter 3-quetra.—Herba perennis, rhizomate repente, caulibus longis junciformibus aphyllis prope basin vaginis pluribus fuscis obtectis. Umbella terminalis, irregularis, vaginis paucis rigide paleaceis spathiformibus involucrata, radiis pluribus interdum numerosis valde inæqualibus. Spiculæ ad apices radiorum in capitula densa globosa plus minus composita confertæ, coma filamentorum spiculis ipsis 2–3-plo longiore. Nuces minimæ.

Species 1, Brasiliæ australis et reipublicæ Argentinæ incola. *Kunth, Enum. Pl.* ii. 250. *Steud. Syn. Pl. Glum.* ii. 105. *Bœckel. in Linnæa*, xxxvi. 415 (*Comostomum*). *Fenzl in Denkschr. Akad. Wiss. Wien.* viii. *t.* 3 (quoad analysin male).

Genus a Brongniartio l. c. charactere optimo indicatum, serius a Neesio sub nomine *Comostemi* propositum charactere imperfecto, et auctor cum specie typica infauste junxit *Cyperum prolixum*, H. B. et K., tam habitu quam characteribus longe alienum.

5. **Dulichium,** *Pers. Syn. Pl.* i. 65.—Spiculæ angustæ, compressiusculæ, multifloræ, floribus omnibus hermaphroditis. Glumæ distichæ, naviculares, carinatæ, infima vacua, cæteris omnibus florentibus, rhachillæ foveolis membrana a glumis decurrente angustissime marginatis. Setæ hypogynæ sæpius 8, 1-seriatæ, longæ, rigidæ, retrorsum barbellatæ. Stamina 3. Stylus cum ovario continuus, basi vix incrassatus, deciduus, ramis stigmatosis 2 filiformibus. Nux stipitata, oblonga, compressa, styli basi acuminata.—Caules e rhizo-

mate repente simplices, supra medium foliati et florentes, foliis inferioribus plerisque ad vaginas breves reductis. Spiculæ longiusculæ, plures in spica laxa distichæ, sessiles, spicis secus caulem pluribus, omnibus axillaribus, pedunculis communibus e vaginis non exsertis. Folia floralia seu bracteæ foliaceæ sub spicis iis longiora. Bracteæ sub spiculis glumis similes.

Species 1, boreali-Americana. *Kunth, Enum. Pl.* ii. 329. *Steud. Syn. Pl. Glum.* ii. 2. *Bœckel. in Linnæa,* xxxvi. 414. *Ell. Bot. S. Carol. et Georg. t.* 2.

Genus quoad spiculas *Cypero* (*Papyro*) affine; setis hypogynis distat et habitus peculiaris.

6. **Heleocharis,** *R. Br. Prod.* 224 (Eleocharis).—Spiculæ pluri- sæpius multi-floræ, floribus omnibus hermaphroditis. Glumæ undique imbricatæ, exteriores 1 rarius 2 minores vacuæ. Setæ hypogynæ sæpius 6, sed variant 3–8 v. rarissime omnino desunt. Stamina 3 v. pauciora. Stylus supra basin bulboso-incrassatam persistentem tenuis, continuus, demum deciduus, ramis stigmatosis 2 v. 3 filiformibus. Nux nunc obovoidea v. subglobosa 3-costata, nunc compressa v. 2-convexa, costis 2 marginalibus, basi persistente styli conica v. depressa coronata.—Caules cæspitosi v. e rhizomate repente erecti, simplices, aphylli, vagina longa appressa et sæpe vaginis nonnullis exterioribus basi stipati. Spicula terminalis, solitaria, erecta, exinvolucrata, nisi gluma extima vacua (v. bractea glumiformi) interdum cæteris paullo majore stipata; rarissime in specimine casu prolifero spicula altera evolvitur.

Species enumeratæ ultra 80, plures tamen inter se ægre distinguendæ, per regiones tropicas et temperatas utriusque orbis imprimis in locis uliginosis v. aquaticis latissime dispersæ, etiam ad terras arcticas extensæ. *Kunth, Enum. Pl.* ii. 139. *Steud. Syn. Pl. Glum.* ii. 75. *Bœckel. in Linnæa,* xxxvi. 418. *Benth. Fl. Austral.* vii. 290.

Genus habitu et styli basi distincte dilatata haud male definitum, etsi species nonnullæ sectionis *Scirpidii* ad *Scirpi* sectionem *Bœothryon* prope accedant; in sectiones 3 sequentes dividitur:—

1. *Limnochloa.* Spicula cylindracea, sæpius majuscula, glumis sæpius numerosis obtusis vix carinatis rigidulis margine hyalinis. Nucis rostrum sæpius depresso-conicum. Caules sæpe elati, interdum septis transversis nodulosi. *Rottb. Descr. et Ic. Pl. t.* 15, *f.* 1, 2 (*Scirpus*). *Roxb. Cor. Pl. t.* 231 (*Scirpus*). LIMNOCHLOA, *Nees in Linnæa,* ix. 294.

2. *Scirpidium.* Spicula cylindracea, obtusa v. superne acutata, quam in *Limnochloa* sæpius minor. Glumæ dorso carinatæ v. linea centrali notatæ. Nucis rostrum breviter conicum, sæpe a latere compressum. Caules nunc elati fere *Limnochloæ,* glumis numerosissimis angustis, nunc tenuiores spiculis angustis iis sect. sequentis accedentes. *Host, Gram. Austr.* iii. *t.* 55, 56, 60 (*Scirpus*). *Reichb. Ic. Fl. Germ. t.* 294, 295. *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 18 *et* 19 (*Eleocharis* et *Scirpidium*). *Del. Fl. Eg. t.* 6, *f.* 2. *C. Gay, Fl. Chil. t.* 71, *f.* 3. SCIRPIDIUM, *Nees in Linnæa,* ix. 293.

3. *Heleogenus.* Spicula ovoideo-conica v. parva pauciflora. Glumæ dorso carinatæ v. linea viridi notatæ. Nucis rostrum breve, depressum. Caules tenues, humiles, interdum fluitantes v. filiformes. Spiculæ sæpius parvæ. *Rottb. Descr. et Ic. Pl. t.* 15, *f.* 3 (*Scirpus*). *C. Gay, Fl. Chil. t.* 71, *f.* 1, 2. CHÆTOCYPERUS, *Nees in Linnæa,* ix. 289, et ELEOGENUS, *Nees, l. c.* 294.

LIMNOCHLOA, *Beauv. in Lestib. Essai Fam. Cyp.* 41, includit species *Heleocharitis* varias e diversis sectionibus stylo 3-fido.

7. **Dichromena,** *Mich. Fl. Bor. Amer.* i. 37. (Dichroma, *Pers. Syn.* i. 57.)—Spiculæ ovoideæ, obtusæ v. vix acuminatæ, floribus pluribus sæpius numerosis, inferioribus v. fere omnibus hermaphroditis, superioribus interdum masculis. Glumæ undique imbricatæ, obtusæ, sæpe albidæ, omnes florentes v. infima vacua. Setæ 0. Stamina 3 v. pauciora. Stylus basi incrassatus, persistens, superne tenuis, deciduus, ramis stigmatosis 2 filiformibus. Nux obovata v. oblonga, sæpe transverse rugosa, styli basi lata indurata rostrata.—Herbæ perennes, caulibus foliatis. Spiculæ sæpius plures, in capitulo terminali sessiles, rarius 3–5 brevissime pedicellatæ v. solitariæ. Bracteæ exteriores nunc foliaceæ 2 v. 3 elongatæ basi albidæ, nunc brevissimæ.

Species ad 8, Americæ borealis et australis tropicæ incolæ. *Kunth, Enum. Pl.* ii. 274, *quoad sect.* 1. *Steud. Syn. Pl. Glum.* ii. 134.

Genus *Scirpeas* cum *Rhynchosporeis* arcte connectit. Nuces parvæ, sæpius numerosæ *Scirpearum,*

sed flores superiores masculi videntur. *Bœckeler in Linnæa*, xxxvii. 526, species omnes in *Rhynchospora* includit. Kunth *Dichromenam* a *Rhynchospora* distinxit setarum deficientia et in genere inclusit *Haloschœnum*, Nees, tam habitu et inflorescentia quam spicularum forma et structura valde diversum. *Asteroschœnus*, Nees (infra sub *Rhynchospora*), *Dichromenæ* accedit bracteis involucrantibus elongatis basi albis, sed spiculæ omnino *Rhynchosporæ*, angustæ acuminatæ sæpius monocarpicæ, et stylus indivisus.

In specie a Spruceo ad flumen Atabapo prope Maypures Venezuelæ lecta sub n. 3708, caulis brevissimus undique dense foliatus, foliis stellato-patentibus, floralibus involucrantibus similibus nisi brevioribus basi albis characteribus floralibus omnino *Dichromenæ*.

8. **Psilocarya,** *Torr. in Ann. Lyc. N. York*, iii. 359.—Spiculæ ovoideo-conicæ, multifloræ, floribus omnibus hermaphroditis. Glumæ undique imbricatæ, omnes florentes v. infima vacua. Setæ hypogynæ 0. Stamina sæpius 2, interdum 3. Stylus basi v. ad medium induratus, plus minus incrassatus persistensque, superne tenuis, ramis stigmatosis 2 filiformibus. Nux late obovoidea, compressa, margine 2-costata, styli basi persistente sæpe elongata rostrata.—Herbæ cæspitosæ, annuæ (v. perennes ?), caulibus foliatis, foliis gramineis. Spiculæ corymbulosæ, rhachi communi inflorescentiæ sæpe breviter producta, corymbi densi v. laxi subcompositi, terminales v. in axillis longe pedunculati. Glumæ fuscescentes v. rarius pallidæ.

Species nobis notæ 4, quarum 3 Americæ borealis incolæ, *Steud. Syn. Pl. Glum.* ii. 150; quarta Cubensis (*Scirpus corymbiformis*, Wright in Sauv. Fl. Cub. 176).

Genus *Fimbristyli* affine, ob inflorescentiam et nucis rostrum quam in *Heleocharite* longius ab A. Grayio *Rhynchosporo* adjunctum, a qua differt spicularum multiflorarum forma, glumis omnibus florentibus. Species Mexicanæ et austro-Americanæ a Neesio et Liebmanno descriptæ pleræque ad *Rhynchosporam* (*Haloschœnum*) pertinent. *P. candida*, Nees, potius ad *Dichromenam* referenda.

9. **Fimbristylis,** *Vahl, Enum.* ii. 285.—Spiculæ pluri- sæpius multi-floræ, floribus omnibus hermaphroditis v. summo rarius imperfecto. Glumæ undique imbricatæ v. rarius distichæ, infimæ 1–2 rarius 3 vacuæ. Setæ hypogynæ 0. Stamina 3 v. pauciora. Stylus basi plus minus incrassatus, basi bulbiformi v. conica cum stylo decidua v. (in sect. *Oncostyli*) diu persistente; ramis stigmatosis 2 v. 3 filiformibus. Nux obovoidea globosa v. compressa, 3-quetra v. 2-convexa, basi sæpe valde contracta.—Herbæ annuæ v. perennes, cæspitosæ, sæpe tenues v. humiles, rarius elatæ nec unquam staturam *Scirporum* majorum attingentes. Folia radicalia v. ad basin caulis conferta, graminea v. filiformia, rarius ad vaginas membranaceas reducta. Inflorescentia terminalis, sæpius irregulariter umbellata, umbella simplex v. sæpius plus minus composita, rarius in capitulum densum sessile contracta v. ad spiculam unicam v. paucas reducta. Spiculæ in radiis primariis v. ultimis solitariæ v. rarius capitato-congestæ. Bracteæ exteriores minimæ v. inflorescentia breviores, rarius foliaceæ inflorescentiam excedentes.

Species editæ ad 300, verisimiliter vix 200 retinendæ, per orbem terrarum late dispersæ, imprimis in regionibus tropicis numerosæ, in temperatis paucæ, in frigidis desunt. *Kunth, Enum. Pl.* ii. 220. *Steud. Syn. Pl. Glum.* ii. 106. *Bœckel. in Linnæa*, xxxvii. 2. *Benth. Fl. Austral.* vii. 298.

Genus pro maxima parte naturale et characteribus certis distinguendum, adsunt tamen species paucæ, præsertim inter monostachyas *Scirpo* (*Isolepidi*) prope accedentes v. a *Heleocharite* vix nisi setarum absentia distinguendæ. In sectiones sequentes dividitur:—

1. *Heleocharoides.* Spicula solitaria, terminalis, erecta v. nutans. Glumæ undique imbricatæ. Stylus 2-fidus v. 3-fidus, basi bulbiformi decidua. Species fere omnes Asiaticæ v. Australienses, interdum *Heleocharitis* v. *Isolepidis* speciebus tenuibus accedentes, sed styli basis semper decidua et folia (sæpius filiformia) adsunt, nunc ad basin caulis, nunc inter scapos aphyllos cæspitosa.

Mischospora, *Bœckel. in Flora*, 1860, 113, est *F. cylindrocarpa*, Wall.

2. *Abildgaardia.* Spiculæ erectæ, solitariæ v. paucæ, compressæ v. angustæ. Glumæ distichæ v. 2–3-seriatim spirales, interdum irregulares. Stylus vulgo 3-fidus, basi bulbiformi decidua. *Rottb. Descr. et Ic. Pl. t.* 13, *f.* 3 (*Cyperus*). Abildgaardia, *Vahl, Enum.* ii. 296. *Kunth, Enum. Pl.* ii. 247. *Steud. Syn. Pl. Glum.* ii. 72. *Bœckel. in Linnæa*, xxxvii. 51. *Beauv. Fl. Ow. et Ben. t.* 86. *Oliv. in Trans. Linn. Soc.* xxix. *t.* 109.

Genus ab auctoribus plerisque admissum, quoad speciem typicam *A. monostachyam*, Vahl, bene distinctum videtur glumis distichis paleaceis in spicula plana latiuscula, sed in speciminibus nonnullis imprimis Americanis dispositio glumarum minus regularis et in speciebus nonnullis gerontogeis imprimis Australiensibus glumæ irregulariter spirales, hinc inde tantum distichæ et genus jam a Hasskarlio, F. Muellero aliisque cum *Fimbristyle* junctum. *Benth. Fl. Austral.* vii. 307.

Gussonea, *Presl, Rel. Hænk.* i. 183, *t.* 33. *Brongn. in Duperr. Voy. Coq. Bot. t.* 34, species 2, altera Californica (?) altera Moluccana, ob glumas subdistichas *Abildgaardiæ* relatæ, habitum et inflorescentiam *Fimbristylium* typicarum ostendunt.

3. *Dichelostylis.* Spiculæ plures, sæpius numerosæ, laxe v. rarius dense umbellatæ, nec capitatæ nec fasciculatæ. Glumæ undique imbricatæ. Stylus 2-fidus, basi bulbiformi decidua. Nux 2-convexa, lævis v. rugosa nec tuberculata. Species nonnullæ latissime dispersæ, una etiam in Europa obvia. *Rottb. Descr. et Ic. Pl. t.* 13, *f.* 1, *t.* 17, *f.* 6 (*Scirpus*). *Reichb. Ic. Fl. Germ. t.* 315. *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 9. *Sibth. Fl. Gr. t.* 50 (*Scirpus*). *Delile, Fl. Eg. t.* 6, *f.* 3.

Pogonostylis, *Bertol. Fl. Ital.* i. 312, *est F.* (*Dichelostylis*) *squarrosa*, Vahl, species humilis, styli bulbo basi pilis longis supra ovarium reflexis fimbriato. Huic affinis sed bene distincta est *F. velata*, R. Br. ex Australia.

F. dichotoma, Vahl (*Scirpus annuus*, All.), cui stylus vulgo 2-fidus a Hostio, Gram. Austr. iii. t. 63, stylo trifido delineatur.

4. *Trichelostylis.* Spiculæ paucæ v. numerosæ, varie umbellatæ capitatæ v. fasciculatæ, rarissime ad unam reductæ. Glumæ undique imbricatæ. Stylus sæpissime 3-fidus, basi bulbiformi decidua. Species numerosæ, tropicæ v. subtropicæ imprimis Asiaticæ v. Australienses. *Rottb. Descr. et Ic. Pl. t.* 5, *f.* 2, *t.* 17, *f.* 3 (*Scirpus*). *Rudge, Pl. Gui. t.* 19 (*Cyperus*). Trichelostylis, *Lestib. Essai Fam. Cyp.* 40.

5. *Oncostylis.* Spiculæ depresso-capitatæ subcymosæ v. laxe irregulariterque umbellatæ, rarius solitariæ. Glumæ undique imbricatæ, interdum paucæ. Stylus 3-fidus, basi bulbiformi sæpius parva diuque in nucem persistente. *Rottb. Descr. et Ic. Pl. t.* 17, *f.* 4 (*Scirpus*). *Rudge, Pl. Gui. t.* 22 (*Scirpus*). Oncostylis, *Nees in Mart. Fl. Bras.* ii. i. 80. Sectio a Kunthio aliisque ad *Scirpum* relata ob styli basin sæpius persistentem, sed habitus omnino *Fimbristylis* nec *Scirpi*, et, ut monet A. Gray, styli basis distincte bulbiformis et demum haud raro decidua. Species tamen paucæ monostachyæ Americanæ, glumis floribusque numerosissimis, *Fimbristylem* cum *Scirpo* (*Isolepide*) arcte connectunt.

Leptoschœnus, *Nees in Hook. Journ. Bot.* ii. 393, est *Scirpus Schomburgkianus*, Bœckel. in Linnæa, xxxvi, 757, species sectionis *Oncostylis*, *F. capillari*, A. Gr., valde affinis, nisi ejusdem forma subprolifera. Setæ hypogynæ interdum nec semper adsunt minutæ.

Echinolytrum, *Desv. Journ. Bot.* i. (1808) 20, *t.* 1, est *Scirpus dipsaceus*, Rottb. Descr. et Ic. Pl. t. 12, f. 1, ab auctoribus *Isolepidi* relatus, sed stylus certe basi bulbiformis, bulbo nunc cum stylo deciduo nunc persistente. Species est insignis, humillima, densissime multicaulis, umbella simplici, spiculis parvis globosis v. oblongis, glumis numerosissimis squarrosis, nucibus compressis margine sæpius subtiliter glochidiatis.

10. **Pentasticha,** *Turcz. in Bull. Soc. Imp. Nat. Mosc.* 1862, ii. 330.—Spiculæ multifloræ, angustæ, floribus omnibus hermaphroditis. Glumæ quinquefariam imbricatæ, carinatæ, acuminatæ, omnes florentes v. infima vacua. Setæ hypogynæ 6, retrorsum ciliolatæ. Stamina 3. Stylus cum ovario continuus, basi incrassatus, ramis stigmatosis 3 filiformibus. Nux stipitata, acute 3-quetra, styli basi persistente coronata.—Herba cæspitosa, caulibus numerosis strictis acute 3-quetris foliatis. Foliorum lamina rigidula sæpe vagina sua brevior. Spiculæ fere 5-angulatæ, fasciculatæ, in fasciculo terminali 3–9, additis fasciculis nonnullis 1–5-stachyis, ad axillas superiores breviter pedunculatis. Bracteæ brevissimæ, sæpius setaceo-acuminatæ, una interdum sub fasciculo terminali spiculas subæquans.

Species 1, Africæ tropicæ et Madagascariæ incola. *Fuirena stricta*, Steud. Syn. Pl. Glum. ii. 128, Bœckel. in Linnæa, xxxvii. 99. Planta habitu quodammodo *Fuirenæ glomeratæ* accedit, sed multo affinior videtur *Fimbristyli* et *Scirpo*, genus tamen ab omnibus bene distinctum. Turczaninow (mendo typographico ?) achenium tripartitum (loco triquetrum ?) dixit.

11. **Scirpus,** *Linn. Gen. n.* 67.—Spiculæ pluri- sæpius multi- floræ, floribus omnibus hermaphroditis v. summo rarius masculo. Glumæ undique imbricatæ, omnes florentes v. infima vacua. Setæ hypogynæ dum adsint 3–8, sæpius 6, setulis minutis retrorsum v.

rarius sursum ciliatæ, v. in squamellas plumosas complanatæ, v. in sect. *Isolepide* sæpissime desunt. Stamina 3 v. pauciora. Stylus cum ovario continuus, basi v. haud incrassatus, deciduus, ramis stigmatosis 2 v. 3 filiformibus. Nux obovoidea globosa 3-quetra v. complanata, sessilis v. rarius stipitata, apice nuda v. styli basi minute tuberculiformi coronata, varie striata foveolata v. lævis.—Herbæ nunc parvæ annuæ cæspitosæ v. tenues fluitantesque, nunc elatæ validæ perennes rhizomate repente. Folia ad basin caulis pauca, nunc longissima, nunc parva graminea, v. omnia ad vaginas solas reducta. Inflorescentia nunc specie lateralis spiculis solitariis v. paucis fasciculatis sessilibus v. in umbella paucis inæqualiter pedicellatis, bractea infima erecta caulem ultra inflorescentiam continuante, nunc more *Cyperi* terminalis, composita, bracteis inferioribus inæqualiter elongatis foliaceis involucrata, v. rarius spicula unica, erecta, terminalis, bracteam subtendentem superans.

Species editæ ad 300, sed numerus valde reducendus et verisimiliter vix 200 retinendæ, per orbem terrarum latissime dispersæ, in locis humidis paludosis v. etiam in aquis stagnantibus frequentes, nec in Alpinis v. Arcticis Antarcticisque desunt. *Kunth, Enum. Pl.* ii. 157 *et* 187 (*Isolepis*). *Steud. Syn. Pl. Glum.* ii. 83 *et* 90 (*Isolepis*). *Bœckel. in Linnæa*, xxxvi. 475 *et* 691 (*excl. sect. Oncostylis*). *Benth. Fl. Austral.* vii. 322.

Genera ab auctoribus pluribus 2 admissa: *Isolepis* setis hypogynis 0, et *Scirpus* setis 3–6, pro maxima parte sat naturalia sunt, prius a *Fimbristyle*, id a *Heleocharite* distinctum, imprimis stylo basi non bulboso-incrassato; character tamen in speciebus nonnullis valde incertus, et Grayium Bœckelerum aliosque secuti sumus genus in integrum servando, quod in sectiones sequentes dividimus, omnes jam a nonnullis pro generibus propriis propositis.

1. *Bæothryon.* Spicula 1, terminalis, bractea spiculam non superante ut in *Heleocharite*, sed styli basis cum ovario continua angusta nec bulbiformis. Setæ hypogynæ sæpius 6. Habitus fere *Heleocharitis* sect. *Scirpidium. Reichb. Ic. Fl. Germ. t.* 296, 297, 299, 300. *Host, Gram. Austr.* iii. *t.* 58, 59. *More in Seem. Journ. Bot.* 1868, *t.* 85. Bæothryon, *Ehrh. Beitr.* iv. 147 (*nomen*); *A. Dietr. Spec. Pl.* ii. 89; *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 17.

2. *Nemum.* Spicula 1, terminalis, bractea spiculam non superante. Stylus basi haud incrassatus, totus deciduus. Setæ hypogynæ 0. Spicula in caule tenui erecta, spadicea, a spica *Trifolii spadicei* primo aspectu haud absimilis. Species 1 Indiæ occidentalis? et Africæ tropicæ occidentalis incola (specimina Africana sola vidimus). Nemum, *Desv. in Hamilt. Prod. Pl. Ind. Occid.* 13. *Kunth, Enum. Pl.* ii. 220. Species glumis membranaceis spadiceis persistentibus distinctissima, vix tamen a *Scirpo* generice separanda, cui adjunxit Bœckeler.

3. *Isolepis.* Setæ hypogynæ 0 v. rarissime paucæ parvæ. Herbæ sæpius tenues, spiculis 1–3 parvis sessilibus, rarius elatæ inflorescentia composita. Bractea infima erecta, inflorescentiam quasi lateralem sæpissime excedens, caulem continuans. *Rottb. Descr. et Ic. Pl. t.* 8, *f.* 3, *t.* 15, *f.* 4, 5, 6, *t.* 17, *f.* 2, 5. *Host, Gram. Austr.* iii. *t.* 64, 65. *Reichb. Ic. Fl. Germ. t.* 298, 301, 302. *Delile, Fl. Eg. t.* 6, *f.* 1. *Thou, Melanges, t.* 7. *Jacq. Fl. Austr. t.* 448. *Rudge in Trans. Linn. Soc.* x. *t.* 15, *f.* 2. Isolepis, *R. Br. Prod.* 221; *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 10. *Oliv. in Trans. Linn. Soc.* xxix. *t.* 107. *Hook. f. Fl. Ant. t.* 50; *Fl. Tasm. t.* 143 *ad* 145. *A. Rich. Fl. Nouv. Zel. t.* 18. *Berggr. Ny. Zeal. Fanerog. t.* 5. *C. Gay, Fl. Chil. t.* 70.

Dichostylis, *Beauv. in Lestib. Essai Fam. Cyper.* 39, *non Nees*, genus propositum fuit ad *Isolepides* Brownianas stylo bifido.

Eleogiton, *Link. Hort. Berol. Descr.* i. 284, *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 12, est genus ab auctore propositum pro speciebus paucis *Isolepidis* spicula solitaria terminali a bractea non superata.

Holoschœnus, *Link. Hort. Berol. Descr.* i. 293; *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 11; *Reichb. Ic. Fl. Germ. t.* 316 *ad* 318, est *S. Holoschœnus*, Linn., *Host, Gram. Austr.* iii. *t.* 62 cum specie affini, inflorescentia composita, spiculis parvis dense globoso-capitatis, insignis, sed characteres omnino *Isolepidis*.

S. Lawianus, Bœckel., e peninsula Indiæ Orientalis, nobis videtur *Fimbristylis* species, ubi collocavit Law.

4. *Desmoschœnus.* Setæ hypogynæ ut in *Isolepide* 0, sed spiculæ ovoideo-globosæ, in linea longa 1-laterali subspirali secus caulem 2–3-seriatim confertæ, arcte sessiles, bracteis foliaceis longe adnatis inflorescentiam semi-amplectentibus, lamina patente. Species 1 Novo-Zelandica. *A. Rich. Fl. Nouv. Zel. t.* 19 (*Isolepis*). Desmoschœnus, *Hook. f. Fl. N. Zel.* i. 271. Anthophyllum, *Steud. Syn. Pl. Glum.* ii. 160, spiculis errore 1-floris dictis.

5. *Schœnoplectus*, Reichb. Setæ hypogynæ sæpissime 3–8. Caules sæpius validi, inflorescentia pseudolaterali, spiculis paucis sessilibus confertis v. pluribus irregulariter umbellatis, bractea extima erecta caulem continuante. *Host, Gram. Austr.* iii. *t.* 61, 66, iv. *t.* 68. *Reichb. Ic. Fl. Germ. t.* 303 *ad* 308. *Delile, Fl. Eg. t.* 7, *f.* 1 *et* 3. *Torr. Fl. N. York, t.* 139. ELYTROSPERMUM, *C. A. Mey. in Mem. Sav. Etrang. Acad. Petersb.* i. 200, *t.* 2.

HYMENOCHÆTE, *Nees in Linnæa*, ix. 293, *non Beauv.*, est fide Kunthii *Scirpus grossus*, Linn. HYMENOCHÆTA, *Beauv. in Lestib. Essai Fam. Cyper.* 43, spiculis in corymbo simplici aggregato-confertis et setis membranaceis longitudine pistilli, est certe planta diversissima, ex auctore vix ab *Eriophoro* distincta, cæterum ex charactere manco et patria non data non agnoscenda et genus delendum.

Scirpus semi-subterraneus, Bœckel. in Linnæa, xxxvi. 495 (*S. thermalis*, Spruce, Pl. Exs. n. 5781, *Carex gaimardioides*, Em. Desv. in C. Gay, Fl. Chil. vi. 202, t. 73, f. 2), est species Chilensis et Andina, habitu *Oreobolo* similis, quocum v. cum *Gaimardia* in eodem cæspite interdum mixta est, sed vera *Scirpi* species, spiculis 2–3 ad apicem pedunculi in capitulum parvum aggregatis. In specimine a C. Gay accepto nuces jam maturæ sunt, setis filamentisque jam delapsis, sed pauca supersunt, et utriculus a Desvauxio descriptus et delineatus est nucis pericarpium.

Scirpus membranaceus, Thunb., ex Africa australi, *Scirpum* cum *Hypolytro* connectit. Spiculæ magnæ, 3–9 in capitulo terminali sessiles, glumis numerosissimis latis margine scarioso laceris arcte imbricatis. Setæ hypogynæ desunt et in speciminibus Zeyherianis n. 1775 et Burchellianis n. 5645 flores more *Isolepidis* intra glumam nudi, sed in speciminibus cæterum simillimis n. 3943 squamas hypogynas 2 laterales complicato-carinatas invenimus omnino *Hypolytri*. Hic numerus Dregei citatur a Steudelio sub genere suo HELLMUTHIA, *Steud. Syn. Pl. Glum.* ii. 90, et descriptio quoad habitum inflorescentiam spiculas glumasque convenit, sed flores dicit dioicos. In speciminibus nostris Dregeanis certe hermaphroditi sunt.

HELEOPHYLAX, *Lestib. Essai Fam. Cyp.* 41, est verisimiliter *S. lacustris*, Linn., ab auctore generice distinctus ob stylum 2-fidum.

MALACHOCHÆTE, *Nees in Linnæa*, ix. 292; *Gen. Fl. Germ. Monocot.* ii. *n.* 14 (PTEROLEPIS, *Schrad. in Gœtt. Gelehrt. Anz.* 1821, 2071, *ex ejusd. Anal. Fl. Cap.* 30), genus propositum fuit ad *S. littoralem*, Schrad., speciesque ei affines *S. lacustri* similes, sed setæ hypogynæ planæ, plus minus dilatatæ, superne longe plumoso-ciliatæ. *Reichb. Ic. Fl. Germ. t.* 309.

Dichromena atrosanguinea, Em. Desv. in C. Gay, Fl. Chil. vi. 190, t. 71, est verisimiliter *Scirpus tereticulmis*, Steud., species Chiloensis *S. pungenti*, Vahl, affinis. Styli basis sub anthesi vix ovario angustior ut in icone delineatur, in fructu maturo tamen parva remanet vix bulbiformis et cum stylo delabitur. Setæ variant 2–3 v. 0.

6. *Blysmus.* Setæ hypogynæ sæpissime 3–6. Spiculæ plures, distinctæ, ad apicem caulis dense v. subinterrupte spicatæ, secus caulem sessiles, distichæ. Species 2 v. 3 Europeæ v. Asiaticæ, quarum unam legit Lechler etiam in Chile sub n. 2927, spiculis tamen minus regulariter distiche spicatis, quod etiam observatur in *Blysmo brevifolio*, Dcne. in Jacquem. Voy. Bot. t. 173, e Himalaya. *Host, Gram. Austr.* iii. *t.* 57. BLYSMUS, *Panz. in Rœm. et Schult. Syst.* ii. *Mant.* 41; *Link, Hort. Berol. Descr.* i. 278. NOMOCHLOA, *Beauv. in Lestib. Essai Fam. Cyper.* 37, *non Nees.*

7. *Euscirpus.* Setæ hypogynæ sæpissime 3–6. Inflorescentia terminalis, composita, spiculis paucis majusculis v. minoribus numerosis irregulariter paniculata, bracteis exterioribus foliaceis inæqualiter elongatis involucrata. *Host, Gram. Austr.* iii. *t.* 67, 68, iv. *t.* 69. *Reichb. Ic. Fl. Germ. t.* 310, 313, 314. *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 15. *Willd. Hort. Berol. t.* 99.

8. *Androcoma.* Setæ hypogynæ 0. Inflorescentia terminalis, composita et decomposita, bracteis exterioribus foliaceis inæqualiter elongatis involucrata. Nux acuminata, cum filamentis post anthesin valde elongatis persistentibus decidua. Species typica Brasiliensis, *S. giganteus* (ANDROCOMA, *Nees in Hook. Journ. Bot.* ii. 396), elata est, valida, spiculis numerosissimis majusculis confertis.

BLEPHAROLEPIS, *Nees in Mart. Fl. Bras.* ii. i. 91, e Brasilia, *Gardner n.* 1215, characteres omnino *Androcomatis* exhibet, nisi statura spiculisque multo minoribus, glumis pilis lanosis fimbriatis.

OXYCARYUM, *Nees in Mart. Fl. Bras.* ii. i. 90, est *S. cubensis*, Kunth, species per Americam tropicam late diffusa etiam in Africa tropica obvia, habitu et characteribus *Blepharolepidi* affinis, sed spiculæ in panicula dense globoso-capitatæ, filamenta post anthesin vix accrescunt, et nucis pericarpium cartilagineum incrassatur, quare a Bœckelero cum *Cyperis* nonnullis ad genus Neesianum *Anosporum* refertur.

APLOSTEMON seu HAPLOSTEMUM, *Rafin. in Journ. Phys.* lxxxix. 105, genus propositum fuit ad species *Scirpi* floribus 1-andris. DIPLARRHINUS, *Rafin.*, species floribus 2-andris, et DISTICHMUS, *Rafin.*, species floribus 3-andris includit ex Endl. Gen. 119.

12. **Eriophorum,** *Linn. Gen. n.* 68. (Linagrostis, *Adans. Fam. Pl.* ii. 41.)—Spiculæ pluri- sæpius multi-floræ, floribus omnibus hermaphroditis. Glumæ undique imbricatæ, omnes florentes. Setæ hypogynæ 6 v. ∞ (6 indivisæ v. ∞-partitæ, *Bœckel.*), filiformes v. complanatæ, post anthesin longissime excrescentes. Stamina 3. Stylus cum ovario continuus, basi haud incrassatus, ramis stigmatosis 3 filiformibus. Nux obovoideo-3-quetra, apice basique sæpe attenuata, setis persistentibus cincta.—Herbæ perennes, cæspitosæ, basi foliatæ v. rarius foliis omnibus ad vaginas reductis. Inflorescentia terminalis, spiculis nunc solitariis v. 2-3 capitatis brevissime bracteatis, nunc pluribus simpliciter umbellatis, v. numerosis in panicula decomposita bracteis elongatis foliaceis involucrata.

Species ad 10, Europæ, Asiæ extratropicæ et Americæ borealis incolæ. *Kunth, Enum. Pl.* ii. 176. *Steud. Syn. Pl. Glum.* ii. 128. *Bœckel. in Linnæa,* xxxvii. 91.

Genus quoad setas hypogynas in sectiones 2 parum naturales dividitur:—

1. *Trichophorum,* setis 6 tenuissimis longe crispo-flexuosis vix tamen gossypinis. Hic includimus (cum Persoonio) *E. alpinum,* L., spicula solitaria erecta exinvolucrata, et *E. cyperinum,* Linn., et *E. lineatum,* Mich., spiculis in panicula numerosis, bracteis foliaceis elongatis. Hæ species ab auctoribus recentioribus ad *Scirpum* transferuntur, sed setæ hypogynæ tenues lævesque omnino ut in *E. alpino* nec rigidulæ barbellatæque *Scirpi.* *S. criniger,* A. Gray, tamen in *Scirpo* retinendus videtur setis rigidulis barbellatis v. ciliolatis non flexuosis. *Host, Gram. Austr.* i. *t.* 40. *Reichb. Ic. Fl. Germ. t.* 288. *Torr. Fl. N. York. t.* 140. TRICHOPHORUM, *Pers. Syn.* i. 69.

2. *Eueriophorum,* setis ∞ sæpius numerosissimis (v. ex Bœckelero 6 multipartitis). In *E. vaginato,* Linn., *E. polystachyo,* Linn., affinibusque spiculæ solitariæ v. in umbella haud numerosæ et setæ longissimæ copiose gossypinæ sæpiusque candidæ; in *E. comoso,* Wall., tamen, e Himalaya, habitus fere *E. cyperini* et setæ, etsi numerosæ, tenues sunt et flexuoso-crispæ ut in *Trichophoro. Reichb. Ic. Fl. Germ. t.* 289 *ad* 292. *Host, Gram. Austr.* i. *t.* 37 *ad* 39, iv. *t.* 73, 74. *Torr. Fl. N. York, t.* 141.

13. **Ficinia,** *Schrad. Anal. Fl. Cap.* 43, *t.* 2. (Hypolepis, *Beauv. in Lestib. Essai Fam. Cyper.* 33, *ex char. et ic. cit.*)—Spiculæ pluri- sæpius multi-floræ, floribus omnibus hermaphroditis. Glumæ undique imbricatæ, infima v. rarius *2* v. *3* inferiores vacuæ. Setæ hypogynæ 0. Stamina 3. Discus hypogynus cartilagineus, nunc a stipite ovarii distinctus, nunc cupulatus v. tubulosus, margine sæpe dentatus v. breviter lobatus. Stylus basi haud incrassatus, ramis stigmatosis 3, rarius 2, filiformibus v. abbreviatis, deciduus. Nux 3-quetra v. rarius 2-convexa, apice interdum contracta, cum stipite discoque decidua.—Herbæ sæpius rigidæ. Folia radicalia v. ad basin caulis conferta, nunc elongata graminea v. filiformia, nunc brevia rigidula interdumque obtusa. Spiculæ sæpius terminales, solitariæ v. capitatæ, bracteis exterioribus foliaceis patentibus involucratæ, v. bractea una erecta caulem continuante pseudo-laterales, interdum bracteis pluribus foliaceis patentibus etiam interioribus spiculas superantibus comoso-capitatæ, rarius plures secus caulem laxe spicatæ. Glumæ sæpissime ferrugineo-castaneæ v. nigricantes, rarius pallide virentes.

Species ad 40, omnes Africanæ et perpaucis exceptis australes extratropicæ. *Kunth, Enum. Pl.* ii. 251. *Steud. Syn. Pl. Glum.* ii. 121. *Bœckel. in Linnæa,* xxxvii. 56. *Endl. Atakta, t.* 12.

Discus hypogynus a Kunthio rite descriptus, errore a Neesio aliisque perigynium dicitur; semper intra nec extra stamina situs est.

SCHŒNIDIUM, *Nees in Linnæa,* ix. 291, est *F. lateralis,* Kunth, stylo 2-fido, nuce biconvexa, cæterum omnino generi conformis.

MELANCRANIS, *Vahl, Enum.* ii. 239, *Kunth, Enum. Pl.* ii. 264, species includit 2, spiculis paucifloris in capitulum ovoideum spiculam unicam simulans confertis, et rite a Bœckelero ad *Ficiniam* refertur.

SICKMANNIA, *Nees in Linnæa,* ix. 292, est *F. radiata,* Kunth, a Vahlio in *Melancrane* inclusa, species humilis, rigida, capitata, bracteis numerosis rigide foliaceis etiam interioribus spiculas excedentibus insignis. Glumæ etiam rigide acuminatæ et stylus elongatus sæpius brevissime 2-3-fidus.

CHAMÆXIPHIUM, *Hochst. in Flora,* 1844, 102, *Steud. Syn. Pl. Glum.* ii. 59, species continet 2, alteram Abyssinicam, alteram austro-Africanam, evidenter *F. radiatæ* valde affines, sed capitula foliaceo-bracteata inter folia radicalia sessilia fere occulta.

PLEURACHNE, *Schrad. Anal. Fl. Cap.* 47, *t.* 4, est *F. secunda*, Kunth, iisdem notis a cæteris *Ficiniis* distincta quam *Abildgaardia* a cæteris *Fimbristylibus*, glumis 2-seriatis, inferioribus v. fere omnibus distichis. Spiculæ v. spicularum capitula in hac ut in speciebus nonnullis affinibus ad apicem caulis dissita, in spicam secundam disposita sunt.

ACROLEPIS, *Schrad. Anal. Fl. Cap.* 42, *t.* 2, *f.* 5. *Kunth, Enum. Pl.* ii. 330 (HYPOPHIALIUM, *Nees in Sieb. Agrost. n.* 95), quo includit Bœckeler in Linnæa, xxxvii. 89, *Ficiniam ramosissimam*, Kunth, characteres præbet omnino *Ficiniæ*, nec differt nisi caule diffuso ramosissimo dense sæpiusque breviter foliato, ramis floriferis brevibus tenuibus et spiculis parvis in capitulo paucis.

14. **Hemichlæna,** *Schrad. in Gœtt. Gelehr. Anz.* 1821, 2066, *ex ejusd. Anal. Fl. Cap.* 40, *t.* 3, *f.* 1.—Spiculæ ∞-floræ, compressiusculæ, floribus omnibus hermaphroditis. Glumæ distichæ, striatæ, carinatæ, infima rarius vacua. Setæ hypogynæ 0. Stamina 3. Ovarium stipiti crasso plus minus in discum dentatum expanso impositum. Stylus basi haud incrassatus, deciduus, ramis stigmatosis 3 filiformibus. Nux ovoidea v. oblonga, obtusangula, cum stipite discoque decidua.—Herbæ basi ramosæ diffusæ v. cæspitosæ. Folia longa, angusta, graminea. Spiculæ terminales, solitariæ erectæ v. plures in capitulo sessiles, sæpius longiusculæ, more *Ficiniæ* fuscescentes v. nigricantes ; rhachilla interdum nec semper articulata. Bractea exterior nunc glumiformis, nunc in laminam brevem erectam setiformem producta.

Species 3, Africæ australis incolæ. *Kunth, Enum. Pl.* ii. 330. *Steud. Syn. Pl. Glum.* ii. 1. *Bœckel. in Linnæa*, xxxvii. 86.

15. **Fuirena,** *Rottb. Descr. et Ic. Pl.* 70, *t.* 19. *f.* 3.—Spiculæ pluri- sæpius multi-floræ, floribus omnibus hermaphroditis. Glumæ undique imbricatæ, infimæ 1 rarius 2 vacuæ. Squamellæ hypogynæ 3, latæ, sæpe stipitatæ, membranaceæ v. carnosulæ, interdum cum setis totidem alternantes. Stamina 3. Stylus basi cum ovario continuus, basi haud incrassatus, deciduus, ramis stigmatosis 3 filiformibus. Nux 3-quetra, erostris.—Herbæ annuæ v. perennes, foliatæ, sæpe pubescentes. Foliorum vaginæ membrana coronatæ. Spiculæ fasciculatæ, pubescentes v. hirsutæ, fasciculis terminalibus v. in axillis superioribus breviter pedunculatis paniculam irregularem angustam formantibus, v. paucis distantibusque.

Species enumeratæ ultra 30, sed verisimiliter infra 20 reducendæ, per regiones tropicas subtropicasque utriusque orbis late dispersæ. *Kunth, Enum. Pl.* ii. 180. *Steud. Syn. Pl. Glum.* ii. 125. *Bœckel. in Linnæa*, xxxvii. 98. *Desf. Fl. Atl. t.* 10 (*Scirpus*). *Oliv. in Trans. Linn. Soc.* xxix. *t.* 108 B.

VAGINARIA, *Pers. Syn.* i. 70, est *F. scirpoidea*, Mich. Fl. Bor. Amer. i. 38, t. 7, a Persoonio generice distincta ob setas hypogynas squamellis æquilongas, quod interdum observatur in *F. squarrosa* aliisque. Bœckeler squamellas hypogynas staminodia nuncupat, sed semper vidimus setis dum adsint alternas, in serie staminibus exteriore.

16. **Hemicarpha,** *Nees in Edinb. N. Phil. Journ.* xvii. 263 ; *et in Wight, Contrib. Bot. Ind.* 70.—Spiculæ parvæ, subglobosæ, dense multifloræ, floribus omnibus hermaphroditis. Glumæ numerosissimæ, undique imbricatæ, omnes florentes v. infimæ vacuæ. Squama hypogyna 1, minuta, diaphana, rarius dimidium ovarii attingens, sæpe 2-fida v. 2-dentata, interdum omnino evanida. Stamen 1. Stylus cum ovario continuus, basi haud incrassatus, tenuis, ramis stigmatosis 2 filiformibus. Nux basi parum contracta, obovoideo-oblonga, compressiuscula, erostris.—Herbæ pusillæ, cæspitosæ, habitu fere *Scirpi* (*Isolepidis*) *setacei*, Linn. Folia tenuia. Spiculæ minimæ, sessiles, sæpius ternæ, specie laterales, bractea tenui erecta caulem continuante.

Species 2, per regiones tropicas subtropicasque utriusque orbis late dispersæ. *Nees in Mart. Fl. Bras.* ii. i. *t.* 4.

Genus quasi medium tenet inter *Scirpum* (*Isolepidem*) et *Lipocarpham*; habitus prioris quacum junxit Bœckeler in Linnæa, xxxvi. 498, 499. Squamella hypogyna ab hoc auctore staminodium dicitur, sed ad seriem exteriorem pertinere videtur et sæpe 2-fida est. In speciminibus siccis difficillime observatur.

17. **Lipocarpha,** *R. Br. App. Tuckey, Congo,* 459.—Spiculæ parvæ, globosæ v. oblongæ, densissime multifloræ, floribus omnibus hermaphroditis. Glumæ numerosissimæ, undique imbricatæ, omnes florentes v. infima vacua. Squamæ hypogynæ 2, glumæ parallelæ, hyalinæ, ovario æquilongæ v. longiores. Stamina 1–2. Stylus cum ovario continuus, basi haud incrassatus, tenuis, ramis stigmatosis 2 v. 3. Nux anguste oblonga, compressa, obtusa v. acuta, erostris, inter squamas hypogynas persistentes inclusa.—Herbæ annuæ v. perennes. Folia ad basin caulis conferta. Spiculæ sæpius 3-5 in capitulo terminali sessiles, rarius solitariæ, bracteis exterioribus paucis foliaceis valde inæqualibus involucratæ.

Species 6 v. 7, per regiones tropicas subtropicasque utriusque orbis dispersæ. *Kunth, Enum. Pl.* ii. 266. *Steud. Syn. Pl. Glum.* ii. 129. *Bœckel. in Linnæa,* xxxvii. 114. *Benth. Fl. Austral.* vii. 336.

Genus olim *Hypolytro* inclusum, sed squamellæ hypogynæ setas v. squamellas hypogynas planas *Scirpi* referunt; laterales complicatæ carinatæ *Hypolytri* desunt.

TRIBUS II. HYPOLYTREÆ.

18. **Ascolepis,** *Nees in Herb. Un. Itin. n.* 1644; *Steud. Syn. Pl. Glum.* ii. 105, *pro parte.* (Platylepis, *Kunth, Enum. Pl.* ii. 269, *non A. Rich.*)—Spiculæ depressæ globosæ v. subovoideæ, multifloræ, floribus omnibus hermaphroditis. Glumæ tenuiter paleaceæ v. subhyalinæ, angustæ, sub squamellis sæpe occultæ, omnes florentes v. inferiores perpaucæ vacuæ. Squamella hypogyna e duabus lateralibus complicatis connatis composita, plana v. basi crassa, glumam excedens, subtus integra, supra longitudinaliter aperta florem includens. Setæ 0. Stamina 3 v. 2. Stylus cum ovario continuus, basi haud incrassatus, ramis stigmatosis 2 v. 3 filiformibus. Nux squamella inclusa, stipitata, oblonga, plano-compressa v. 3-quetra.—Herbæ perennes, cæspitosæ. Folia angusta sæpe filiformia, ad basin caulis conferta, vaginis laxe membranaceis v. rigidule fuscis. Spiculæ terminales, nunc solitariæ depressæ v. subglobosæ, nunc more *Kyllingæ* 3–5 arcte sessiles, ovoideæ v. globosæ, candidæ pallide fuscescentes v. fere aureæ. Bracteæ foliaceæ sub inflorescentia 2–3, patentes, valde inæquales, angustæ.

Species ad 6, Africæ tropicæ et australis incolæ, quarum una etiam in America australi orientali tropica v. extratropica haud rara. *Bœckel. in Linnæa,* xxxvii. 119. *Steud. Syn. Pl. Glum.* ii. 131.

Genus squamellis glumas ab auctoribus sæpe prætervisas excedentibus distinctissimum, formas tres præbet, quæ tamen non generice separandæ videntur:—

1. *Euascolepis.* Spiculæ solitariæ, depresso-globosæ, interdum squamellis numerosissimis majoribus radiantibus fere bellidiformes. Squamellæ basi concavæ, florem foventes at vix includentes. Stylus variat 2–3-fidus. Species plures Africanæ tropicæ. *Welw. in Trans. Linn. Soc.* xxvii. 74, *t.* 24. *Oliv. in Trans. Linn. Soc.* xxix. *t.* 110.

2. *Platylepis.* Spiculæ solitariæ, depresso-globosæ, candidæ, fere *Euascolepidis,* sed squamellæ plano-compressæ florem fere omnino includentes, rima aperta angusta. Stylus 2-fidus. Species 1, austro-Africana. Huc etiam pertinere videtur LYPROLEPIS, *Steud. Syn. Pl. Glum.* ii. 130, e fl. Gaboon Africæ occidentalis.

3. *Kyllingoides.* Spiculæ sæpius 3 v. 5, ovoideæ v. subglobosæ, in capitulum sessile arcte confertæ. Squamæ *Platylepidis.* Stylus 2-fidus. Species 1, Africana et Americana. *Nees in Mart. Fl. Bras.* ii. *t.* 4 (*Platylepis*).

19. **Hypolytrum,** *Rich. in Pers. Syn.* i. 70. (Hypælyptum, *Vahl, Enum.* ii. 283, *pro parte, nomine Richardiano haud rite transcripto ex Lestib.* Beera, *Beauv. in Lestib. Essai Fam. Cyper.* 43. Hypelytrum, *Link, Hort. Berol.* i. 327. Tunga, *Roxb. Fl. Ind. ed. Car. et Wall.* i. 187. Albikia, *Presl, Rel. Hænk.* i. 184, *t.* 34, 35.)—Spiculæ pluri- sæpe multifloræ, floribus omnibus hermaphroditis. Glumæ undique imbricatæ, inferioribus nonnullis minoribus vacuis. Flores complanati. Squamæ hypogynæ 2, laterales, complicatæ, carina acuta sæpius ciliata, interiores planæ setæque 0. Stamina 3 v. pauciora. Stylus cum ovario continuus, basi haud incrassatus, deciduus, ramis stigmatosis 2 v. 3 filiformibus.

Nux dura, obtusangula v. compressa, erostris (v. ex Kunthio basi styli spongiosa rostrata), lævis v. irregulariter rugosa.—Herbæ perennes, sæpius validæ, caule foliato. Spiculæ sæpius numerosæ, in paniculam irregulariter corymbosam rhachi communi breviter producta rarius in fasciculum densum contractam dispositæ. Bracteæ involucrantes elongatæ, inæquales, foliaceæ.

Species ad 25, per regiones tropicas et subtropicas utriusque orbis late diffusæ. *Kunth, Enum. Pl.* ii. 269. *Steud. Syn. Pl. Glum.* ii. 131. *Bœckel. in Linnæa*, xxxvii. 120. *Benth. Fl. Austral.* vii. 338. *Beauv. Fl. Ow. et Ben. t.* 67. *Bot. Mag. t.* 6282.

H. pungens, Kunth, cum specie affini, utraque e Guiana v. Brasilia boreali, *Rudge, Pl. Gui. t.* 23 (*Scirpus*), a cæteris differunt squamellis hypogynis alte (nec usque ad apicem ut in *Ascolepide*) connatis florem omnino includentibus. *H. micranthum*, Bœckel., e Brasilia boreali, insigne est pedunculis ex axillis inferioribus scapiformibus tenuibus quam folia brevioribus, spiculis perpaucis v. solitariis erectis. In specie Africana, *Barter*, *n.* 1575, pedunculi v. scapi pariter ex axillis inferioribus folio brevioribus, sed rigiduli apice more generis ∞-stachyi. De *Hellmuthia*, Steud., characteribus fere *Hypolytri*, confer supra sub *Scirpo.*

20. **Diplasia,** *Rich. in Pers. Syn.* i. 70.—Spiculæ multifloræ, floribus omnibus hermaphroditis v. nonnullis abortu masculis. Glumæ undique imbricatæ, inferiores paucæ vacuæ. Flores complanati. Squamæ hypogynæ 2 exteriores laterales complicatæ carina ciliata, 2 interiores planæ glumæ parallelæ. Setæ 0. Stamina 6–8. Stylus cum ovario continuus, basi haud incrassatus, tenuis sed complanatus, ramis stigmatosis 2 elongatis. Nux ovalis, compressa, obtusa, nitida, pericarpio duro circa semen parvulum undique incrassato.—Herbæ validæ, elatæ. Folia ad basin caulis latiuscula, pluripedalia. Spiculæ cylindraceæ, elongatæ, in ramis paniculæ corymbosæ sæpius fasciculatæ, rhachi communi plus minus elongata. Bracteæ inferiores longe foliaceæ, interiores setaceæ, sub spiculis singulis sæpe minimæ.

Species 1 v. 2, in America tropica a Brasilia usque ad Indiam occidentalem extensæ. *Kunth, Enum. Pl.* ii. 273. *Steud. Syn. Pl. Glum.* ii. 133. *Bœckel. in Linnæa*, xxxvii. 135. *Rudge, Pl. Gui. t.* 24 (*Scirpus*).

Speciei unicæ editæ (*D. karatæfoliæ*, Pers.), addenda videtur species affinis e Brasilia boreali, *Burchell, n.* 9324, spiculis minoribus, nuce multo angustiore longiore glumam superante. Specimen tamen unicum tantum adest, et species ulterius probanda. Stylus ab auctoribus dicitur basi semiglobosus ovarium coronans, quod non invenimus nisi partem superiorem ovarii ab inferiore non distinctam pro styli basi haberes.

21. **Mapania,** *Aubl. Pl. Gui.* i. 47, *t.* 17. (Lepironia, *sect.* Macrolepironia, *Miq. Ill. Fl. Archip. Ind.* 60.)—Spiculæ multifloræ, floribus omnibus hermaphroditis. Glumæ undique imbricatæ, inferiores paucæ vacuæ. Flores complanati. Squamæ hypogynæ 6 (v. ∞ ?), 2 exteriores laterales, complicatæ, carina acuta sæpe ciliata, 4 interiores planæ v. concavæ, angustæ, sæpe ∞-nerves absque costa centrali, quarum 1 antica, 3 staminibus alternæ. Stamina (an semper?) 3. Stylus cum ovario continuus, basi haud v. breviter incrassatus, deciduus, ramis stigmatosis 3 filiformibus. Nux sessilis, 3-quetra v. complanata, erostris v. breviter rostrata.—Herbæ perennes, validæ, interdum altissimæ. Folia ad basin caulis v. in rhizomate fasciculata, longa, latiuscula, v. in petiolo longo ovatolanceolata. Spiculæ sæpius majusculæ v. magnæ, in caule v. in scapo aphyllo terminales, solitariæ v. paucæ in capitulo sessiles, v. rarius numerosæ corymboso-paniculatæ. Bracteæ nunc brevissimæ, nunc 1–3 longe foliaceæ.

Species nobis adsunt ad 30, per regiones tropicas utriusque orbis dispersæ, plures adhuc ineditæ, et characteres florales in paucis tantum rite observati, specimina nempe sæpe spiculas præbent paucas ætate jam marcescentes v. aliter imperfectas. In sectiones sequentes distribuuntur:—

1. *Thoracostachyum.* Inflorescentia more *Hypolytri* corymbosa, spiculis ovoideis quam in cæteris sectionibus minoribus; inflorescentiæ rami in speciebus 2 Sumatranis (*Lepironia bancana* et *L. sumatrana*, Miq. Ill. Fl. Ind. Archip. t. 24) breves oligostachyi; in specie Australiana, *Benth. Fl. Austral.* vii. 341, panicula ampla decomposita, spiculis numerosissimis. Thoracostachyum, *Kurz in Journ. Asiat. Soc. Beng.* xxxviii. 75.

2. *Mapania.* Spiculæ plures, in capitulo sessiles, bracteis 3 foliaceis amplis æqualibus elevato-venosis involucratæ. Huc species typica Guianensis Aubletii.

3. *Cephaloscirpus.* Spiculæ plures, interdum numerosæ, magnæ v. minores, in capitulo denso sessiles, bractea 1 longa foliacea involucratæ, additis interdum 1–2 minoribus. Species adsunt 11, quarum 3 Americanæ, 4 Africanæ, 4 Asiaticæ v. insularum maris Pacifici. CEPHALOSCIRPUS, *Kurz in Journ. Asiat. Soc. Beng.* xxxviii. 83.

4. *Pandanophyllum.* Spiculæ plures capitatæ, v. in scapo solitariæ, bracteis exterioribus spiculam non v. brevissime tantum superantibus. Species adsunt 17, quarum 2 Africanæ, 5 Asiaticæ et 2 Samoenses spiculis capitatis, *Miq. Ill. Fl. Ind. Archip. t.* 25, 27 (*Lepironia*); 1 Africana (*M. africana*, Bœckel. in Linnæa, xxxvii. 137), et 7 Asiaticæ, scapis monostachyis, *Miq. l. c. t.* 21 *ad* 23, 26 (*Lepironia*). PANDANOPHYLLUM, *Hassk. Cat. Hort. Bogor.* 297; *Kurz in Journ. Asiat. Soc. Beng.* xxxviii. 78. HALOSTEMMA, *Wall. Cat. Herb. Ind. n.* 4470, 4474, *nomen.*

22. **Scirpodendron,** *Zipp.; Kurz in Journ. Asiat. Soc. Beng.* xxxviii. 84. (Ptychocarya, *R. Br. in Wall. Cat. Herb. Ind. n.* 3538, *nomen.*)—Spiculæ multifloræ, floribus omnibus hermaphroditis. Glumæ undique imbricatæ, inferiores paucæ vacuæ. Flores complanati. Squamæ hypogynæ ∞, 2 exteriores laterales complicatæ carina sæpius ciliata, interiores angustæ planæ v. concavæ absque costa centrali, facillime partitæ. Stamina 6 (v. ∞ ?). Stylus tenuis, cum ovario continuus, basi haud incrassatus, ramis stigmatosis 2 v. 3 breviter filiformibus. Nux magna, exserta, costis 6–8 valde prominentibus obtusis, sulcis profundis.—Herba perennis, valida, caule elato *Pandanos* aphyllos simulans. Folia ad basin caulis v. e rhizomate ligneso longa lata. Spiculæ ovatæ, dense fasciculatæ, fasciculis in paniculam densam thyrsoideam dispositis. Bracteæ ∞, longæ, inæquales, foliaceæ, exteriores paniculam involucrantes.

Species 1 (v. 2 ?), Zeylaniæ, Archipelagi Malayani, insularum maris Pacifici et Australiæ tropicæ incolæ. *Benth. Fl. Austral.* vii. 341. *Miq. Ill. Fl. Archip. Ind. t.* 28.

23. **Exocarya,** *Benth. in Hook. Ic. Pl. t.* 1206.—Spiculæ parvæ, floribus 1–2 hermaphroditis cum masculis inferioribus 3–4. Glumæ undique imbricatæ, inferiores plures vacuæ. Flores complanati. Squamæ hypogynæ 4, quarum 2 exteriores laterales complicatæ carinatæ, 2 interiores glumæ parallelæ planæ v. concavæ. Setæ 0. Stamina 3. Stylus basi induratus bulbiformis, persistens, superne tenuis deciduus, ramis stigmatosis 2 filiformibus. Nux e spicula exserta, ovoideo-oblonga, lævis sed opaca, styli basi coronata.—Herba perennis, rhizomate repente, caule elongato tenui foliato. Folia longa, graminea, subulato-acuminata. Spiculæ minimæ, in umbellam amplam tenuem compositam dispositæ, ramis pedicellisque filiformibus. Nux sæpe unica perfecta etsi parva, spicula ipsa tamen multo major.

Species 1, Australiensis. *Benth. Fl. Austral.* vii. 339. Genus quoad characteres floris *Mapaniæ* accedit, habitu et inflorescentia longe distat.

24. **Lepironia,** *Rich. in Pers. Syn.* i. 70. (Chondrachne, *R. Br. Prod.* 220. Choricarpha, *Bœckel. in Flora*, 1858, 19.)—Spicula multiflora, floribus omnibus hermaphroditis. Glumæ undique imbricatæ, arcte appressæ, inferiores paucæ vacuæ. Flores complanati, glumis obtecti. Squamæ hypogynæ numerosæ, 2 exteriores laterales complicatæ carina ciliata, interiores angustæ planæ v. subplanæ dense pluriseriatæ. Stamina 8 v. plura, squamis exterioribus opposita, cum interioribus alterna. Stylus in centro floris supra ovarium haud incrassatus, ramis stigmatosis 2 filiformibus. Nux complanata, erostris, ecostata.—Herba perennis, caulibus e rhizomate repente erectis junciformibus aphyllis intus septis transversis nodulosis. Folia ad vaginas reducta. Spicula solitaria, specie lateralis, bractea subtendente erecta caulem continuante.

Species 1, Indiæ orientalis, Archipelagi Malayani, Madagascariæ et Australiæ incola. *Kunth, Enum.* ii. 366. *Steud. Syn. Pl. Glum.* ii. 181. *Miq. Ill. Fl. Archip. Ind. t.* 20.

Squamellæ hypogynæ sæpius numero staminum duplo plura, quæ staminibus oppositæ cum stamine ab auctoribus pluribus flores ♂ 1-andri dicuntur, illæ staminibus alternæ pro floribus

neutris seu glumis vacuis habitæ, et stylus centralis flos ♀ nudus dicitur, cui interpretationi tamen assentiri nequimus. Plantæ habitus *Ecdeiocoleam* inter *Restiaceas* refert, sed structura spiculæ longe diversa. *Lepironiæ* sect. *Macrolepironia*, Miq., ad *Mapaniam* pertinet.

25. **Chorisandra,** *R. Br. Prod.* 221.—Spiculæ multifloræ, floribus omnibus hermaphroditis (v. apud auctores nonnullos in capitulo androgyno numerosæ 1-floræ unisexuales). Glumæ (v. capituli bracteæ) undique laxe imbricatæ, inferiores nonnullæ vacuæ. Flores (v. spiculæ) complanati v. teretiusculi. Squamæ hypogynæ (v. florum ♂ glumæ) numerosæ, 2 exteriores laterales sæpius complicatæ carina ciliata, interiores angustæ planæ v. concavæ dense ∞-seriatæ, v. omnes planæ v. concavæ. Stamina (v. flores ♂ 1-andri) 6–12, squamis interioribus alterna v. exterioribus opposita. Stylus (v. flos ♀ nudus) centralis, supra ovarium haud incrassatus, ramis stigmatosis 2 filiformibus. Nux 2-convexa v. ovoideo-globosa, costis ad 8 longitudinalibus prominulis.—Herbæ perennes, caulibus e rhizomate repente erectis junciformibus, intus interdum transverse septatis. Folia ad basin caulis pauca, teretia, cauliformia, v. ad vaginas reducta. Spicula (v. spicularum capitulum) globosa v. ovoidea, specie lateralis, bractea subtendente erecta caulem continuante.

Species 4, Australianæ, quarum una etiam in Nova Caledonia obvia. *Benth. Fl. Austral.* vii. 343. Genus *Lepironiæ* affine et structura spicularum pariter duplici modo intelligitur. Sectiones 2 adsunt vix non pro generibus propriis habendæ:—

1. *Euchorisandra.* Spicula globosa, sessilis, bractea subtendente (caulis apice) basi non v. vix dilatata. Squamæ hypogynæ 2 exteriores laterales, complicatæ, carina ciliata. Species 3, Australianæ.

2. *Cymbaria.* Spicula ovoideo-globosa, in basi dilatata bracteæ subtendentis (caulis apicis) semi-immersa. Squamæ hypogynæ omnes oblongo-spathulatæ, concaviusculæ. Species Australiana et Novo-Caledonica.

26. **Chrysithrix,** *Linn. Mant. n.* 1335 (Chrysitrix). Spiculæ 1–2-floræ, floribus hermaphroditis (v. apud auctores nonnullos spiculæ in capitulo androgyno numerosæ 1-floræ unisexuales). Glumæ (v. capituli bracteæ) paucæ, rigidæ, coriaceæ, nigræ, imbricatæ, concavæ v. carinatæ, exteriores vacuæ. Squamæ hypogynæ numerosissimæ, anguste lineares, aliæ stamina singula foventes, aliæ vacuæ (v. flores ♂ numerosi 1-andri, gluma lineari subtensi, glumis plurimis vacuis). Antheræ tenues, longe acuminatæ. Stylus cum ovario centrali continuus, basi haud incrassatus, ramis stigmatosis 3 filiformibus (v. flos centralis fœmineus ad stylum cum ovario reductus absque gluma subtendente). Nux stipitata, ovoidea, obtusissima, erostris, in longitudinem multistriata.—Herbæ perennes, rhizomate repente, caule erecto rigido tereti v. compresso. Folia ad basin caulis erecta, rigida, a latere compressa v. juncea, sæpius brevia, interdum ad vaginam reducta. Spicula solitaria, specie lateralis, sessilis v. cauli semi-immersa, bractea subtendente basi dilatata erecta caulem continuante.

Species 2, Austro-Africanæ. *Linn. f. Nov. Gram. Gen. in Amœn. Acad.* x. 28, *t.* 1 (*Chrysithrix*). *Kunth, Enum. Pl.* ii. 365. *Steud. Syn. Pl. Glum.* ii. 181 (*Chrysistrix*). *Bœckel. in Linnæa,* xxxvii. 139.

Genus præcedentibus affine, structura pariter duplici modo explicanda.

Tribus III. Rhynchosporeæ.

27. **Oreobolus,** *R. Br. Prod.* 235.—Spiculæ angustæ, 1-floræ, flore hermaphrodito. Glumæ 3 (v. 2 cum bractea subtendente subconformi), imbricatæ, parum inæquales, exteriores 2 (v. 1 cum bractea) vacuæ. Squamæ hypogynæ (v. perianthii segmenta) 6, angustæ, rigidæ, erectæ, persistentes, 2-seriatæ, sed omnes subæquales. Stamina 3. Stylus tenuis, cum ovario continuus, basi haud incrassatus, deciduus, ramis stigmatosis 3 tenuibus. Nux ovoidea, lævis, erostris.—Herbæ perennes, habitu *Gaimardiam* et

Distichiam simulantes, caulibus nanis dense foliatis in cæspitem pulvinatum confertis. Folia disticha, equitantia v. rarius irregulariter imbricata. Spiculæ parvæ solitariæ terminales, v. 2 altera laterali, pedunculo post anthesin sæpe elongato. Squamæ hypogynæ post nucem glumasque delapsas diu persistentes.

Species 2 v. 3, inter se valde affines; Australiæ australis, Novæ Zelandiæ et Americæ australis antarcticæ v. Andinæ incolæ. *Kunth, Enum. Pl.* ii. 367. *Steud. Syn. Pl. Glum.* ii. 182. *Bœckel. in Linnæa*, xxxviii. 230. *Benth. Fl. Austral.* vii. 346. *Gaudich. in Ann. Sc. Nat. ser.* 1, v. *t.* 2. *Hook. f. Fl. Antarct.* i. *t.* 49. *Berggr. Ny. Zeal. Fanerog.* 25, *t.* 6, *f.* 12 *ad* 24. His addidit *H. Mann in Proc. Amer. Acad.* vii. 210 speciem in insulis Sandwicensibus detectam a nobis non visam.

28. **Remirea,** *Aubl. Pl. Gui.* i. 44, *t.* 16. (Miegia, *Schreb. Gen. Pl.* 786.)—Spiculæ parvæ, 1-floræ, flore hermaphrodito. Glumæ 4, imbricatæ, exteriores vacuæ gradatim auctæ, suprema florens inclusa, sub anthesi membranacea, demum carnoso-incrassata. Setæ hypogynæ 0. Stamina 3, filamentis elongatis. Stylus cum ovario continuus, basi haud incrassatus, ramis stigmatosis sæpissime 3 filiformibus. Nux glumis interioribus arcte inclusa, ovoideo-3-quetra, sæpe leviter compressa.—Herba perennis, e rhizomate late repente breviter cæspitoso-ramosa, dense foliata. Folia linearia, rigida. Spiculæ in capitulo terminali sessili v. pedunculato ovoideo simplici v. composito dense confertæ, numerosæ, sessiles. Bracteæ exteriores involucrantes breves patentes.

Species 1, in maritimis regionum tropicarum utriusque orbis late diffusa. *Kunth, Enum. Pl.* ii. 138. *Steud. Syn. Pl. Glum.* ii. 71. *Bœckel. in Linnæa*, xxxv. 435. *Benth. Fl. Austral.* vii. 347. *Beauv. Fl. Ow. et Ben. t.* 73 (*quoad glumas male*).

29. **Arthrostylis,** *R. Br. Prod.* 229.—Spiculæ angustæ, flore unico hermaphrodito (addito rarius altero parvo imperfecto ?). Glumæ ∞, undique imbricatæ, florens longiuscula acuta, cæteræ inferiores vacuæ, gradatim minores, addita interdum terminali minuta vacua (v. ex Bœckelero florem ♂ fovente). Setæ hypogynæ 0. Stamina 6, filamentis demum elongatis, 3 sæpius cæteris præcociora cito elongata anantheraque. Stylus undique dense gossypino-lanatus, basi incrassatus, cum ovario articulatus, deciduus, ramis stigmatosis 3 recurvis. Nux ovoideo-subglobosa, erostris, costis 3 obtusis.—Herba perennis, caulibus e rhizomate crasso erectis plus minus complanatis simplicibus aphyllis basi vagina stipatis. Spiculæ minimæ, in capitulo parvo terminali sessiles, numerosæ, stylorum ramis gossypinis exsertis recurvis insignes. Bracteæ exteriores ∞, angustæ, rigidulæ, involucrum spiculis brevius formantes.

Species 1, Australiensis. *Benth. Fl. Austral.* vii. 422; *in Hook. Ic. Pl. t.* 1345, a Bœckelero in Linnæa, xxxviii. 391, sub nomine *Fimbristylis planiculmis* descripta.

30. **Actinoschœnus,** *Benth. in Hook. Ic. Pl.* xiv. 33, *t.* 1346. (Arthrostylis, *Bœckel. in Linnæa*, xxxvii. 523, *non Br.*)—Spiculæ angustæ, flore unico hermaphrodito, addito rarius altero parvo imperfecto. Glumæ 4 v. 5, 2 v. 3 exteriores breves vacuæ, 2 interiores longiores subæquales florem perfectum sæpeque glumam parvam v. floris alterius rudimentum involventes. Setæ hypogynæ 0. Stamina 3, filamentis interdum post anthesin accretis. Stylus tenuis, cum basi conico-dilatata deciduus, ramis stigmatosis 3 filiformibus. Nux obovoideo-globosa, erostris, tenuiter 3-costata.—Herbæ annuæ (v. perennes ?) cæspitosæ, caulibus tenuibus aphyllis basi vagina unica stipatis. Spiculæ in capitulo terminali subgloboso sessiles, exteriores sæpe subreflexæ. Bracteæ angustæ, spiculis breviores et parum conspicuæ, una rarius capitulum superante.

Species 3, *Arthrostylis Thouarsii*, Kunth, Enum. Pl. ii. 284, e Madagascaria; *A. filiformis*, Thw. Enum. Pl. Zeyl. 352, e Zeylania; et *A. chinensis*, Benth. Fl. Hongk., e China. Genus a *Fimbristyle* differt uti *Kyllinga* a *Cypero*. Ab *Arthrostyle*, Br., longius distat capitulo, staminum numero et styli indole. Setas hypogynas a Hanceo in Journ. Linn. Soc. xiii. 133, descriptas frustra quæsivimus.

31. **Rhynchospora,** *Vahl, Enum. Pl.* ii. 229.—Spiculæ sæpius angustæ v. acuminatæ, floribus paucis, hermaphroditis perfectis 1, 2 v. rarius ∞, additis haud raro 1 v. 2 masculis

v. sterilibus. Glumæ undique imbricatæ, inferiores 2–∞ v. rarius 1, breviores, vacuæ, 1 v. 2 superiores flores masculos v. imperfectos foventes v. vacuæ. Setæ hypogynæ 6 v. pauciores, nunc minimæ v. 0, rarius 7–8. Stamina 3 v. pauciora. Stylus basi varie dilatatus sæpiusque persistens, superne tenuis deciduus, nunc elongatus indivisus v. brevissime 2-fidus, nunc in ramos stigmatosos 2 longos filiformes divisus. Nux ovata obovata v. oblonga, plus minus compressa, rostro (styli basi persistente) polymorpho continuo v. articulato coronata.—Herbæ annuæ v. perennes, tenues v. validæ, erectæ v. rarissime diffusæ v. fluitantes, caulibus sæpius foliatis. Spiculæ nunc globoso-capitatæ capitulis terminalibus solitariis v. secus caulem v. inflorescentiæ ramos plures sessiles v. in umbellas irregulares dispositæ, nunc fasciculatæ v. subdissitæ, laxe corymbosæ, v. irregulariter corymboso-paniculatæ, inflorescentia terminali interdum valde composita, additis nonnunquam inflorescentiis minoribus in axillis pedunculatis, v. corymbi ∞ secus caulem sessiles v. brevi-pedunculatæ. Bracteæ exteriores foliaceæ nunc longissimæ, nunc breves v. tenues.

Species descriptæ fere 200, sed verisimiliter infra 150 retinendæ, per regiones tropicas subtropicasque utriusque orbis late dispersæ, in America boreali plurimæ, in Europa et Asia Rossica duæ tantum. *Kunth, Enum. Pl.* ii. 287. *Steud. Syn. Pl. Glum.* ii. 139. *Bœckel. in Linnæa*, xxxvii. 525 (excl. sp. ∞ ad *Dichromenam* v. *Psilocaryam* referendis). *A. Gray in Ann. Lyc. N. York*, iii. 194, *t.* 6. *Griseb. Fl. Brit. W. Ind.* 573; *Cat. Pl. Cub.* 242. *Wright in Sauv. Fl. Cub.* 179.

Genera numerosa a Neesio imprimis ad rostri formam, ad setas evolutas v. deficientes, stylum indivisum v. 2-fidum proposita, a Bœckelerio aliisque bene ad *Rhychosporam* restituta, in sectiones sequentes plus minus distinctas distribuenda videntur, series 2 formantia facile pro subgeneribus habendas:—

A. **Haplostyleæ.** *Spiculæ capitatæ v. in panicula fasciculatæ, acuminatæ, sæpissime 1-carpicæ. Stylus longus, tenuissimus, indivisus v. rarius breviter 2-fidus.*

1. *Haplostylis.* Spiculæ in capitulo solitario terminali globoso v. depresso numerosæ. Bracteæ 1–2 involucrantes sæpius foliaceæ, interdum longæ, inæquales, a basi virides. Setæ hypogynæ nunc nuce longiores, nunc paucæ brevissimæ v. 0. Species tropicæ pleræque Americanæ. HAPLOSTYLIS, *Nees in Linnæa*, ix. 295, *et in Mart. Fl. Bras.* ii. i. 126.

TRICHOCHÆTA, *Steud. Syn. Pl. Glum.* ii. 155, e Brasilia, est *R.* (*Haplostylis*) *barbatæ* var. v. species ei valde affinis, foliis glabris, spiculis in capitulo paullo majoribus paucioribusque.

MORISIA, *Nees in Linnæa*, ix. 295 (SPHÆROSCHŒNUS, *Nees in Pl. Meyen.* 97), est species Asiatica, quam nec characteribus nec habitu a *Haplostylibus* Americanis separare possumus.

MITROSPORA, *Nees in Linnæa*, ix. 295, quoad *M. recurvatam*, Nees in Mart. Fl. Bras. ii. i. t. 11. Mart. Herb. Fl. Bras, n. 849, nec 815, a *Haplostyle* non differre videtur nisi capitulo minus regulariter globoso, et glumis tenuiter recurvo-acuminatis in spiculis squarrosis. Setæ 0. *R. polyphylla*, Vahl, a nonnullis ad *Mitrosporam* relata, species panicula longa gracili spiculis pallidis insignis, potius ad *Calyptrostylem* referenda est.

Species nonnullæ Grisebachianæ ex India occidentali tenues, capitulis parvis oligostachyis, cæterum *Haplostyli* conveniunt, e.g. *R. subimberbis, R. curvula, R. setigera, R. seslerioides*, etc.

PTEROTHECA, *Presl, Symb. Bot.* i. 55, *t.* 35, est *R* (*Haplostylis*) *barbata*, Vahl (*Schœnus globosus*, Rudge, Pl. Gui. t. 15), nuce 2-alata, rostro lanceolato, analysi nec a Rudgeo nec a Preslio accurate delineata. Nux cæterum in *Haplostyle* quoad formam alas et rostrum polymorpha, nunc plana ovata v. fere orbicularis ala angusta v. margine incrassato cincta, nunc antice valde incrassata alis cartilagineis crenulatis antice inflexis achænium fere cymbiformem efficientibus. Huc verisimiliter pertinet DIPLOCHÆTA *guianensis*, Nees in Linnæa, ix. 296, nucis alis pro perigynii squamis interioribus cum fructu coalescentibus descriptis. Genus cæterum a Kunthio aliisque sub silentio præteritum.

2. *Asteroschœnus.* Bracteæ involucrantes longæ, basi (ut in *Dichromena leucocephala*) valde dilatatæ candidæque, capitulum fere occultantes. Cætera omnino *Haplostylis*. Setæ hypogynæ 0 v. minutæ. Species v. varietates 3 Brasilienses. ASTEROSCHŒNUS, *Nees in Mart. Fl. Bras.* ii. i. 124.

3. *Cephaloschœnus.* Bracteæ involucrantes latæ, coriaceæ, nitidæ, obtusæ v. vix acuminatæ, spiculas non superantes. Setæ hypogynæ longæ, rigidæ v. tenues, plumosæ v. barbellatæ. Cætera *Haplostylis*. Species Americana tropica, *R. globosa*, Rœm. et Schult., CEPHALOSCHŒNUS, *Nees in Linnæa*, ix. 295. PTILOSCIADIUM, *Steud. Syn. Pl. Glum.* ii. 149, *ex descr.*

R. armerioides, Presl, Rel. Hænk. 197, t. 31, f. 2, a Neesio ad *Haplostylem* relata, nobis *Cephaloschœno* affinior videtur. Bracteæ involucrantes ∞-seriatim imbricatæ spiculas non excedentes, quam in *R. globosa* minus rigidæ acutæque, et potius paleaceæ quam coriaceæ. Stylus longissimus est et indivisus v. vix 2-dentatus, nec alte 3-fidus ut a Preslio errore quodam descriptus.

4. *Echinoschœnus.* Capitula globosa *Haplostylis*, sed plura secus caulem sessilia v. nonnulla in corymbum parvum terminalem disposita. Species Americanæ tropicæ. Huc pertinent *R. exaltata*, Kunth (Echinoschœnus, *Nees in Linnæa*, ix. 297, *et in Mart. Fl. Bras.* ii. i. 131, *t.* 10), setis hypogynis 0, et *R. polycephala*, Kunth, affinesque paucæ (Ephippiorhynchium, *Nees l. c.* 134, *t.* 12), setis hypogynis evolutis, *Rudge, Pl. Gui. t.* 17 (*Schœnus*).

5. *Calyptrostylis.* Spiculæ plus minus fasciculatæ, fasciculis numerosis in paniculam terminalem irregularem compositam umbelliformem v. subcorymbosam dispositis, additis sæpe paniculis minoribus in axillis superioribus pedunculatis. Bracteæ exteriores sæpe longe foliaceæ involucrantes. Setæ hypogynæ evolutæ. Species plures sæpius validæ, inclusa *R. aurea*, Vahl, tam in America tropica quam in Asia late diffusa. *Rudge, Pl. Gui. t.* 18 (*Schœnus*). Calyptrostylis, *Nees in Linnæa*, ix. 295.

Ceratoschœnus, *Nees in Linnæa*, ix. 296, species 2 continet boreali-Americanas a *Calyptrostylibus* tropicis parum distinctas spiculis majoribus valde elongatis et nucibus longe rostratis.

In R. *polyphylla*, Vahl, spiculis anguste paniculatis et in *R. corymbifera*, Nees, forteque in nonnullis aliis rostrum in nuce articulatum mox delabitur.

B. **Dichostyleæ.** *Spiculæ polymorphæ, interdum 2–4-carpicæ, laxe corymbosæ v. subumbellato-paniculatæ, vix fasciculatæ, panicula rarius in capitulum ovoideum v. elongatum contracta. Stylus ad medium v. altius divisum in ramos stigmatosos 2 tenuiter filiformes.*

6. *Eurhynchospora.* Herbæ nunc tenues v. filiformes, nunc elatæ foliaceæ, inflorescentia terminali nunc corymbosa parum diffusa, nunc decomposita rhachi communi breviter producta v. in capitulum ovoideum contracta. Spiculæ angustæ, 1–2-carpicæ, v. rarius ovato-conicæ 3–4-carpicæ. Setæ hypogynæ variæ v. 0. Species nonnullæ latissime dispersæ, tam in orbe vetere quam in novo, pro maxima tamen parte Americanæ. *Host, Gram. Austr.* iv. *t.* 72 (*Schœnus*). *Reichb. Ic. Fl. Germ. t.* 285. *Benth. Fl. Austral.* vii. 348. *Presl, Symb. Bot. t.* 36. *Wawra, Bot. Maxim. Reise, t.* 90.

Haloschœnus, *Nees in Linnæa*, ix. 296, species includit *Eurhynchosporæ* quibus setæ hypogynæ minutissimæ v. sæpius omnino deficientes, et idcirco a Kunthio ad *Dichromenam* translatas. Spiculæ sæpius tenues v. minimæ, sed in *R. mexicana* aliisque austro-Americanis a Neesio sub *Psilocarya* enumeratis, ovato-conicæ sunt, formæ iis *Scirpi* quodammodo accedentes sed sæpissime 2-carpicæ.

Ptilochæta, *Nees in Mart. Fl. Bras.* ii. i. *t.* 8, species 2 Americanas continet (*R. diodon* et *R. lunata*, Griseb.), habitu tenui et corymbo laxo parum diffuso fere *R.* (*Eurhynchosporæ*) *albæ*, Vahl, sed nucis rostrum breve, latissimum, apice breviter 2–3-cornutum. Spermodon, *Beauv. in Lestib. Essai Fam. Cyper.* 27, *Nees in Mart. Fl. Bras.* ii. i. *t.* 8, a *Ptilochæta* differt setarum hypogynarum deficientia.

R. Cephalotes, Vahl; *Rottb. Descr. et Ic. Pl.* 61, *t.* 20 (*Schœnus*), species Americana tropica, a cæteris *Eurhynchosporis* differt spiculis numerosis in capitulum crassum sæpius ovoideum densissime confertis. In *R. cariciformi*, Nees, spiculæ densissime confertæ, sed spicam oblongam subramosam v. anguste thyrsoideam formant.

R. ruppioides, Benth. in Hook. Ic. Pl. t. 1344, simul e Ceylona et e Paraguaya recepta, insignis est caule foliis bracteisque in aqua submersis filiformi-capillaceis.

Calyptrolepis, *Steud. Syn. Pl. Glum.* ii. 151, est *R. oligantha*, A. Gray.

7. *Pleurostachys.* Corymbi laxi v. densiusculi, secus caulem plures, ad axillas sessiles v. breviter pedunculati. Spiculæ parvæ, sæpius 1-carpicæ, breviter ovatæ, vix acuminatæ. Stylus setæ hypogynæ et nuces omnino *Eurhynchosporæ*. Species ad 14, omnes Americanæ tropicæ. Pleurostachys, *Brongn. in Duperr. Voy. Coq. Bot.* 172, *t.* 31; *Kunth, Enum. Pl.* ii. 284; *Steud. Syn. Pl. Glum.* ii. 138; *Bœckel. in Linnæa*, xxxvii. 643, *et* xxxviii. 223. Nomochloa, *Nees in Linnæa*, ix. 299, *non Beauv.* Nemochloa, *Nees in Mart. Fl. Bras.* ii. i. 148, *t.* 14, 15, *excl. syn. Beauv.*; *Wawra, Bot. Maxim. Reise, t.* 92.

Sectio inflorescentia et spicularum indole sat distincta si includas *R. sparsam*, Vahl, affinesque nonnullas a *Bœckelero* in *Rhynchospora* retentas, et *P. strictam*, Kunth, excludes. Bœckeler *Pleurostachyn* a *Rhynchospora* distinguit styli basi cum ovario continua, quod tamen vidimus in omnibus fere *Rhynchosporis* sub anthesi, et nucis rostrum bene distinctum est in *Pleurostachi* ut in cæteris *Rhynchosporis*. Nees nuper *Nemochloam* a *Pleurostachi* distinxit forma rostri, quod tamen in toto genere sæpe variat de specie in speciem.

Zosterospermon, *Beauv. in Lestib. Essai Fam. Cyp.* 28, ex charactere manco non agnoscendum est et species non indicatur, sed ex descriptione Desvauxii in Ham. Prod. Fl. Ind. Occid. 14, qui verisimiliter specimen authenticum vidit, est *R.* (*Pleurostachys*) *sparsa*, Vahl.

8. *Millegrana.* Spiculæ parvæ, sæpius minimæ, 1-carpicæ, in paniculis axillaribus terminalibusque pyramidatis thyrsoideis v. angustis numerosæ. Species 3 v. 4, austro-Americanæ, inclusa *R. millegrana*, Griseb. e Trinidad, quæ vix cum charactere Neesiano *R.* (*Schœni*, Schrad) *millegranæ* suæ convenit. *Pleurostachys stricta*, Kunth, a cæteris *Millegranis* paullulum differt spiculis majoribus, paniculis angustis fere spiciformibus sæpe interruptis.

9. ? *Campylorhachis.* Spiculæ angustæ, ∞-floræ, rhachilla inter flores flexuosa, floribus alternatim foveis insidentibus fere *Schœni*, sed stylus 2-fidus et nux 2-convexa rostrata *Rhynchosporæ*. Paniculæ subcorymbosæ, terminales et axillares. Species 2: *R. gracillima*, Thw. Enum. Pl. Zeyl. 435, e Zeylaniæ paniculis laxissimis oligostachyis; et *R. thyrsoidea*, Nees et Mey. ex ins. Sandwicensibus, spiculis numerosis in paniculis brevibus dense confertis.

32. **Cyathochæte,** *Nees in Pl. Preiss.* ii. 86. (Tetralepis, *Steud. Syn. Pl. Glum.* ii. 159.)—Spiculæ angustæ, 2-floræ, flore superiore hermaphrodito, inferiore masculo v. sterili. Glumæ sæpius 4, undique imbricatæ, 2 exteriores breviores vacuæ, 2 superiores longiores flores arcte involventes. Setæ hypogynæ sæpius 4, longæ, rigidæ, acutæ. Stamina sæpius 2. Stylus elongatus, basin versus incrassatus, diu persistens, ramis stigmatosis 2 filiformibus. Nux ubi nota oblonga, stipiti crasso imposita, ecostata, styli basi incrassata coronata (an demum stylo deciduo denudata?).—Caules e rhizomate perenni sæpius elati. Folia ad basin caulis elongata, superiora pauca in bracteas foliaceas abeuntia. Spiculæ nunc paucæ 2-pollicares, nunc sat numerosæ ½-pollicares, in paniculam longam angustam dispositæ. Flores hinc inde sed rarius 3-meri occurrunt. Styli staminaque interdum valde elongata.

Species 3, omnes Australianæ. *Benth. Fl. Austral.* vii. 350; *in Hook. Ic. Pl. t.* 1343. Genus ob setas hypogynas rigidas a Brownio *Carphæ* adjunctum, sed habitu glumis non distichis et floribus sæpissime 2-meris longiuscule recedit, hoc charactere et nuce rostrata *Rhynchosporæ* affine, habitus potius *Elynanthi*.

33. **Carpha,** *R. Br. Prod.* 230, *pro parte.*—Spiculæ angustæ, 1-floræ, flore hermaphrodito. Glumæ 4–5, rigidule membranaceæ, distichæ, 2–3 exteriores vacuæ breviores, florens longior, rhachilla ultra florem rigide setiformi v. glumam vacuam ferente. Setæ hypogynæ 6, longæ, plumosæ, demum sub nuce patentes pappum simulantes. Stamina 3. Stylus basi incrassatus, cum ovario continuus, ramis stigmatosis 3 filiformibus. Nux oblonga, 3-quetra, apice in basin induratam persistentem styli attenuata.—Herbæ perennes, haud elatæ. Folia ad basin caulis conferta. Spiculæ plures, fasciculatæ, fasciculis corymbosis fere in capitula contractis, capitulis corymbisve terminalibus v. interdum 1–2 minoribus axillaribus. Bracteæ foliaceæ sæpius 2, corymbum superantes.

Species 2, altera Australiæ et Novæ-Zelandiæ, altera Americæ australis antarcticæ et Chilensis incolæ. *Benth. Fl. Austral.* vii. 381, *et in Hook. Ic. Pl. t.* 1216. *Hook. f. Fl. Antarct. t.* 148.

Carphæ cæteræ Brownii hodie ad *Cyathochætam* v. ad *Mesomelænam* referuntur. *Carpha*, qualis a Bœckelero in Linnæa, xxxviii. 265, recepta, nobis videtur genus nec naturale nec charactere certo limitatum. *C. glomerata* et *C. capitellata* sunt *Asterochætis* species. *C. arundinacea*, *C. Aubertei* et *C. elongata* genus *Cyclocampem* formant. *C. Urvilleana* e Moluccis ex descr. et ic. Brongn. in Duperr. Voy. 169, t. 30, videtur *Elynanthi* species *E. laxæ* subaffinis. *E. Schweinfurthiana*, Bœckel. in Flora 1879, 569, est *Eriosporæ* species.

34. **Mesomelæna,** *Nees in Pl. Preiss.* ii. 88.—Spiculæ 2-floræ v. rarius 1-floræ, floribus hermaphroditis inferiore dum adsit sterili. Glumæ distichæ v. subdistichæ, inferiores usque ad 5 vacuæ, florentes longiores flores arcte involventes, rhachilla brevi. Setæ hypogynæ 3, æquales, longæ v. breves, rigidulæ, interdum complanatæ fere squamiformes. Stamina 3. Stylus cum ovario continuus, basi plus minus incrassatus induratusque, demum tamen sæpe deciduus, ramis stigmatosis 3. Nux obovoidea, primum (v. etiam matura?) styli basi indurata coronata, gynophoro v. stipiti brevi crasso plus minus distincto imposita. —Herbæ perennes, rigidæ, cæspitosæ. Folia ad basin caulis sæpe elongata, addito

interdum uno in medio caule. Spiculæ in capitulum terminale globosum v. late oblongum densissime confertæ, bracteis rigidis haud raro nigris intermixtæ, quarum 1–2 v. in una specie 3–4 a basi brevi lata sæpe longe rigideque acuminatæ.

Species 5 v. 6, Australianæ. *Benth. Fl. Austral.* vii. 377, ubi forte 2 species sub *M. stygia* confusæ. In hac et in *M. deusta*, bracteæ exteriores 1 v. 2 acumine erecto nigro præditæ, glumæ vacuæ 4–5 stricte distichæ. In *M. sphærocephala* et *M. ancipiti* (quæ Gymnoschœnus, *Nees in Ann. Nat. Hist. ser.* 1, vi. 47. *Hook. f. Fl. Tasm. t.* 142) bracteæ in capitulo globoso late orbiculatæ, muticæ v. una acumine brevi prædita, glumæ subdistichæ, vacuæ 1–2. In *M. tetragona*, capitula ut in speciebus typicis aterrima sed majora, bracteis 3–4 acuminibus longis patentibus rigidissimis præditis, glumæ subdistichæ, vacuæ 1–2 ut in *Gymnoschœno*. Ptilanthelium, *Steud. Syn. Pl. Glum.* ii. 166, species unica e Port Jackson, *Urville*, nobis ignota est, nisi ad *Mesomelænam deustam*, Benth., referenda, quacum descriptio haud male convenit.

35. **Trianoptiles,** *Fenzl in Endl. Gen.* 113. (Ecklonia, *Steud. in Flora,* 1829, 138, *non Hornem.*)—Spiculæ angustæ, sæpius 2-floræ, floribus hermaphroditis, uno sæpe sterili. Glumæ 4–5, imbricatæ, quarum 1–2 inferiores breviores vacuæ, et interdum summa parva vacua. Squamæ hypogynæ 3, angustæ, complanatæ, basi plumoso-ciliatæ, superne glabræ 3-fidæ, lobis lineari-setiformibus erectis, medio lateralibus longiore. Stamina 3. Stylus basi incrassatus, piloso-pubescens, persistens, superne glaber filiformis deciduus, ramis stigmatosis 3. Nux obovoidea, 3-quetra, styli parte inferiore indurata coronata.—Herba cæspitosa, foliis ad basin caulis gramineis. Spiculæ fasciculatæ, sessiles, in spicam breviter oblongam terminalem densam v. laxam dispositæ. Bracteæ 1–3 inferiores foliaceæ, spica sæpius longiores.

Species 1, Austro-Africana. *Kunth, Enum. Pl.* ii. 287. *Steud. Syn. Pl. Glum.* ii. 139. *Bœckel. in Linnæa,* xxxviii. 229, *omnes sub Ecklonia. Benth. in Hook. Ic. Pl. t.* 1348.

36. **Asterochæte,** *Nees in Linnæa,* ix. 300.—Spiculæ 1–3-floræ, floribus hermaphroditis uno alterove sæpius sterili. Glumæ paucæ, vix distichæ, rigidule membranaceæ, 2 rarius 3 exteriores breviores vacuæ, rhachilla non producta. Setæ hypogynæ sæpius 6, inæquales. Stamina 3. Stylus cum ovario 3-costato continuus, basi brevissime bulboso-incrassatus, ramis stigmatosis 3 filiformibus. Nux oblongo-3-quetra, acutiuscula v. styli basi brevi coronata, angulis prominenter costatis, faciebus planis sæpe foveolatis v. granulosis.—Herbæ perennes, interdum elatæ. Folia ad basin caulis conferta, longa, secus caulem pauca breviora, vaginis in una specie longis laxis. Spiculæ nunc numerosissimæ, pallidæ, in capitula densa ovoidea v. globosa exinvolucrata densissime confertæ, capitulis in panicula ampla composita numerosis sessilibus v. breviter pedunculatis, nunc pauciores capitulis in panicula simplici paucis.

Species 3 v. 4, una ex insula Borbonia adhuc inedita, 2 v. 3 Africæ australis incolæ. *Kunth, Enum. Pl.* ii. 311. *Steud. Syn. Pl. Glum.* ii. 155. *Bœckel. in Linnæa,* xxxviii. 265 (*Carpha*).

37. **Schœnus,** *Linn. Gen. n.* 65, *pro parte.*—Spiculæ paucifloræ, floribus omnibus hermaphroditis fertilibusque v. infimo solo fertili, rarius ad florem unicum reductæ. Glumæ distiche imbricatæ, inferiores 1, 2 v. usque ad 6 vacuæ contiguæque, rhachilla inter flores hermaphroditos producta flexuosaque v. in spicula 1-flora ultra florem producta incurva glumam parvam vacuam ferente. Setæ hypogynæ nunc 6 v. irregulariter pauciores, tenues sæpe ciliatæ, breves v. longiusculæ, interdum complanatæ dilatatæque, nunc omnino deficientes. Stamina 3, rarius pauciora v. 4–6. Stylus cum ovario continuus, basi haud v. vix incrassatus, ramis stigmatosis 3 filiformibus interdum subplumosis. Nux obovoidea ovoidea v. rarius oblonga, erostris, plus minus distincte 3-quetra v. 3-costata.—Herbæ sæpius perennes habitu vario, nunc validæ erectæ junciformes v. infra medium foliatæ, nunc humiles, rarius teneræ diffusæ v. fluitantes. Spiculæ sæpius fasciculatæ, fasciculis in capitulo terminali dense capitatis v. varie spicatis v. paniculatis, rarius solitariæ terminalesque v. parvæ paucæque ad axillas subsessiles.

Species ad 60, pro maxima parte Australianæ v. Novo-Zelandicæ, 2 Europeanæ quarum 1 etiam in Africa australi et in America boreali obvia, 1 Africæ australi propria, 2 adhuc dubiæ Africæ tropicæ, 2 Americæ australis extratropicæ incolæ, 2 ut videtur bene congeneres in Archipelago Malayano detectæ. *Kunth, Enum. Pl.* ii. 334. *Steud. Syn. Pl. Glum.* ii. 165. *Bœckel. in Linnæa*, xxxviii. 273. *Benth. Fl. Austral.* vii. 352. *Reichb. Ic. Fl. Germ. t.* 286, *f.* 679. *Host, Gram. Austr.* iii. *t.* 54, iv. *t.* 71.

Genus habitu sat polymorphum sed characteribus certis in sectiones distinctas non dividendum videtur. In Benth. Fl. Austral. species in series 10 distribuuntur imprimis ad inflorescentiam et auctores varii genera sequentia separare proposuerunt:—

CHÆTOSPORA, *R. Br. Prod.* 232; *Kunth, Enum. Pl.* ii. 323; *Steud. Syn. Pl. Glum.* ii. 160; *Bœckel. in Linnæa*, xxxviii. 287; *Reichb. Ic. Fl. Germ. t.* 285; *Hook. f. Fl. Tasm. t.* 140 B (STREBLIDIA, *Link, Hort. Berol.* i. 276), species omnes includit quibus setæ hypogynæ plus minus evolutæ, distinctio tamen nec habitu nec aliis characteribus confirmata, et in speciebus nonnullis setæ variant plus minus evolutæ v. omnino deficientes. *Chætosporæ* paniculatæ ex Africa australi et America antarctica Bœckeleri in Linnæa, xxxviii. 300 n. 19 ad 25, spicularum rhachi non flexuosa, habitu, et nuce *Elynanthum* nec *Schœnum* referunt. *S. quadrangularis*, Bœckel. l. c. 274, cum *S. nigricante*, Linn., et specie tertia inedita sunt solæ *Schœni* species hucusque in Africa australi detectæ.

ISOSCHŒNUS, *Nees in Ann. Nat. Hist. ser.* 1, vi. 49, species nonnullas Australianas includit, spiculis in capitulo terminali denso confertis sæpius paucis, setis hypogynis parvis v. 0.

GYMNOCHÆTA, *Steud. Syn. Pl. Glum.* ii. 156, est *S. Drummondii*, Benth., species Australiana spiculis in capitulo terminali denso numerosis, setis hypogynis valde inæqualibus interdum ad 1–2 reductis v. omnibus minimis.

HELOTHRIX, *Nees in Ann. Nat. Hist. ser.* 1, vi. 45, est *S. axillaris*, Hook. f. (*Chætospora axillaris*, R. Br., Hook. f. Fl. N. Zel. t. 62), species habitu anomala. Caules humiles, teneri, diffusi, ramosi, foliis flaccidis, spiculis parvis ad axillas 2–3-nis. Cum aliis tamen speciebus e serie *Microcarparum* bene connectitur.

38. **Cyclocampe,** *Steud. Syn. Pl. Glum.* ii. 156, *ex char. dato.*—Spiculæ angustæ, floribus 2–3 hermaphroditis perfectis, addito interdum infero sterili. Glumæ ∞, disticho imbricatæ, inferiores 5–8 vacuæ gradatim minores, summæ longiores flores involventes, rhachilla inter flores flexuosa apiceque producta glumam parvam vacuam ferente. Setæ hypogynæ 6, longæ, rigidulæ, plumoso-pilosæ. Stamina 3. Stylus cum ovario continuus, basi breviter incrassatus, superne deciduus, ramis stigmatosis 3 filiformibus. Nux ovoidea, sessilis, 3-quetra, styli basi brevi conica apiculata.—Herbæ perennes, caule elato. Folia longa, ad basin caulis conferta. Panicula longa, ampla, ramis erectis v. nutantibus, spiculis numerosis distinctis v. hinc inde confertis nec vere fasciculatis.

Species nobis notæ 2, *C. arundinacea*, Benth., e Nova Caledonia, et *C. elongata*, Benth., ex insulis Mascarensibus, a Kunthio, Enum. Pl. ii. 312, sub *Asterochæte*, a Bœckelero in Linnæa, xxxviii. 271 et 273, sub *Carpha* descriptæ. Species typica Steudelii in insulis Moluccis ab Urvilleo collecta, a nobis non visa, est evidenter eadem ac *Carpha Urvilleana*, Gaud., ex eadem collectione descripta. Hæc a Kunthio cum *C. arundinacea* jungitur, a Bœckelero iterum separatur. In icone Brongniartii in Duperr. Voy. Coq. Bot. t. 30, flores 2 in spicula arcte approximati delineantur rhachi non producta, ex descriptione Steudelii flores ut in cæteris speciebus in rhachi flexuosa spiculæ dissiti, unde quidem nomen genericum deduxit.

39. **Elynanthus,** *Nees in Linnæa*, ix. 298, *non Beauv.*—Spiculæ plus minus compressæ, 2–3-floræ, flore superiore v. 2 superioribus arcte approximatis hermaphroditis fertilibusque, 1 v. 2 inferioribus masculis v. sterilibus, rhachilla nec flexuosa nec supra florem producta. Glumæ arcte imbricatæ, distichæ v. subdistichæ, plures (sæpius 4–6) inferiores vacuæ gradatim minores nisi aristato-acuminatæ, superiores flores arcte involventes. Setæ hypogynæ 6 v. pauciores v. 0, tenues v. membranaceæ, interdum breviter plumosæ, breves inæqualesque v. rarius elongatæ, basi interdum leviter dilatatæ v. in annulum subconnatæ. Stamina 3, rarius 4–8. Stylus cum ovario continuus, basi dilatata ab ovario sub anthesi sæpe discolori, post anthesin nunc a nuce non distinguenda nunc crassa brevissima cum pericarpio continua, ramis stigmatosis 3 rarius 4 filiformibus. Nux ovali-oblonga v.

obovoidea, obtusa, erostris, plus minus drupiformis, exocarpio tamen tenui, endocarpio subgloboso duro.—Herbæ perennes, elatæ v. rarius tenues. Folia pleraque ad basin caulis conferta, rarius secus caulem dissita, teretia v. angusta marginibus revolutis, rarius plana, interdum subulata, basi sæpe dilatata v. in paucis speciebus ad vaginas reducta. Spiculæ plus minus fasciculatæ, sæpius nigricantes, in paniculam angustam strictamque rarius laxam dispositæ, fasciculis nunc angustis paucispiculatis nunc densissime multispiculatis. Bracteæ foliaceæ parum elongatæ, sæpe subulato-acuminatæ.

Species fere 30, pro maxima parte Africæ australis extratropicæ incolæ, cum paucis in Nova Zelandia, Nova Caledonia, Australia meridionali v. America australi subantarctica obviis. *Kunth, Enum. Pl.* ii. 308. *Steud. Syn. Pl. Glum.* ii. 153. *Bœckel. in Linnæa,* xxxviii. 253. *Benth. Fl. Austral.* vii. 376. *Hook. f. Fl. Antarct. t.* 146, 147 (*Chætospora*).

Genus in integrum servatum naturale est et facile dignoscendum, a Neesio aliisque in plura divisum, imprimis ad setarum hypogynarum indolem, quæ tamen si adsint semper tenues sunt. A *Schœno* differt rhachilla spicularum nec flexuosa nec supra florem producta arcuataque. Nux omnino *Cladii.* Genera sequentia vix pro sectionibus distinguenda.

Tetraria, *Beauv. in Mém. Instit. Par.* 1812, ii. 54; *Lestib. Essai Fam. Cyper.* 36, proposita fuit ad specimina capensia *E. comparis,* Nees, floribus 8-andris 4-gynis. In *E. octandro,* Nees, flores pariter sæpius 6–8-andri 4-gyni.

Lepisia, *Presl, Symb. Bot.* i. 9, *t.* 5, est *E. ustulatus,* Nees, species spiculis majusculis dense fasciculatis, glumis exterioribus aristato-acuminatis insignis, a Preslio generice distincta ob squamellas sub staminibus 3, quas tamen in speciminibus nostris frustra quæsivimus.

Sclerochætium, *Nees in Linnæa,* ix. 302 (Trichobaelia, *Presl, Symb. Bot.* i. 9 *in adnot., nomen tantum*), species 3 continet austro-Africanas spiculis densissime fasciculatis, glumis exterioribus ut in *Lepisia* aristato-acuminatis, setis hypogynis tenuibus nuce sæpius brevioribus plus minus barbellatis, nec rigidulis longis plumosisve ut in *Carpha*; Bœckeler, has species ad *Lepidosperma* transfert, squamellæ tamen cartilagineæ hujus generis omnino desunt.

Cyathocoma, *Nees in Linnæa,* ix. 300; *Bœckel. in Linnæa,* xxxviii. 311 (Macrochætium, *Steud. Syn. Pl. Glum.* ii. 159), species continet 3 austro-Africanas *Elynanthi,* setis hypogynis tenuissimis inæqualibus interdum valde elongatis, ima basi leviter dilatatis subconnatis. Stylus interdum 2-fidus observatur, sæpissime tamen more generis 3-fidus. Habitus omnino *Elynanthi.*

Buekia, *Nees in Linnæa,* ix. 300, a *Cyathocomate* differt styli ramis sæpius 6 inæqualibus, characteres cæteri et habitus eidem. Species 2, austro-Africanæ, *B. punctoria,* Nees, Kunth, Enum. Pl. ii. 310, Steud. Syn. Pl. Glum. ii. 155, Bœckel. in Linnæa, xxxviii. 310, caule junceo folio unico erecto tereti staminibus sæpius 3, cum altera inedita caule basi foliato staminibus sæpius 6.

Ideleria, *Kunth, Enum. Pl.* ii. 310, species 2 continet austro-Africanas a *Cyathocomate* parum diversas setis hypogynis elongatis superne pubescentibus v. breviter plumoso-laceris. Habitus idem.

Elynanthus, *Beauv. in Lestib. Essai Fam. Cyper.* 32, genus valde dubium remanet ob characterem mancum, minime tamen *Elynanthum,* Nees, refert. 'Perianthium 2-paleaceum, paleis navicularibus compressis' aliique characteres plerique generi nulli nisi *Hypolytro* conveniunt, ubi tamen glumæ non subdistichæ.

40. **Tricostularia,** *Nees in Pl. Preiss.* ii. 83. (Discopodium, *Steud. Syn. Pl. Glum.* ii. 150.)—Spiculæ 1–3-floræ, flore superiore hermaphrodito fertili, 1–2 inferioribus sterilibus v. masculis. Glumæ distichæ v. subdistichæ, imbricatæ, sæpius membranaceæ, 2–4 exteriores vacuæ, rhachilla brevi supra flores gluma parva vacua terminata. Setæ hypogynæ 6 v. pauciores, breves nunc minimæ, tenues v. rigidulæ, inæquales, interdum basi dilatatæ nec post anthesin auctæ. Stamina 3. Stylus basi haud incrassatus, ramis stigmatosis 3 longe filiformibus. Nux obovoidea, erostris.—Herbæ perennes. Folia ad basin caulis conferta, sæpe ad vaginas reducta, rarius secus caulem 1–2. Spiculæ parvulæ, sessiles v. pedunculatæ, nunc secus caulem paucæ dissitæ v. ad apicem caulis simpliciter spicatæ, nunc in ramis brevibus paniculæ fasciculatæ.

Species Australianæ 5, additis una Zeylanica alteraque Borneensi ab una ex Australianis parum distinctis. *Benth. Fl. Austral.* vii. 382. *Thw. Enum. Pl. Zeyl.* 353 (*Cladium*).

Genus *Schœno* affine, sed rhachilla spiculæ minime flexuosa et flos superior nec inferior fertilis;

habitu etiam sat naturale. Bœckeler in Linnæa, xxxviii. 332, speciem Zeylanicam ad *Lepidosperma* refert, aliæ a Brownio aliisque sub *Chætospora* descriptæ sunt.

41. **Lepidosperma,** *Labill. Pl. Nov. Holl.* i. 14, *t.* 11 *ad* 16. (Vauthiera, *A. Rich. Fl. N. Zel.* 106, *t.* 20.)—Spiculæ vix compressæ, flore superiore hermaphrodito fertili, additis sæpius 1–3 inferioribus sterilibus v. masculis. Glumæ imbricatæ, subdistichæ, exteriores (1–6) minores, vacuæ, florentes flores glumamque summam parvam vacuam arcte involventes. Setæ v. squamæ hypogynæ 6 v. abortu pauciores, sub anthesi sæpius tenues setiformes v. hyalinæ, interdum minutæ, post anthesin auctæ, incrassatæ, albidæ, cartilagineæ v. spongiosæ acuminatæ v. setiferæ, basi nucis arcte appressæ sub-2-seriatæ, nucem tamen rarius superantes. Stamina 3 v. rarissime in floribus paucis 4–5. Stylus cum ovarii apice crasso pulvinato v. indurato continuus, ramis stigmatosis 3. Nux ovoidea v. oblonga, obtuse 3-quetra, apice indurato lævi, erostris.—Herbæ rhizomate perenni, caulibus sæpius rigidis interdum elatis haud raro complanatis v. angulatis. Folia ad basin caulis pauca, a latere complanata et equitantia v. angulata v. teretia, sæpe a caule non distinguenda nisi vagina baseos et apice acuminato. Spiculæ sæpius numerosæ, nigræ, sessiles, distinctæ v. fasciculatæ, in paniculam nunc brevem spiciformem nunc longam densam angustamque nunc laxam amplam et diffusam dispositæ. Bracteæ polymorphæ, inferiores sæpe foliaceæ, inflorescentiam tamen raro excedentes.

Species fere 40, plures tamen inter se parum distinctæ, quarum 2 in Malacca Archipelago Malayano v. China australi obvia, 2 Novo-Zelandicæ, cæteræ omnes Australianæ. *Benth. Fl. Austral.* vii. 384. *Bœckel. in Linnæa,* xxxviii. 315 (excl. spec. Zeylanica et austro-Africanis). *Hook. f. Fl. Tasm. t.* 146, 147.

42. **Cladium,** *P. Br. Hist. Jam.* 114.—Spiculæ 1–3-floræ rarius 4–6-floræ, floribus omnibus hermaphroditis, sæpius tamen infimo solo fertili, rarius 2–3 perfectis additis 1–2 masculis. Glumæ undique imbricatæ, 1–3 rarius 4 inferiores vacuæ, sæpiusque 1 rarius 2–3 superiores parvæ vacuæ v. florem imperfectum foventes, glumis florentibus cæteris æquilongis v. longioribus. Setæ hypogynæ rarius adsunt 6 v. pauciores, tenues. Stamina 3, rarius pauciora. Stylus cum ovario continuus, basi dilatata ab ovario sub anthesi discolori, post anthesin nunc a nuce non distinguenda nunc crassa brevissima v. rarius longiuscula cum pericarpio continua, ramis stigmatosis 3 rarissime casu 2 filiformibus. Nux oblonga v. ovoidea, plus minus drupiformis, lævis, ecostata 3-costata v. 3-quetra, costis angulisve apice (in styli basi) minus distinctis.—Herbæ perennes, rhizomate repente v. horizontali. Caules nunc elati foliati, nunc junciformes foliis ad basin paucis v. ad vaginas reductis. Folia plana teretia v. a latere complanata basique distiche equitantia, interdum septis transversis nodulosa. Spiculæ sæpius brunneæ v. nigro-fuscæ, rarius pallidæ, secus ramos paniculæ terminalis sæpius fasciculatæ, additis sæpe paniculis axillaribus.

Species ad 30, per regiones tropicas temperatasque utriusque orbis late dispersæ, pro maxima tamen parte Australienses v. Novo-Zelandicæ. *Kunth, Enum. Pl.* ii. 303. *Steud. Syn. Pl. Glum.* ii. 152. *Bœckel. in Linnæa,* xxxviii. 231. *Hook. f. Handb. N. Zeal. Fl.* 303. *Benth. Fl. Austral.* vii. 400. *J. Kirk in Trans. N. Zeal. Inst.* ix. 552.

Genus in sectiones sequentes a nonnullis pro generibus propriis habendas dividitur:—

1. *Eucladium.* Caules elati, foliati, foliis explanatis longis angustis. Paniculæ densæ, corymbosæ, spiculis numerosis fasciculatis. Spiculæ vulgo 2-floræ, flore inferiore solo fertili, gluma terminali vacua minuta v. 0. Nux distincte drupacea, exocarpio plus minus spongioso in sicco fragili, endocarpio duro. Species enumerantur 5 v. 6, quarum tamen 3 v. 4 inter se valde affines sæpe varietates *C. Marisci,* Br., nuncupantur, per totam fere aream generis dispersæ. *Reichb. Ic. Fl. Germ. t.* 287. *Nees, Gen. Fl. Germ. Monocot.* ii. *n.* 8. *Host, Gram. Austr.* iii. *t.* 53 (*Schœnus*).

2. *Baumea.* Folia sæpius ad basin caulis conferta, teretia v. a latere complanata et distiche equitantia, rarius omnia ad vaginas breves reducta. Paniculæ laxæ v. thyrsoideæ v. angustæ. Spiculæ 1-floræ, v. si 2–3-floræ flos infimus solus fertilis, rhachi sæpius gluma parva vacua v. florem ♂ fovente terminata. Nux sessilis, ubi nota subdrupacea, pericarpio crasso, endocarpio minus

distincto quam in *Eucladio*. Species pro maxima parte Australasicæ, sed etiam in Ceylona, Bengalia, Malacca, Japonia et in insulis Mascarensibus et maris Pacifici obviæ. *Labill. Pl. Nov. Holl. t.* 17 (*Lepidosperma*), *t.* 18 *et* 19 (*Schœnus*). *Hook. f. Fl. Tasm. t.* 148, 149. SCHŒNOPSIS, *Beauv. in Lestib. Essai Fam. Cyper.* 34 (*ex char.*). BAUMEA, *Gaudich. in Freyc. Voy. Bot.* 416, *t.* 29. *Thw. Enum. Pl. Zeyl.* 353. *Berggr. N. Zeal. Fanerog.* 23, *t.* 6. CHAPELLIERA, *Nees in Linnæa*, ix. 298 *et eo teste*, TRACHYRHYNCHIUM, *Nees in Herb. Meyen. Cladia dubia* et *Baumea*, Kunth, Enum. Pl. ii. 304, 313. *Cladia paniculata* et *Baumea*, Bœckel. in Linnæa, xxxviii. 233 et 237.

3. *Vincentia.* Folia ad basin caulis conferta, a latere complanata, distiche equitantia. Paniculæ quam in *Baumea* sæpius magis effusæ, interdum nutantes spiculis numerosis. Flores in spicula perfecti sæpe 2 v. interdum 3–4. Nux stipitata, sæpius prominenter 3-costata et rostrata, interdum fere 3-alata. Species 6, in insulis Mascarensibus et maris Pacifici et America australi distributæ. VINCENTIA, *Gaudich. in Freyc. Voy. Bot.* 417; *Kunth, Enum. Pl.* ii. 314. *Steud. Syn. Pl. Glum.* ii. 156. *Bœckel. in Linnæa*, xxxviii. 247. TEROBERA, *Steud. Syn. Pl. Glum.* ii. 164. TRASI, *Beauv. in Lestib. Essai Fam. Cyper.* 32 (*ex char. manco*).

Scirpus iridifolius, Bory, Voy. t. 23 (*S. lavarum*, Poir. Dict. ex descr.), est *Vincentia latifolia*, Kunth. *S. iridifolius*, Bory, l. c., t. 23 bis, est ex descr. *S. iridifolius*, Poir., rite a Bœckelero ad sect. *Baumeam* relata. *Elynanthus ensifolius*, Bœckel. in Linnæa, xxxviii. 264, e Rio Janeiro, ex speciminibus nostris a Glaziovio acceptis est omnino *Vincentiæ* species.

MACHÆRINA, *Vahl, Enum. Pl.* ii. 238. *Kunth, Enum. Pl.* ii. 313, ex India occidentali, a *Vincentia* nec habitu nec characteribus differt, nisi præsentia setarum nonullarum hypogynarum. *Machærina filifolia*, Griseb. Cat. Pl. Cub. 242, e Cuba, habitum et characteres *Baumeæ* præfert, a qua tamen pariter differt setarum præsentia.

43. **Gahnia,** *Forst. Char. Gen.* 51, *t.* 26. (Psittacoschœnus, *Nees in Pl. Preiss.* ii. 87, *nomen tantum.*)—Spiculæ sæpius 2-floræ, flore superiore hermaphrodito fertili, inferiore masculo v. sterili, uno alterove interdum deficiente. Glumæ plures, undique imbricatæ, inferiores 4 v. ∞ vacuæ, quarum intima cæteris longior rigidiorque, florentes minores tenuiores includens, gluma vacua supra florem minima v. 0. Setæ hypogynæ 0. Stamina 3–6. Stylus cum ovario continuus, basi haud incrassatus, ramis stigmatosis 3–5 filiformibus. Nux ovoidea obovoidea v. subfusiformis, obscure 3-quetra v. teres, matura sæpissime nitens, exocarpio tenui, endocarpio duro crasso intus in pluribus speciebus transverse rugoso.—Herbæ perennes, rhizomate duro v. repente, caule sæpe elato valido, in paucis speciebus tenui. Folia sæpe longa, teretia, introrsum sulcata v. marginibus involutis specie teretia, longe subulato-acuminata. Panicula nunc ampla laxa nutansque, nunc angusta et erecta v. spiciformis, spiculis nigrescentibus v. rarius brunneis. Filamenta interdum valde elonganda. Nuces nunc pulchre rubro-fuscæ, nunc albidæ griseæ v. demum nigerrimæ, haud raro e spicula rejectæ sed filamentis persistentibus apice intra glumam vacuam clausam retentis diu a spicula pendulæ.

Species editæ ultra 30, plures tamen potius pro varietatibus *G. asperæ* v. *G. psittacorum* habendæ, et vix 20 retinendæ, pro maxima parte Australianæ, paucæ Novæ Zelandiæ, Novæ Caledoniæ, Archipelagi Malayani, Chinæ australis, v. insularum maris Pacifici incolæ. *Benth. Fl. Austral.* vii. 410. *Hook. f. Handb. N. Zel. Fl.* 305. *H. Mann in Proc. Amer. Acad.* vii. 209. *Bœckel. in Linnæa*, xxxviii. 338. *Gærtn. f. Fruct.* iii. *t.* 181.

Genus *Cladio* affine quocum junxit F. Mueller et ab auctoribus pluribus intermixtum est, nobis tamen bene distinctum apparet spicularum structura et nuce. In sectiones 2 interdum pro generibus propriis habitas dividitur:—

1. *Lampocarya.* Spiculæ 1-floræ, flore inferiore imperfecto sæpissime deficiente. Panicula longa angustaque, spicularum fasciculis compositis v. breviter spicatis secus rhachin paniculæ sessilibus v. breviter pedunculatis. *Labill. Pl. Nov. Holl. t.* 116. LAMPOCARYA, *R. Br. Prod.* 238. *Brongn. in Duperr. Voy. Coq. Bot. t.* 29. MORELOTIA, *Gaudich. in Freyc. Voy. Bot.* 416, *t.* 28. HEXALEPIS, *Bœckel. in Flora*, 1875, 118.

2. *Eugahnia.* Spiculæ 2-floræ, flore inferiore masculo v. si hermaphrodito sterili sæpissime præcoci. Panicula laxa, nunc longa angusta v. thyrsoidea, nunc ampla diffusa v. nutans, v. in una specie inflorescentia fere *Lampocaryæ*. *Labill. Pl. Nov. Holl. t.* 115. DIDYMONEMA, *Presl, Diss.* 1829, *Symb. Bot.* 5, *t.* 3, *et eo teste* EPIANDRA, *Presl in Isis*, 1828, 270. MELACHNE, *Schrad. ex Nees in Linnæa*, ix. 301. SYZIGANTHUS, *Steud. Syn. Pl. Glum.* ii. 153.

44. **Caustis,** *R. Br. Prod.* 239. (Eurostorrhiza, *Steud. Syn. Pl. Glum.* ii. 265.)—Spiculæ angustæ, flore 1 hermaphrodito, addito sæpe altero masculo infero, interdum abortu unisexuales. Glumæ 3-4, undique imbricatæ, acuminatæ v. aristatæ, 1-2 inferiores breviores vacuæ. Setæ hypogynæ 0. Stamina 3-6. Stylus basi incrassatus induratusque, ramis stigmatosis 3 filiformibus. Nux ovoidea v. oblonga, basi styli ovoidea v. oblonga cum nuce continua v. basi constricta coronata.—Herbæ perennes, rhizomate repente crasso squamis vaginatis obtecto. Caules ramosi, ramis nunc erectis strictis nunc valde flexuosis et intricato-ramosissimis. Folia ad vaginas appressas clausas reducta, v. rarius lamina lineari evoluta. Spiculæ in vaginis solitariæ v. geminæ, pedunculis inclusis v. longiuscule exsertis ramulis sterilibus similibus, nunc omnes fertiles, nunc aliæ fœmineæ v. hermaphroditæ, aliæ masculæ in diversis ramis ejusdem caulis v. in caulibus diversis ex eodem rhizomate.

Species 5, omnes Australianæ. *Benth. Fl. Austral.* vii. 419. *Guillem. Ic. Pl. Austral. t.* 14.

45. **Reedia,** *F. Muell. Fragm. Phytogr. Austral.* i. 239, *t.* 10.—Spiculæ ovatæ, flore 1 hermaphrodito, additis 1 v. 2 masculis inferioribus. Glumæ ∞, undique imbricatæ, inferiores 8-9 vacuæ, ab infima minima gradatim auctæ, florentes 2-3, longiores, tenues, summa tenuissima. Setæ hypogynæ 0. Stamina sæpius 6. Stylus basi haud incrassatus, ramis stigmatosis 3 brevibus. Nux . . .—Caulis elatus, e basi crassa lignosa tenuis at rigidus. Folia longa ad basin caulis conferta. Spiculæ parvæ, in spica longa densa numerosæ, sessiles, confertæ, spica intra vaginas laxas bractearum foliacearum 2-3 occulta.

Species 1 in maritimis Australiæ austro-occidentalis rarissima. *Benth. Fl. Austral.* vii. 423.

46. **Evandra,** *R. Br. Prod.* 239.—Spiculæ oblongæ, 2-floræ, floribus hermaphroditis v. inferiore abortu masculo v. sterili. Glumæ ∞, undique imbricatæ, acutæ v. aristatæ, inferiores ad 15 vacuæ, ab extima minima gradatim auctæ, florentes superiores tenues v. scarioso-marginatæ. Setæ hypogynæ 0. Stamina numerosa (15-20), antheris linearibus aristatis. Stylus cum ovario continuus, basi haud incrassatus, ramis stigmatosis 8. Nux . . .—Herbæ perennes, foliis longis ad basin caulis confertis v. secus caulem dissitis. Spiculæ majusculæ, laxe paniculatæ, pedunculis longis filiformibus, v. in fasciculo terminali sessiles.

Species 2, Australiæ austro-occidentalis incolæ. *Benth. Fl. Austral.* vii. 424, *et in Hook. Ic. Pl. t.* 1212, 1213.

Tribus IV. Cryptangieæ.

47. **Lagenocarpus,** *Nees in Linnæa*, ix. 304, *et in Mart. Fl. Bras.* ii. 1, 164, *t.* 20, 21. (Anogyna, *Nees in Hook. Journ. Bot.* ii. 395.)—Spiculæ unisexuales, parvæ, paniculatæ; ♂ plurifloræ, glumis imbricatis 2-3 inferioribus vacuis. Stamina 1-2. Spiculæ ♀ 1-floræ, glumis 3-5 latiusculis imbricatis. Setæ hypogynæ 0. Stylus cum ovario continuus, basi haud v. vix incrassatus, ramis stigmatosis 3 v. 4-5 inæqualibus filiformibus. Nux obovoidea v. fere globosa, nuda v. styli basi persistente coronata, pericarpio crassiusculo, disco parum conspicuo imposita.—Herbæ perennes, elatæ. Folia ad basin caulis conferta, elongata. Spiculæ masculæ sæpius in panicula glomerulatæ, fœmineæ solitariæ v. glomerulatæ, omnes minimæ, laxe paniculatæ, paniculis secus caulem ad axillas bractearum foliacearum in paniculam generalem amplam longam dispositis, inferioribus masculis præcocioribus superioribus fœmineis.

Species enumeratæ 8, nonnullæ inter se parum distinctæ, Americæ australis tropicæ incolæ. *Bœckel. in Linnæa*, xxxviii. 422.

Genus vix a *Cryptangio* differt inflorescentia et nuce sæpius (an semper?) crassiore non angulata subsuberosa, a Steudelio Syn. Pl. Glum. ii. 177 in *Scleria* includitur.

48. **Cryptangium,** *Schrad.*; *Nees in Mart. Fl. Bras.* ii. i. 163, *t.* 19. (Acrocarpus, *Nees in Mart. l. c.* 157, *t.* 16, 17.)—Spiculæ unisexuales, tenues, distincte pedicellatæ,

♂ ∞-floræ, glumis angustis imbricatis, 2–3 inferioribus vacuis. Stamina 1–2. Spiculæ ♀ 1-floræ, glumis 3 latiusculis imbricatis acuminatis florem circumdantibus. Setæ hypogynæ 0. Stylus cum ovario continuus, basi haud incrassatus, ramis stigmatosis 3 filiformibus. Nux oblonga, 3-quetra, erostris, angulis costatis.—Herbæ perennes. Folia in rhizomate v. ad basin caulis conferta, elongata. Spiculæ graciliter v. breviter pedicellatæ, pedunculis nunc simplicibus v. parum compositis tenuibus secus caulem elongatum fasciculatis, nunc paucis spiculas paucas ferentibus inter bracteas foliaceas fere occultis. Inflorescentia nunc præter bracteas breviter foliaceas sub fasciculis dissitis aphylla, nunc bracteis foliaceis numerosis angustis dense confertis spiculas superantibus inclusa. Spiculæ utriusque sexus sæpius irregulariter mixtæ.

Species ad 10, Americæ tropicæ incolæ. *Bœckel. in Linnæa*, xxxviii. 412, excl. *C. Dracænula*, ad *Cephalocarpum* referenda.

49. **Fintelmannia**, *Kunth, Enum. Pl.* ii. 362.—Spiculæ unisexuales, minimæ, in spica androgyna v. unisexuali spiculiformi sessiles, bracteis undique imbricatis glumiformibus obtectæ, superiores fœmineæ, inferiores masculæ, utriusque sexus 1-floræ. Glumæ 2, exterior vacua, interior florem involvens. Stamina 2, rarius 3. Setæ hypogynæ 0. Stylus cum ovario continuus, basi haud incrassatus, ramis stigmatosis 3 filiformibus. Nux matura ignota, immatura angusta, erostris.—Herba perennis, cæspitosa. Folia ad basin caulis densissime conferta, recurvo-patentia, angusta, subulato-acuminata. Spicæ spiculiformes, parvæ, tenues, fuscæ, longe graciliterque v. breviter pedicellatæ, pedicellis in panicula laxa gracili terminali fasciculatis. Bracteæ foliaceæ ad basin fasciculorum inferiorum, vagina fusca, lamina lineari-subulata.

Species 1, Brasiliensis, *Nees in Mart. Fl. Bras.* ii. i. 197, *t.* 29 (*Trilepis*).

Genus *Trilepis* a Neesio conditum fuit ad species duas inter se parum affines, alteram Indicam alteram Brasiliensem charactere falso imprimis a specie Indica deducto, quæ rite ad *Kobresiam* refertur, Kunth speciem Brasiliensem quam a charactere Neesiano sub *Trilepide* agnoscere non potuit, pro genere nomine *Fintelmanniæ* optime descripsit, quare genus spurium Neesii, etsi tardius charactere emendato ad speciem Brasiliensem limitatum, nobis delendum videtur. Perigynium utriculiforme cum stylo cohærens a Neesio in charactere emendato descriptum est nucis pericarpium. *Trilepis abyssinica* et *T. pilosa*, Bœckel., ad *Eriosporam* pertinent.

50. **Cephalocarpus**, *Nees in Mart. Fl. Bras.* ii. i. 162, *t.* 18.—Spiculæ unisexuales, parvæ, in fasciculis capituliformibus androgynis v. unisexualibus sessiles; ♂ plurifloræ, glumis acutis imbricatis 1–2 exterioribus vacuis. Stamina 1–2. Spiculæ ♀ 1-floræ, glumis sæpius 3. Setæ hypogynæ 0. Stylus basi bulboso-incrassatus, demum cum bulbo deciduus, ramis stigmatosis 3 longe filiformibus. Nux (a nobis non visa) chartacea, 3-gona, basi parum angustior, styli basi diu coronata, demum denudata.—Caulis cum rhizomate continuus, ascendens, brevis, dense foliatus, basi vaginis persistentibus foliorum vetustiorum obtectus. Folia conferta, patentia, rigidula, acuta, vaginis imbricatis. Pedunculi ad axillas fasciculati v. solitarii, filiformes, folio multo breviores, capitulum parvum turbinatum ferentes. Bracteæ rigide subulatæ, spiculas non v. vix superantes. Spiculæ in capitulo 3–7, sessiles, 1–2 fœmineæ masculis cinctæ.

Species 1, Brasiliæ borealis incola. *Steud. Syn. Pl. Glum.* ii. 180. *Bœckel. in Linnæa*, xxxviii. 415, sub *Cryptangio*, a quo tamen nobis distinctissima videtur habitu et inflorescentia, et fide Neesii stylo basi bulboso cum nuce articulato.

51. **Pteroscleria**, *Nees in Linnæa*, ix. 303, *et in Mart. Fl. Bras.* ii. i. 196.—Spiculæ unisexuales, parvæ, in fasciculo capituliformi varie intermixtæ, sessiles; ♂ paucifloræ, glumis acutis carinatis imbricatis, 1 rarius 2 exterioribus vacuis. Stamina 1–2. Spiculæ ♀ 1-floræ, glumis sæpius 3. Setæ hypogynæ 0. Stylus cum ovario continuus, basi haud incrassatus, ramis stigmatosis 3 filiformibus. Nux 3-costata, erostris, disco hypogyno parum prominulo.—Herbæ perennes. Folia ad basin caulis conferta, brevia v. elongata, secus caulem pauca. Spiculæ in capitulo terminali sæpius numerosæ, omnes sessiles sed

irregulariter fasciculatæ, fœminea in quoque fasciculo terminalis, masculis lateralibus, sed interdum fœminea adest infra masculas, adsunt etiam sæpius capitula 1–3 minora ad axillas foliorum sessilia. Bracteæ foliaceæ sub capitulo terminali sæpius 2 v. 3, parum elongatæ.

Species 3, Americæ tropicæ incolæ. *P. longifolia*, Griseb. Fl. Brit. W. Ind. 579; Benth. in Hook. Ic. Pl. t. 1347, e Trinidad, *Herb. Hook.*, et Brasilia boreali, *Spruce, n.* 648, habitum et inflorescentiam præbet *Rhynchosporæ exaltatæ*, Kunth. Species Guianensis in herb. Hook., quæ verisimiliter typica *P. guianensis*, Nees, statura multo minor foliis tamen ½–¾ pedes longa (nec ½–¾ poll. ut probabiliter lapsu calami a Neesio descripta). In specie tertia, *Spruce, n.* 3763, e Venezuela v. Brasilia boreali, statura at folia adhuc breviora, et huic verisimiliter referenda *Scleria capitata*, Willd., Kunth, Enum. Pl. ii. 351, a Bœckelero in Linnæa, xxxviii. 435 ad *Diplacrum* translata.

52. **Calyptrocarya**, *Nees in Linnæa*, ix. 304, *et in Mart. Fl. Bras.* 192, *t.* 28.—Spiculæ unisexuales, minimæ, in fasciculis androgynis paucæ, sessiles, bracteis glumiformibus imbricatis; ♂ paucæ, paucifloræ, bracteam non excedentes, glumis paucis undique imbricatis 1–2 exterioribus vacuis, floribus 1-andris. Spicula ♀ inter masculas centralis, sessilis, 1-flora (v. flos nudus), glumis 0 v. interdum 1–2 parvis tenuissime membranaceis. Setæ hypogynæ 0. Stylus basi haud incrassatus, ramis stigmatosis 3 filiformibus. Nux subglobosa, erostris, intra bracteas fasciculi semi-inclusa v. stipata, disco hypogyno parum prominulo.—Herbæ perennes, subcæspitosæ. Folia longa, ad basin caulis interdum elongati conferta, secus caulem dissita. Spicularum fasciculi plures, in capitula parva conferti, capitulis laxe corymboso-paniculatis, paniculis terminalibus et secus caulem ad axillas foliorum subsessilibus, iis *Rhynchosporæ* sect. *Pleurostachyos* similibus.

Species 3 v. 4, Americæ australis tropicæ incolæ. *Kunth, Enum. Pl.* ii. 363. *Steud. Syn. Pl. Glum.* ii. 181. *Bœckel. in Linnæa*, xxxviii. 429.

Schœnus longifolius, Rudge, Pl. Gui. 14, t. 16, a Kunthio dubie ad *Calyptrocaryam* relatus, est *Hoppia microcephala*, Bœckel. *S. fragifer*, Rudge, l. c. 15, t. 17, a Neesio olim quoque docente a Kunthio aliisque pariter ad *Calyptrocaryam* relata, est *Rhynchospora polycephala*, Wydl., ut rite emendavit Nees in Mart. Fl. Bras. ii. i. 135. Stylum 2-partitum in *Calyptrocarya* a Neesio descriptum nunquam vidimus.

53. **Becquerelia**, *Brongn. in Duperr. Voy. Coq. Bot.* 161, *t.* 27.—Spiculæ unisexuales, parvæ, in fasciculis androgynis ∞ sessiles, bracteis glumiformibus imbricatis acuminatis v. aristatis; ♂ paucæ, ∞-floræ, glumis acuminatis imbricatis 2–3 exterioribus vacuis, floribus 1-andris. Spicula ♀ inter masculas sessilis, centralis, 1-flora, glumis ∞ (4–5) bracteis fasciculi similibus mox auctis florem fere involventibus. Stylus basi haud incrassatus, ramis stigmatosis 3 longe filiformibus. Nux globosa v. ovoidea, lævis v. rugosa, erostris, disco brevissimo lato crassiusculo imposita, glumis auctis appressis acuminibus patentibus fere obtecta.—Herbæ perennes, caule foliato interdum valido elongatoque. Spicularum fasciculi dense cymosi, cymis laxe v. breviter corymboso-paniculatis, paniculis terminalibus sæpiusque etiam secus caulem ad axillas bractearum foliacearum sessilibus. Bracteæ intra paniculas angustæ, rigidulæ, inflorescentia breviores.

Species 3, Americæ australis tropicæ incolæ. *Kunth, Enum. Pl.* ii. 361. *Steud. Syn. Pl. Glum.* ii. 180. *Bœckel. in Linnæa*, xxxviii. 538 (*Scleriæ sect.*). Genus nostro sensu *Calyptrocaryæ* et *Hoppiæ* potius quam *Scleriæ* affine a qua hæ tres essentialiter differunt spicula ♀ terminali nec masculis infera, aliisque notis.

54. **Hoppia**, *Nees in Mart. Fl. Bras.* ii. i. 199, *t.* 30.—Spiculæ unisexuales, in fasciculis minimis androgynis sæpius 3 sessiles, bracteis glumiformibus imbricatis; ♂ sæpius 2, 2-floræ, glumis paucis imbricatis, 1–3 inferioribus vacuis, floribus 1-andris. Spicula ♀ inter masculas sessilis, centralis, 1-flora, bractea parva glumiformi subtensa, glumis (3?) in utriculum ovoideo-3-gonum acutiusculum v. acuminatum florem fructumque arcte includentem connatis, ore parvo minute 3-dentato v. subintegro. Setæ hypogynæ 0. Stylus cum ovario continuus, basi haud v. vix incrassatus, ex ore utriculi breviter exsertus, ramis

stigmatosis 3 filiformibus sæpe brevibus.—Herbæ perennes. Folia e rhizomate in axi brevi conferta, elongata. Caules v. potius scapi floridi ad axillas foliorum inferiorum iis sæpe breviores, basi vaginis paucis instructi, cæterum præter bracteas aphylli. Spicularum fasciculi numerosi, dense capitati, capitulis ad apicem scapi pluribus parvis irregulariter umbellatis v. in capitulo composito arcte sessilibus. Bractea foliacea ad basin inflorescentiæ parva, v. magis evoluta capitula superans.

Species 3 v. 4, Brasiliæ borealis et Guianæ incolæ. *Bœckel. in Linnæa*, xxxix. 11. *Rudge, Pl. Gui. t.* 16 (*Schœnus longifolius*, species evidenter eadem ac *Hoppia microcephala*, Bœckel.).

Genus utriculo non obstante *Becquereliæ* nec *Carici* affine; utriculus enim e glumis 3 concretis compositum nec gluma unica sistens. Speciebus 3 a Bœckelero enumeratis addenda videtur planta Spruceana n. 2933, prope flumen Uaupès lecta, cui utriculus post anthesin auctus supra nucem spongioso-farctus; cæterum characteres omnes uti habitum *Hoppiæ* exhibens.

Tribus V. Sclerieæ.

55. **Eriospora,** *Hochst., A. Rich. Fl. Abyss.* ii. 508.—Spiculæ 1–3-floræ, androgynæ v. abortu unisexuales, flore infimo fœmineo, superioribus 1–2 masculis, uno alterove interdum abortiente. Glumæ paucæ, carinatæ, tenues, subdistichæ, infima vacua, secunda florem ♀ dum adsit, 1–2 superiores flores ♂ foventes, summa v. interdum omnes supra florem ♀ vacuæ. Setæ hypogynæ normales desunt, sed ovarium basi pilis longis flexuosis numerosis (setis tenuissimis ?) cinctum. Stamina in flore ♂ 1–3. Stylus in flore ♀ cum ovario continuus, basi haud incrassatus, elongatus, apice ramis stigmatosis 3. Nux oblongo-3-quetra.—Herbæ elatæ. Folia ad basin caulis conferta, elongata, angusta. Spiculæ parvæ, in spicas spiculiformes densissime confertæ, spicis ipsis numerosis parvis in panicula longa laxa sæpe nutante sessilibus v. pedicellatis. Bracteæ sub ramis paniculæ longe vaginatæ, lamina foliacea brevi.

Species 4, Africæ tropicæ incolæ. *Bœckel. in Linnæa*, xxxix. 9 (*Trilepis*), *et in Flora*, 1879, 569 (*Carpha*). *Benth. in Hook. Ic. Pl.* xiv. 30, *t.* 1342. Species Abyssinica, a Quartin-Dillono et a Schimpero n. 1262 lecta, a typica Schimperiana n. 233 paullulum diversa videtur.

Catagyna, *Beauv. in Lestiboud. Essai Fam. Cyp.* 26, species a Thouarsio communicata, patria non nota, ex charactere manco videtur *Eriosporæ* affinis, sed valde dubia remanet et e generibus delenda.

56. **Scleria,** *Berg in K. Vetensk. Acad. Handl. Stockholm*, xxvi. (1765), 142, *t.* 4, 5.—Flores unisexuales, fœminei solitarii, in spiculis androgynis infra masculos v. in spicula distincta, masculi in spiculis androgynis v. distinctis ∞. Glumæ undique imbricatæ, 1–3 inferiores et interdum 1–3 supra florem ♀ vacuæ. Setæ hypogynæ 0. Stamina 1, 2 v. rarius 3. Stylus cum ovario continuus, basi haud v. breviter incrassatus, ramis stigmatosis 3 filiformibus. Nux globosa v. ovoidea, sæpius alba, obtusissima et erostris v. styli basi brevi persistente mucronata, gynophoro sæpe in discum simplicem v. duplicem cartilagineum dilatato v. rarius obsoleto imposita.—Herbæ nunc humiles diffusæ v. laxæ, nunc elatæ validæ. Folia nunc graminea flaccida, nunc longa lata plicato-nervosa. Spiculæ parvæ, sæpius fasciculatæ, fasciculis nunc minimis ad axillas subsessilibus v. in cymulas breves terminales v. ad axillas breviter pedunculatas dispositis, nunc in panicula terminali lata densa numerosis, v. in paniculis terminalibus axillaribusque laxe numerosissimis. Bracteæ ad basin cymarum v. panicularum foliaceæ, intra inflorescentiam breves, sed sæpe in acumen rigidum tenue fere aristiforme productæ, sub spiculis sæpe glumiformes.

Species ad 100, per regiones tropicas et subtropicas utriusque orbis late dispersæ, in America boreali usque ad regiones temperatas extensæ. *Kunth, Enum. Pl.* ii. 339. *Steud. Syn. Pl. Glum.* ii. 167. *Bœckel. in Linnæa*, xxxviii. 436, *excl. sect.* D. *Benth. Fl. Austral.* vii. 425.

Genus habitu sat polymorphum, facile tamen dignoscendum, a Neesio in genera plura divisum imprimis ad disci hypogyni formam, quæ de specie in speciem variat et characteres potius specificos quam genericos præbet. Bœckeler species melius distribuit ad inflorescentiam et Bentham in Flora Australiensi series 6 proposuit, hæ tamen inter se arcte connexæ sunt nec pro sectionibus distinctis habendæ. Genera igitur sequentia a variis auctoribus proposita in *Scleria* includimus.

DIPLACRUM, *R. Br. Prod.* 241 *Endl. Iconogr. t.* 25; *Brongn. in Duperr. Voy. Coq. Bot. t.* 26, est *S. caricina*, Benth., species regionis Indo-Australianæ annua, diffusa, habitu fere *Schœni axillaris*, Hook. f., spicularum fasciculis minimis ad axillas subsessilibus; glumæ spicularum ♂ sæpius 3, tenuissimæ, floribus 2 1–2-andris, spicularum ♀ pariter 3, quarum 2 interiores florem arcte includunt.

SPHÆROPUS, *Bœckel. in Flora*, 1873, 89, ex Australia tropica, est ipsa *S. pygmæa*, Br. (*Diplacrum pygmæum*, Nees), species *S. caricinæ* arcte affinis, floribus ♂ præcocibus cito marcescentibus a Bœckelero prætervisis sed in speciminibus ipsis Schultzianis obviis. *D. pygmæum*, Bœckel. in Linnæa, xxxviii. 434, ex Africa tropica, est species affinis sed bene distincta (*S. africana*, Benth.) nucibus minutis longitudinaliter ∞-costatis, disco hypogyno minuto v. obsoleto. *D. capitatum*, Bœckel., ex America tropica, cui si specimina Spruceana rite referimus, est *Pteroscleriæ* species.

HYPOPORUM, *Nees in Linnæa*, ix. 303, species includit habitu varias, disco hypogyno minuto v. obsoleto. Plurimæ tamen bene distinguuntur spicularum fasciculis ut in *Diplacro* minimis, sed secus rhachin spicæ terminalis tenuis aphyllæ dissitis, et seriem formant sat naturalem. Species pleræque Americanæ australes v. boreales et Africanæ cum una Indica. *Nees in Mart. Fl. Bras.* ii. i. *t.* 9, *f.* 2. *Bœckel. in Linnæa* xxxviii. 438, *n.* 1 *ad* 6. *Hypopora* cætera Neesiana ad series *Laxarum* v. *Subspicatarum*, Benth., pertinent.

CYLINDROPUS, *Nees in Linnæa*, ix. 303, est *S. pilosa*, Bœckel., e Zeylania, species habitu *S. tessellatæ*, Willd., affinis, disco hypogyno crasso breviter cylindraceo apice integro basi annulato.

TRACHYLOMIA, *Nees in Mart. Fl. Bras.* ii. i. 174, est *S. triglomerata*, Mich., ex America boreali, charactere nullo a *Scleriis* typicis tenuioribus separanda.

SCLERIA, *Nees in Mart. l. c.* 178, *t.* 23, ad *S. communem*, Kunth, affinesque paucas limitatur, paniculis axillaribus terminalibusque, spiculis unisexualibus, disco 3-lobo.

MASTIGOSCLERIA, *Nees in Mart. l. c.* 177, est *S. reflexa*, H. B. et K.; OMOSCLERIA, *Nees in Mart. l. c.* 180, est *S. Flagellum*, Swartz; species utraque ex America tropica tam habitu quam characteribus omnino normales.

His juxtaposuit Bœckeler DIPLOSCYPHUM, *Liebm. Mexic. Halfgr.* 74, speciem Mexicanam (*S. mexicanam*, Bœckel.) disco duplici utroque 3-lobo. Specimina non vidimus.

SCHIZOLEPIS, *Schrad. ex Nees in Mart. Fl. Bras.* ii. i. 186, *t.* 26, species continet nonnullas austro-Americanas, inflorescentia normali sæpe laxa, disci hypogyni lobis laceris.

CHONDROLOMIA, *Nees in Mart. l. c.* 173, est *S. Sellowiana*, Kunth, species Brasiliensis, spiculis in corymbum breviter foliatum confertis, disco hypogyno interiore e tuberculis 6 composito, exteriore patelliformi.

HYMENOLYTRUM, *Nees in Mart. l. c.* 174, *t.* 22, includit species nonnullas austro-Americanas, cum *S. oryzoide*, Presl, ex orbe vetere, caule elato, foliis magnis, spiculis numerosissimis in paniculam densam pyramidatam confertis, disci lobis obscuris nuci adhærentibus.

MACROLOMIA, *Schrad.*; *Nees in Mart. l. c.* 181, *t.* 24, est *S. bracteata*, Cav., species Americana inflorescentia insignis. Spiculæ masculæ numerosissimæ, brunneæ, in paniculis superioribus breviter bracteatis dense confertæ; fœmineæ in paniculis axillaribus sessilibus brevibus angustis paucæ, bracteis numerosis longe subulato-acuminatis.

OPHRYOSCLERIA, *Nees in Mart. l. c.* 182, *t.* 25, species continet plures austro-Americanas elatas laxe floribundas cæterum habitu normales, nucibus parvis majusculisve nitidis styli basi diu persistente mucronatis, disco hypogyno truncato ciliato.

S. sphacelata, F. Muell., ex Australia, ab omnibus differt spiculis stricte dioicis.

DIAPHORA, *Lour. Fl. Cochinch.* 578, species Cochinchinensis ex charactere auctoris est verisimiliter *Scleriæ* species, glumis spiculæ masculæ pro paleis receptaculi descriptis.

57. **Kobresia,** *Willd. Spec. Pl.* iv. 205. (Elyna, *Schrad. Fl. Germ.* i. 155. Cobresia, *Pers. Syn.* ii. 534. Froelichia, *Wulf. Fl. Nor.* 729. Trilepis, *Nees in Edinb. N. Philos. Journ.* xvii. 267, *et in Linnæa*, ix. 305, *pro parte.*)—Flores unisexuales, in spiculis androgynis, inferiore fœmineo, cæteris 1–∞ masculis. Glumæ undique imbricatæ, infima vacua. Setæ hypogynæ 0. Stamina in fl. ♂ sæpius 3. Stylus cum ovario continuus, basi haud v. parum incrassatus, ramis stigmatosis 3 filiformibus. Nux sessilis, disco nullo prominente, sæpe styli basi breviter mucronata.—Herbæ perennes, cæspitosæ, sæpius humiles. Folia ad basin caulis in cæspite denso confertæ, scapis sæpius aphyllis. Spiculæ in spicam terminalem simplicem v. parum compositam dispositæ.

Species ad 8, Europæ et Asiæ borealis et montanæ incolæ. *Kunth, Enum. Pl.* ii. 532 (*Elyna*).

Steud. Syn. Pl. Glum. ii. 246 (*Cobresia*). *Bœckel. in Linnæa*, xxxix. 2 (*excl. K. seticulmi, K. Hookeri et K. laxa*). *All. Fl. Ped. t.* 92, *f.* 2 *et t.* 89, *f.* 5 (*Carex*). *Reichb. Ic. Fl. Germ. t.* 193 (*Elyna et Kobresia*). *Host, Gram. Austr.* iv. *t.* 77, 78 (*Carex*). De genere Neesiano *Trilepide*, cfr. supra sub *Fintelmannia*.

TRIBUS VI. CARICEÆ.

58. **Hemicarex,** *Benth. in Journ. Linn. Soc.* xviii. 367.—Spiculæ unisexuales, ♂ pluri- sæpe multi-floræ, distinctæ v. spicas fœmineas apice continuantes, glumis undique imbricatis v. subdistichis. Stamina 3. Spiculæ ♀ 1-floræ, spicatæ, ad axillas bractearum glumiformium sessiles v. breviter stipitatæ, gluma unica marginibus circa florem convolutis basique interdum breviter connatis, utriculum formans introrsum ad medium v. interdum ad basin fissum; rhachilla (spiculæ rhachis) intra utriculum ultra florem producta, setiformis v. plana, utriculum non v. vix excedens. Setæ hypogynæ 0. Stylus basi haud v. parum incrasssatus, ramis stigmatosis 2? v. 3 filiformibus. Nux gluma pene involuta, obtuse 3-quetra (v. compressa?).—Herbæ perennes, habitu uti *Carices* variabiles, nunc humiles cæspitosæ spicis simplicibus interdum dioicis, nunc elatiores spicis decompositis paniculatis.

Species ad 10, Indiæ orientalis et Africæ australis incolæ, includunt species fere omnes *Schœnoxiphii*, Kunthii et Bœckeleri, præter *S. rufum*, Nees (*S. Dregeanum*, Kunth), cum *Kobresia laxa*, Nees, et *K. seticulmi* et *K. Hookeri*, Bœckel. in Linnæa, xxxix. 3, et *Caricem linearem*, Boott. Ill. Gen. Carex, t. 136.

Genus a *Kobresia* differt spiculis nunquam androgynis etsi more *Caricis* interdum spicam androgynam format, a *Carice* nonnisi gluma seu utriculo fœmineo plus minus aperto.

59. **Schœnoxiphium,** *Nees in Linnæa*, ix. 305, *pro parte.*—Spiculæ unisexuales, ♂ multifloræ, distinctæ v. spicas fœmineas breviter continuantes. Stamina 2–3. Spiculæ ♀ v. potius androgynæ, breviter spicatæ, ad axillas bractearum glumiformium sessiles, gluma more *Caricis* marginibus connatis utriculum florem includens formante, ore parvo sub-2-dentato; rhachilla (spiculæ rhachis) ultra florem producta, setiformis, ex utriculo exserta, et glumas 2–3 parvas sæpius flores masculos foventes ferens. Setæ hypogynæ 0. Stylus basi subbulboso-incrassatus, demum deciduus, ramis stigmatosis 3 filiformibus. Nux triquetra, utriculo lageniformi omnino inclusa.—Herba perennis, caule elongato foliato. Spiculæ numerosæ, in paniculas densas oblongas terminales et ad axillas pedunculatas dispositæ, glumis membranaceis brunneis. Bracteæ sub paniculis foliaceæ, inflorescentiam longe superantes, intra paniculas glumiformes v. hinc inde setaceæ parum elongatæ.

Species 1, Africæ australis incola. *Kunth, Enum. Pl.* ii. 529. *Bœckel. in Linnæa*, xli. 352.

Genus ad *S. rufum*, Nees, limitatum, a Kunthio sub nomine *S. Dregeani* optime descriptum, a *Caricibus* dense paniculatis vix differt spicularum fœminearum rhachilla ex utriculo exserta et glumas sæpiusque flores masculos ferente. Species cæteræ Neesii et Kunthii pleræque ad *Hemicaricem* pertinent, rhachilla ut in *Carice* nuda.

60. **Uncinia,** *Pers. Syn. Pl.* ii. 534.—Spiculæ unisexuales, ♂ multifloræ, terminales, cum spica fœminea continuæ, glumis undique imbricatis. Stamina 3, rarius pauciora. Spiculæ ♀ 1-floræ, spicatæ, ad axillas bractearum glumiformium sessiles v. breviter stipitatæ, gluma unica marginibus connatis utriculum lageniformem florem includentem formante, ore parvo obliquo v. 2-dentato; rhachilla (spiculæ rhachis) intra utriculum ultra florem producta, apice ex utriculo exserta, uncinata v. reflexo-glochidiata. Setæ hypogynæ 0. Stylus basi haud incrassatus, ex utriculo protrusus, ramis stigmatosis 3 filiformibus. Nux utriculo sæpe nonnihil aucto inclusa, compressa v. 3-quetra.—Herbæ habitu *Caricis* specierum quibus inflorescentia simplex androgyna et continua, nec differunt nisi rhachilla exserta apice mucrone reflexo glochidiata, et *Carex microglochin*, Wahlenb., rhachilla apice sæpe leviter uncinata quasi medium inter duo genera tenet.

Species ad 25, pro maxima parte in temperatis frigidisque hemisphærii australis vigentes, in ins. Sandwicensibus, et secus Andes Americæ tropicæ usque ad Mexicum et Indiam occidentalem obviæ,

Kunth, Enum. Pl. ii. 524. *Steud. Syn. Pl. Glum.* ii. 243. *Bœckel. in Linnæa*, xli. 339. *Hook. f. Handb. N. Zeal. Fl.* 308. *Benth. Fl. Austral.* vii. 433. *Raoul, Choix Pl. N. Zel. t.* 5. *Hook. f. Fl. N. Zel. t.* 64; *Fl. Antarct. t.* 51, 145; *Fl. Tasm. t.* 152, 153. *Thou. Mel. t.* 5, 6. *C. Gay, Fl. Chil. t.* 72.

Genus a Clarkeo in sectiones 2 dividitur: 1. *Stenandra*, filamentis filiformibus. Species omnes australes Americanæ v. gerontogeæ. 2. *Platyandra*, filamentis complanatis sæpe antheris latioribus. Species omnes Americanæ.

61. **Carex,** *Linn. Gen. n.* 1046.—Spiculæ unisexuales; ♂ multifloræ, terminales distinctæque v. spicas fœmineas apice v. basi continuantes, glumis undique imbricatis. Stamina 3, rarius pauciora. Spiculæ ♀ 1-floræ, spicatæ, ad axillas bractearum glumiformium sessiles v. breviter stipitatæ, gluma unica marginibus connatis utriculum sæpe lageniforme (*perigynium* auct. plur.) florem includens formante, ore parvo sæpius 2-dentato; rhachilla (spiculæ rhachis) intra utriculum sæpe ultra florem producta, setiformis v. linearis planaque, utriculum non v. vix excedens. Setæ hypogynæ 0. Stylus basi haud incrassatus, ex utriculo protrusus, ramis stigmatosis 2 v. 3 filiformibus. Nux utriculo sæpe nonnihil aucto inclusa, compressa v. 3-quetra.—Herbæ perennes, foliis gramineis ad basin caulis confertis rariusque secus caulem dissitis. Spiculæ masculæ si distinctæ terminales, solitariæ, v. plures, quarum una terminalis, paucæ sub ea laterales; spicæ fœmineæ v. androgynæ infra masculas v. absque masculis distinctas varie dispositæ, paucæ distinctæque v. varie capitatæ v. paniculatæ; in inflorescentiis seu spicis androgynis flores masculi ad apicem v. rarius ad basin spicæ, bractea spiculas fœmineas (seu utriculum) subtendentes in glumas florum masculorum abeuntes iisque simillimæ, nisi sæpius paullo majores laxiusque imbricatæ v. interdum subdissitæ. Bracteæ sub spicis inferioribus v. sub ramis paniculæ interdum foliaceæ, sub spicis spiculisve summis vix glumis majores.

Species enumeratæ ultra 800 et verisimiliter ultra 500 retinendæ, per regiones temperatas frigidasque utriusque orbis copiose dispersæ, inter tropicos paucæ nisi in montibus. *Kunth, Enum. Pl.* ii. 368. *Steud. Syn. Pl. Glum.* ii. 182. *Bœckel. in Linnæa*, xxxix. 14, xl. 327, xli. 145. *Franch et Savat. Enum. Pl. Japon.* ii. 123. *Liebm. Mex. Halfgr.* 75. *Benth. Fl. Austral.* vii. 435. *Hook. f. Handb. N. Zeal. Fl.* 310. *Boott, Illustr. Gen. Carex cum tabb.* 600. *Schkuhr, Beschr. und Abbild. Riedgr. Wittenberg,* 1801 *et* 1806 *cum tabb.* 93, *et Kunze, Suppl. Leipzig,* 1840, 1850, *cum tabb.* 50. *Host, Gram. Austr.* i. *t.* 41 *ad* 100; iii. *t.* 77 *ad* 79; iv. *t.* 75, 76, 79 *ad* 96. *Reichb. Ic. Fl. Germ. t.* 194 *ad* 277. *C. A. Mey. in Mem. Sav. Etr. Acad. Petersb.* i. *t.* 4 *ad* 14. *A. Rich, Fl. N. Zel. t.* 21, 22. *Hook. f. Fl. Antarct. t.* 142 *ad* 144; *Fl. N. Zel. t.* 63; *Fl. Tasm. t.* 150, 151. *Brongn. in Duperr. Voy. Coq. Bot. t.* 25. *C. Gay, Fl. Chil. t.* 73, *f.* 3, 5. *Hook. Fl. Bor. Amer. t.* 207 *ad* 226. *Torr. Fl. N. York, t.* 142 *ad* 145, 147.

Genus vastum, facillime dignoscendum, quoad inflorescentiam polymorphum, sed characteres certos ad sectiones formandas non præbet. Species ab auctoribus distribuuntur in series imprimis ad numerum et rationem spicularum mascularum cum spicis fœmineis. Vignea, *Beauv. in Lestib. Essai Fam. Cyper.* 22, genus propositum fuit ad species stylo 2-fido, et Trasus, *S. Gray, Nat. Arr. Brit. Pl.* ii. 53, ad species stylo 3-fido, sed distinctio minime naturalis, et character in speciebus nonnullis inconstans. Rafinesque in Journ. Phys. lxxxix. 106, genus in 4 dividit: Carex, Scuria, Triplima et Triodus; et Schur in Enum. Pl. Trans. 696 et seqq. pariter genera 4 accepit: Carex, Psyllophora (*Ehrh. Beitr.* iv. 146 *nomen*), Vignea, *Beauv.*, *et* Vignantha, *Schur.* Heuffel in Flora, 1844, 527, 528, species plures generice separavit sub nominibus Maukschia, Leucoglochin, Callistachys, Genersichia et Cryptoglochin.

Pseudocarex, *Miq. in Ann. Mus. Lugd. Bat.* ii. 146, e Japonia, floribus statu juniore ab auctore examinatis, ex descriptione videtur *Caricis* species, utriculo juniore pubescente pro ovario descripto.

Schelhammeria, *Mœnch, Meth. Suppl.* 119, est *C. cyperina*, Linn., cui flores pauci masculi ad basin spicæ fœmineæ, quod in speciebus pluribus observatur et character auctoris cæterum vix intelligibilis est.

C. microglochin, Wahlenb., rhachilla spiculæ fœmineæ ex utriculo exserta et sæpe leviter uncinata *Uncinia* accedit. *C. gaimardioides*, Em. Desv. in C. Gay, Fl. Chil. vi. 202, t. 73, f. 2, est *Scirpus semisubterraneus*, Bœckel., staminibus setisve jam delapsis et pericarpio pro utriculo delineato et descripto.

De utriculo et ovario *Caricis* confer Kunth in Wiegm. Archiv. i. ii. 349, t. 6, et ii. i. 213, t. 5.

Ordo CC. GRAMINEÆ.

Endl. Gen. 77. Lindl. Veg. Kingd. 106. Kunth, Rev. Gram. Parisiis, folio, 1829, cum tabb. 220. Benth. in Journ. Linn. Soc. xix. 14.

Flores hermaphroditi v. unisexuales, in spicas parvas *spiculas* dictas dispositi, singuli ad axillam bracteæ parvæ *glumam* dictæ solitarii, sessiles v. subsessiles. *Glumæ* in spicula secus *rhachillam* (i.e. spiculæ rhachin) alternæ, distiche rarissime subternatim imbricatæ, inferiores 2, rarius 3-∞ v. rarissime una sola, vacuæ, 1-∞ sequentes *florentes* (*paleæ inferiores* auct. plur.) florem foventes, interdum 1-∞ summæ minores vacuæque (*flores tabescentes* auct. plur.). *Perianthium* perfectum 0, sed in glumæ axilla ad basin axis floralis *palea* sæpius adest (*palea superior* auct. plur.) rhachillam spiculæ spectans, 2-nervis v. 2-carinata, integra v. 2-dentata, rarius 2-partita, nunc glumæ æquilonga, nunc sæpius minor, interdum minuta v. omnino evanida ; et supra paleam infra stamina adsunt sæpius *lodiculæ* 2 v. 3, squamellæ parvæ hyalinæ v. carnosulæ, quarum 2 liberæ lateralesque v. pone axin a rhachilla spiculæ aversæ et plus minus connatæ, tertia dum adsit lateralibus æqualis v. minor. *Stamina* 3 v. pauciora, rarius 4 v. 6, rarissime ∞, filamentis capillaribus v. leviter complanatis liberis v. rarissime in tubum connatis. *Antheræ* versatiles v. rarius basifixæ, lineares oblongæ v. ovoideæ, loculis 2 parallelis apice basique sæpe plus minus discretis, longitudinaliter dehiscentibus. *Ovarium* in centro floris sessile v. breviter stipitatum, erectum, integrum v. stylorum basibus sub-2-dentatum, 1-loculare. *Styli* 2 v. rarius 3, terminales v. ad apicem ovarii sublaterales, distincti v. plus minus in stylum 2-rarius 3-fidum connati, filiformes, breves v. elongati, superne v. fere a basi breviter v. longe stigmatosi, papillis stigmatosis nunc brevissimis nunc filiformibus simplicibus v. ramulosis plumosi. *Ovulum* 1, adscendens, anatropum, prope basin v. lateraliter affixum, ab ovario sæpius difficile separandum. *Fructus* (*caryopsis*) sæpius parvus, gluma paleaque cum fragmento rhachillæ inclusus, quibuscum v. cum tota spicula dilabitur, rarius exsertus v. seorsum deciduus, indehiscens ; pericarpium sæpius tenuissimum semini arcte adnatum et supra seminis hilum macula notatum, rarius laxum, membranaceum v. in *Bambuseis* nonnullis crustaceum induratum v. crassissime carnosum. *Seminis* testa a pericarpio adnato non distinguenda, v. intra pericarpium liberum tenuissima albumini adnata ; albumen copiosum, farinaceum v. rarius carnosum. *Embryo* ad basin albuminis parvus, globosus v. depressus, sæpe minutus.

Herbæ annuæ v. perennes v. in *Bambuseis* pluribus frutescentes v. arborescentes, basi sæpe cæspitosæ v. e rhizomate multicaules, interdum repentes v. stoloniferæ, rarius scandentes. Caules teretes v. compressiusculi, inter nodos sæpius cavi, simplices v. ramosi. Folia pleraque ad basin caulis conferta, sæpeque distiche imbricata, superiora alterna, dissita, interdum subspiraliter disposita ; vaginæ introrsum in longitudinem fissæ ore sæpius ligula brevi scariosa v. membranacea v. annulo setarum coronato ; lamina patens v. rarius erecta, sæpius angusta plana v. præsertim siccitate convoluta, interdum rigide subulato-teres, sæpius venis numerosis parallelis lineata et in speciebus nonnullis latifoliis venulis parvis transversis plus minus distincte tessellata. Inflorescentia in pedunculo terminali v. rarius in pedunculis ad axillas solitariis v. fasciculatis simpliciter spicata racemosa v. varie paniculata, sæpissime ebracteata ; in *Bambuseis* tamen nonnullis perpaucisque aliis bracteæ spathaceæ v. glumiformes adsunt sub ramulis paniculæ et sub spiculis ipsis.

Specierum numerus a variis auctoribus varie estimatus, ad normam nostram verisimiliter ad 3100 v. 3200 reducendæ, per orbem totum terrarum copiose dispersæ, undique nec in terris Arcticis summisque Alpibus nec in calidissimis apricisque inter tropicos desunt, in uliginosis tamen paludibusque sæpe *Cyperaceis* cedunt, nonnullæ latissime diffusæ fere cosmopolitanæ, plures jam a temporibus antiquissimis copiose cultæ statu sylvestri hodie ignotæ.

Ordo quoad partem in orbis vegetatione tenentem inter *Monocotyledones* maximus, etsi numero specierum *Orchideis* palmam cedat. Naturalissimus est et circumscriptione accuratissime definitus,

nec cum ullo alio generibus intermediis connexus. *Cyperaceis* spicularum structura floribusque proxime affinis, differt caule inter nodos sæpissime cavo, foliorum vaginis in longitudinem fissis, palea lodiculisque huic ordini propriis, embryonis situ et structura, sæpissimeque stigmatibus plumosis aliisque characteribus pluribus minus constantibus. De palea et lodicularum homologia multum disputatum est et nuperrime disseruit Hackel (Engl. Bot. Jahrb. i. 336) qui paleam, lodicularum par et lodiculam tertiam dum adsit pro bracteolis (2 v. 3) habet, in axi floris infra florem proprium (stamina cum pistillo) alternatim affixis, quod tamen ulterius probandum est. Hæc organa cæterum in nullo alio ordine distincte observantur, nisi forte paleam cum squamis hypogynis exterioribus *Cyperacearum* e tribu *Hypolytrearum* comparas, v. paleam cum perianthio exteriore lodiculas cum interiore *Eriocauli*. Palea denique quoad venationem cum bractea intra spatham 1-floram *Iridearum* e tribu *Ixiearum* comparanda, homologia tamen cæterum minime clara.

Distributio in tribus et genera tamen difficillima est et a variis auctoribus modis diversis tentata. Quam hic proponimus, quoad notas essentiales a Brownio indicata, a pluribus auctoribus varie reformata, imprimis in notis Munroanis characteribus certioribus definita in Journ. Linn. Soc. xix. 14 breviter exposita recentiusque ad notas a Prof. Hackelio aliisque benevole communicatas, emendata adhuc fatendum est sæpe valde imperfecta remanet. Tribus plures uti genera majora modo nimis artificialia, modo male definita sunt sæpeque formis intermediis connectuntur.

FORMÆ ABNORMES.

Caulis arborescens in *Bambuseis* pluribus.

Foliorum vagina marginibus connatis in tubum clausa more *Cyperacearum* in *Melica uniflora*, Linn., et forte in speciebus aliis perpaucis adhuc imperfecte observatis.

Spicula unica, maxima, glumis florentibus in tubum connatis in *Lygeo*; spiculæ singulæ bractea stipatæ in *Xerochloa* et *Spinifice*.

Glumæ non distichæ in *Streptochæta*; inferiores vacuæ 3-∞ in *Streptochæta*, in *Phalarideis* nonnullis, in *Cathestecho*, *Ctenio*, *Tetrachni*, *Pommereulla*, *Brylkinia*, *Uniola*, omnino desunt v. ad dentem parvum reductæ in *Coleantho*, *Nardo* et interdum in *Psiluro* et *Asprella*.

Palea intra glumam tertiam maxima in *Xerochloa* et *Phyllorhachi*.

Stamina monadelpha in *Streptochæta*, *Gigantochloa* et *Oxytenanthera*, plus quam 6 in *Pariana* et sæpius in *Luziola* et *Ochlandra*.

Stylus indivisus in *Lygeo*, *Anomochloa*, *Nardo*, in *Bambuseis* paucis et hinc inde in aliis generibus, 3-fidus v. styli 3 in *Pharo* et *Leptaspide*, 4–6-fidus in *Melocanna* et *Ochlandra*, longissimus spiraliterque contortus in *Streptochæta*, abbreviatus late membranaceus 2-fidus in *Boissiera*.

CONSPECTUS TRIBUUM (exceptis neglectis).

Series A. PANICACEÆ. Spiculæ cum pedicello infra glumas articulatæ, flore fertili unico terminali, addito interdum altero inferiore masculo v. sterili.

Tribus I. Paniceæ. Spiculæ hermaphroditæ, rarius abortu unisexuales, spicatæ v. paniculatæ, rhachi inflorescentiæ inarticulata. Gluma florens exaristata, fructifera indurata v. saltem exterioribus rigidior.

(Genera anomala plura, *Paniceis* plus minus affinia, ad calcem tribus enumerantur.)

Tribus II. Maydeæ. Spiculæ 1-sexuales, ♂ terminales, spicatæ v. paniculatæ, v. (in *Pariana*) fœmineam circumdantes; ♀ inferiores, spicatæ, cum rhacheos internodio (excepta *Zea*) articulatim secedentes.

Tribus III. Oryzeæ. Spiculæ hermaphroditæ v. rarius unisexuales, paniculatæ v. spicatæ, rhachi inflorescentiæ inarticulata. Gluma sub flore summa (palea?) 1-nervis v. carinata.

Tribus IV. Tristegineæ. Spiculæ hermaphroditæ, secus paniculæ ramulos inarticulatos solitariæ geminæ v. fasciculatæ, cum pedicello articulatæ. Glumæ vacuæ aristatæ v. muticæ, florens hyalina v. tenuiter membranacea, mutica v. arista geniculata terminata.

Tribus V. Zoysieæ. Spiculæ hermaphroditæ v. nonnullæ imperfectæ, cum rhachi inarticulata spicæ simplicis sigillatim v. fasciculatim articulatæ. Gluma florens membranacea, sæpius vacuis minor hyalinaque.

Subtribus 1. Anthephoreæ. *Spiculæ in pedicello 3–∞, in fasciculum deciduum confertæ. Gluma florens nunc vacuis sublongior, nunc brevior hyalina.*

Subtribus 2. Euzoysieæ. *Spiculæ in pedicello solitariæ rarius geminæ. Gluma florens vacuis brevior, hyalina.*

Tribus VI. Andropogoneæ. Spiculæ secus spicæ rhachin v. paniculæ ramulos sæpissime geminæ v. terminales ternæ, in quoque pari homogamæ v. heterogamæ. Gluma florens vacuis minor, hyalina, sæpe aristata.

Series B. Poaceæ. Pedicellus infra glumas continuus. Rhachilla supra glumas inferiores persistentes sæpe articulata, ultra flores fertiles producta stipitiformis v. glumas vacuas v. flores imperfectos ferens, v. interdum flos fertilis more *Panicacearum* unicus terminalis, sed cum gluma sua a vacuis persistentibus articulatim secedens.

Tribus VII. Phalarideæ (genuinæ). Flos hermaphroditus unicus, terminalis. Glumæ 6 (v. 5 et palea) 1-nerves v. carinatæ. (*Oryzeæ*, additis glumis 2 infra articulationem vacuis.)

Tribus VIII. Agrostideæ. Spiculæ 1-floræ, rhachilla ultra florem nuda v. in setam v. stipitem producta.

Subtribus 1. Stipeæ. *Panicula laxa v. irregulariter spiciformis. Gluma florens arista sæpius terminata, fructifera caryopsin arcte involvens. Rhachilla ultra florem non producta.*

Subtribus 2. Phleoideæ. *Panicula spiciformis, densè cylindracea v. subglobosa. Gluma florens mutica v. aristis 1–3 terminata, fructifera caryopsin laxe includens. Rhachilla interdum producta.*

Subtribus 3. Sporoboleæ. *Panicula laxa v. ad racemum reducta. Gluma florens mutica. Caryopsis demum sæpius glumis apertis subdenudata. Rhachilla non producta.*

Subtribus 4. Euagrosteæ. *Panicula varia, sæpius laxa. Gluma florens sæpius arista dorsali instructa rarissime mutica. Caryopsis gluma laxe inclusa. Rhachilla sæpe producta.*

Tribus IX. Aveneæ. Spiculæ 2-floræ, rarius ∞-floræ, sæpius paniculatæ. Glumæ florentes arista dorsali v. interdum terminali sæpissime instructæ v. in generibus æqualiter 2 floris muticæ. Rhachilla ultra flores sæpius producta.

Subtribus 1. Aireæ. *Spiculæ stricte 2-floræ, rhachilla non producta.*

Subtribus 2. Euaveneæ. *Spiculæ 2–∞-floræ, rhachilla producta.*

Tribus X. Chlorideæ. Spiculæ 1–∞ floræ, secus rhachin spicarum unilateralium 2-seriatim sessiles secundæ.

Tribus XI. Festuceæ. Spiculæ 2–∞-floræ, varie paniculatæ v. rarius racemosæ. Glumæ florentes muticæ v. aristis 1–∞ terminatæ.

Subtribus 1. Pappophoreæ. *Glumæ florentes ∞-nerves 3–∞-dentatæ v. absque aristis 4-lobæ.*

Subtribus 2. Triodieæ. *Glumæ florentes 1–3-nerves, 3-dentatæ 3-fidæ v. 3-aristatæ.*

Subtribus 3. Arundineæ. *Rhachilla sub glumis florentibus longe pilosa.*

Subtribus 4. Seslerieæ. *Inflorescentia spiciformis v. capituliformis, basi glumis vacuis v. spicis sterilibus sæpius stipata. Stylus v. rami sæpius longi tenues.*

Subtribus 5. Eragrosteæ. *Glumæ florentes 3-nerves. Cætera normalia.*

Subtribus 6. Meliceæ. *Glumæ florentes 3–∞-nerves, superiores 2–∞ vacuæ semel involventes.*

Subtribus 7. Centotheceæ. *Folia plana lanceolata v. ovata inter venas transverse venulosa. Glumæ florentes 5–∞-nerves.*

Subtribus 8. Eufestuceæ. *Glumæ florentes 5–∞-nerves. Cætera normalia.*

Tribus XII. Hordeeæ. Spiculæ 1–∞-floræ, ad dentes seu excavationes rhacheos spicæ simplicis sessiles.

Subtribus 1. Triticeæ. *Spiculæ ad nodos solitariæ, 3–∞-floræ rarius 2-floræ.*

Subtribus 2. Leptureæ. *Spiculæ ad nodos solitariæ, 1–5-floræ. Spica tenuis.*

Subtribus 3. Elymeæ. *Spiculæ ad nodos 2–∞, collaterales.*

Tribus XIII. Bambuseæ. Gramina elata, sæpius basi saltem lignosa. Folia plana, sæpissime cum vagina articulata. Spiculæ 1–∞-floræ. Lodiculæ sæpe 3. Stamina 3, 4 v. ∞.

Subtribus 1. Arundinarieæ. *Stamina 3. Palea 2-carinata. Pericarpium tenue, semini adnatum.*

Subtribus 2. Eubambuseæ. *Stamina 6. Palea 2-carinata. Pericarpium tenue, semini adnatum.*

Subtribus 3. Dendrocalameæ. *Stamina 6. Palea 2-carinata. Pericarpium crustaceum v. carnosum, a semine liberum.*

Subtribus 4. Melocanneæ. *Stamina 6–∞. Palea 0 nisi glumis simillima. Pericarpium crustaceum v. carnosum, a semine liberum.*

CONSPECTUS GENERUM.

Series A. PANICACEÆ. Spiculæ cum pedicello infra glumas articulatæ, articulatio sæpius immediate sub glumis infimis, interdum sub spicularum fasciculo, v. (in *Maydeis*) rhachis ipsa spicæ sub quaque spicula ♀ articulata. Glumæ in spicula 4 v. pauciores. Flos fertilis unicus sub gluma summa specie terminalis, addito interdum flore altero inferiore masculo v. rarissime hermaphrodito sterilique; rhachilla ultra florem fertilem non continuata, inter glumas continua v. rarissime articulata; glumæ infimæ vacuæ.

Excepta: Flos inferior hermaphroditus perfectus in Isachne, hermaphroditus sed sæpius sterilis in Beckmannia et hinc inde in speciminibus nonnullis Setariæ specierum paucarum.

Glumæ infimæ vacuæ infra articulationem persistentes in Isachne.

Tribus I. Paniceæ. Spiculæ fertiles hermaphroditæ rarius abortu unisexuales, spicatæ v. paniculatæ, rhachi inflorescentiæ inarticulata. Gluma florens exaristata, fructifera indurata v. saltem exterioribus rigidior v. major.

Excepta (præter genera anomala n. 24 ad 30):—

Spiculæ abortu unisexuales in *Amphicarpo*, stricte unisexuales in generibus anomalis n. 24 ad 27.

Spicæ rhachis demum articulata in speciminibus nonnullis *Stenotaphri*.

Gluma fructifera vix rigescens in *Panici* sect. *Tricholæna*, et in *Anthænantia*.

* *Paniculæ rami simplices spiciformes v. varie ramulosi, ultra spiculas non producti. Pedicelli sub spiculis singulis articulati.*

1. REIMARIA. Paniculæ rami simplices. Glumæ 2. Stamina 2.—*Amer. trop. et bor. subtrop.*

2. PASPALUM. Paniculæ rami simplices spiciformes, spiculis sessilibus v. subsessilibus sigillatim v. per paria alternis, secus rhachin unilateralibus v. subdistichis. Glumæ 3 rarissime 2. Stamina 3.—*Amer. trop. et subtrop., in Afr. et Asia trop. pauciores, in Eur. austr. inquilinæ.*

3. ANTHÆNANTIA. Panicula laxiuscula sericeo-pilosa et glumæ membranaceæ *Panici* sectionis *Tricholænæ*. Glumæ 3 *Paspali*.—*Amer. trop. et bor.*

4. AMPHICARPUM. Spiculæ abortu unisexuales, ♂ in panicula angusta parum divisa, ♀ duplo majores in scapis aphyllis solitariæ. Glumæ 3 *Paspali*.—*Amer. bor.*

5. ERIOCHLOA. Paniculæ rami simplices spiciformes. Spiculæ ovoideæ, glumis 3 fere *Paspali*, sed supra articulationem pedicelli callo insidentes, et gluma florens obtusissima, sæpius mucrone brevi instructa.—*Utriusque orbis reg. trop. et subtrop.*

6. BECKMANNIA. Paniculæ rami spiciformes fere *Panici colonum*, spiculis subsessilibus. Glumæ 4, 2 inferiores vacuæ dorso subvesiculosæ, 2 superiores florentes, flore utroque ⚥, inferiore (an semper?) sterili.—*Eur. or., Asia temp., Amer. bor.*

7. ISACHNE. Panicula *Panici* (*Eupanici Effusarum*). Glumæ 4, 2 inferiores vacuæ, sub articulatione persistentes, 2 superiores æqualiter fructiferæ.—*Utriusque orbis reg. calid.*

8. PANICUM. Paniculæ rami nunc simplices spiciformes *Paspali*, nunc ramulosi stricti v. effusi. Glumæ sæpissime 4, infima exaristata minima v. rarius tertiæ v. omnibus æquilonga. —*Utriusque orbis reg. trop. et subtrop.; in temperatis paucæ.*

9. ICHNANTHUS. Paniculæ rami ramulosi et glumæ 4 *Panici*. Spiculæ rhachilla sub gluma fertili utrinque membrana longa v. minima appendiculata.—*Amer. trop.*

10. OPLISMENUS. Paniculæ rami simplices, dissiti, secundi, spiculis secus rhachin unilateraliter fasciculatis. Glumæ 4, inferiores vacuæ aristatæ.—*Utriusque orbis reg. trop. et subtrop.*

11. CHÆTIUM. Panicula angusta, densa, ramulis strictis. Glumæ 4, 2 inferiores vacuæ subæquales, aristatæ.—*Brasilia, Mexico.*

12. SETARIA. Panicula densa nunc cylindracea spiciformis, nunc anguste thyrsoidea. Spiculæ setis rigidis (ramulis setiformibus) in pedicello sub articulatione persistentibus stipatæ. Glumæ 4, infima sæpius parva *Panici*.—*Utriusque orbis reg. trop. et temp.*

** *Spicæ v. racemi simplices, solitarii v. rarius ∞ paniculati. Pedicelli sub involucro 1–∞-setoso spiculas 1–3 continente articulati.*

13. CENCHRUS. Involucri setæ v. squamæ rigidæ, basi connatæ.—*Utriusque orbis reg. trop. et subtrop.*

14. PENNISETUM. Involucri setæ tenues, simplices, nudæ barbato-plumosæ v. rarius pinnatifidæ, numerosæ rarius paucæ v. ad unam reductæ.—*Utriusque orbis reg. calidiores, imprimis Africa trop. et extratrop.*

15. PLAGIOSETUM. Involucrum supra articulationem ramulosum, unilaterale, spiculis inter ramulos sessilibus.—*Australia.*

16. PARATHERIA. Racemus tenuiter spiciformis, pedicellis supra articulationem in setam longam cum spicula deciduam productis.—*Amer. trop., Ind. occid.*

*** *Spicæ in pedunculo communi* 1–∞, *rhachi ultra spiculam ultimam producta.*

17. ECHINOLÆNA. Spica unica, unilateralis, densa, sub apice pedunculi defracta, spiculis sterilibus cum perfectis intermixtis. Glumæ 4, infima cæteris majore.—*Amer. trop.*

18. CHAMÆRAPHIS. Spicæ seu paniculæ rami simplices ∞ filiformes ∞-spiculatique, v. 1–2-spiculati in racemo spiciformi conferti. Glumæ 4, infima minima.—*Asia trop., Australia.*

19. SPARTINA. Spicæ seu paniculæ rami simplices ∞, unilaterales, densi, multispiculati. Glumæ 3. Stylus filiformis, superne 2-fidus.—*Amer. bor. et austr. extratrop., ins. Tristan d'Acunha et Amsterdam, littora Eur. Afr. et Amer.*

20. XEROCHLOA. Spicæ brevissimæ, paucispiculatæ, intra bracteam spathaceam rigidule paleaceam inclusæ. Glumæ 4, infima lata fere hyalina. Palea floris inferioris ♂ maxima.—*Australia.*

21. STENOTAPHRUM. Spicæ rhachis complanata, demum interdum articulata, spiculis secus faciem fasciculatis v. in ramulos brevissimos dispositis. Glumæ 3 v. si 4 infima parva.—*Utriusque orbis reg. trop. in maritimis.*

22. PHYLLORHACHIS. Spicæ rhachis foliacea complicata spiculas 1-seriatas amplectens. Palea sub gluma tertia maxima.—*Angola.*

23. THUAREA. Spica unica, unilateralis; spiculæ secus rhachin 1-seriatæ, superiores abortu ♂, inferiores 1–2 fertiles, fructiferæ intra rhachin dilatatam subinclusæ in arena sæpius sepultæ. Glumæ 3, v. si 4 infima parva.—*Littora maris Ind. et Pacifici.*

**** *Genera anomala, nec inter se nec ulli alii proxime affinia, sed* Paniceis *præ aliis accedentia gluma fructifera sæpius indurata.*

† *Spiculæ unisexuales.*

24. SPINIFEX. Spiculæ dioicæ, bracteatæ, globoso-capitatæ, ♂ intra quamque bracteam spicatæ, ♀ solitariæ. Glumæ 4. Gramina dura, ramosa, repentia v. diffusa.—*Asia trop., Australasia.*

25. OLYRA. Spiculæ monoicæ, paniculatæ, ♂ inferiores, ♀ superiores. Glumæ in spicula ♀ 3, in spicula ♂ 1. Gramina nunc elata latifolia panicula terminali, nunc humiliora parvifolia inflorescentia partim axillari.—*Amer. et Afr. trop.*

26. PHARUS. Spiculæ monoicæ, paniculatæ, secus ramulos geminæ, altera sessilis ♀, altera parva pedicellata ♂. Gluma fructifera angusta indurata. Folia lata, longe petiolata.—*Amer. trop.*

27. LEPTASPIS. Spiculæ monoicæ, paniculatæ, secus ramulos 2–3-næ, 1–2 inferiores ♀ breviter pedicellatæ, terminalis ♂ parva longe pedicellata. Gluma fructifera membranacea, inflato-globosa. Folia lata, longe petiolata.—*Afr. Asia et Australia trop.*

†† *Spiculæ hermaphroditæ.*

28. LYGEUM. Spicula in pedunculo unica magna. Gluma infima spathiformis, florentes 2–3, inclusæ, basi in tubum plumoso-pilosum connatæ; paleæ lineares, convolutæ, breviores. Stylus indivisus. Folia convoluto-teretia.—*Reg. Mediterr.*

29. STREPTOCHÆTA. Spiculæ angustæ, longæ, in spica simplici erectæ. Glumæ non distichæ, 6 inferiores breves, latæ, 6 superiores longæ angustæ quarum extima cæteras includit, summa sola florens. Stamina 5–7. Stylus longus, 3-fidus. Folia ovato-lanceolata.—*Brasilia.*

30. ANOMOCHLOA. Spiculæ in spica brevi, per 2–3 intra bracteas magnas spathiformes inclusæ. Glumæ 2, inferior fructiferam induratam includens. Folia petiolata, ovato-lanceolata.—*Brasilia.*

Tribus II. Maydeæ. Spiculæ unisexuales, masculæ terminales, paniculatæ spicatæ v. solitariæ, rarius fœmineas circumdantes, fœmineæ inferiores spicatæ v. solitariæ, cum rhacheos internodio articulatim secedentes (excepta *Zea*); rhachis inter spiculas masculas continua.

* *Spica simplex, undique androgyna. Stamina ∞.*

31. PARIANA. Spiculæ ad quemque nodum spicæ plures masculæ, fœmineas 1–2 circumdantes. —*Amer. trop.*

** *Spiculæ ♂ ad nodos superiores spicæ androgynæ v. ad nodos omnes spicarum mascularum geminæ, ♀ ad nodos inferiores solitariæ rarius geminæ. Stamina 3.*

32. COIX. Spicæ pedunculatæ, nodi inferiores 1–2 fœminei, bractea vaginante demum lapidea globosa fructum includente.—*Utriusque orbis reg. calid.*

33. POLYTOCA. Spicæ pedunculatæ, nodi inferiores v. spicæ inferiores fœmineæ, spiculis 1–2-floris, una sola fertili. Gluma fructifera globosa v. ovoidea, lapidea, rhacheos internodium cum fructu includens.—*Ind. or., ins. maris Pacifici.*

34. CHIONACHNE. Spicæ e folio florali exsertæ, nodi inferiores fœmineæ spiculis 1-floris. Gluma fructifera globosa v. ovoidea, lapidea, fructum includens, rhacheos internodium amplectens.—*Ind. or., Archip. Malay., Australia trop.*

35. SCLERACHNE. Spicæ intra vaginam folii floralis subinclusæ, spicula mascula unica terminali, fœmineis 1–2 inferioribus. Gluma fructifera indurata, fructum includens.—*Java.*

36. TRIPSACUM. Spicæ pedunculatæ nodi inferiores fœmineæ, spiculis 1-floris. Gluma fructifera indurata, lapidea, rhacheos internodio pariter indurato incrassatoque sed excluso.—*Amer. calid.*

*** *Spicæ masculæ ∞ in panicula terminali, fœmineæ axillares sessiles.*

37. EUCHLÆNA. Spicæ fœmineæ intra vaginas foliorum fasciculatæ, singulæ bractea ampla semi-inclusæ, spiculis 1-seriatis. Rhacheos articuli glumæ demum adnati, cum spicula fructifera decidui.—*Mexico.*

38. ZEA. Spica fœminea axillaris, maxima, bracteis foliaceis involuta, spiculis dense ∞-seriatis, rhachi crassa inarticulata.—*America? in utroque orbe culta, sylvestris ignota.*

Tribus III. Oryzeæ. Spiculæ hermaphroditæ v. rarius unisexuales, sæpius parvulæ, varie paniculatæ v. rarius simpliciter spicatæ, rhachi inflorescentiæ inarticulata. Glumæ 2–4, membranaceæ v. inferiores minimæ. Palea 0 nisi pro palea glumam summam 1-nervem v. carinatam habes.

Tribus quoad spicularum structuram a *Phalarideis* genuinis non differt nisi glumarum inferiorum infra articulationem deficientia, et hac ratione Bentham prius includit *Alopecurum, Cornucopias* et *Crypsin*, nunc ad *Phalarideas* translatas.

* *Spicæ simplices 1-sexuales. Stamina 6.*

39. HYDROCHLOA. Spicæ paucispiculatæ, ♂ terminalis pedunculata, ♀ axillares sessiles.—*Carolina, Florida.*

** *Paniculæ laxæ. Stamina 6 rarius ∞ v. pauciora.*

40. ZIZANIA. Spiculæ unisexuales, angustæ. Panicula longa floribunda androgyna. Glumæ 2. Stamina 6.—*Amer. bor., Asia bor. or., Japonia.*

41. LUZIOLA. Spiculæ unisexuales, ovatæ, parvæ. Paniculæ laxæ unisexuales v. rarius androgynæ. Glumæ 2. Stamina ∞ v. rarius 6.—*Amer. trop. et bor.*

42. POTAMOPHILA. Spiculæ angustæ, flore hermaphrodito v. abortu unisexuales. Glumæ 4, inferioribus minimis v. setiformibus. Stamina 6. Panicula sæpe elongata.—*Australia, Madagasc., Afr. austr.*

43. HYGRORHIZA. Spiculæ augustæ, flore hermaphrodito. Glumæ 2, inferiore aristata. Stamina 6. Panicula brevis, angusta.—*Ind. or.*

44. ORYZA. Spiculæ plano-compressæ, flore hermaphrodito. Glumæ 4, inferiores minutæ v. setiformes, 2 superiores complicato-carinatæ sæpe rigidæ, quarum exterior interdum aristata. Stamina 6.—*Ind. or., Australia. In Africa et Amer. trop. inquilina?*

45. LEERSIA. Spiculæ compressæ, flore hermaphrodito. Glumæ 2, complicato-carinatæ, membranaceæ, muticæ. Stamina 6, 3 v. pauciora.—*Utriusque orbis reg. trop. et bor. temp.*

46. ACHLÆNA. Spiculæ angustæ, flore hermaphrodito. Glumæ 4, infima aristiformis, secunda lanceolata aristata, tertia acuminata, quarta minor hyalina. Stamen 1.—*Cuba.*

47. BECKERA. Spicæ simplices, pedunculatæ, solitariæ v. 2–∞ subpaniculatæ. Glumæ 2, v. si 4, 2 inferiores minutæ. Stamina 3.—*Abyssinia.*

*** *Spiculæ dense spicatæ capitatæ v. in paniculam dense spiciformem confertæ.*

(Huc pertinent, quoad characteres spiculæ, genera 105 CRYPSIS, 106 CORNUCOPIÆ, et 107 ALOPECURUS, infra ob habitum ad *Phalarideas* translata.)

Tribus IV. Tristegineæ. Spiculæ hermaphroditæ, secus paniculæ ramulos inarticulatos sparsæ fasciculatæ v. rarius geminæ, cum pedicello articulatæ. Glumæ 3 v. 4, 2 v. 3 inferiores vacuæ membranaceæ articulatæ v. muticæ, terminalis florens mutica v. sæpe arista geniculata terminata, cum palea hyalina v. tenuiter membranacea.

Tribus *Paniceas* cum *Andropogoneis* et *Agrostideis* arcte connectens, a prioribus glumis florentibus tenuioribus sæpiusque aristatis, ab *Andropogoneis* plerisque inflorescentia, spiculis consimilibus si geminis pariter pedicellatis, gluma florente magis evoluta, ab *Agrostideis* pedicello nec rhachilla articulato.

* *Glumæ* 3.

48. THURBERIA. Glumæ vacuæ muticæ, florens inter dentes v. lobos terminales aristata. Styli distincti. Panicula elongata, laxa.—*Amer. bor.*

49. LIMNAS. Glumæ vacuæ muticæ, florens dorso aristata. Styli basi connati. Panicula brevis, angusta, laxa, spiculis secus ramulos solitariis paucis.—*Asia temp. or.*

50. GARNOTIA. Glumæ vacuæ muticæ, v. secunda breviter aristata, florens apice aristata. Styli distincti. Panicula longa, angusta v. effusa, spiculis secus ramulos geminis.—*Ind. or.*, *China*, *Japonia.*

(Vide etiam 131 POLYPOGON.)

** *Glumæ* 4.

51. ARUNDINELLA. Gluma infima brevis, secunda longior v. breviter aristata, tertia brevior vacua v. florem ♂ fovens, fertilis aristata. Panicula varia, spiculis secus ramulos confertis fasciculatisve.—*Utriusque orbis reg. trop.*

52. PHÆNOSPERMA. Gluma infima brevis, 1-nervis, secunda tertiaque vacuæ et terminalis florens parum inæquales 3-nerves. Palea 0. Lodiculæ 3. Caryopsis e glumis semi-exserta Panicula ampla, ramis dissite verticillatis, spiculis sparsis.—*China.*

53. MELINIS. Gluma infima minima, secunda tertiaque subæquales vacuæ, muticæ v. tertia aristata, fertilis mutica. Panicula angusta, densa, spiculis secus ramulos confertis.—*Brasilia*, *Afr. austr.*

54. ? TRISCENIA. Gluma infima parva, secunda tertiaque subæquales vacuæ, florens brevior, omnes muticæ. Spiculæ racemosæ raræ racemique breves, in panicula distantes.—*Cuba.*

55. ARTHROPOGON. Gluma infima angusta subaristata, secunda major obtusa v. emarginata, arista brevi, tertia subsimilis, mutica, florem ♂ sæpe fovens, fertilis mutica. Panicula patens, spiculis secus ramulos paucis sparsis.—*Brasilia.*

56. REYNAUDIA. Glumæ 3 inferiores subsimiles vacuæ, inter lobos seu dentes breviter aristatæ, fertilis acuta mutica. Palea 0, lodiculis 4 (v. palea 2-partita lodiculis 2). Panicula brevis, angusta, spiculis secus ramulos paucis sparsis.—*Cuba*, *S. Domingo.*

57. RHYNCHELYTRUM. Gluma infima a cæteris distans, brevis, mutica, secunda, pilosa, inter dentes longe aristata, tertia similis nisi paleam v. florem ♂ fovens, fertilis multo brevior, glabra, mutica. Panicula laxe thyrsoidea, spiculis sparsis v. subfasciculatis.—*Afr. trop.*

58. THYSANOLÆNA. Glumæ 2 inferiores breves, latæ, muticæ, tertia longior, vacua, acute acuminata, fertilis brevior, obtusa, mutica, ciliata. Panicula maxima, ramulis longis numerosissimis, spiculis minimis fasciculatis.—*Asia trop.*

59. CLEISTACHNE. Glumæ 2 inferiores oblongæ, muticæ, duræ, clausæ, tertia vacua inclusa hyalina, quarta sub flore minima in aristam longam rigidam tortam producta. Panicula anguste thyrsoidea, floribunda.—*Ind. or.*, *Afr. trop.*

(Vide etiam 73 IMPERATAM, et 74 MISCANTHUM.)

Tribus V. Zoysieæ. Spiculæ hermaphroditæ v. nonnullæ imperfectæ v. unisexuales cum spicæ v. racemi rhachi inarticulatæ sigillatim v. fasciculatim articulatæ. Glumæ 2, 3 v. 4, inferiores vacuæ muticæ v. aristatæ, terminalis sola florens, vacuis sæpius minor, tenuis v. hyalina, exaristata.

Excepta: Gluma florens interdum vacuis paullo major in *Anthephoris* nonnullis.
Spiculæ 2-floræ in *Cathestecho.*
Spiculæ in axillis subfasciculatæ nec spicatæ in *Schaffnera.*

Subtribus 1. Anthephoreæ. *Spiculæ in pedicello 3–∞, nonnullæ interdum imperfectæ v. ♂, in fasciculum a spicæ rhachi articulatim deciduum confertæ. Gluma florens nunc vacuis sublongior, nunc brevis hyalina.*

Subtribus ab *Euzoysieis* differt sicut *Cenchreæ* ab *Eupaniceis*.

60. Hilaria. Spiculæ in fasciculo 3, centralis fertilis 1-flora, laterales masculæ 2-floræ. Glumæ 4, exteriores polymorphæ, involucrum simulantes, parum induratæ v. rigide membranaceæ. Spica simplex, fasciculis quaquaversis v. distichis.—*Reg. Mex.-Tex., California.*

61. Ægopogon. Spiculæ in fasciculo 2–6, steriles cum fertilibus sæpe intermixtæ. Glumæ 3, 3-dentatæ v. 3-cuspidatæ, dente medio interdum aristato. Spicularum fasciculi secus rhachin simplicem secundi, demum penduli.—*Amer. trop. occid.*

62. Cathestechum. Spiculæ in fasciculo 3, 2-floræ. Glumæ florentes vacuis longiores, 4-fidæ 3-aristatæ.—*Mexico.*

63. Anthephora. Spiculæ in fasciculo 4, 1 rarius 2 fertiles, cæteræ steriles. Glumæ 3–4, infimæ minimæ, secunda cujusve spiculæ maxima, demum indurata, involucrum simulans, florens tenuior. Spica simplex, fasciculis quaquaversis.—*Amer. trop., Afr. trop. et austr.*

64. Trachys. Spiculæ in fasciculo 4–9, 1 rarius 2–3 fertiles, cæteræ ♂ v. vacuæ. Glumæ 3–4, tertia v. secunda maxima rigidula. Spicæ geminæ, fasciculis unilateralibus, receptaculis pedicellisque spicularum demum induratis.—*Ind. or.*

65. Tragus. Spiculæ in fasciculo 3–5, terminalis sterilis, cæteræ sæpius fertiles. Glumæ 2–3, infima minima v. evanida, secunda major rigidula echinata. Spica simplex, fasciculis quaquaversis lappaceis.—*Utriusque orbis reg. trop. et temp.*

Subtribus 2. Euzoysieæ. *Spiculæ in pedicello solitariæ rarius geminæ, flore hermaphrodito addito rarissime inferiore ♂. Gluma florens brevis hyalina.*

66. Latipes. Spiculæ parvæ, pedicellatæ. Glumæ 3, infima rigida valde concava muricata. Racemus laxiusculus.—*Afr. trop., Asia occid.*

67. Lopholepis. Spiculæ minimæ, pedicellatæ. Glumæ 3, infima major, basi dorso in gibbum ciliato-cristatum producta, apice iterum ciliato-cristata. Racemus elongatus, gracillimus.—*Ind. or.*

68. Neurachne. Spiculæ sessiles. Glumæ 4, secunda major margine ciliata. Spica densa, brevis v. cylindracea.—*Australia.*

69. Perotis. Spiculæ tenues, subsessiles. Glumæ 3, 2 inferiores lineares tenuiter aristatæ. Spica longa, tenuis.—*Asiæ, Afr. et Australia trop.*

70. Leptothrium. Spiculæ breviter pedicellatæ. Glumæ 3, 2 inferiores subcoriaceæ, acutato-subulatæ. Spica rigida.—*Amer. calid.*

71. Zoysia. Spiculæ subsessiles, rhachi appressæ. Glumæ 2, inferior vacua complicato-carinata, mutica. Gramina reptantia, humilia, spica rigida.—*Asia, ins. Mascar. et Australasia, in maritimis.*

72. Schaffnera. Spiculæ in axillis subfasciculatæ. Glumæ 2, inferior vacua, 3–5-aristata, florens tenuis, brevissime 2-loba, inter lobos aristata.—*Mexico.*

(Vide 81 Dimeriam, gluma florente aristata.)

Tribus VI. Andropogoneæ. Spiculæ secus spicæ rhachin v. paniculæ ramulos sæpissime geminæ, v. terminales ternæ, in quoque pari homogamæ v. heterogeneæ. Gluma florens vacuis minor, hyalina, sæpe aristata.

Excepta: Spiculæ ad nodos solitariæ in *Dimeria*, et in speciebus paucis *Arthraxi* et *Ophiuri*.

* *Spiculæ paniculatæ rarius spicatæ cujusve paris homogamæ* (**Sacchareæ**).

† *Paniculæ ramuli inarticulati. Spiculæ cujusve paris inæqualiter pedicellatæ.*

73. Imperata. Panicula longa, dense cylindracea, pilis longis sericea, ramulis erectis. Glumæ omnes exaristatæ.—*Utriusque orbis reg. trop. et subtrop. Eur. austr.*

74. Miscanthus. Panicula ampla, pilis longis sericea v. fere glabra, ramulis patentibus. Gluma florens aristata v. rarius mutica.—*Asia or., Archip. Malay., Afr. austr.*

†† *Paniculæ ramuli v. spicæ rhachis plus minus articulati. Spiculæ in quoque pari altera sessilis altera pedicellata.*

75. SACCHARUM. Panicula ampla subeffusa v. dense spiciformis, pilis longis involuta. Spiculæ minimæ. Glumæ exaristatæ.—*Utriusque orbis reg. trop. et subtrop.*

76. ERIANTHUS. Panicula angusta v. ampla, pilis longis sericeis sæpius involuta, ramulis ultimis spiciformibus. Gluma tertia vacua, florens setaceo-acuminata v. aristata.—*Utriusque orbis reg. trop. et subtrop., in hemisph. bor. temp.*

77. SPODIOPOGON. Panicula laxa, ramulis brevibus, spiculis ad apicem ternis, additis interdum paribus 1–2 inferioribus (more *Chrysopogonis*). Gluma tertia interdum florem ♂ fovens, terminalis fertilis aristata.—*Asia temp., Ind. or.*

78. POLLINIA. Paniculæ rami simplices, spiciformes, subdigitati v. sparsi, sericeo-pilosi v. subglabri. Gluma tertia vacua v. deficiens, terminalis fertilis aristata.—*Asia, Afr. et Australia trop. et subtrop.*

79. POGONATHERUM. Spica unica, simplex. Gluma secunda longe aristata, tertia mutica vacua v. deficiens rarius florem ♂ fovens, terminalis fertilis longe aristata.—*Ind. or., Archip. Malay, China, Japonia.*

** *Spiculæ spicatæ, altera cujusve paris sessilis fertilis, altera ad stipitem nudum v. rarius glumiferum reducta v. deficiens* (**Arthraxeæ**).

80. APOCOPIS. Spicæ solitariæ v. geminæ, densæ. Glumæ 4, infima latissima truncato-denticulata, cæteras involvens, secunda angustior aristata v. mutica, tertia flore ♂ hyalina mutica, terminalis fertilis aristata. Stamina 2.—*Ind. or., China, Archip. Malay.*

81. DIMERIA. Spicæ solitariæ v. fasciculatæ, tenues. Glumæ 4, 2 inferiores angustæ, rigidulæ, muticæ, tertia minor, tenuis, hyalina, vacua, fertilis tenuiter hyalina, aristata. Stamina 2.—*Ind. or., China, Archip. Malay., Australia.*

82. ARTHRAXON. Spicæ sæpius subdigitatæ, tenues. Glumæ 4, infima major sæpius acuta, secunda angustior acuta, tertiaque hyalina vacuæ muticæ, fertilis hyalina aristata. Stamina 3. Foliorum lamina cordato-lanceolata.—*Asia, Africa et Australia trop., Oriens, China, Japonia.*

*** *Spiculæ spicatæ, ad quamque excavationem rhaoheos sæpius geminæ, altera rarius 2 sessiles fertilesque, altera pedicellata sterilis rarius deficiens. Arista 0 præter acumen glumæ vacuæ* (**Rottboellieæ**).

83. ELIONURUS. Spica pilis longis sericeis dense obtecta. Cætera fere *Rottboelliæ.*—*Amer. trop., Africa, Oriens, Australia trop.*

84. ROTTBOELLIA. Spica teres. Spiculæ geminæ, altera sessilis fertilis, altera pedicellata sterilis.—*Utriusque orbis reg. calid., Oriens.*

85. OPHIURUS. Spica teres. Spiculæ omnes sessiles, solitariæ v. in parte inferiore spicæ, rarius in tota spica geminæ.—*Asia, Africa, Australia.*

86. RATZEBURGIA. Spica complanata. Spiculæ fertiles geminæ, inter rhachin et pedicellum spiculæ sterilis sessiles.—*Burma.*

87. MANISURIS. Spica subteres. Spiculæ geminæ, altera sessilis fertilis parva globosa, altera pedicellata sterilis.—*Utriusque orbis reg. calid.*

88. HEMARTHRIA. Spica compressa, imperfecte articulata. Spiculæ geminæ, altera sessilis fertilis acuta, altera pedicellata sterilis, pedicello sæpius rhachi adnato.—*Utriusque orbis reg. calid., Reg. Mediterr.*

89. VOSSIA. Spicæ plures in panicula simplici. Spiculæ geminæ sæpius 2-floræ *Ischæmi*, sed gluma infima acuminata v. in spicula pedicellata aristata, florens hyalina mutica.—*Afr. trop. et austr., Ind. or.*

**** *Spiculæ secus spicarum rhachin v. ramos paniculæ geminæ heterogamæ altera sessilis altera pedicellata v. ad apices ramorum ternæ. Gluma florens spiculæ fertilis sæpissime aristata.* (**Euandropogoneæ**).

† *Spiculæ paribus pluribus spicatæ.*

90. THELEPOGON. Spicæ fasciculatæ, rhachibus excavatis *Vossiæ*. Spiculæ sessiles; glumæ inferiores rigidæ muricatæ, tertia hyalina florem ♂, terminalis florem ☿ fovens; spicula pedicellata ad stipitem glumiformem reducta.—*Ind. or., Afr. trop.*

91. ISCHÆMUM. Spicæ 2–3 confertæ v. rarius solitariæ. Spiculæ sessiles, fertiles 2-floræ

flore inferiore ♂ terminali fertili; pedicellatæ steriles, floribus 1–2 ♂, v. vacuæ.—*Utriusque orbis reg. calid.*

92. Trachypogon. Spica solitaria. Spiculæ 1-floræ, sessiles steriles muticæ; pedicellatæ fertiles longe aristatæ.—*Amer. trop., Afr. austr.*

93. Heteropogon. Spica solitaria. Spiculæ 1-floræ, sessiles fertiles ad unum latus spectantes longe aristatæ; pedicellatæ steriles ad latus alterum spicæ imbricatæ muticæ.—*Asiæ Afr. et Australiæ reg. calid., reg. Mediterr., Amer. bor.*

94. Andropogon. Spicæ solitariæ geminæ v. ∞ confertæ. Spiculæ secundæ v. quaquaversæ, sessiles fertiles aristatæ 1-floræ; pedicellatæ steriles muticæ.—*Utriusque orbis reg. calid., Eur. Asia et Amer. bor. temp.*

†† *Spiculæ ad apices ramorum paniculæ v. spicarum fasciculiformium ternæ, infra ternationem paucæ v. steriles.*

95. Chrysopogon. Spiculæ in ramulis articulatis paniculæ ternæ, centrali sessili fertili, lateralibus pedicellatis sterilibus, additis interdum paribus inferioribus 1–3.—*Utriusque orbis reg. calid., Eur. austr., Amer. bor.*

96. Sorghum. Spiculæ *Chrysopogonis*, sed paniculæ ramuli vix articulati et gluma exterior spiculæ fertilis ovata demum indurata.—*Utriusque orbis reg. calid., in temp. plus minus extensa.*

97. Anthistiria. Spicæ fasciculiformes, in paniculam foliatam dispositæ v. rarius subsolitariæ, singulæ e spiculis 7, rarius 9–15 compositæ, quarum 4 (rarius 6?) seu paria 2 (rarius 3?) ad basin spicæ steriles involucrantes, 3 terminales stipitatæ, centrali fertili, lateralibus sæpius sterilibus, additis interdum paribus intermediis secus rhachin 1–3.—*Utriusque orbis reg. calid.*

98. Apluda. Spicularum ternationes in paniculam foliatam dispositæ, singulæ bracteatæ, spicula una sessili fertili, altera breviter tertiaque longius pedicellata sterilibus.—*Asia trop., China, Nov. Caledonia, ins. maris Pacifici.*

(Vide etiam 59 Cleistachne, *Sorgho* subsimilem sed spiculæ omnes hermaphroditæ, nunquam geminæ.)

Series B. Poaceæ. Pedicellus infra glumas continuus. Rhachilla supra glumas inferiores persistentes sæpe articulata, ultra flores fertiles producta stipitiformis v. glumas vacuas v. flores imperfectos ferens, v. interdum flos fertilis more *Panicacearum* unicus terminalis, sed cum gluma sua a vacuis persistentibus articulatim deciduus.

Excepta: Pedicellus infra spiculam articulatus in *Phalarideis Pseudoryzeis*, in *Fingerhuthia* et *Polypogone* et forte hinc inde in speciminibus perpaucis aliorum generum.

Glumæ infra articulationem ad callum minutum reductæ v. omnino deficientes in *Coleantho*, et *Nardo*.

Tribus VII. Phalarideæ (quoad genera genuina). Spiculæ flore unico terminali fertili, additis interdum 2 inferioribus masculis, rhachilla supra glumas inferiores articulata, ultra florem fertilem non producta. Glumæ 6 (v. 5 cum palea), 2 inferiores vacuæ sub articulatione sæpius persistentes, 2 sequentes intermediæ (tertia et quarta) vacuæ v. ad setam reductæ, v. florem masculum cum palea foventes, 2 superiores (quinta et sexta v. gluma florens et palea) sub flore perfecto inter se similes, nervo centrali instructæ v. carinatæ, palea cæterum 0.

Excepta: Nervus centralis evanescit in gluma sexta (seu palea) et interdum in glumis inferioribus *Phalaridis*.

Tribus quoad genera genuina ab *Oryzeis* non differt nisi glumarum vacuarum sub articulatione præsentia, *Pseudoryzeæ*, charactere normali *Oryzearum*, differunt habitu et inflorescentia.

* *Glumæ 2 vacuæ sub articulatione* (**Genuinæ**).

99. Ehrharta. Panicula effusa v. racemiformis. Glumæ tertia et quarta cæteris majores, vacuæ, sæpe aristatæ. Stamina 6.—*Afr. austr., ins. Masear., Nov. Zel., in Australia inquilina.*

100. Microlæna. Panicula angusta, laxa. Glumæ tertia et quarta cæteris longiores, vacuæ, aristatæ. Stamina 4 v. 2.—*Australia, Nov. Zel.*

101. Tetrarhena. Spica v. panicula spiciformis, subsimplex. Gluma tertia varia, quarta cæteris major, vacua, mutica. Stamina 4.—*Australia.*

102. Phalaris. Panicula spiciformis capitata v. dense thyrsoidea. Glumæ 2 inferiores

cæteris majores, tertia et quarta breves, vacuæ, muticæ, sæpius ad setam reductæ. Stamina 3. —*Reg. Mediter., Amer. extratrop., in aliis reg. inquilina.*

103. ANTHOXANTHUM. Panicula spiciformis, cylindracea. Glumæ 2 inferiores v. saltem secunda cæteris majores, tertia et quarta breves, dorso aristatæ, vacuæ. Stamina 2.—*Eur., Asia extratrop., in aliis reg. inquilina.*

104. HIEROCHLOA. Panicula pyramidalis, effusa v. contracta. Glumæ 2 inferiores vacuæ cæteris vix majores, tertia et quarta parum breviores muticæ v. arista brevi terminali, florem ♂ foventes. Stamina 3 v. in flore fertili 2.—*Reg. extratrop. imprimis mont. v. frigid. hemisph. bor. et austr.*

** *Glumæ sub articulatione* 0 (**Pseudoryzeæ**).

105. CRYPSIS. Spicularum capitulum densum, bracteis 2–3 vaginantibus involucratum, receptaculo lato convexiusculo. Glumæ 4, exaristatæ. Stamina 2.—*Reg. Mediterr.*

106. CORNUCOPIÆ. Spicularum capitulum intra involucrum tubuloso-campanulatum ∞-dentatum inclusum, receptaculo subplano. Glumæ 3, intima florens dorso aristata. Stamina 3. Pedunculus fructifer sub involucro incrassatus, recurvus.—*Oriens.*

107. ALOPECURUS. Spiculæ in panicula cylindracea spiciformi conferti, axi lineari. Glumæ 3 v. 4, florens dorso aristata v. mucronata. Stamina 3.—*Eur., As. temp.*

Tribus VIII. Agrostideæ. Spiculæ 1-floræ, rhachilla supra glumas inferiores articulata, ultra florem nuda v. in stipitem setamve producta. Glumæ sæpissime 3, 2 inferiores vacuæ, sub articulatione persistentes v. sigillatim deciduæ, rarissime deficientes, tertia florem hermaphroditum v. rarissime unisexualem fovens, haud raro aristata, arista terminali v. dorsali sæpius varie torta v. geniculata. Palea 2-nervis, rarius 2-carinata, sæpe tenuis v. hyalina, interdum minima v. rarius deficiens.

Excepta: Spiculæ interdum 2-floræ in speciebus 2 *Sporoboli.*
Glumæ vacuæ desunt in *Coleantho.*
Paleæ nervi in unum coaliti in *Cinna.*

Genera pleraque characteribus incertis male definita, et speciebus intermediis sæpe connexa.

Subtribus 1. Stipeæ. *Spiculæ paniculatæ (in* Aciachne ♀ *solitariæ), rhachilla ultra florem (excepto* Brachyelytro) *non producta. Arista glumæ florentis terminalis rarius deficiens. Caryopsis gluma indurata v. membranacea arcte involuta.*

* *Gluma fructifera circa caryopsin rigens v. indurata.*

108. ARISTIDA. Gluma fructifera angusta, acuminata; arista sæpissime 3-fida, ramis lateralibus divaricatis rarius abbreviatis erectis v. obsoletis. Lodiculæ 2.—*Utriusque orbis reg. calid.*

109. STIPA. Gluma fructifera angusta, acuminata; arista integra sæpius cum gluma articulata, varie torta v. flexuosa, rarius continua. Lodiculæ sæpius 3.—*Utriusque orbis reg. trop. et temp.*

110. ORYZOPSIS. Gluma fructifera obovoidea v. latiuscula, obtusa truncata v. rarius acuminata; arista tenuis, sæpius excentrica v. caducissima. Lodiculæ 2.—*Reg. temp. et subtrop. hemisph. bor. et Amer. austr.*

111. MILIUM. Gluma fructifera ovoidea, cum palea indurata exaristata.—*Europa, Asia temp., Amer. bor.*

112. ACIACHNE. *Spiculæ dioicæ,* ♀ in pedunculo unica erecta. Gluma fructifera in acumen angustum producta (spiculæ ♂ thyrsoideo-paniculatæ?). Gramen nanum, dense cæspitosum. —*Andes Amer. austr.*

** *Gluma fructifera circa caryopsin tenuis v. membranacea.*

113. MUEHLENBERGIA. Glumæ vacuæ minimæ v. florentem subæquantes; fructifera angusta arista capillacea rarius obsoleta. Panicula nunc angusta, densa v. tenuis, nunc effusa ramulis capillaribus. Spiculæ parvæ.—*Amer. bor., And. Amer. austr., Asia or. et med.*

114. BRACHYELYTRUM. Glumæ vacuæ minimæ; fructifera angusta arista longa recta. *Rhachilla ultra florem in setam producta.* Panicula angusta ramulis paucis erectis. Spiculæ longiusculæ.—*Amer. bor.*

115. PERIELLEMA. Omnia *Muehlenbergiæ* nisi glumæ omnes in aristam longam productæ. Panicula densa, spiciformis v. interrupta. Spiculæ minimæ glomeratæ.—*Amer. trop.*

Subtribus 2. Phleoideæ. *Spiculæ in paniculam dense spiciformem cylindraceam v. subglobosam confertæ. Rhachilla ultra florem nuda v. in setam brevem producta. Gluma florens mutica v. in aristas 1–3 rectas producta, fructifera sæpius membranacea, caryopsin laxe includens.*

116. Lycurus. Gluma infima 2–3-aristata, secunda 1-aristata, florens major, longius 1-aristata. Spiculæ steriles fertilibus intermixtæ. Spica longa.—*Amer. trop. et subtrop.*

117. Echinopogon. Glumæ vacuæ acutæ, exaristatæ; florens apice 3-loba, lobo medio longe aristato. Spiculæ steriles paucæ fertilibus intermixtæ. Spica ovoidea v. cylindracea.—*Australia, Nov. Zel.*

118. Diplopogon. Glumæ vacuæ breviter 1-aristatæ; florens 3-aristata, aristis lateralibus brevibus erectis, intermedia longa torta v. refracta. Spica capituliformis.—*Australia austr. occid.*

119. Amphipogon. Glumæ vacuæ acutæ v. breviter aristatæ; florens alte 3-fida, lobis acutis v. aristatis. Spica globosa v. cylindracea.—*Australia.*

120. Heleochloa. Glumæ omnes integræ, exaristatæ, florens vacuis sublongior. Spica ovoidea intra vaginas superiores sessilis, v. cylindracea sæpiusque pedunculata.—*Reg. Mediterr., Eur. med., Asia temp.*

121. Maillea. Glumæ omnes exaristatæ, vacuarum carina late alata, florens vacuis paullo brevior. Spica ovoidea, sessilis.—*Archip. Græc., Sardinia.*

122. Phleum. Glumæ vacuæ mucronatæ v. brevissime aristatæ, exalatæ, florens multo brevior. Spica ovoidea v. cylindracea.—*Eur., Asia temp., Afr. bor., Amer. bor. et austr.*

(Vide etiam 145 Lagurum, 220 Fingerhuthiam.)

Subtribus 3. Sporoboleæ. *Spiculæ parvæ, sæpe minimæ, simpliciter laxeque spicatæ v. varie paniculata, rhachilla ultra florem non producta. Glumæ exaristatæ v. florens rarius in aristam brevem rectam producta. Caryopsis intra glumas laxe inclusa, demum sæpe glumis apertis denudata.*

123. Mibora. Glumæ muticæ, vacuæ florentem subsuperantes. Gramen nanum, spica tenui simplici.—*Europa.*

124. Coleanthus. Glumæ vacuæ 0, florens breviter aristata. Gramen nanum, panicula subsimplici, spiculis fasciculatis.—*Eur. med. et bor., Amer. bor. occid.*

125. Phippsia. Glumæ muticæ, vacuæ minutæ. Gramen nanum, panicula tenui spiciformi, pedicellis fasciculatis.—*Terr. Arct.*

126. Sporobolus. Glumæ muticæ, florens vacuis æqualis v. brevior. Caryopsis sæpe denudata, pericarpio interdum laxo. Panicula sæpius floribunda, nunc cylindracea spiciformis, nunc laxe effusa.—*Utriusque orbis reg. calid. et temp.*

(Confer etiam 127 Epicampem, 130 Chæturum.)

Subtribus 4. Euagrosteæ. *Spiculæ sæpius parvæ, varie paniculatæ. Gluma florens sæpius arista dorsali plus minus torta, rarius ad mucronem subterminalem reducta instructa, v. rarius mutica. Caryopsis gluma inclusa.*

* *Rhachilla ultra florem non producta.*

127. Epicampes. Gluma florens vacuis vix brevior v. sublongior, arista tenui v. minuta subterminali. Panicula longa dense floribunda.—*California, Mexico, And. Amer. austr.*

128. Bauchea. 'Ab Epicampi differt glumis vacuis valde inæqualibus.'—*Mexico.*

129. Agrostis. Gluma florens hyalina, vacuis multo brevior, arista sæpius infra medium dorsali.—*Tota fere orbis terrarum.*

130. Chæturus. Gluma infima aristata, secunda submucronata, florens brevior hyalina mutica. Spiculæ in ramulis paniculæ 2–3-natim fasciculatæ.—*Hispania.*

131. Polypogon. Glumæ vacuæ aristatæ, florens minor, sæpe hyalina, in emarginatura v. dorso aristata. Panicula densa spiciformis v. major laxiorque irregularis. Pedicellus sub spicula sæpissime articulatus.—*Utriusque orbis reg. temp. et subtrop., inter tropicos rarior.*

132. ? Arctagrostis. Gluma florens vacuis sublongior, mutica. Panicula angusta, parum ramosa. Spiculæ quam in *Agroste* majores.—*Terr. Arct.*

133. Calamagrostis. Rhachilla sub gluma florente annulo pilorum glumas superante instructa. Cætera *Agrostis*. Gramina elata, panicula sæpius angusta floribunda.—*Eur., Asia med. et bor., Afr. austr.*

134. Cinna. Palea carinata, 1-nervis. Stamen 1. Gramina elata panicula longa floribunda —*Eur. bor., Amer. bor.*

** *Rhachilla ultra florem in setam glabram v. pilosam sæpissime producta.*

135. Gastridium. Glumæ vacuæ basi concavæ subvesiculosæ, nitidulæ, acutæ v. breviter aristatæ; florens multo brevior, arista sub apice dorsali interdum deficiente.—*Reg. Mediterr., Amer. austr. extratrop.*

136. Chætotropis. Spiculæ parvæ et gluma florens brevis *Agrostis*, sed rhachillæ continuatio setacea. Panicula densissima ramulis breviter spiciformibus.—*Chile.*

137. Triplachne. Gluma florens hyalina, vacuis multo brevior, lobis 2 lateralibus in setam productis, arista dorsali.—*Reg. Mediterr.*

138. Apera. Gluma secunda cæteris major, florens hyalina breviter 2-fida, arista sub apice dorsali tenui. Panicula elegans floribunda, ramulis filiformibus, spiculis parvis.—*Eur., Asia occid.*

139. Cinnagrostis. Spiculæ unisexuales, cætera *Deyeuxiæ.*—*Rep. Argent.*

140. Deyeuxia. Rhachilla infra et ultra florem pilosa v. rarius glabra. Glumæ vacuæ parum inæquales, muticæ; florens paullo brevior v. sublongior, arista dorsali. Panicula angusta stricta v. laxe floribunda, spiculis quam in *Agrosti* sæpius majoribus.—*Utriusque orbis reg. temp. et mont.*

141. Ammophila. Rhachilla infra florem pilosa, ultra florem tuberculiformis v. setiformis glabra. Glumæ paleaceæ exaristatæ. Panicula dense spiciformis v. laxior, spiculis quam in affinibus majoribus.—*Utriusque orbis hemisph. bor.*

142. Dichelachne. Gluma florens vacuis vix brevior, apice sæpius breviter 2-fida, arista sub apice tenui dorsali. Panicula elongata, aristis numerosis crinita.—*Australia, Nov. Zel.*

143. Trisetaria. Glumæ florentis lobi 2 laterales tenuiter aristatæ, arista dorsali longa flexuosa. Panicula angusta, aristis numerosis crinita.—*Ægypt., Syria.*

144. Pentapogon. Gluma florens apice 4-fida lobis tenuiter aristatis, arista dorsali longa basi torta. Panicula angusta, ramulis brevibus fasciculatis.—*Australia.*

145. Lagurus. Glumæ vacuæ angustæ, longe plumoso-ciliatæ, florentis aristæ 2 laterales tenues, dorsalis longa rigida. Panicula dense spiciformis ovoidea v. oblongo-cylindracea, mollissima.—*Reg. Mediterr., Eur. occid.*

Tribus IX. Aveneæ. Spiculæ 2–∞-floræ, paniculatæ v. rarius spicatæ, rhachilla supra glumas inferiores articulata, ultra flores (*Aireis* exceptis) plus minus producta, floribus hermaphroditis v. uno unisexuali. Glumæ 4–∞, 2 inferiores vacuæ sub articulatione persistentes v. sigillatim deciduæ, 2–∞ superiores florentes, muticæ v. sæpius arista dorsali v. terminali geniculata v. torta rarius erecta instructæ. Palea 2-nervis v. 2-carinata.

Excepta: Spiculæ 1-floræ in *Anisopogone.*

Subtribus 1. Aireæ. *Spiculæ 2-floræ, rhachilla ultra flores non producta. Glumæ florentes muticæ v. rarius tenuiter v. breviter aristatæ.*

Subtribus a Benthamio in Journ. Linn. Soc. xix. 92, pro tribu distincta sub nomine *Isachnearum* proposita, sed suadentibus Hackelio aliisque *Isachnem* ipsam ad *Paniceas* revocamus, et genera cætera cum *Aira Aveneis* jungimus, inter quas distinguuntur imprimis rhachilla ultra flores nunquam producta.

146. Eriachne. Glumæ membranaceæ, inferiores vacuæ ∞-nerves acutæ, florentes longe ciliatæ muticæ v. breviter aristatæ. Panicula angusta, densa, v. laxe effusa.—*Asia trop., Australia.*

147. Prionachne. Glumæ inferiores dorso cartilagineæ pectinato-dentatæ florentibus muticis sublongiores. Spiculæ secus rhachin spicæ subsimplicis 2–4-natim fasciculatæ.—*Afr. austr.*

148. Zenkeria. Glumæ membranaceæ, florentes obtusæ v. mucronato-subaristatæ. Rhachilla et palearum carinæ ciliatæ. Panicula floribunda, spiculis parvis.—*Ind. or.*

149. Micraira. Glumæ membranaceæ, muticæ, florentes ∞-nerves. Palea ∞-nervis, nervis 2 validioribus. Panicula parva, effusa, spiculis minimis.—*Australia.*

150. Cœlachne. Glumæ membranaceæ, muticæ, tertia major flore ☿, quarta altius affixa flore ♀. Panicula laxa, ramis paucis.—*Ind. or., China, Australia.*

151. Airopsis. Glumæ semiglobosæ, muticæ, nitidulæ, vacuæ florentes includentes. Panicula densa, subcylindracea, spiculis parvis globosis.—*Eur. occid., Afr. bor. occid.*

152. Aira. Glumæ inferiores membranaceæ, muticæ, florentes hyalina, arista dorsali tenui

sæpe torta rarius deficiente. Paniculæ ramuli capillares, effusi v. rarius conferti stricti.—*Eur., Oriens, Afr. bor. in aliis regionibus inquilina.*

Subtribus 2. Euaveneæ. *Spiculæ 2–∞-floræ, rhachilla ultra flores plus minus producta. Glumæ florentes sæpissime arista dorsali v. terminali geniculata v. torta instructæ.*

* *Arista glumarum florentium dorsalis v. rarius deficiens. Flores hermaphroditi v. supremus masculus.*

153. Corynephorus. Spiculæ parvæ, floribus 2 hermaphroditis, rhachilla in setam penicillatam producta. Glumarum florentium arista *medio articulata, apice clavata.* Habitus *Airæ.*—*Eur., Oriens, Afr. bor.*

154. Deschampsia. Spiculæ floribus 2 hermaphroditis, rhachilla in setam v. stipitem nudum penicillatum v. glumiferum producta. Gramina perennia, panicula varia.—*Orbis utriusque reg. temp. et frigid. et mont. trop.*

155. Achneria. Spiculæ floribus 2 hermaphroditis, rhachilla sæpius breviter producta. Glumæ non v. vix aristatæ. Gramina perennia, panicula varia.—*Afr. austr.*

156. Monachyron. Spiculæ 2-floræ, flore inferiore hermaphrodito superiore masculo. Gluma vacua secunda ab infima distans, 2-fida, in sinu aristata, florentes muticæ, apice 2-fidæ.—*Ins. Cap. Viridis.*

157. Holcus. Spiculæ 2-floræ, flore inferiore hermaphrodito superiore masculo v. sterili, rhachilla in stipitem parvum producta. Gluma sub flore fertili mutica, sub flore sterili aristata. Gramina mollia, panicula sæpius densa.—*Eur., Afr., in aliis reg. inquilina.*

158. Trisetum. Spiculæ floribus 2 rarius 3–6 hermaphroditis, rhachilla producta. Glumæ tenuiter membranaceæ v. scariosæ, carinatæ, apice præter aristam dorsalem 2-dentatæ v. 2-aristatæ. Caryopsis intra glumam libera, exsulca. Panicula dense spiciformis v. laxe effusa.—*Orbis utriusque reg. temp. et mont.*

159. Ventenata. Omnia *Triseti* nisi spiculæ longiores, glumis rigide ∞-nervibus, et arista dorsalis in gluma florente inferiore deest.—*Eur. centr., reg. Mediterr.*

160. Avena. Spiculæ paniculatæ, 2–∞-floræ, flore supremo masculo v. sterili. Glumæ florentes dorso rotundatæ, rigidulo 5–7-nerves, præter aristam dorsalem muticæ. Caryopsis apice pubescens, sulcata, siccitate paleæ adhærens. Gramina annua, spiculis longis pendulis, v. perennia spiculis erectis fere *Triseti.*—*Orbis veteris reg. temp., in America paucæ.*

161. Gaudinia. Spiculæ *Avenæ*, sed ad excavationes rhacheos spicæ simplicis sessiles.—*Reg. Mediterr., ins. Azor.*

162. Amphibromus. Spiculæ paniculatæ, floribus 5–10 hermaphroditis v. summis imperfectis. Glumæ florentes dorso rotundatæ, præter aristam dorsalem vix aristatæ. Caryopsis glabra, sulcata, a palea libera.—*Australia extratrop.*

** *Arista glumarum florentium dorsalis. Flores 2, inferior ♂, superior ☿.*

163. Arrhenatherum. Gramen elatiusculum, spiculis laxe paniculatis.—*Eur., Afr. bor., Asia occid.*

*** *Arista glumarum florentium inter lobos sæpe aristatos terminalis.*

† *Spiculæ 2-floræ, flore inferiore ♂, superiore ☿ v. ♀.*

164. Tristachya. Spiculæ ad apices ramulorum paniculæ ternatim sessiles v. breviter æqualiterque pedicellatæ.—*Afr. trop. et austr., Asia occid., Amer. trop.*

165. Trichopteryx. Spiculæ secus ramulos paniculæ sparsæ.—*Afr. trop. et austr., Brasilia.*

†† *Spiculæ 1–∞-floræ, floribus hermaphroditis v. summo imperfecto.*

166. Anisopogon. Spiculæ longæ, 1-floræ, laxe paniculatæ.—*Australia.*

167. Danthonia. Spiculæ 3–∞-floræ, varie paniculatæ.—*Utriusque orbis reg. calid. et temp.*

(Vide etiam 263 Bromum, arista interdum more *Avenearum* torta.)

Tribus X. Chlorideæ. Spiculæ 1–∞-floræ, secus rhachin continuam spicarum 1–∞ unilateralium 2-seriatim sessiles, rhachilla supra glumas inferiores persistentes articulata, floribus saltem inferiore hermaphroditis. Styli breves, distincti, stigmatibus plumosis.

Spicæ brevissimæ in *Melanocenchro* et in speciebus nonnullis *Boutelouæ*, fasciculos *Anthephorearum* simulant.

* *Flos fertilis in spicula* 1, *rarissime* 2.

168. Microchloa. Spica terminalis, tenuis. Spiculæ parvæ, exaristatæ, rhachilla ultra florem non producta. Gluma florens vacuis multo brevior.—*Utriusque orbis reg. calid., Afr. trop. et austr.*

169. Schœnefeldia. Spicæ ad apicem pedunculi 1–4. Spiculæ longe aristatæ, rhachilla ultra florem non producta. Gluma florens vacuis multo brevior.—*Afr. trop.*

170. Cynodon. Spicæ ad apicem pedunculi 2–6, digitatæ. Spiculæ parvæ, exaristatæ, rhachilla ultra florem non v. in stipitem brevem producta. Gluma florens vacuis brevior v. longior.—*Utriusque orbis reg. calid., in temp. extensa.*

171. Harpechloa. Spica terminalis, densa. Glumæ exaristatæ, 1–3 supra florem fertilem flores ♂ foventes, v. summa vacua.—*Afr. austr.*

172. Ctenium. Spicæ ad apicem pedunculi solitariæ, rarius 2–3. Gluma secunda vacua cæteris major, medio dorso arista horizontali aculeiformi v. tuberculo instructa, tertia quartaque vacuæ v. paleam foventes, quinta florens tenuiter aristata, 1–2 superiores vacuæ.—*Amer. bor. et austr., Africa, ins. Mascar.*

173. Enteropogon. Spica terminalis, elongata. Glumæ 2 inferiores vacuæ breves, tenues, florens longior, 3-nervis, apice 2-fida, arista tenui subdorsali, 1–2 superiores vacuæ v. una florem ♂ fovens.—*Ind. or., Afr. trop., ins. Mascar.*

174. Chloris. Spicæ ad apicem pedunculi digitatæ verticillatæ v. confertæ, rarius ad 1–2 reductæ. Glumæ 2 inferiores vacuæ, angustæ, florens 1–3-nervis, sæpius aristata, superiores vacuæ, sæpius plures, ad apicem rhacheos conniventes, breves latæ v. angustæ, aristatæ v. ad aristam reductæ v. rarius muticæ.—*Utriusque orbis reg. calid.*

175. Cryptochloris. Spica densa, intra vaginam folii floralis sessilis. Glumæ 2 inferiores longæ, lineares, florentes 2 latæ superioresque vacuæ 3–4 aristatæ. Gramen annuum, nanum.—*Amer. austr. extratrop.?*

176. Trichloris. Spicæ secus pedunculum ∞, erectæ, arcte approximatæ, paniculam densam oblongam aristis longis numerosis molliter echinatam formantes. Glumæ 2 inferiores vacuæ angustæ, florens 3-aristata, superiores 1–3 vacuæ varie diminutæ v. ad aristas 3 reductæ.—*Reg. Mex.-Tex., Amer. austr. extratrop.*

177. Gymnopogon. Spicæ secus pedunculum ∞, sparsæ, dissitæ v. inferiores subverticillatæ. Spiculæ secus rhachin dissitæ. Glumæ 2 inferiores vacuæ angustæ, florens paullo latior aristata, superior vacua aristiformis v. a rhachillæ continuatione indistincta.—*Zeylania, Amer. bor. et austr.*

178. ? Monochæte. Spicæ ad apicem pedunculi ∞, erectæ, approximatæ. Spiculæ secus rhachin tenuem approximatæ; rhachilla ultra florem non producta. Glumæ 2 inferiores vacuæ angustæ setaceo-acuminatæ, florens paullo latior aristata.—*Brasilia.*

179. Schedonnardus. Spicæ secus pedunculum ∞, dissitæ. Spiculæ secus rhachin tenuem dissitæ. Glumæ 2 inferiores vacuæ angustæ, florens longior mutica; rhachilla ultra florem non producta.—*Amer. bor.*

180. Craspedorhachis. Spicæ secus pedunculum ∞, sparsæ. Spiculæ secus rhachin flexuosam marginatam dissitæ. Glumæ 2 inferiores vacuæ carinatæ, florens brevissima hyalina mutica; rhachilla ultra florem non producta.—*Afr. trop. or.*

181. Bouteloua. Spicæ ∞ secus pedunculum dissitæ rarius terminalis sola. Spiculæ confertæ. Glumæ 2 inferiores vacuæ angustæ, florens latior 3-dentata 1–3-mucronata v. aristata, summæ 1–3 varie aristatæ v. aristiformes.—*Amer. bor. et austr.*

182. Melanocenchris. Spicæ ∞, breves, dissitæ, fasciculiformes, secundæ, articulatim deciduæ. Glumæ 2 inferiores vacuæ, lineares, plumoso-ciliatæ, florens 3-aristata, summæ vacuæ, gradatim minores.—*Ind. or., Arabia, Afr. trop.*

(Vide etiam 192 Leptochloam; et quoad habitum 61 Ægopogonem.)

** *Flores fertiles in spicula* 2–∞.

† *Spicæ ad apicem pedunculi solitariæ v.* 2–3-*næ erectæ.* (Genera *Festucæ* affinia.)

183. Tripogon. Spica longa, tenuis. Glumæ florentes 3-aristatæ, aristis lateralibus rarius ad mucrones parvas reductis.—*Ind. or., Afr. trop.*

184. Lepidopyronia. Spica laxiuscula. Glumæ florentes integræ, dense pilosæ, dorso sub apice aristatæ.—*Abyssinia.*

185. Tetrapogon. Spicæ 1–3, erectæ, pilis longis sericeæ, spiculis confertis. Glumæ florentes apice membranaceæ, truncatæ v. emarginato-bifidæ, arista centrali.—*Afr. bor. et trop., Asia occid.*

186. Astrebla. Spicæ 1–3, erectæ, pilosæ, crassiusculæ. Glumæ florentes apice 3-fidæ, lobis lateralibus rigidis, intermedio aristato.—*Australia.*

187. Wangenheimia. Spica densa. Glumæ inferiores vacuæ, angustæ, subæquales, spiculam æquantes, florentes 3-nerves, acuminatæ, exaristatæ.—*Hispan. austr., Africa bor. occid.*

188. Ctenopsis. Spica tenuis. Gluma infima vacua minima v. 0, secunda longa setiformis, florentes 3-nerves, acutissimæ, exaristatæ.—*Africa bor.*

†† *Spicæ ∞, secus pedunculum dissitæ v. ad apicem fasciculatæ.*

189. Tetrachne. Spicæ secus pedunculum dissitæ. Glumæ inferiores vacuæ 4, gradatim auctæ, florentes rigidulæ, apice 3–5-nerves, exaristatæ.—*Africa austr.*

190. Dinebra. Spicæ secus pedunculum dissitæ. Glumæ inferiores vacuæ 2, subaristatæ, florentes multo breviores, tenues, obtusiusculæ.—*Afr. bor. et trop., Ind. or.*

191. Eleusine. Spicæ secus pedunculum sparsæ subverticillatæ v. sæpius ad apicem digitatæ. Spiculæ confertæ, complanatæ. Glumæ exaristatæ, inferiores vacuæ 2, florentibus breviores.—*Utriusque orbis imprimis veteris reg. trop. et subtrop.*

192. Leptochloa. Spicæ tenues, secus pedunculum dissitæ, sparsæ. Spiculæ secus rhachin alternæ, parvæ, 1–∞-floræ, complanatæ. Glumæ exaristatæ, inferiores vacuæ florentibus 2 sæpius breviores.—*Utriusque orbis reg. calid.*

(Vide etiam *Uniolam racemifloram*, Trin.)

*** *Spicæ stricte unisexuales, sæpius dioicæ, utriusque sexus valde heteromorphæ, ♀ 1-floræ.* (Genera forte ad *Seslerieas* amandanda.)

193. Buchloë. Spiculæ ♀ in capitulo cenchroideo paucæ, glumis majoribus induratis basi connatis involucrum simulantibus. Gramen reptans.—*Reg. Mex.-Tex.*

194. ? Jouvea. Spiculæ ♀ in spica cylindracea rhachi immersæ semiadnatæque. Gramen junceum.—*Mexico.*

195. Opizia. Spiculæ ♀ secus rhachin spicæ gracilis alternæ. Glumæ 2–3-lobæ v. 3-aristatæ. Gramen reptans.—*Mexico.*

Tribus XI. Festuceæ. Spiculæ 2–∞-floræ, rarissime 1-floræ, in panicula nunc laxa effusa nunc dense spiciformi plus minus pedicellatæ, rarius in rhachi non excavata subsessiles, rhachilla cum pedicello continua, supra glumas vacuas inferiores sæpius articulata, ultra flores sæpissime producta v. flore imperfecto terminata. Glumæ muticæ v. aristis 1–∞ rectis terminatæ, aristis cum lobis membranaceis interdum alternis nec dorsalibus; 2 inferiores sub articulatione vacuæ, persistentes v. sigillatim deciduæ. Palea 2-nervis, sæpissime 2-carinata. Gramina herbacea v. rarius indurata, foliorum lamina cum vagina sæpissime continua. Spiculæ hermaphroditæ, v. si unisexuales utriusque sexus similes (excepta *Scleropogone*).

Excepta: Spiculæ 1-floræ in *Eremochloa*, in spiculis terminalibus *Lamarckiæ*, in *Lophathero*, *Podophoro* et hinc inde in speciebus perpaucis aliorum generum.

Arista glumæ florentis interdum subdorsalis leviterque torta in speciebus paucis *Bromi*.

Subtribus 1. Pappophoreæ. *Spiculæ sæpius paucifloræ. Glumæ ∞-nerves, florentes 3–∞-aristatæ, additis interdum lobis alternis membranaceis, v. absque aristis 4-lobæ.*

196. Pommereulla. Spiculæ 2–5-floræ, in spica brevi intra vaginam semi-inclusa subsessiles. Glumæ exaristatæ, 2 inferiores vacuæ integræ, 2 sequentes vacuæ 4-fidæ florentibus appressæ, florentes involucrantibus similes.—*Ind. or.*

197. Pappophorum. Spiculæ 1–2, rarius 3-floræ. Panicula dense spiciformis, brevis v. elongata, rarius ramosa. Glumæ florentes 9–23-aristatæ.—*Utriusque orbis reg. calid.*

198. Cottea. Spiculæ 2–6-floræ. Panicula laxa. Glumæ florentes irregulariter 9–11-lobæ, lobis aristatis v. hyalinis.—*Amer. calid.*

199. Boissiera. Spiculæ 2–3-floræ. Panicula brevis, densa, bromoidea. Glumæ florentes apice hyalinæ, lobatæ, nervis 5–9 validis pone lobos aristatis. *Stylus brevissimus, membranaceo-dilatatus, sub-2-fidus.* Gramen humile.—*Oriens.*

200. Schmidtia. Spiculæ 4–6-floræ. Panicula angusta, laxiuscula. Glumæ florentes

9-lobæ, lobis 4 interioribus hyalinis, 5 exterioribus alternis aristiformibus. Styli capillares.—*Afr. trop. et austr.*

(Vide etiam 119 AMPHIPOGONEM, 208 CALAMOCHLOAM, 215 ECHINARIAM.)

Subtribus 2. Triodieæ. *Spiculæ pluriflorae rarius 1–2-floræ, rhachilla glabra v. breviter pilosa. Glumæ 1–3-nerves v. rarius ∞-nerves, 3-dentatæ 3-fidæ v. 3-aristatæ.*

201. TRIODIA. Glumæ florentes 3-dentatæ, dente medio mucroniformi v. breviter aristato. Panicula angusta paucispiculata, v. ampla floribunda, v. laxe effusa.—*Utriusque orbis reg. temp. et subtrop.; in Amer. trop. rarius.*

202. DIPLACHNE. Glumæ florentes 3-dentatæ, dente medio mucroniformi *Triodiæ*. Paniculæ rami longi, tenues, spiciformes, fere *Leptochloæ*.—*Utriusque orbis reg. calid.*

203. TRIPLASIS. Glumæ florentes profunde 3-fidæ, lobis lateralibus angustis medio aristiformi. Panicula tenuis, angusta, parum ramosa.—*Amer. bor.*

204. SCLEROPOGON. *Spiculæ unisexuales.* Paniculæ strictæ, parum ramosæ, ♂ et ♀ aspectu diversissimæ, glumis florentibus ♂ minute 3-dentatis ♀ longissime 3-aristatis.—*Reg. Mex.-Tex., Chile.*

205. EREMOCHLOA. *Spiculæ 1-floræ.* Panicula brevis, densa, e vagina semi-exserta. Glumæ 2 infimæ vacuæ integræ, 2 sequentes vacuæ 3-fidæ, florentes 3-aristatæ appressæ, summa vacua ad aristas 3 reducta.—*Nov. Mex., California.*

206. TRIRAPHIS. Glumæ florentes 3-lobæ, 3-aristatæ. Panicula angusta densissima mollisque v. laxa elongataque.—*Australia, Afr. austr.*

(Species paucæ *Glyceriæ* generumque affinium glumis sub-3-dentatis *Triodieis* quodammodo accedunt.)

Subtribus 3. Arundineæ. *Gramina sæpius elata panicula floribunda. Spiculæ 2–∞-floræ; rhachilla v. glumæ florentes sæpius longe pilosæ. Glumæ florentes 3-dentatæ v. 1–3-aristatæ.*

207. ? GOUINIA. Spiculæ polygamæ secus paniculæ radios alternos remotæ. Glumæ florentes 3-dentatæ, dente medio aristato.—*Mexico, Florida.*

208. ? CALAMOCHLOA. Spiculæ 2-floræ, breviter spicatæ, in panicula ovata aggregatæ. Glumæ 5-dentatæ, dentibus 3 aristatis 2 muticis.—*Mexico.*

209. GYNERIUM. Spiculæ dioicæ, ample paniculatæ, argenteo-pilosæ. Glumæ florentes 3-nerves, 1-aristatæ.—*Amer. trop. et subtrop.*

210. AMPELODESMA. Spiculæ ample paniculatæ. Glumæ florentes subcoriaceæ, 5-nerves, 2-dentatæ; inter dentes mucronatæ.—*Reg. Mediterr.*

211. ARUNDO. Spiculæ ample paniculatæ. Glumæ florentes membranaceæ, 3-nerves, 2-dentatæ, inter dentes mucronatæ.—*Reg. Mediterr., Ind. or., Archip. Malay., Ins. Masc., Amer. calid.*

212. PHRAGMITES. Flos infimus spiculæ ♂ v. sterilis. Cætera fere *Arundinis*.—*Utriusque orbis reg. temp. et subtrop.*

Subtribus 4. Sesleriæ. *Spiculæ capitatæ subspicatæ v. in panicula spiciformi confertæ, inferiores cujusve inflorescentiæ haud raro imperfectæ ananthæ v. ad glumas paucas involucrantes v. ad unicam reductæ. Glumæ florentes 3–5- rarius 7-nerves. Styli v. stigmata (excepto* Cynosuro) *elongata, breviter v. laxe papilloso-pilosa. Caryopsis sæpissime a palea libera.*

Spiculæ insigniter dimorphæ in *Lamarckia* et *Cynosuro*.

213. MONANTHOCHLOE. Spiculæ unisexuales, 2–3-floræ, in fasciculo foliorum geminæ, sessiles, suboccultæ. Glumæ vacuæ foliiformes (v. folia floralia conferta), florentes membranaceæ, hyalinæ. Gramen humile, reptans v. stoloniferum.—*Texas.*

(Confer etiam *Chlorideas* unisexuales n. 193 ad 195.)

214. MUNROA. Spiculæ sub-3-floræ, in fasciculis foliorum paucæ subsessiles. Glumæ florentes 3-nerves, mucronatæ, superiores 1–3 vacuæ minores v. aristiformes. Gramina humilia, repentia v. stolonifera, dichotome v. fasciculatim ramosa.—*Reg. Mex.-Tex., Amer. austr. extratrop.*

215. ECHINARIA. Spiculæ 2–3-floræ, globoso-capitatæ. Glumæ vacuæ mucronatæ v. breviter aristatæ, florentes 5-fidæ, aristis rigidis demum patentibus pungentibus. Gramen annuum, humile.—*Reg. Mediterr.*

216. AMMOCHLOA. Spiculæ ∞-floræ, globoso-capitatæ. Glumæ vacuæ latæ, 1-nerves, sæpius alatæ, florentes 3-nerves, integræ. Gramina annua, humilia.—*Oriens, Afr. bor.*

217. UROCHLÆNA. Spiculæ pauciflorae, dense fasciculatæ subcapitatæ. Glumæ concavæ, 5–7-nerves, 1-aristatæ. Gramen annuum, humile; spicularum capitulum unilaterale, sessile, cum folio florali a geniculo superiore articulatim secedens.—*Afr. austr.*

218. SESLERIA. Spiculæ 2–6-floræ, in panicula spiciformi globosa oblonga cylindracea v. rarius interrupta confertæ. Glumæ florentes 3–5-nerves, dentatæ mucronatæ v. breviter aristatæ. Gramina perennia.—*Eur., Asia occid.*

219. ELYTROPHORUS. Spiculæ ∞-floræ, minimæ, in fasciculis compositis subglobosis numerosæ, spicam interruptam formantes. Glumæ sub-3-nerves, mucronato-acuminatæ v. subaristatæ. Paleæ carina utraque v. 1 late alata. Gramen annuum.—*Orb. vet. reg. trop.*

220. ? FINGERHUTHIA. Spiculæ 1–2-floræ, in spica cylindracea confertæ, cum pedicello brevi more *Panicacearum* articulatæ. Gluma summa more *Poacearum* vacua v. florem ♂ fovens.—*Afr. austr., Affghan.*

221. LAMARCKIA. Spicula in panicula densa unilaterali dimorphæ, terminalis cujusve ramuli 1-flora, gluma florente terminalique vacua aristatis; inferiores 1–3 elongatæ, ananthæ glumis numerosis muticis distiche imbricatis.—*Reg. Mediterr. ab ins. Canar. usque ad Affghan., alibi inquilina.*

222. CYNOSURUS. Spiculæ in panicula densa spiciformi v. capituliformi dimorphæ, terminalis cujusve ramuli fertilis 2–3-flora, glumis florentibus terminalibusque vacuis mucronatis v. aristatis; inferiores 1–2 ananthæ, glumis numerosis pectinatim distichis. Styli breves.—*Eur., Asia occid., Afr. bor., ins. Canar., alibi inquilina.*

Subtribus 5. Eragrosteæ. *Spiculæ varie paniculatæ, inflorescentia basi ebracteata. Glumæ florentes 3-nerves, rarius 1-nerves. Styli breves nunc brevissimi, stigmatibus plumosis. Caryopsis libera v. rarius paleæ adhærens.*

Excepta: Glumæ florentes sub-5-nerves in speciebus paucis *Kœleriæ*. Subtribus cæterum charactere nimis artificiali ab *Eufestuceis* distincta.

223. KŒLERIA. Panicula spiciformis, cylindracea v. subinterrupta. Glumæ florentes plus minus hyalino-scariosæ, muticæ mucronatæ v. rarius breviter aristatæ.—*Eur., Asia temp., Afr. bor. et austr., Amer. extratrop., ins. Sandw.*

224. AVELLINIA. Panicula angusta. Gluma extima setiformis, secunda vacua, cæteris multo major, membranacea, florentes angustæ convolutæ, breviter aristatæ. Gramen annuum, humile.—*Reg. Mediterr. occid.*

225. EATONIA. Panicula densa v. laxiuscula. Spiculæ parvæ, 2-floræ. Gluma extima angusta, secunda vacua cæteris multo latior, membranacea, florentes angustiores, obtusæ, muticæ. Gramina elatiuscula.—*Amer. bor.*

226. DISSANTHELIUM. Panicula angusta. Spiculæ 2–4-floræ. Glumæ 2 vacuæ, angustæ, florentes obtusas muticas æquantes v. superantes. Gramina humilia v. cæspitosa.—*Amer. austr. andina, Mex., Californ.*

227. MOLINIA. Panicula elongata, angusta. Spiculæ parvæ, 2–4-floræ. Glumæ muticæ, vacuæ florentibus paullo minores. Gramen perenne, elatiusculum.—*Eur.*

228. SPHENOPUS. Panicula gracilis, ramulis ultimis subcymosis, pedicellis anguste clavatis. Spiculæ 2–4-floræ, minimæ, nitidulæ. Gluma infima minima, secunda lata, florentes multo longiores. Gramen annuum tenellum.—*Reg. Mediterr.*

229. CATABROSA. Panicula effusa, ramis capillaribus subverticillatis. Spiculæ parvæ, 2–4-floræ. Glumæ muticæ, vacuæ florentibus prominenter 3-nervibus multo breviores. Gramen perenne, subaquaticum.—*Eur., Asia temp., Amer. bor.*

230. ERAGROSTIS. Panicula varia. Spiculæ sæpius multifloræ, plus minus compressæ v. rarius cylindraceæ. Glumæ vacuæ florentibus distiche imbricatis breviores. Rhachilla sæpius continua paleis persistentibus, rarius more *Poæ* articulata.—*Orbis utriusque reg. calid. et temp.*

231. ? IPNUM. Panicula seu spica composita, ramulis patentibus. Spiculæ cylindraceæ, ∞-floræ, rhachilla fragili.—*Amer. austr. extratrop.*

232. CUTANDIA. Panicula secunda, ramulis brevissimis apice incrassatis. Spiculæ 3–12-floræ, festucoideæ, glumis rigidulis angustis prominenter 3-nervibus.—*Eur. et tota reg. Mediterr.*

233. OREOCHLOA. Inflorescentia spiciformis, spiculis distichis brevissime pedicellatis paucifloris. Glumæ muticæ, membranaceæ, latiusculæ.—*Pyren. et Alp. Eur.*

234. Ectrosia. Panicula angusta. Spiculæ pauciforæ, floribus superioribus 2–∞ ut in *Melicéis* ♂ v. rudimentariis. Glumæ saltem superiores aristatæ, aristis in panicula semper numerosis.—*Australia.*

Subtribus 6. Meliceæ. *Inflorescentia varia. Glumæ florentes 3–5–∞-nerves, summæ 2–∞ vacuæ semet plus minus involventes. Folia angusta venulis transversis* 0.

235. Heterachne. Panicula spiciformis, densa v. interrupta. Spiculæ planæ, paucifloræ. Glumæ florentes 1–2, latæ, complicatæ, superiores vacuæ 2–∞. Paleæ carina late alata. Gramina humilia spiculis parvis ovatis v. orbiculatis.—*Australia.*

236. Anthochloa. Panicula fere ad capitulum subsessile reducta. Spiculæ paucifloræ. Glumæ latæ, hyalino-scariosæ, albæ, florentes latissimæ petaloideæ subflabellatæ. Gramina humilia cæspitosa.—*And. Peruv. et Boliv.*

237. Melica. Panicula angusta stricta secunda v. laxe effusa. Spiculæ paucifloræ. Glumæ superiores vacuæ, plures sæpius in massam clavatam confertæ, rarius laxiores gradatim minores. Gramina perennia, erecta, spiculis sæpe majusculis erectis patentibus v. nutantibus.—*Eur., Asia temp., Afr. extratrop., Amer. extratrop. et andin.*

238. Diarrhena. Panicula elongata, ramulis paucis strictis. Spiculæ paucifloræ. Gluma secunda 5-nervis, florentes 3-nerves, demum coriaceæ nitidæ, superiores vacuæ 2–4. Stamina 2 v. 1. Caryopsis sæpe apice exserta. Gramen perenne, erectum.—*Amer. bor.*

(Confer etiam 175 Cryptochloridem, 234 Ectrosiam, 241 Lophatherum.)

Subtribus 7. Centotheceæ. *Panicula laxa v. spica unilateralis. Glumæ florentes 5–∞-nerves. Gramina sæpius elata. Folia plana, lanceolata v. ovata, inter venas transverse venulosa.*

Genera nonnulla ab foliorum venatione interdum *Bambuseis* adscripta, sed lamina nunquam cum vagina articulata et spiculæ *Festucearum.*

239. Centotheca. Panicula laxa. Spiculæ ∞-floræ. Glumæ muticæ, summa vacua parva v. 0.—*Afr. et Asia trop., ins. Pacif.*

240. Orthoclada. Panicula laxa. Spiculæ 1–2-floræ. Glumæ muticæ, summa vacua parva v. 0.—*Amer. calid.*

241. Lophatherum. Panicula longa, ramis abbreviatis v. elongatis. Spiculæ 1-floræ. Glumæ mucronatæ v. subaristatæ, superiores vacuæ plures in cristam parvam unilateralem confertæ.—*Ind. or., Archip. Malay., China, Japonia.*

242. Streptogyne. Spica longa, unilateralis. Spiculæ sessiles, longæ, paucifloræ. Glumæ florentes longæ, rigidæ, convolutæ. Stigmata longissime exserta, filiformia, demum spiraliter torta.—*Ind. or., Afr. trop., Amer. trop. et bor. subtrop.*

243. Zeugites. Panicula laxa v. dense floribunda. Spiculæ ∞-floræ, flore infimo fertili, superioribus 2-5 masculis. Gramina nunc debilia decumbentia, nunc valida elata.—*Amer. trop.*

Subtribus 8. Eufestuceæ. *Spiculæ varie paniculatæ, inflorescentia basi ebracteata. Glumæ florentes 5–∞-nerves, summa vacua* 1 *v.* 0. *Styli breves nunc brevissimi, stigmatibus plumosis. Caryopsis nunc libera nunc sæpius paleæ plus minus adhærens. Folia sæpius angusta, venulis transversis* 0.

244. Pleuropogon. Panicula ad racemum secundum reducta. Glumæ florentes mucronatæ v. aristatæ. Paleæ *carinæ cristatæ v. appendice lineari instructæ.—Terr. arct., California.*

245. Brylkinia. Panicula ad racemum secundum reducta. Glumæ *inferiores vacuæ* 4.—*Japonia, Asia bor. or.*

246. Uniola. Panicula nunc elongata stricta, nunc ampla. Spiculæ latæ planæ. Glumæ *inferiores vacuæ* 3–6.—*Amer. extratrop. et andin.*

247. Distichlis. Paniculæ spiciformes v. oblongæ, *stricte dioicæ*, spiculis subsessilibus. Glumæ rigidulæ, exaristatæ.—*Amer. extratrop. et andin., Australia, sæpius in maritimis.*

248. Æluropus. Spiculæ ∞-floræ, dense subspicato-glomeratæ, glomerulis solitariis v. secus pendunculum sparsis. Glumæ florentes apice latiusculæ, mucronatæ. Gramina prostrata, foliis brevibus rigidis sæpe pungentibus.—*Reg. Mediterr., Asia med., Ind. or., sæpius in maritimis.*

249. Dactylis. Spiculæ paucifloræ, dense fasciculatæ, fasciculis compositis secundis ad

apicem pedunculi v. ramulorum confertis. Glumæ florentes vacuas superantes, mucronatæ v. breviter aristatæ. Gramina perennia, interdum elata.—*Eur., Asia temp., Afr. bor.*

250. LASIOCHLOA. Panicula spiciformis, densa v. interrupta. Glumæ vacuæ sæpius hispidæ, florentes breviores tenuiores muticæ. Gramina cæspitosa, foliis angustis.—*Afr. austr.*

251. DEMAZERIA. Spiculæ compressæ, distiche spicatæ v. inferiores fasciculatæ. Glumæ coriaceæ, muticæ, florentes distiche imbricatæ, vacuis longiores.—*Reg. Mediterr., Afr. austr.*

252. SCLEROCHLOA. Spiculæ compressæ, rigidulæ, in panicula brevi secunda arcte confertæ, subsessiles. Glumæ florentes carinatæ, apice membranaceæ truncatæ v. emarginatæ. Gramina annua humilia.—*Eur. austr., Asia occid. et med.*

253. BRIZA. Panicula laxa, rarius angusta. Spiculæ bene pedicellatæ. Glumæ valde concavæ v. vesiculosæ, non carinatæ, muticæ v. rarius aristatæ. Palea lata, caryopsi valde compressæ arcte appressa. Gramina erecta.—*Eur., Afr. bor., Asia temp., Amer. austr., reg. Mex.-Tex.*

254. SCHISMUS. Panicula angusta, ramulis erectis. Spiculæ parvulæ. Glumæ muticæ, vacuæ florentes minores includentes. Gramina annua.—*Reg. Mediterr. ab ins. Canar. usque ad Affghan. et Arabiam.*

255. NEPHELOCHLOA. Panicula gracilis, ramulis capillaribus verticillatis. Spiculæ parvæ, nitidulæ. Glumæ florentes tenues, vix carinatæ, apice scariosæ, 2-fidæ, inter lobos aristatæ.—*Oriens.*

256. POA. Panicula varia, sæpius laxa. Spiculæ paucifloræ. Glumæ membranaceæ, carinatæ, nervis lateralibus apice sæpius conniventibus. Caryopsis libera v. rarius paleæ adhærens.—*Utriusque orbis reg. temp. et frigid., inter tropicos pauciores.*

257. COLPODIUM. Panicula gracilis, laxa. Spiculæ parvæ, 1–2-floræ. Glumæ tenuiter membranaceæ, nervis lateralibus sæpe abbreviatis v. obscuris. Caryopsis oblonga, libera.—*Oriens, Asia med.*

258. GRAPHEPHORUM. Omnia *Glyceriæ* nisi rhachilla sub floribus pilosa.—*Reg. bor. Amer., Eur. et Asiæ.*

259. GLYCERIA. Panicula longa, angusta v. effusa, floribunda. Spiculæ ∞-floræ, rhachilla glabra v. vix pilosula. Glumæ obtusæ, muticæ, non carinatæ, nervis lateralibus apicem non attingentibus. Gramina sæpe elata, interdum aquatica.—*Utriusque orbis reg. temp.*

260. FESTUCA. Panicula varia. Spiculæ ∞-floræ. Glumæ florentes acutæ v. aristatæ rarius obtusæ, dorso rotundatæ nec a basi carinatæ, nervis sæpius tenuibus. Ovarium glabrum v. apice pilosulum. Caryopsis glabra, paleæ sæpius (nec semper) plus minus siccitate adhærens. —*Utriusque orbis reg. temp., inter tropicos rariores.*

261? PANTATHERA. Panicula ampla. Spiculæ majusculæ, planæ, ∞-floræ. Glumæ omnes aristatæ, florentes complicato-carinatæ. Caryopsis glabra.—*Juan Fernandez.*

262. PODOPHORUS. Panicula laxa, subsecunda. Spiculæ majusculæ, angustæ, 1-floræ, rhachilla ultra florem in stipitem longum aristiferum producta. Gluma florens linearis, carinata, longe aristata. Ovarium glabrum.—*Juan Fernandez.*

263. BROMUS. Panicula varia. Spiculæ majusculæ v. magnæ, planæ v. turgidæ, ∞-floræ. Glumæ florentes aristatæ v. rarius muticæ. Ovarium appendice villosa coronatum. Caryopsis paleæ adhærens.—*Hemisph. bor. reg. temp., Amer. austr. extratrop., inter tropicos paucæ.*

264. BRACHYPODIUM. Spiculæ ∞-floræ, sæpius longiusculæ, in spica simplici paucæ, subsessiles, rhachi nec excavata nec articulata. Glumæ florentes dorso rotundatæ, mucronatæ v. aristatæ. Ovarium apice villosum. Caryopsis paleæ adhærens.—*Eur., Asia temp. et mont., Afr. trop. et austr., Colombia, Mexico.*

(Vide etiam 232 CUTANDIAM.)

Tribus XII. Hordeeæ. Spiculæ 1–∞-floræ, ad dentes seu excavationes rhacheos spicæ simplicis sessiles. Rhachilla supra glumas inferiores vacuas sæpius articulata, ultra flores fertiles producta, setiformis glumifera v. flore imperfecto terminata. Glumæ muticæ v. apice aristatæ, 2 inferiores vacuæ sub articulatione persistentes v. sigillatim deciduæ rarius deficientes. Palea 2-nervis, sæpius 2-carinata. Gramina herbacea.

Excepta: Rhachilla ultra florem non producta in *Nardo*.

Glumæ inferiores vacuæ desunt in *Nardo* et interdum in *Psiluro*, et *Asprella*.

Subtribus 1. Triticeæ. *Spiculæ ad nodos solitariæ, 3-∞-floræ rarius 2-floræ. Spica sæpius valida.*

265. LOLIUM. Spiculæ ∞-floræ, alternæ, distichæ, compressæ, margine (dorso glumarum) rhachin spectantes.—*Eur., Afr. bor., Asia temp., alibi inquilina.*

266. AGROPYRUM. Spiculæ ∞-floræ, alternæ, distichæ, compressæ, facie (lateribus glumarum) rhachin spectantes. Glumæ florentes dorso rotundatæ, 5–7-nerves, nervis lateralibus apice conniventibus v. in aristam terminalem confluentibus.—*Utriusque orbis reg. temp.*

267. SECALE. Spiculæ sæpius 2-floræ, in spicam cylindraceam confertæ, compressæ, facie rhachin spectantes. Glumæ florentes 5-nerves, nervis lateralibus faciei interioris tenuibus faciei exterioris prominentibus, omnibus in aristam confluentibus.—*Reg. Mediterr., alibi late culta.*

268. TRITICUM. Spiculæ pauciflorae, compressiusculæ. Glumæ florentes oblongæ v. ventricosæ, dorso rotundatæ v. superne carinatæ, 5–9-nerves, nervis lateralibus non conniventibus brevibus v. in dentes v. aristas distinctas productis.—*Reg. Mediterr., Asia occid., nonnullæ alibi late cultæ.*

Subtribus 2. Leptureæ. *Spiculæ ad nodos solitariæ 1–2-floræ. Spica tenuis, recta v. incurva.*

269. LEPTURUS. Glumæ vacuæ 1–2, rigidæ, florentibus hyalinis multo longiores.—*Eur., Afr. bor., Asia temp., maritim. Australasiæ et ins. Pacif.*

270. PSILURUS. Gluma vacua 1, minuta, florens angusta aristata. Stamen 1. Gramen annuum.—*Eur. austr., Oriens.*

271. NARDUS. Gluma vacua 0. Rhachilla non producta. Stylus longus indivisus. Gramen perenne, humile, spica unilaterali.—*Eur. occid., reg. Mediterr.*

272. KRALIKIA. Glumæ vacuæ 2, florentes 2 paullo longiores, carinatæ, 3-mucronatæ. Gramen perenne, gracile, spiculis minimis.—*Algeria.*

273. OROPETIUM. Glumæ vacuæ 2, infima parva, secunda rigida, florens paullo longior. Rhachilla sub flore longe pilosa. Gramen nanum. Spica spiculis parvis immersis subteres.—*Ind. or.*

Subtribus 3. Elymeæ. *Spiculæ ad nodos rhacheos 2–∞, collaterales. Spica sæpius valida.*

274. HORDEUM. Spiculæ 1-floræ. Glumæ vacuæ subulatæ, rigidæ, involucrum sæpius simulantes.—*Eur., Asia temp., Afr. bor., Amer. extratrop., alibi late culta.*

275. ELYMUS. Spiculæ 2–6-floræ. Glumæ vacuæ angustæ v. aristiformes, involucrum sæpius simulantes.—*Eur., Asia temp., Amer. bor.*

276. ASPRELLA. Spiculæ 2-∞-floræ. Glumæ vacuæ 0 v. in spiculis infimis parvæ, subulatæ, florentes aristatæ.—*Amer. bor., Nov. Zel.*

Tribus XIII. Bambuseæ. Gramina elata, caule sæpius fruticoso v. arborescente. Folia plana, petiolo brevi cum vagina articulato. Spiculæ 1-∞-floræ. Glumæ inferiores 2–∞ vacuæ, gradatim ab infima parva ad florentes auctæ, nonnullæ interdum supra florentes minores vacuæ v. flores imperfectos foventes v. ad rudimenta reductæ. Palea sæpius magna, 2-carinata v. (in *Melocannis*) 0. Lodiculæ sæpissime 3, majusculæ. Stamina 3, 6 v. ∞. Styli v. rami stigmatosi 2 v. 3.

Excepta: Folia angusta basi cum vagina continua in *Planotia*.
Lodiculæ desunt in *Dinochloa*, valde irregulares in *Ochlandra*.

Subtribus 1. Arundinarieæ. *Stamina* 3. *Palea 2-carinata. Pericarpium tenue, semini adnatum.*

277. ARUNDINARIA. Spiculæ ∞-floræ, racemosæ v. paniculatæ. Glumæ inferiores vacuæ 1–2. Caulis suffrutescens rarius arborescens.—*Asia trop., Japonia, Amer. bor. et trop.*

278. ARTHROSTYLIDIUM. Spiculæ ∞-floræ, in spicis racemisve secundæ. Glumæ inferiores vacuæ 3–4. Caulis suffruticosus v. arborescens.—*Amer. trop.*

279. PHYLLOSTACHYS. Spiculæ 1–4-floræ, spicatæ, spicis bracteis spathaceis imbricatis subinclusis. Glumæ inferiores vacuæ 2–3. Caulis arborescens.—*Japonia, China.*

280. ATHROOSTACHYS. Spiculæ 1-floræ, densissime globoso-capitatæ. Glumæ vacuæ 2, infima ad basin rhachillæ persistens, secunda distans florenti appressa. Caulis suffrutescens, scandens.—*Brasilia.*

281. MEROSTACHYS. Spiculæ 1-floræ, in spica unilaterali sessiles. Glumæ inferiores vacuæ 3–4. Caulis arborescens.—*Amer. trop.*

282. Chusquea. Spiculæ 1-floræ, varie paniculatæ. Glumæ inferiores vacuæ 4, 2 parvæ persistentes, 2 florenti appressæ. Caulis suffrutescens v. arborescens.—*Amer. trop. et subtrop.*

283. Planotia. Spiculæ 1-floræ, parvæ, in panicula numerosissimæ. Glumæ inferiores vacuæ 4. Caulis herbaceus, elatus. Folia angusta, cum vagina continua.—*Amer. trop.*

Subtribus 2. Eubambuseæ. *Stamina* 6. *Palea 2-carinata. Pericarpium tenue, semini adnatum.* Excepta: Palea floris terminalis spiculæ deest v. glumæ similis in *Oxytenanthera.*

* *Filamenta libera.*

284. Nastus. Spiculæ 1-floræ, anguste paniculatæ v. capitatæ. Glumæ inferiores vacuæ ∞. Ovarium glabrum. Caulis arborescens.—*Ins. Mascar.*

285. Guadua. Spiculæ 2–∞-floræ, subspicatæ glomeratæ v. capitatæ. Glumæ inferiores vacuæ 2–6. Paleæ carinæ alatæ. Ovarium apice villosum. Caulis arborescens.—*Amer. trop.*

286. Bambusa. Spiculæ 2–∞-floræ, secus ramos paniculæ dissite glomeratæ. Glumæ inferiores vacuæ 3–4. Paleæ carina ciliata nec distincte alata. Ovarium apice villosum. Caulis arborescens, rarius suffrutescens v. scandens.—*Asia et Amer. trop. et subtrop.*

** *Filamenta in tubum tenuem connata.*

287. Gigantochloa. Spiculæ ∞-floræ. Paleæ omnes 2-carinatæ. Inflorescentia et habitus *Bambusæ.*—*Ind. or., Archip. Malay.*

288. Oxytenanthera. Spiculæ 1–∞-floræ, flore terminali solo fertili cui palea 0 v. glumis similis. Cætera *Gigantochloæ.*—*Ind. or., Archip. Malay.*

Subtribus 3. Dendrocalameæ. *Stamina* 6. *Palea 2-carinata. Pericarpium crustaceum v. carnosum, a semine liberum.*

289. Dendrocalamus. Spiculæ 2–∞-floræ, secus ramos paniculæ dissite glomeratæ, flore sæpius uno solo fertili. Ovarium apice hirsutum. Caryopsis parvula, pericarpio crustaceo. Habitus *Bambusæ.*—*Ind. or., Archip. Malay., China.*

290. Melocalamus. Spiculæ 2-floræ, secus ramos paniculæ dissite glomeratæ, flore infero solo fertili. Ovarium glabrum. Caryopsis magna, pericarpio crasso carnoso. Habitus *Bambusæ.*—*Martaban.*

291. Pseudostachyum. Spiculæ parvulæ, 1-floræ, secus ramos paniculæ laxe spicatæ, bracteatæ. Gluma inferior vacua 1, terminalis vacua subglobosa. Caryopsis parvula, depresso-globosa, pericarpio crustaceo.—*Himalaya.*

292. Greslania. Spiculæ 1-floræ, in ramulis paniculæ spicatæ v. subcymoso-confertæ. Gluma terminalis vacua, tenuis v. rudimentaria. Caryopsis tereti-oblonga, pericarpio crasso celluloso.—*Nov. Caled.*

293. Teinostachyum. Spiculæ 1-floræ, secus ramos paniculæ subspicatæ, bracteatæ. Glumæ inferiores 1–2 vacuæ, terminalis vacua, angusta. Caryopsis haud magna, pericarpio crassiusculo.—*Ind. or.*

294. Cephalostigma. Spiculæ 1-floræ, in capitulo globoso unico v. in glomerulis capituliformibus secus pedunculum dissitis dense confertæ, bracteatæ. Glumæ inferiores vacuæ 1–2; rhachilla ultra florem nuda. Caryopsis oblonga, rostrata, pericarpio crassiusculo.—*Ind. or., Madagascar.*

Subtribus 4. Melocanneæ. *Stamina* 6–∞. *Spiculæ 1-floræ. Palea* 0 (*v. glumis simillima*). *Pericarpium crustaceum v. carnosum, a semine liberum.*

295. Schizostachyum. Spiculæ secus pedunculum seu paniculæ ramos dissite glomeratæ, rhachilla ultra florem producta. Glumæ inferiores vacuæ ∞. Lodiculæ 2–3. Caryopsis parvula, pericarpio crustaceo v. duro. Habitus *Bambusæ.*—*Archip. Malay., China, ins. Pacif.*

296. Dinochloa. Spiculæ minimæ, secus ramos paniculæ dissite glomeratæ, rhachilla ultra florem non producta. Glumæ inferiores vacuæ 3–4. Lodiculæ 0. Caulis frutescens, altissime scandens.—*Archip. Malay.*

297. Melocanna. Spiculæ bracteatæ, in spicis unilateralibus densissime confertæ, rhachilla ultra florem non producta. Glumæ inferiores vacuæ ∞. Lodiculæ 2. Caryopsis maxima, pericarpio crassissimo carnoso.—*Ind. or.*

298. Ochlandra. Spiculæ majusculæ, dense capitatæ v. subspicatæ. Glumæ inferiores

vacuæ 3–∞. Lodiculæ valde irregulares. Stamina sæpius ultra 6 (usque ad 30), filamentis varie connatis. Caryopsis maxima, pericarpio crassissimo carnoso.—*Penins. Ind. or., Zeylania.*

GENERA EXCLUSA, DELENDA, DUBIA V. NON SATIS NOTA.

Epiphystis, *Trin. Fund. Agrost.* 97, est ex eod. in Mem. Acad. Petersb. ser. 6, iii. 95, genuina **Cyperacea** et fortasse *Cyperi* ipsius species.

Æchmophora, *Spreng. in Pfeiff. Nomencl. Bot.* i. 61, errore Pfeifferi admissa, in loco citato, Spreng. Gen. Pl. i. 74, deest, nec in ullo opere Sprengelii nobis noto invenitur.

Podopogon, *Ehrenb. in Lindl. Veg. Kingd.* 116, Acophorum, *Gaudich. in Steud. Nomencl. ed.* 1840, 20, et Allagostachyum, *Nees in Steud. l. c.* 50, nomine tantum designata sunt nec vere edita.

Rytachne, *Desv. in Ham. Prod. Fl. Ind. Occid.* 11.—Spiculæ 2-floræ, in excavationibus rhacheos spicæ immersæ, solitariæ, flore inferiore ☿ superiore ♂. Glumæ aristatæ, inferiores transversim rugosæ. Folia setaceo-convoluta.—In *Antillis.* Character nimis brevis *Lepturcis* convenit, sed species nulla Antillana ex hac subtribu botanicis recentioribus nota.

Xenochloa, *Lichtenst. in Rœm. et Schult. Syst.* ii. 29, 501, gramen Capense, ex charactere valde manco nequaquam recognoscendum. In Neesii Flora Africæ Australis omissum, a Steudelio post *Trinium* dubie ad *Phragmitem* refertur. Nomen delendum.

Pentarrhaphis, *H. B. et K. Nov. Gen. et Sp.* i. 177, *t.* 60, gramen Mexicanum nec a nobis nec a Fourniero visum. Ex auctoris descriptione pluribus notis *Bouteloua* (*Triatheræ*) convenit sed ab omnibus *Gramineis* nobis notis differt gluma inferiore ex aristis 5 basi subconnatis composita. Hic tamen, ut suspicatur Fournier, verisimiliter latet error e specimine imperfecto oriundus.

Polyschistis, *Presl, Rel. Hænk.* i. 294, *t.* 41, *f.* 12 *ad* 18, gramen Philippinense a nobis non visum. Valde affine dicitur *Pentarrhaphi* gluma inferiore e laciniis 4 longe pilosis composita, secunda lineari integra.

Pogonopsis, *Presl, Rel. Hænk.* i. 333, *t.* 46, gramen Mexicanum nec a nobis nec a Fourniero visum. Ex icone et descriptione characteres plures *Andropogonis* exhibet, sed spica simplex spiculis more *Setariæ* setis longis circumdatis.

Allotheropsis, *Presl, Rel. Hænk.* i. 343, *t.* 47, e Monterey Californiæ, ex icone et descriptione genus spurium videtur e graminibus diversis compositum. Icon princeps f. 1, spiculis exaristatis *Panicum leucophæum* v. speciem ei affinem referre videtur. Analyses f. 2 ad 8, glumam florentem aristiformem spicula duplo longiorem et spiculas steriles pedicellatas exhibentes *Andropogonis*, verisimiliter ad fragmenta plantæ alienæ casu in eadem charta servata delineata fuerunt. Cæterum fig. 2, 5 et 7 inter se male conveniunt, et descriptionem Preslii intelligere nequimus.

Asthenochloa, *Büse in Pl. Jungh.* 367, genus ad specimen Javanicum imperfectum descriptum nec a nobis nec a Miquelio visum, charactere valde manco nequaquam recognoscendum dehinc omnino delendum. Eadem ratione delenda videntur genera 4 sequentia Steudeliana: Lachnochloa, *Steud. Syn. Pl. Glum.* i. 5, a Senegambia; descriptio pessima speciminis manci nonnullis notis *Andropogonem* refert sed stamina 6; Kampmannia, *Steud. l. c.* 34, gramen Novo-Zelandicum sine dubio jam sub alio quodam nomine editum, sed minime recognoscendum; Disakisperma, *Steud. l. c.* 287, gramen Mexicanum a Fourniero dubie ad *Distichlim* relatum; Kerinozoma, *Steud. l. c.* 358, species v. varietates 2 Javanicæ forte ad *Ischæmum muticum*, Linn., referendæ.

Lepturopsis, *Steud. Syn. Pl. Glum.* i. 357.—Spiculæ 2-floræ, in spica simplici ad articulos rhacheos solitariæ. Glumæ inferiores vacuæ 2, aristatæ, altera latior herbacea 5-nervis, altera angustior 3-nervis, tertia florem ♂ fovens, hyalina, mutica, terminalis sub flore ☿ hyalina aristata. Palea minor. Stylus simplex, stigmate elongato longiuscule penicillato. Gramen basi ramosum, tenerrimum, foliis subsetaceis, spica terminali.—Species 1, ins. Loss Guineæ incola, a nobis non visa. Genus pluribus notis *Lepturcis* convenire videtur sed spicula *Andropogonearum.*

Halochloa, *Griseb. Symb. Fl. Argent.* 285.—Spiculæ unisexuales, masculæ solæ notæ, in axillis foliorum floralium solitariæ 1–3-floræ. Glumæ vacuæ ad basin spiculæ 0, florentes chartaceo-concavæ, oblongo-lanceolatæ, acuminatæ, 3-nerves, summa si adsit imperfecta vacua. Palea glumæ subæquilonga, 2-carinata. Lodiculæ 0. Stamina 3, antheris linearibus.—Frutex ramulis ad nodos divisis v. fasciculatis. Folia brevia, rigida, apice angusto pungentia, demum bifariam imbricata, superiora spiculam foventia.—Species 1, e provincia Argentina Cordoba, a nobis non visa. Genus floribus fœmineis ignotis adhuc valde dubium, ab auctore *Chusqueæ* potius quam *Munroæ* affine dicitur sed nec habitus nec characteres bene *Bambuseas* referunt.

Chaboissæa, *Fourn. Gram. Mex.* 112.—Spiculæ 2-floræ, paniculatæ, flore inferiore hermaphrodito superiore sterili. Glumæ inferiores vacuæ, inæquales, superiore majore; florens ampla integra,

acuminata, margine ciliata. Stamina 3. Styli longi, stigmatibus plumosis. Gramen glabrum, caule filiformi. Folia linearia. Panicula longa, contracta, radiis longis compositis alternis remotis basi nudis.—Species 1, Mexicana, a nobis non visa. Genus ex charactere dato ad *Festuceas* referendum videtur, sed glumarum venatione indescripta de subtribu incerti sumus.

Genera plurima a Rafinesquio verbis paucis indicata nec rite definita sub silentio præterimus, omnia verisimiliter sub aliis nominibus nota.

TRIBUS I. PANICEÆ.

1. **Reimaria,** *Fluegge, Gram. Monogr.* 213, *pro parte.*—Spiculæ acuminatæ, in rhachi spicæ unilateralis subsessiles, cum pedicello articulatæ, alternatim dissitæ, flore unico hermaphrodito terminali. Glumæ 2, infima vacua, membranacea, 3–5-nervis, acuta, secunda florens vix brevior, paleam parum breviorem floremque amplectens, mox parum indurata. Stamina 2. Styli a basi distincti, stigmatibus longe plumosis. Caryopsis gluma paleaque leviter induratis inclusa, oblonga, compressiuscula, libera.—Gramina basi diffuse ramosissima, caulibus adscendentibus. Spicæ (v. paniculæ simplicis ramuli) indivisæ, apicem versus pedunculi plures rarius 2, erectæ v. demum reflexæ, una pedunculum terminante. Spiculæ secus rhachin tenuem v. parum dilatatum 2-seriatæ, arcte appressæ, exaristatæ.

Species 4, Americæ tropicæ et borealis subtropicæ incolæ. *Steud. Syn. Pl. Glum.* i. 16. *Trin. Sp. Gram. t.* 275, 276. *H. B. et K. Nov. Gen. et Sp. t.* 21. *Dœll in Mart. Fl. Bras.* ii. ii. 35, *t.* 12, 13.

Spicæ in speciebus typicis tenuissimæ brevesque, in *R. aberrante*, Dœll, spicæ rhachis marginata; in *R. oligostachya*, Munro, MS. (*Paspalo vaginato*, Curtis Pl. exs. n. 3566, Chapm. Fl. S. U. St. 570, e Florida, et Wright, Pl. Cub. exs. n. 3854, e Cuba) spiculæ fere *R. aberrantis*, sed spicæ sæpissime 2 nec 6–15, rhachi dilatata spiculis sublatiore.

2. **Paspalum,** *Linn. Gen. n.* 75.—Spiculæ obtusæ v. rarius breviter acuminatæ, in rhachi spicæ unilateralis v. subdistichæ sessiles v. brevissime pedicellatæ, cum pedicello articulatæ, singulæ v. per paria alternatim dissitæ v. confertæ, flore unico hermaphrodito terminali. Glumæ 3 v. extima deficiente rarius 2, sæpius parum inæquales, exteriores 2 vacuæ, membranaceæ, æquales v. extima in paucis speciebus minima v. evanida, interior florens plus minus concava, mox indurata, paleam breviorem amplectens. Stamina 3. Styli a basi distincti, sæpius elongati, stigmatibus plumosis. Caryopsis ovoidea v. oblonga, gluma paleaque induratis inclusa, libera.—Gramina habitu polymorpha. Spicæ (v. paniculæ simplicis ramuli) in pedunculo elongato nunc solitariæ v. geminæ, nunc plures ad apicem pedunculi subdigitatim approximatæ v. secus pedunculum dissitæ, simplices, interdum valde numerosæ, patentes v. reflexæ. Spiculæ ad normam 2-seriatæ, in rhacheos latere inferiore seu exteriore secus lineam centralem rectam v. flexuosam alternæ, interdum dissitæ, specie 1-seriatæ, v. utrinque geminatim affixæ una cujusve paris brevissime pedicellata, v. densissime confertæ 4-seriatæ apparent.

Species vix 160, etsi ultra 300 ab auctoribus variis editæ, per regiones tropicas v. subtropicas utriusque orbis latissime dispersæ, pro maxima parte Americanæ, et ex his nonnullæ in regionibus calidioribus orbis veteris jam frequentissimæ, verisimiliter inquilinæ, perpaucæ in Africa v. Asia inter tropicos endemicæ, 2 solæ in Europa australi inquilinæ. *Beauv. Agrostogr.* 10, *t.* 5, *f.* 3. *Steud. Syn. Pl. Glum.* i. 16. *Dœll in Mart. Fl. Bras.* ii. ii. 39. *Fourn. Gram. Mex.* 4. *Benth. in Journ. Linn. Soc.* xix. 34.

Species a Trinio imprimis ad spicularum magnitudinem ordinatæ fuerunt. Nees genus in sectiones 6 dividit, Dœll in sectiones 4. Nos sectiones 3 sequentes bene distinctas agnoscimus, quarum una in subsectiones seu series plures minus definitas divisibilis:—

1. *Eupaspalum.* Spiculæ, in facie inferiore v. exteriore rhacheos spicæ, secus lineam elevatam v. costam centralem sigillatim v. geminatim alternæ, haud immersæ, gluma inferiore cum florente costam spectante (spiculæ adversæ, *Nees*).

Subsect. 1. *Anachyris.* Gluma vacua 1. *Dœll in Mart. Fl. Bras.* ii. ii. 40, *t.* 14 (sect. *Eremachyrion*). *H. B. et K. Nov. Gen. et Sp. t.* 26. *Trin. Spec. Gram. t.* 271. *Hook. Ic. Pl. t.* 1100. ANACHYRIS, *Nees in Hook. Kew Journ.* ii. 103. Subsectio nimis artificialis, species singulæ sæpe

variis e sect. *Opisthio*, Dœll, affiniores quam inter se. In *P.* (*Eremachyrio*) *sesquiglume*, Dœll, specie *P.* (*Opisthio*) *maritimo*, Trin., valde affini, glumæ vacuæ 2, extima minima. In *P. pallido*, H. B. et K.; Kunth, Revis. Gram. t. 204, a Dœllio in *Eremachyrio* incluso, glumæ vacuæ 2 æquales, dum in simillimo *P. candido*, H. B. et K. l. c. t. 25, gluma extima deest, utraque species melius sub *Pseudoceresia* militat.

Subsect. 2. *Opisthion.* Glumæ vacuæ 2. Spicæ rhachis angusta, plana v. vix concava. *Dœll in Mart. Fl. Bras.* ii. ii. 44, *t.* 15 (*excl. sp.* ∞). *Trin. Spec. Gram. t.* 98 *ad* 106, 108 *ad* 118, 120 *ad* 132, 134 *ad* 143, 269, 270, 272 *ad* 274. *Kunth, Rev. Gram. t.* 10, 11, 205 *ad* 208. *Jacq. Ic. Rar. t.* 11. *Willd. Hort. Berol. t.* 74. *Jacq. Ecl. Gram. t.* 23. *Beauv. Fl. Ow. et Ben. t.* 85, 92. *Colla, Pl. Rar. Chil. t.* 59. *Buchan. N. Zeal. Grass. t.* 10. *H. B. et K. Nov. Gen. et Sp. t.* 23, 24, 28.

De speciebus spiculis minimis pedicellatis sæpius fasciculatis ab auctoribus nunc *Panico* nunc *Paspalo* relatis, conf. infra sub *Panico* (*Digitaria*).

Subsect. 3. *Pseudoceresia.* Glumæ vacuæ 2. Spicæ (seu rami paniculæ) numerosæ, breves, patentes, rhachi plus minus dilatata concava viridi, spiculis parvulis glabris. Huc *P. stoloniferum*, Bosc, *P. repens*, Berg., affinesque. *Jacq. Ic. Rar. t.* 302. *Bosc. in Trans. Linn. Soc.* ii. *t.* 16. *Rudge, Pl. Gui. t.* 26. *Kunth, Rev. Gram. t.* 164. Ceresia, *Ell. Bot. S. Car. et Georg.* i. 109, *non Pers.*

Subsect. 4. *Ceresia.* Glumæ vacuæ 2. Spicæ paucæ v. solitariæ, rhachi margine v. intra marginem membrana longitudinali discolori spiculas basi amplectente instructa. Spiculæ 2-4-seriatim imbricatæ, oblongæ, compressæ, longe ciliatæ. Species nobis notæ 7, quarum 6 Americæ australis incolæ; una Mexicana (*Liebmann n.* 105). *Dœll in Mart. Fl. Bras.* ii. ii. 92, *n.* 74 *ad* 79. *Trin. Spec. Gram. t.* 119, *t.* 284 *ad* 286. Ceresia, *Pers. Syn. Pl.* i. 85. *Beauv. Agrostogr.* 9, *t.* 5. *f.* 4.

2. *Cabrera.* Spiculæ in facie inferiore v. exteriore rhacheos spicæ ad latera costæ centralis alternæ, singulæ in excavationibus rhacheos immersæ, gluma exteriore cum florente in externum spectantibus, Species unica, *P. aureum*, H. B. et K. Nov. Gen. et Sp. i. 93, t. 27, non Trin. (*P. immersum*, Nees, Agrost. Bras. 82). Cabrera, *Lag. Elench. Hort. Matr. Nov. Gen. et Sp.* 5.

Species cæteræ a Neesio, Dœllio aliisque ad sectionem *Cabreram* relatæ ad *Anastrophum* pertinent, inter quas synonymon *Cabrera chrysoblepharis*, Lag., perperam ad *P. exasperatum*, Nees, v. ad speciem novam refertur, nam descriptio optima Lagascæ ad amussim cum *P. aureo*, H. B. et K. non Trin. convenit.

Axonopus, *Beauv. Agrostogr.* 12, a pluribus pro synonymo *Cabreræ* allatum, genus fictum fuit ad species varias *Eupaspali* cum *Panico cimicino*, Retz, et auctor *P.* (*Cabreram*) *aureum* H. B. et K. dubie tantum addidit.

3. *Anastrophus.* Spiculæ ad utrumque latus rhacheos spicæ angustæ subflexuosæ sessiles, alternæ, subdistichæ, gluma infima florenteque a rhachi aversis. (Spiculæ inversæ, *Nees.*) Spicæ sæpius plures confertæ subereetæ. *Nees, Agrostogr. Brasil* 20 (sect. *Digitarieæ*). *Dœll in Mart. Fl. Bras.* ii. ii. 100 (sect. *Emprosthion*). Anastrophus, *Schlecht. in Bot. Zeit.* 1850, 681.

Lappagopsis, *Steud. Syn. Pl. Glum.* i. 112, est *Paspalum dissitiflorum*, Trin., species a plerisque *Anastrophis* diversa spicis pilis longis dense ciliato-hirtis et cum nonnullis aliis pro subsectione habenda. In *P. fastigiato*, Nees, glumæ vacuæ longe ciliatæ, rhachis nuda; in *P. senescente*, Nees, glumæ vacuæ ciliatæ at brevius quam rhachis; in *P. dissitifloro*, Trin., glumæ vacuæ rhachesque longe ciliatæ; in speciebus nonnullis a Neesio Dœllio (Mart. Fl. Bras. ii. ii. 114, t. 16; Trin. Spec. Gram. t. 97) aliisque *Cabrera* inclusis, rhachis longe ciliata, glumæ nudæ, sed spiculæ nequaquam in rhacheos facie immersæ.

Paspalum saccharoides, Trin. Spec. Gram. t. 107 (*Panicum saccharoides*, Kunth, Rev. Gram. i. 237, t. 30), a genere differt habitu fere Saccharoideo, spicis v. paniculæ ramis elongatis pilis longis argenteis sericeis, spiculis minimis tenerrimis caducissimis, glumis omnibus paleaque membranaceo-hyalinis enervibus, gluma exteriore ad utrumque latus nervo valido longe piloso-ciliato cincta, quapropter *Andropogoneis* accedit, sed spicularum insertio et glumarum numerus omnino *Paspali*.

3. **Anthænantia,** *Beauv. Agrostogr.* 48, *t.* 10, *f.* 7. (Aulaxanthus, *Ell. Bot. Carol. et Georg.* i. 102. Aulaxia, *Nutt. Gen. Pl. N. Amer.* i. 47. Leptocoryphium, *Nees, Agrost. Bras.* 83.)—Spiculæ ovatæ v. breviter acuminatæ, paniculatæ, cum pedicello articulatæ, flore hermaphrodito unico terminali, addito interdum inferiore masculo. Glumæ 3, 2 exteriores parum inæquales, membranaceæ, vacuæ v. secunda paleam parvam v. florem ♂ fovens, interior florens paullo brevior, sub anthesi membranacea v. fere hyalina, demum rigidula v. leviter indurata, paleam paullo breviorem floremque includens. Stamina 3. Styli distincti, stigmatibus penicillato-plumosis. Caryopsis glumis paleaque laxe inclusa, libera.

—Gramina erecta, multicaulia v. cæspitosa. Panicula oblonga, laxiuscula, plus minus sericeo-pilosa, floribunda, ramulis pedicellisque breviter filiformibus.

Species 3, quarum 2 e civitatibus australioribus Americæ borealis, gluma secunda paleam v. florem ♂ sæpe nec semper fovente, tertia (*Leptocoryphium*) per Americam tropicam late dispersa cujus gluma secunda tanquam nota semper vacua. *Kunth, Enum. Pl.* i. 98, *et Rev. Gram. t.* 20 (*Panicum*). *H. B. et K. Nov. Gen. et Sp. t.* 29 (*Paspalum*). *Kunth, Rev. Gram. t.* 163 (*Milium*). *Dœll in Mart. Fl. Bras.* ii. ii. 120, *t.* 17 (*Leptocoryphium*). *Benth. in Journ. Linn. Soc.* xix. 38.

Genus a *Panici* sect. *Tricholæna* differt glumæ exterioris defectu. Squamellæ spiculæ laterales a Beauvoisio delineatæ, sunt, fide Kunthii, laminæ a gluma florente vi separatæ.

4. **Amphicarpum,** *Kunth, Rev. Gram.* i. 28.—Spiculæ abortu unisexuales, 1-floræ, ovatæ, cum pedicello articulatæ; masculæ anguste paniculatæ, fœmineæ duplo majores, in scapis aphyllis solitariæ. Glumæ 3, 2 exteriores parum inæquales, vacuæ, membranaceæ, interior florens paullo brevior, tenuiter membranacea, in spicula ♀ demum leviter indurata, palea paullo breviore. Stamina, v. in spicula ♀ staminodia, 3. Styli distincti, stigmatibus plumosis; in spicula ♂ pistillum adest sed effœtum marcescensque. Caryopsis in spicula ♀ oblonga, gluma paleaque induratis inclusa, cum glumis vacuis stipantibus decidua.—Gramina perennia, pilosa, foliis planis. Panicula ♂ in caule foliato terminalis, angusta, erecta, laxa, sed parum ramosa. Spiculæ fertiles duplo majores, in scapis radicalibus brevibus aphyllis solitariæ.

Species 2, boreali-Americanæ. *Kunth, Enum. Pl.* i. 67. *Pursh, Fl. Amer. Sept.* i. *t.* 2 (*Milium*). *Chapm. Fl. S. U. St.* 572.

Spiculæ ♀ in scapis aphyllis solitariæ illas formarum nonnullarum *Scirpi supini* supra p. 1038 notatas in mentem revocant. Character tamen in *Amphicarpo* constans videtur, nec hucusque in specie ulla *Panici* v. *Paspali* observatus, sed ulterius quærendus.

5. **Eriochloa,** *H. B. et K. Nov. Gen. et Sp.* i. 94, *t.* 30, 31. (Œdipachne, *Link, Hort. Berol.* i. 51. Helopus, *Trin. Fund. Agrost.* 103.)—Spiculæ ovatæ, sæpius acuminatæ, in rhachi spicæ unilateralis subsessiles v. brevissime pedicellatæ, cum pedicello articulatæ, flore unico terminali hermaphrodito. Glumæ 3, exteriores 2 vacuæ, parum inæquales, membranaceæ, sæpius plus minus acuminatæ, interior florens brevior, mox indurata, obtusa, mucrone v. arista glumis vacuis breviore coronata, paleam muticam floremque includens. Stamina 3. Styli a basi distincti, stigmatibus plumosis. Caryopsis gluma paleaque induratis inclusa, libera.—Gramina (an semper ?) perennia, foliis planis flaccidis. Spicæ (v. paniculæ simplices rami) nunc paucæ breves dissitæ, nunc plures elongatæ confertæ floribundæ, rhachi pedicellisque pubescentibus hirsutis longe setosis v. glabris. In una specie v. varietate (*E. annulati* var. *acrotricha*) setæ nonnullæ rigidæ pedicellos terminant more *Panici* sect. *Ptychophylli*.

Species editæ fere 20, quarum 5 bene distinctæ videntur; ex his 2 in America tropica endemicæ, *E. distachya*, H. B. et K., et *E. grandiflora*, Trin.; tertia, *E. trichopus*, Hochst., in Africa tropica; quarta, *E. villosa*, Kunth, in Asia orientali; cæteræ omnes (*E. annulata*, *E. punctata*, etc.) ad varietates *E. polystachyæ*, H. B. et K., reducendæ, speciei in regionibus tropicis subtropicisque utriusque orbis frequentissime dispersæ. *Trin. Spec. Gram. t.* 133, 155, 156 (*Paspalum*), *t.* 277 *et* 278 (*Helopus*). *Kunth, Revis. Gram. t.* 13. *Dœll in Mart. Fl. Bras.* ii. ii. 123, *t.* 19 (*Helopus*). *Fourn. Gram. Mexic.* 13 (*Helopus*). *Benth. in Journ. Linn. Soc.* xix. 39.

Monachne, *Beauv. Agrostogr.* 49, *t.* 10, quoad f. 9, videtur *Eriochloæ* species, gluma tamen secunda florem ♂ fovente, quod nunquam vidimus; f. 10 est *Panicum reptans*, Kunth.

6. **Beckmannia,** *Host, Gram. Austr.* iii. 5, *t.* 6. (Bruckmannia, *Nutt. Gen. N. Amer. Pl.* i. 48.)—Spiculæ latæ, compressæ, in rhachi spicæ unilateralis subsessiles, cum pedicello brevissimo articulatæ, floribus 2 hermaphroditis, terminali solo tamen sæpius fertili. Glumæ 4, 2 exteriores vacuæ membranaceæ, concavæ, subnaviculares, obtusæ v. brevissime acuminatæ, dorso vesiculosæ, 2 florentes angustiores, subæquilongæ, concavo-carinatæ, acutæ v. mucronatæ, tenuiter membranaceæ, demum rigescentes; palea hyalina, 2-carinata,

gluma vix brevior. Stamina 3. Styli distincti, breves, stigmatibus plumosis. Caryopsis oblonga, gluma paleaque acuminatis rigidis v. leviter induratis inclusa, libera.—Gramen erectum, foliis planis, habitu fere *Panici colonum*. Panicula terminalis, elongata, simplex v. subramosa, spicis secus axin sessilibus erectis; spiculæ secus faciem inferiorem rhacheos spicarum 2-seriatim imbricatæ, ob vesiculas glumarum prominentes specie 4-seriatæ.

Species 1, Europæ orientalis, Asiæ temperatæ et Americæ borealis incola. *Beauv. Agrostogr.* 96, *t.* 19, *f.* 6. *Kunth, Enum. Pl.* i. 27. *Reichb. Ic. Fl. Germ. t.* 25. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 40. *Ten. Fl. Nap. t.* 5.

Nomen JOACHIMEA, Ten., a Kunthio citatum, nunquam editum fuit, hæc planta enim a Tenoreo in loco citato sub nomine *Beckmanniæ* descripta et delineata est. Nomen *Bruckmannia*, a Nuttallio errore forte scriptoris Jacquinio tribuitur, nam in auctoris Horto Schœnbrunensi, hæc species nec descripta nec delineata est.

7. **Isachne**, *R. Br. Prod.* 196.—Spiculæ æqualiter 2-floræ, paniculatæ, rhachilla supra glumas inferiores articulata brevissima ultra flores non producta, floribus hermaphroditis v. uno abortu sterili. Glumæ 2 inferiores vacuæ persistentes v. sigillatim caducæ, membranaceæ, sæpius acutiusculæ, muticæ, parum inæquales; 2 florentes parum breviores obtusæ membranaceæ, fructiferæ cum palea inclusa plus minus induratæ sæpius hemisphæricæ faciebus planis sibimet applicitæ. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis gluma paleaque inclusa, libera.—Gramina perennia v. rarius annua, cæspitosa v. basi decumbentia v. reptantia, foliis planis sæpe rigidulis. Panicula terminalis, pyramidata v. elongata, ramulis tenuibus sæpe filiformibus divergentibus v. divaricatis parce ramulosis. Spiculæ sæpius parvæ, nunc minimæ subglobosæ, secus ramulos dissite pedicellatæ v. subsessiles.

Species ad 20, per regiones calidiores utriusque orbis late dispersæ, pleræque gerontogeæ, Asiaticæ v. Africanæ, ab ins. Mascarensibus usque ad Australiam et Japoniam extensæ, paucæ Americanæ tropicæ. *Kunth, Enum. Pl.* i. 135; *Rev. Gram. t.* 33, 117. *Trin. Spec. Gram. t.* 85, 86. *Buchan. N. Zeal. Grass. t.* 12. *Dœll in Mart. Fl. Bras.* ii. ii. 273, *t.* 35. *Fourn. Gram. Mex.* 34.

Genus charactere artificiali, spicularum rhachilla supra nec infra glumas inferiores vactas articulata, ad seriem *Poacearum* nec *Panicacearum* pertinet, sed affinitas naturalis certe maxima cum *Panici* sect. *Eupanico* (*Effusis*), et suadentibus Hackelio aliisque nunc ad *Paniceas* restituimus. *Panicum Gardneri*, *Thw. Enum. Pl. Zeyl.* 359, ut rite observavit auctor, *Isachni Walkeri*, Wight, simillimum est, et nobis omnino congener videtur, etsi flos unus spiculæ haud raro (nec semper) sterilis evadit, pedicellus more generis inarticulatus est, eique referenda videtur *Isachne nilaghirica*, Hochst. GRAYA, *Nees ex Steud. Syn. Pl. Glum.* i. 119, quoad synonymon Wightianum, est *Isachne pulchella*, Roth (*Panicum bellum*, Steud.; *P. malaccense*, Trin.). Character tamen genericum Steudelii haud convenit.

8. **Panicum**, *Linn. Gen. n.* 76. (Thalasium, *Spreng. Syst. Cur. Post.* 22, 30, *ex char.*)—Spiculæ ovatæ, acuminatæ v. obtusæ, rarius globosæ, cum pedicello articulatæ, laxe v. dense paniculatæ, v. in spicis (seu paniculæ simplicis ramis) indivisis secus rhachin fasciculatæ, flore hermaphrodito unico terminali, addito sæpe inferiore masculo. Glumæ sæpius 4, infima vacua, spicula multo brevior nunc minima v. in paucis speciebus evanida, rarius spicula paullo tantum brevior, nunquam aristata; secunda et tertia sæpius subæquales, membranaceæ, muticæ v. rarius aristatæ, vacuæ v. tertia paleæ rudimentum v. florem masculum fovens; terminalis florem ☿ fovens, cæteris sæpius brevior obtusiorque, rarius mucrone coronata, cum palea paullo breviore inclusa chartacea v. demum indurata. Stamina (an semper?) 3. Styli distincti v. ima basi brevissime connati, stigmatibus plumosis. Caryopsis gluma paleaque rigidulis v. induratis inclusa, libera.—Gramina annua v. perennia, humilia v. elata, habitu vario. Inflorescentia interdum e spicis simplicibus secus pedunculum dissitis v. ad apicem approximatis, sæpius tamen varie interdum ample laxissimeque paniculata.

Species in herbariis nostris servatæ verisimiliter inter 250 et 280, ab auctoribus nonnullis triplo plures enumeratæ, per regiones calidiores utriusque orbis latissime dispersæ, nonnullæ fere cosmopolitanæ, in Europa tamen uti in Asiæ et Americæ borealis temperatis paucæ. *Beauv. Agrostogr.* 45,

t. 10, *f.* 1 *ad* 5. *Steud. Syn. Pl. Glum.* i. 37, *excl. sect.* 5, 7, 15 *et* 16. *Dœll in Mart. Fl. Bras.* ii. ii. 127, *excl. sect.* 4, 5, 6, 8. *Fourn. Gram. Mex.* 16. *Benth. in Journ. Linn. Soc.* xix. 40.

Genus vastum et polymorphum, sed difficillime in sectiones distinctas dividendum, nec limitibus certis a *Paspalo* separatur. Gluma infima in *Digitariis* pluribus et hinc inde in aliis sectionibus minutissima est v. omnino deficiens, et inflorescentia specierum nonnullarum *Brachiariæ* omnino *Paspali*. Sectiones sequentes quoad species plerasque bene distinctæ videntur, sed sæpe intermediis numerosis connectuntur et forte melius ut in Fl. Austral. pro seriebus habendæ.

1. *Digitaria.* Spiculæ parvæ glabræ v. pubescentes, secus paniculæ ramos simplices spiciformes secundæ, inæqualiter pedicellatæ, geminæ v. præsertim in parte inferiore cujusve rami fasciculatæ v. brevissime racemosæ. Gluma infima sæpe minuta v. deficiens. Species fere 40, tropicæ v. temperatæ, quarum una fere cosmopolitana. *Steud. Syn. Pl. Glum.* i. 38. *Schreb. Beschr. Gräs. t.* 16. *Kunth, Rev. Gram. t.* 106, 110. *Trin. Spec. Gram. t.* 92 *ad* 94, 144, 148, 149. *Host, Gram. Austr.* ii. *t.* 17, iv. *t.* 15. *Brongn. in Duperr. Voy. Coq. Bot. t.* 20 (*Paspalum*). *Dœll in Mart. Fl. Bras.* ii. ii. 128, *t.* 20. Syntherisma, *Walt. Fl. Carol.* 76. Digitaria, *Rich. in Pers. Syn. Pl.* l. 84. *Beauv. Agrostogr.* 50, *t.* 10, *f.* 12. *Reichb. Ic. Fl. Germ. t.* 27. *Nees, Gen. Fl. Germ. Monocot. n.* 18. *Guss. Pl. Inarim. t.* 19. *Parlat. in Webb. Phytogr. Canar.* iii. *t.* 246. *Torr. Fl. N. York, t.* 146, 147.

In *P. glabro*, Gaudin., *P. filiformi*, Linn., *Paspalo brevifolio*, Fluegge, aliisque pluribus gluma infima sæpissime deest, et species ab auctoribus nunc *Paspalo* nunc *Panico* tribuuntur.

In *P. platycarpho*, Trin. Spec. Gram. t. 356, e Bonin, spicarum (seu paniculæ ramorum) rhachis fere ut in *Paspalo* (*Ceresia*) membranaceo-dilatata. In *Digitariis* typicis paniculæ rami ad apicem pedunculi approximati quasi digitati, in speciebus variis secus pedunculum plus minus distant.

2. *Trichachne.* Spiculæ sericeo-pilosæ v. longe ciliatæ, secus paniculæ angustæ ramos simplices erectos sessiles v. breviter pedicellatæ, fasciculatæ v. rarius geminæ v. sparsæ. Glumæ longiores sæpe acuminatæ, acumine interdum in setam brevem producto, nunc omnes dense sericeo-pilosæ, nunc secunda sola pilis longis ciliata. *Trin. Spec. Gram. t.* 91, 220. *Dœll in Mart. Fl. Bras.* ii. ii. *t.* 21. *Kunth, Rev. Gram. t.* 31, 165. Trichachne, *Nees, Agrostol. Bras.* 85. Acicarpa, *Raddi, Agrost. Bras.* 31. Urochloa, *Kunth, Rev. Gram.* i. 31, *t.* 103. Coridochloa, *Nees in Edinb. N. Phil. Journ.* xv. 381. Eriachne, *Philippi, Sert. Mend. alt.* 49. Holosetum, *Steud. Syn. Pl. Glum.* i. 118, et forte Mesosetum, *Steud. l. c.*

Bluffia, *Nees, Fl. Afr. Austr. Gram.* 61, ex Africa australi, vix specifice differt a *P. semialato*, Br., ex Asia et Australia, quæ *Coridochloa*, Nees, v. *Urochloa*, Kunth. Præterea ad sect. *Trichachnen* pertinent *P. leucophæum*, H. B. et K., in utroque orbe frequens, *P. Gayanum*, Kunth, ex Africa, aliaque pauca.

3. *Diplaria.* Spiculæ secus rhachin flexuosam spicæ terminalis simplicis rectæ sessiles, alternæ, distichæ, primum arcte appressæ, demum patentes. Glumæ exteriores acutæ v. acuminatæ, dorso sæpius sericeo-pilosæ v. setosæ, infima cæteris parum brevior. Species ad 8, omnes Americanæ: *P. rottboellioides*, H. B. et K., affinesque, *P. exaratum* et *P. ferrugineum*, Trin., *P. pappophorum*, Nees, affinesque. *H. B. et K. Nov. Gen. et Sp. t.* 32. *Trin. Spec. Gram. t.* 90, 194, 281 *ad* 283. *Dœll in Mart. Fl. Bras.* ii. ii. *t.* 28, 29.

Inflorescentia *Paspali* sect. *Anastrophi*; differt gluma inferiore evoluta.

4. *Thrasya.* Spiculæ in facie inferiore v. exteriore rhacheos spicæ simplicis terminalis more *Paspalorum Ceresiarum* membranaceo-dilatatæ complicatæ specie 1-seriatæ. Glumæ 3 exteriores subæquales v. extima minima, tertia interdum rigidior florem ♂ fovens, facile 2-partita. Species paucæ Americanæ. Thrasya, *H. B. et K. Nov. Gen. et Sp.* i. 120, *t.* 39. Huc *P. ansatum*, Trin. Spec. Gram. t. 279, vix a specie typica distinctum, *P. thrasyoides*, Trin. l. c. t. 151 (*Thrasya hirsuta*, Nees, Kunth, Rev. Gram. t. 102) rhachi spicæ angustiore, et *P. petrosum*, Trin. l. c. t. 280 (Tylothrasya, *Dœll in Mart. Fl. Bras.* ii. ii. 295, *t.* 37). Hæc species insignis est pedicello supra articulationem more *Eriochloæ* calloso-incrassato, gluma extima minutissima non tamen nostro sensu a simillima *Thrasya paspaloidea*, H. B. et K., generice separanda. Pedicellus apice leviter callosus in *P. latifolio* aliisque e variis sectionibus.

5. *Harpostachys.* Spiculæ in latere inferiore rhacheos angustæ spicæ simplicis longe pedunculatæ sæpe arcuatæ sessiles, 2–4-seriatæ, ovatæ v. orbiculatæ, obtusæ, glabræ v. rarius angustiores pilosæque. Pedunculi simplices, sed sæpius e vagina superiore plures. Species 3, Americanæ. *Trin. Spec. Gram. t.* 145, 146. *Kunth, Revis. Gram. t.* 16, 104.

Dimorphostachys, *Fourn. in Comptes Rendus Acad. Par.* lxxx. 441, *ex ejusd. Gram. Mex.* 13, includit *P. monostachyum*, H. B. et K., e sectione *Harpostachye* nonnullasque alias *Brachiariis* v. *Digitariis* affines v. nobis ignotas, quibus spiculæ duæ ejusdem paris parum dissimiles et gluma infima

in una quam in altera minore v. omnino deficiente. Hic character tamen nobis valde incertus videtur, in *P.* (*Digitaria*) *sanguinali*, *P. glabro*, affinibusque glumæ infimæ minimæ præsentia vel absentia minime constans.

6. *Brachiaria.* Spiculæ in latere inferiore spicarum (seu ramorum paniculæ simplicis) more *Paspali* sessiles v. brevissime pedicellatæ, sigillatim v. rarius geminatim 2-seriatæ confertæque, v. dissitæ et specie 1-seriatæ, exaristatæ. Species fere 40, pleræque gerontogeæ; nonnullæ tamen in America endemicæ. *Trin. Spec. Gram. t.* 147, 150, 158, 159, 168, 172, 173, 184 *ad* 186, 335, 356. *Kunth, Rev. Gram. t.* 17, 18, 116. *Jacq. Ecl. Gram. t.* 2. *Sibth. Fl. Gr. t.* 59. *Webb. Phytogr. Canar. t.* 245.

Sectio quoad species typicas *P. flavidum* et *P. fluitans*, Retz, *P. paspaloides*, Pers., affinesque distinctissima, inflorescentia omnino *Paspali*, ab hoc genere non differt nisi glumæ infimæ parvæ præsentia. Species aliæ tamen omnino intermediæ sunt inter *Brachiariam* et *Eupanicum*; e.g. *P. adspersum*, Trin. Spec. Gram. t. 169, *P. argenteum*, Br., Trin. l. c. t. 170, *P. Petiveri*, Trin. l. c. t. 176, *P. polyphyllum*, Br., Trin. l. c. t. 177, 2 priores potius sub *Brachiariis*, 2 posteriores sub *Eupanicis laxifloris* collocamus.

Paractænium, *Beauv. Agrostogr.* 47, *t.* 10, *f.* 6, ex icone et char., videtur forma depauperata *P. gracilis*, Br., speciei Australianæ.

In *P. trachystachyo*, Trin. Spec. Gram. t. 167 (*P. perforato*, Trin. l. c. 175), spicæ laxiusculæ, spiculis hirsutis præsertim in spicis inferioribus subfasciculatis; in *P. brachystachyo*, Trin. l. c. t. 157, et *P. scopulifero*, Trin. l. c. t. 165, spiculæ pariter hirsutæ, spicis brevibus densis. Hæ species omnes Americanæ.

P. Helopus, Trin. Spec. Gram. t. 183 (Urochloa, Beauv. Agrost. 52, t. 11, *f.* 1), etiam a Kunthio Rev. Gram. t. 14, in *Urochloa* sua inclusum fuit ob mucronem apicem glumæ fertilis coronantem, cæteris tamen characteribus et habitu a *P.* (*Trichachne* v. *Urochloa*) *semi-alato* longe recedit et *Brachiariis* tribuendum.

7. *Echinochloa.* Spiculæ secus ramos simplices paniculæ sessiles, pleræque 3–4-seriatim v. irregulariter dense confertæ. Glumæ secunda tertiaque sæpissime plus minus interdum longissime aristatæ. Species 5 v. 6, quarum 2 (*P. colonum*, Linn., et *P. crusgalli*, Linn.) fere cosmopolitanæ, vulgares et valde variabiles, cæteræ Americanæ. *Kunth, Enum.* i. 142 (*Oplismeni* sect.), *Fourn. Gram. Mex.* 39 (*Oplismeni* sect.). *Jacq. Ecl. Gram. t.* 20, 32. *Trin. Spec. Gram. t.* 160 *ad* 164, 166. *Host, Gram. Austr.* ii. *t.* 19, iii. *t.* 51. *Dœll in Mart. Fl. Bras.* ii. ii. *t.* 22. Echinochloa, *Beauv. Agrostogr.* 53, *t.* 11, *f.* 11. *Reichb. Ic. Fl. Germ. t.* 29. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 21.

8. *Ptychophyllum* (A. Braun, Ind. Sem. Hort. Berol. 1855, ex Walp. Ann. vi. 944). Species sæpius elatæ, foliis rigidulis longis plus minus plicato-costatis. Panicula simplex v. composita, pyramidalis v. subspiciformis, floribunda, ramulis ultimis nonnullis v. pluribus ultra spiculas in setam productis. Sectio *Setariæ* subaffinis, sed setæ solitariæ ramulum continuantes nec plures (ramuli steriles) sub spiculis fasciculatæ. Huc *P. plicatum*, Lam., ex orbe vetere, *P. sulcatum*, Aubl., ex America tropica, affinesque paucæ. *Jacq. Ecl. Gram. t.* 1. *Trin. Spec. Gram. t.* 89, 223. *Dœll in Mart. Fl. Bras.* ii. ii. *t.* 26.

9. *Hymenachne.* Spiculæ parvulæ, nunc minimæ, in panicula elongata cylindracea spiciformi dense confertæ, sæpius numerosissimæ, non sericeæ. Species 5 v. 6, gerontogeæ v. Americanæ, quarum typica (*P. Myurus*, Lam.) a cæteris (*P. indicum*, Linn. et aff.) paullulum differt glumis longius acuminatis, florente cum palea sub anthesi tenuiter membranaceis demum rigidulis lævibus et non v. vix induratis. *Trin. Spec. Gram. t.* 197, 204, 205, 214, 334. *Dœll in Mart. Fl. Bras.* ii. ii. *t.* 32. Hymenachne, *Beauv. Agrostogr.* 48, *t.* 10, *f.* 8. *Nees, Agrostol. Bras.* 273. *Fourn. Gram. Mex.* 35.

10. *Eupanicum.* Spiculæ breviter v. graciliter pedicellatæ, secus paniculæ ramos simplices v. ramosos fasciculatæ v. laxe sparsæ, parvæ v. majusculæ, nec sericeo-pilosæ. Species fere 200, aliæ vix a *Brachiariis* v. *Digitariis* distinctæ, aliæ panicula ampla floribunda, v. capillari effusaque insignes, et a Trinio in sectiones 2, *Virgariam* et *Miliariam*, distributæ. Character tamen a ramulis paniculæ angulatis v. teretibus nobis valde incertus videtur. Series sequentes præsertim ex inflorescentia definitæ, quoad species nonnullas distinctissimæ apparent, sed veremur ut non semper accurate limitatæ inveniantur.

a. *Polystachyæ.* Paniculæ subsimplicis rami plures, simplices v. inferiores basi ramulosi, secundi, spiculis parvis secus rhachin confertis subfasciculatis brevissime pedicellatis. Species Americanæ. *P. pilosum*, Sw., *P. laxum*, Sw., *P. polygonatum*, Schrad., affinesque plures. *Trin. Spec. Gram. t.* 171, 174, 178, 182, 213, 215, 324. *Kunth, Rev. Gram. t.* 108, 209. *Dœll in Mart. Fl. Bras.* ii. ii. *t.* 30. Huc etiam pertinere videtur *P. pyramidale*, Kunth, Rev. Gram. t. 23, e Senegalia, nobis ignotum.

b. *Excelsæ.* Paniculæ rami primarii quam in *Polystachiis* longiores, breviter ramulosi, spiculis

sæpius majoribus acutioribus numerosissimis fasciculatis. Species Americanæ: *P. numidianum*, Lam., *P. excelsum*, Nees, *P. latissimum*, Mik., *P. agrostoides*, Mühl., affinesque plures. *Trin. Spec. Gram. t.* 207, 208, 218, 238, 261, 264, 318. *Desf. Fl. Atl. t.* 11. *Dœll in Mart. Fl. Bras.* ii. ii. *t.* 49. *Torr. Fl. N. York*, *t.* 148.

His quodammodo affines sunt *P. aturense*, H. B. et K., Nov. Gen. et Sp. t. 33, ex America tropica, *P. gymnocarpon*, Ell., ex America boreali, et species inedita ex Africa tropica (*Mann, n.* 2101) quæ omnes insignes habitu et inflorescentia fere *Ichnanthis*, sed rhachillæ appendices omnino desunt.

c. *Altissimæ.* Paniculæ rami ramulosi, diu erecti floribundi, spiculis interdum ut in *Excelsis* fasciculatis, plerisque tamen laxius pedicellatis. Species amphigeæ. Huc *P. altissimum*, Mey. (*P. altissimum*, Hort. Hafn. nomen prius editum sed ad formam hortensem valde obscuram nec hodie extricandam tributum, omnino delendum est), *P maximum*, Jacq., *P. chloroticum*, Nees, *P. antidotale*, Retz, *P. miliaceum*, Linn., *P. miliare*, Linn., affinesque nonnullæ, a *Laxifloris*, aliæ ab *Excelsis* parum distinctæ. *Host, Gram. Austr.* ii. *t.* 20. *Jacq. Ecl. Gram. t.* 33.

d. *Laxifloræ.* Panicula erecta laxa sed sæpius angusta, irregularis, spiculis minus numerosis. Species amphigeæ, quarum varietates interdum *Brachiariæ* interdum *Altissimis* accedunt. Huc *P. repens*, Linn., *P. Petiveri*, Trin., *P. polyphyllum*, Br., *P. strictum*, Br., *P. fuscum*, Sw., *P. marginatum*, Br., affinesque. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 19. *Brot. Phyt. Lusit. t.* 6. *Kunth, Rev. Gram. t.* 15, 19, 21, 22, 26, 107, 109. *Trin. Spec. Gram. t.* 176, 177, 179, 180, 200, 206, 209, 357. *Sibth. Fl. Gr. t.* 61. *Torr. Fl. N. York*, *t.* 146. *Jacq. Ecl. Gram. t.* 21, 31. Huc etiam referrimus *P. uncinatum*, Trin. Spec. Gram. t. 216, quæ *Echinolæna polystachya*, H. B. et K., species in utroque orbe late dispersa, invita natura cum *E. scabra*, H. B. et K., associata ob glumas 2 exteriores vacuas inter se et glumæ tertiæ subæquales. Otachyrium, *Nees, Agrostol. Bras.* 273, est *P. pterygodium*, Trin., Dœll in Mart. Fl. Bras. ii. ii. 254, t. 34, species Brasiliensis, cui glumæ 2 exteriores vacuæ inter se subæquales, sed quam gluma tertia sub-2-plo breviores, ut in *P.* (*Brachiaria*) *fluitante*, Retz.

e. *Effusæ.* Panicula mox effusa, ramulis pedicellisque sæpe capillaribus, spiculis sæpius parvis glabris puberulisve. Species numerosæ, amphigeæ, nonnullæ *Isachni* subsimiles sed caute distinguendæ pedicellis infra spiculam articulatis. *Trin. Spec. Gram. t.* 88, 217, 221, 222, 225 *ad* 237, 239, 240, 244 *ad* 248, 263, 319 *ad* 322. *Kunth, Rev. Gram. t.* 24, 25, 27, 111 *ad* 114, 167, 210. *Host, Gram. Austr.* iv. *t.* 16.

f. *Grandifloræ.* Panicula effusa, sæpe valida v. ampla, spiculis quam in præcedentibus distincte majoribus glabris. Huc *P. zizanioides*, H. B. et K.; Kunth, Rev. Gram. t. 28; *P. macranthum*, Trin. (*P. vaginatum*, Nees; Kunth, Rev. Gram. t. 166); *P. Maximiliani*, Schrad.; Dœll in Mart. Fl. Bras. ii. ii. t. 31, aliæque paucæ.

Streptostachys, *Desv. in Nouv. Bull. Soc. Philom.* ii. (1810) 190, *et in Journ. Bot*, i. (1813) 72; *Beauv. Agrostogr.* 49, *t.* 10, *f.* 11, est *P. streptostachys*, Spreng., species Austro-Americana, *P. zizanioidi* valde affinis, panicula interdum tota v. pro maxima parte monstruosa sterili, spiculis lineari-falcatis, glumis numerosis disticha imbricatis omnibus vacuis.

g. *Lasiaces* (sect. *Lasiacis*, Griseb.). Panicula ampla, effusa. Spiculæ turgidæ, mediocres v majusculæ, glumis vacuis laxiusculis, fructifera plus minus obliqua. Huc *P. latifolium*, Linn. (*P. divaricatum*, Linn.), Kunth, Rev. Gram. t. 29; Jacq. Hort. Schœnbr. t. 25.

Coleatænia, *Griseb. Symb. Fl. Argent.* 308, e provincia Uruguay, characteres *Eupanici* ostendere videtur, et ex auctore forte congener est *P. prioniti*, Nees, et *P. sparsifloro*, Dœll, sed ex auctore a *Panico* generice distinguenda floribus dioicis. Grisebach tamen plantam fœmineam non vidit, et ex descriptione flores quos masculos nuncupavit adhuc juniores erant quo statu pistillum sæpe minimum est et facile prætervisum. In *P. prioniti*, Nees, flores hermaphroditi dicuntur.

11. *Tricholæna.* Spiculæ ut in *Trichachne* longe sericeo-pilosæ sed laxe paniculatæ. Gluma fructifera interdum tenerior quam in plerisque *Panicis*, etsi vacuis rigidior. Species ad 15, pleræque Africanæ, una regionis Mediterraneæ, altera Indiæ orientalis, paucæ Americæ australis incolæ. *Jacq. Ecl. Gram. t.* 34 (*Saccharum*). *Sibth. Fl. Græc. t.* 53 (*Saccharum*). *Trin. Spec. Gram. t.* 317. Tricholæna, *Schrad. in Rœm. et Schult. Syst.* ii. *Mant.* 163. *Parlat. in Webb. Phytogr. Canar.* iii. 425. Rhynchelythrum, *Nees, Fl. Afr. Austr. Gram.* 64, *non Steud.*

9. **Ichnanthus,** *Beauv. Agrostogr.* 56, *t.* 12, *f.* 1. (Navicularia, *Raddi, Agrostogr. Bras.* 38.)—Spiculæ ovatæ v. acuminatæ, cum pedicello articulatæ, secus ramos paniculæ breviter pedicellatæ v. subsessiles, flore hermaphrodito unico terminali, addito sæpe inferiore

masculo. Glumæ 4, 3 inferiores subæquales, membranaceæ, vacuæ v. tertia paleam rarius florem ♂ fovens; terminalis florem ☿ fovens, cæteris sæpius brevior, cum palea inclusa rigidula. Rhachilla sub gluma fertili utrinque membrana hyalina nunc minima nunc gluma paullo breviore falcata v. auriculæformi appendiculata. Stamina 3. Styli a basi distincti, stigmatibus plumosis. Caryopsis oblonga, gluma paleaque plus minus induratis inclusa, libera.—Gramina habitu *Panici* sectionis *Eupanici*, foliis sæpe latiusculis interdum amplis. Paniculæ sæpius densæ, ramis simplicibus ramulosisve.

Species ad 20, Americæ tropicæ incolæ. *Dœll in Mart. Fl. Bras.* ii. ii. 276, *t.* 36. *Kunth, Rev. Gram. t.* 34, 168. *Trin. Spec. Gram. t.* 210 *ad* 212 (*Panicum*), 323. *Brongn. in Duperr. Voy. Coq. Bot. t.* 18. *Fourn. Gram. Mex.* 34.

Genus vix a *Panico* distinctum. In speciebus typicis (*Macropteris*) habitu *Panico olyroidi*, *P. aturensi* affinibusque similibus, auriculæ spicularum rhacheos dimidium glumæ sæpe superant; in *Panico longifloro*, Trin., (quod *Ichnanthi* species) auriculæ minutæ adesse videntur; in *Ichnantho pallente*, Dœll, affinibusque (*Micropteris*) auriculæ parvæ alæformes sæpe vix conspicuæ, et hæc species forte non immerito a Fourniero Gram. Mex. 30 ad *Panicum* restituuntur, a Munroio tamen in *Ichnantho* retinentur.

I. Hoffmanseggii, Dœll (*Panicum*, Trin. Spec. Gram. t. 219) et *I. oplismenoides*, Munro, a cæteris habitu distant ob inflorescentiam uti totam plantam pilis longis mollibus patentibus vestitam.

10. **Oplismenus,** *Beauv. Fl. Ow. et Ben.* ii. 14, *t.* 68; *Agrostogr.* 53, *t.* 11, *f.* 3. (Orthopogon, *R. Br. Prod.* 194. Hekaterosachne, *Steud. Syn. Pl. Glum.* i. 118.)—Spiculæ 1-floræ, cum pedicello articulatæ, secus ramos indivisos secundos paniculæ simplicis fasciculatæ, flore terminali hermaphrodito. Glumæ 4, 3 exteriores membranaceæ, plus minus aristatæ, extima cæteris non v. parum brevior sæpiusque longius aristata, vacuæ v. tertia paleam parvam fovens; terminalis florem ☿ fovens, cæteris brevior, obtusa, mutica, demum cum palea inclusa indurata. Stamina 3. Styli a basi distincti, stigmatibus plumosis. Caryopsis gluma paleaque induratis inclusa, libera.—Gramina sæpius debilia, basi ramosa, adscendentia, foliis anguste v. late lanceolatis planis. Panicula unilateralis, ramis dissitis, nunc longiusculis tenuibus, fasciculis pluribus secus latus inferius dissitis paucispiculatis, nunc ad fasciculum unicum densum in axi paniculæ sessilem reductis. Spicarum rhachis in speciebus paucis Africanis v. Mascarensibus longe pilosa, sæpius tamen glabra.

Species 3 v. 4, per regiones tropicas subtropicasque utriusque orbis late dispersæ, a botanicis nonnullis in unam junctæ, ab aliis in species ultra 30 divisæ. *Steud. Syn. Pl. Glum.* i. 44 (*Panici sect.*). *Trin. Sp. Gram. t.* 187 *ad* 193 (*Panicum*). *Fourn. Gram. Mex.* 37 (*quoad sect. Orthopogon*). *Dœll in Mart. Fl. Bras.* ii. ii. 144, *t.* 23 (*Panici sect.*). *Benth. Fl. Austral.* vii. 491. *Host, Gram. Austr.* iii. *t.* 52 (*Panicum*). *Reichb. Ic. Fl. Germ. t.* 28 (*Orthopogon*). *Jacq. Ic. Rar. t.* 631 (*Andropogon*). *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 20. *Buchan. N. Zeal. Grass. t.* 11 (*Panicum*).

Genus *Panico* (*Brachiariæ*) proxime affine quidem, sed habitu et gluma extima bene evoluta aristataque satis distinctum videtur. Kunth, Enum. Pl. i. 138, genus admisit sed pro sectione *Echinochloam* addidit. Hæc tamen nobis ab *Oplismeno* distare videtur nec a *Panico* separanda.

11. **Chætium,** *Nees, Agrostol. Bras.* 269. (Berchtoldia, *Presl, Rel. Hænk.* 323, *t.* 43.)—Spiculæ angustæ, in panicula angusta densa confertæ, pedicello infra medium articulato, flore hermaphrodito unico terminali. Glumæ 4, 2 exteriores vacuæ lanceolatæ v. fere setaceæ, plus minus inæquales, longe setaceo-aristatæ, secunda sæpius infima major longiusque aristata, tertia pariter vacua sed tenuior, brevius aristata; terminalis florem ☿ fovens, brevior, rigidior, breviter acuminata; palea paullo minor. Stamina 3. Styli a basi distincti, stigmatibus longiusculis breviter plumosis. Caryopsis oblonga, glumæ paleaque plus minus induratis inclusa, libera.—Gramina elatiuscula, foliis angustis. Panicula terminalis, angusta, densa, interdum elongata, ramis tenuibus strictis subramulosis. Spiculæ pedicellatæ, quaquaversæ.

Species nobis adsunt 2, altera Brasiliensis, altera Mexicana. *Dœll in Mart. Fl. Bras.* ii. ii. 149, *t.* 24 (*Panici sect.*).

Genus *Oplismeno* affine, quocum junxit Kunth, inflorescentia tamen facillime distinctum. Fournier,

Gram. Mex. 41, species 2 addidit, quæ nobis minime congeneres videntur. *B. holciformis* (*Oplismenus holciformis*, H. B. et K.) ex speciminibus citatis, Bourgeau n. 910, et Spruce n. 6445, inter formas *Panico Crusgalli* affines comprehenditur. *B. oplismenoides*, Fourn., nobis ignota, ex charactere dato pariter ad *Panicum* (*Echinochloam*) referenda videtur.

12. **Setaria,** *Beauv. Fl. Ow. et Ben.* ii. 80, *quoad char. gen.*, *non t.* 110.—Spiculæ ovatæ, cum pedicello articulatæ, ramulis sterilibus setiformibus in pedicello persistentibus stipatæ, in panicula densa cylindracea v. anguste thyrsoidea confertæ, flore hermaphrodito unico terminali, addito rarius infero masculo. Glumæ 4, 3 exteriores membranaceæ, extima sæpius brevissima secundaque intermedia vacuæ, tertia sæpius longior, vacua v. rarius paleam v. florem masculum v. sterilem fovens; terminalis florem ☿ fovens, brevior, obtusa, demum cum palea inclusa indurata, nitida v. tenuiter transverse rugosa. Stamina 3. Styli a basi distincti, elongati, stigmatibus plumosis. Caryopsis gluma paleaque induratis inclusa, libera.—Gramina annua, interdum elata, foliis planis. Panicula terminalis, sæpius cylindracea spiciformis, nunc valde elongata, v. paullo longior anguste thyrsoidea, setis numerosis (ramulis sterilibus) spiculas longe superantibus sæpissime echinata.

Species ab auctoribus variis recensitæ numerosæ, sed vix ultra 10 retinendæ, et hæ sæpe valde variabiles et inter se ægre distinguendæ, per regiones tropicas temperatasque utriusque orbis late dispersæ, nonnullæ in locis cultis vulgatissimæ, hodie cosmopolitanæ, indigenæ v. inquilinæ. *Schreb. Beschr. Gräs. t.* 25 (*Panicum*). *Beauv. Agrostogr.* 51, *t.* 13, *f.* 3. *Kunth, Enum. Pl.* i. 149, *Rev. Gram. t.* 37, 118, 212. *Trin. Spec. Gram. t.* 95, 96, 195, 196, 198, 199, 201 *ad* 203. *Jacq. Ecl. Gram. t.* 22, 24 (*Panicum*), *et t.* 25, 26 (*Pennisetum*). *Steud. Syn. Pl. Glum.* i. 50 (*Panici* § 9). *Schlecht. in Linnæa*, xxxi. 387. *Host, Gram. Austr.* ii. *t.* 13 *ad* 16, iv. *t.* 14 (*Panicum*). *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 22. *Reichb. Ic. Fl. Germ. t.* 47. *Benth. Fl. Austral.* vii. 492, *et in Journ. Linn. Soc.* xix. 46. *Dœll in Mart. Fl. Bras.* ii. ii. 156, *t.* 27 (*Panici sect.*).

In speciminibus *Setariæ* cujusdam, *S. viridi* valde affinis, a Hildebrandio in ins. Sandwicensibus lectis, panicula spiciformis longissima est, et flos inferior cujusve spiculæ hermaphroditus est etsi forte sæpius sterilis, quod tamen etiam hinc inde in aliis speciebus observavimus, e.g. in specie Mexicano-Texana *S. italicæ* affini, et interdum in ipsa *S. glauca*, sed rarissime occurrere videtur.

Ixophorus, *Schlecht. in Linnæa*, xxxi. 420, pro genere proponitur ad *Urochloam unisetam*, Presl, speciem Mexicanam a nobis non visam. Trinius ad *Panicum* ducit, Fournier ad *Setariam*, quacum descriptio Schlechtendahlii satis convenit.

Setaria longiseta, Beauv. Fl. Ow. et Ben. t. 110, ex icone et descriptione videtur *Pennisetum* (*Beckeropsis*) *unisetum*.

13. **Cenchrus,** *Linn. Gen. n.* 1149, *pro parte.*—Spiculæ angustæ, singulæ v. per 2–3 involucro e setis tenuibus v. complanatis rigidis basi induratis sæpeque connatis inclusæ, pedicello infra involucrum articulato, cum involucro deciduæ, flore hermaphrodito unico terminali addito interdum inferiore masculo. Glumæ 4, muticæ, infima parva, interdum minuta, secunda vacua, tertiam æquans v. paullo brevior, tertia paleam interdumque florem ♂ fovens; terminalis brevior, rigidior, paleam floremque ☿ fovens. Stamina 3. Styli ima basi sæpius connati, stigmatibus plumosis. Caryopsis gluma paleaque leviter induratis inclusa, libera.—Gramina annua v. perennia, sæpe elatiuscula, foliis planis flaccidis v. (in *C. distichophyllo*, Griseb. e Cuba) brevibus rigidis convoluto-teretibus. Involucra in spica v. racemo terminali simplici sessilia v. pedicellata, setis pluriseriatis omnibus supra basin induratam tenuibus, una haud raro cæteris multo longiore, v. interioribus complanatis induratis alteque connatis.

Species ad 12, per regiones tropicas et subtropicas utriusque orbis late dispersæ, in America etiam in temperatas extensæ. *Beauv. Agrostogr.* 57, *t.* 13, *f.* 7. *Steud. Syn. Pl. Glum.* i. 109. *Schreb. Beschr. Gräs. t.* 23, *f.* 1. *Cav. Ic. t.* 461 *ad* 463. *Labill. Sert. Nov. Caled. t.* 19. *H. B. et K. Nov. Gen. et Sp. t.* 35, 36. *Dœll in Mart. Fl. Bras.* ii. ii. 309, *t.* 43. *Fourn. Gram. Mex.* 49.

14. **Pennisetum,** *Pers. Syn.* i. 72.—Spiculæ ovatæ v. angustæ, singulæ v. per 2–3 setis simplicibus pinnatifidis v. barbato-plumosis (ramulis sterilibus ?) cinctæ quasi involucratæ, pedicello infra involucrum articulato, cum involucro deciduæ, flore hermaphrodito unico

terminali rarius abortu fœmineo, addito interdum inferiore masculo. Glumæ 4 v. rarius 3, extima parva nunc minima, rarius deficiens, secundaque spiculam sæpe æquans, vacuæ, tertia nunc vacua, nunc paleam v. florem ♂ fovens; terminalis florem ☿ v. abortu ♀ fovens, brevior, cum palea inclusa firmior. Stamina 3. Styli a basi distincti v. breviter v. alte connati, stigmatibus breviter plumosis interdum valde elongatis. Caryopsis gluma paleaque rigescentibus v. induratis inclusa, libera.—Gramina annua v. perennia, sæpe ramosa, statura varia. Folia plana. Spicularum involucra sæpius in spica terminali longa densaque conferta, sessilia, quaquaversa, spicis rarius gracilioribus pedunculatis in inflorescentia ramosa pluribus. Spiculæ intra involucrum sessiles v. subsessiles, sæpius (vix semper?) inarticulatæ, involucro rarius ad setam unicam v. paucas reducto, setis tamen sæpius pluriseriatis, liberis v. ima basi brevissime connatis.

Species fere 40, pro maxima parte Africanæ, tropicæ v. extratropicæ, quarum 2 v. 3 per regionem Mediterraneam Asiam tropicam et subtropicam v. Americam tropicam latissime dispersæ, perpaucæ in Asia ins. Mascarensibus Australia v. America tropica endemicæ. *Kunth, Enum. Pl.* i. 160. *Benth. in Journ. Linn. Soc.* xix. 48.

Genus ab auctoribus pluribus in duo v. plura dividitur ad setarum involucri indolem, quæ tamen vix limitibus certis definienda nec habitu distincta et melius pro sectionibus habenda:—

1. *Pennisetum* a Kunthio aliisque limitatur ad species setis involucri numerosis pluriseriatis, nunc omnibus barbato-plumosis, nunc centralibus solis barbatis, exterioribus integris nudis. *Beauv. Agrostogr.* 59, *t.* 13, *f.* 5. *Trin. Spec. Gram. t.* 20. *Kunth, Rev. Gram. t.* 39 *ad* 41, 119. *Delile, Fl. Eg. t.* 8, *f.* 1. *Webb. Phytogr. Canar. t.* 244. *H. B. et K. Nov. Gen. et Sp. t.* 34. *Dœll in Mart. Fl. Bras.* ii. ii. 304, *t.* 42. *Benth. Fl. Austral.* vii. 495.

Eriochæta, *Fig. et De Not. in Mem. Acad. Torin. ser.* 2, xiv. 370, genus propositum est ad species nonnullas Africanas setis involucri insigniter lanato-plumosis.

In speciebus nonnullis e.g. *P. Benthamiano*, Steud.; Grant in Trans. Linn. Soc. xxix. t. 112, ex Africa tropica, et *P.* (v. *G.*) *flaccido*, Munro, ex India orientali, setæ fere omnes v. interdum omnes ut in *Gymnotrice* nudæ, sæpius tamen paucæ centrales v. una sola barbato-plumosæ.

P. lanatum, Klotzsch in Waldem. Reise, Bot. 65, t. 99, species Himalaica, insignis est involucri setis paucis interdum solitariis longis rigidis ramosis parce plumoso-ciliatis v. nudis.

2. Penicillaria, *Willd. Enum. Hort. Berol.* 1036, quoad formam typicam cultam, *P. spicatam*, Willd., a *Pennisetis* typicis differt spica longa crassa densissima, involucris in spica stipitatis haud raro post spiculas fructiferas delapsas persistentibus; sed inter varietates numerosas in Africa calidiore et India orientali cultas plures *Pennisetis* genuinis accedunt involucris brevissime tantum stipitatis, et character nullus superest ad genus distinguendum. Styli longissime filiformes infra medium plus minus connati observantur etiam in *P. villoso*, R. Br., *P. macrostachyo*, Brongn., aliisque nonnullis. *Steud. Syn. Pl. Glum.* i. 102. *Beauv. Agrostogr.* 58, *t.* 13, *f.* 4. *Jacq. Ecl. Gram. t.* 17. *Delile, Fl. Eg. t.* 8, *f.* 3. *Fresen. in Mus. Senkenb.* ii. 134. *Anders. in Peters Reise Mossamb. Bot. t.* 60.

3. Gymnotrix, *Beauv. Agrostogr.* 59, *t.* 13, *f.* 6, a *Pennisetis* genuinis nequaquam differt nisi involucri setis omnibus nudis simplicibus. Styli in plerisque speciebus ad normam generis liberi v. basi brevissime connati, variant tamen in paucis speciebus fere ad apicem connati. *Trin. Spec. Gram. t.* 19, 287, 288. *Kunth, Rev. Gram. t.* 38; *Enum. Pl.* i. 158. *Brongn. in Duperr. Voy. Coq. Bot. t.* 10, 11. *H. B. et K. Nov. Gen. et Sp. t.* 678. *C. Gay, Fl. Chil. t.* 74. *Dœll in Mart. Fl. Bras.* ii. ii. 301, *t.* 40, 41. *Fourn. Gram. Mex.* 47. Catatherophora, *Steud. in Flora*, 1829, 465. Oxyanthe, *Steud. Syn. Pl. Glum.* i. 197.

Sericura, *Hassk. Cat. Hort. Bogor.* 17, e Java, est *P.* (*Gymnotrix*) *macrostachyum*, Brongn., stylis solito altius connatis.

Amphochæta, *Anders. in K. Vet. Akad. Handl. Stockholm*, 1853 (*edit.* 1855), 136, *et Galap. Veget.* 45, *t.* 1, *f.* 1, species Galapagensis, pro genere distincta fuit spicis gracilibus in inflorescentia ramosa pedunculatis, spiculis parvis secus rhachin subdissitis, setis involucri paucis; sed formis intermediis numerosis cum *P.* (*Gymnotrice*) *tristachyo*, Kunth, connectitur.

Beckeropsis, *Fig. et De Not. in. Mem. Acad. Torin. ser.* 2, xiv. 361, est *Gymnotrix uniseta*, Nees, cum speciebus v. potius varietatibus nonnullis per Africam late dispersis, spicis gracilibus in inflorescentia ramosa longe pedunculatis, spiculis parvis, involucro sæpius ad setam unicam reducto interdum vero 2–3-setum est. Seta tamen cum spicula delabitur nec ut in *Setaria* infra articulationem pedicelli persistit. Huc verisimiliter pertinet *Setaria longiseta*, Beauv. Fl. Ow. et Ben. ii. 81, t. 110.

15. **Plagiosetum,** *Benth. Fl. Austral.* vii. 494.—Spiculæ angustæ, subacuminatæ, singulæ rarius 2 inter ramulos involucri obliqui parce ramosi et unilateraliter ramulosi (paniculæ sterilis?) sessiles, flore unico hermaphrodito terminali. Glumæ 4, extima spicula multo brevior, secunda tertiaque vacuæ, subæquales, ∞-nerves; terminalis florem ☿ fovens, cum palea inclusa mox indurata. Stamina 3. Styli a basi distincti, stigmatibus plumosis. Caryopsis gluma paleaque induratis inclusa, libera.—Gramen ut videtur annuum, glabrum, foliis angustis. Involucra pauca, secus rhachin simplicem inflorescentiæ terminalis dissite pedunculata, pedunculis patentibus v. reflexis basi articulatis cum spicula deciduis.

Species 1, Australiæ centralis incola. *Hook. Ic. Pl. t.* 1242.

16. **Paratheria,** *Griseb. Cat. Pl. Cub.* 236.—Spiculæ lanceolatæ, in ramulis inflorescentiæ spiciformis solitariæ, sessiles, ramulo articulato in setam longam ultra spiculam producto quacum deciduo, flore unico hermaphrodito. Glumæ 4, 2 exteriores minutæ, vacuæ, tertia vacua, quartæ florem foventi subæqualis, utraque rigidule membranaceo-herbacea; palea sub flore tenuior. Stamina 3. Styli basi vix brevissime connati v. liberi, stigmatibus plumosis. Caryopsis lineari-oblonga, gluma paleaque vix v. non induratis inclusa, libera.—Gramen (annuum?) multicaule, basi diffuse ramosum, foliis flaccidis. Racemus terminalis, pedunculatus, simplex, tenuiter spiciformis, pedicellis seu ramulis numerosis strictis 1-spiculatis aristiformibus demum prope basin articulatis.

Species 1, Americæ australis tropicæ et Indiæ occidentalis incola. *Dœll in Mart. Fl. Bras.* ii. ii. 150, *t.* 25 (*Panici sect. Leptachyrium*).

Genus potius *Penniseto* quam *Panico* affine.

17. **Echinolæna,** *Desv. Journ. Bot.* i. (1813) 75.—Spiculæ angustæ, in spica unilaterali a pedunculo defracta sessiles, confertæ, cum rhachi articulatæ, flore hermaphrodito unico terminali, addito sæpe inferiore masculo, spiculis nonnullis sterilibus in spica intermixtis. Glumæ 4, 2 exteriores vacuæ, herbaceæ, hispidæ, extima majore rigide acuminata; tertia nunc iis subæqualis vacua v. paleam parvam fovens, nunc brevior cum flore ♂; terminalis florem ☿ fovens, cum palea inclusa obtusa lævis. Stamina 3. Styli a basi distincti, stigmatibus plumosis. Caryopsis oblonga, gluma paleaque rigidulis inclusa, libera.—Gramen decumbens, ramosum, plus minus hispidum, foliis planis. Pedunculi longi, rigidi, terminales v. axillares, ultra spicam unicam in acumen rigidum caducum producti. Spiculæ ad latus inferius spicæ confertæ, subfasciculatæ, rhachi spicæ rigida ultra spiculas producta; spiculæ steriles cum fertilibus intermixtæ, tenues, glumis 2–3 angustis glabris vacuis.

Species 1, per Americam tropicam late dispersa. *Kunth, Enum. Pl.* i. 171, *quoad* § 1. *H. B. et K. Nov. Gen. et Sp. t.* 38. *Rudge, Pl. Gui. t.* 25 (*Cenchrus*).

Echinolænæ cæteræ Kunthii ad *Panicum* referendæ.

18. **Chamæraphis,** *R. Br. Prod.* 193.—Spiculæ angustæ v. acuminatæ, secus ramos filiformes paniculæ simplicis paucæ, dissitæ v. solitariæ, sessiles, cum rhachi articulatæ, ramulo ultra spiculas setiformi, flore terminali hermaphrodito v. abortu fœmineo, addito sæpius inferiore masculo. Glumæ 4, extima vacua minima, secunda et tertia subæquales, membranaceæ v. rigidulæ, sæpe acute acuminatæ nec aristatæ, ∞-nerves, secunda vacua, tertia paleam sæpiusque florem masculum fovens; terminalis fructifera brevior vix nervosa; palea marginibus inflexis nec auriculatis. Stamina in flore ♂ 3, in flore terminali sæpius ad staminodia 2 reducta rarius perfecta. Styli basi brevissime connati, stigmatibus plumosis. Caryopsis gluma paleaque rigidule scariosis inclusa, libera.—Gramina semi-aquatica, sæpius glabra, foliis planis. Panicula terminalis, pedunculata, ramulis simplicibus nunc numerosis filiformibus spiculas paucas dissitas ferentibus, nunc in racemo spiciformi confertis 1-spiculatis v. inferioribus dissite 2-spiculatis.

Species 4, per Asiam tropicam et Australiam dispersæ. *Kunth, Rev. Gram. t.* 32 (*Panicum*), 36. *Trin. Spec. Gram. t.* 181. *Gaudich. in Freyc. Voy. Bot. t.* 24 (*Panicum*). *Benth. Fl. Austral.* vii. 498.

19. **Spartina,** *Schreb. Gen. Pl.* 43. (Trachynotia, *Mich. Fl. Bor. Am.* i. 63. Limnetis, *Pers. Syn. Pl.* i. 72. Ponceletia, *Thou. Fl. Trist. Acugn.* 36, *in Mel. Bot.* Solenachne, *Steud. Syn. Pl. Glum.* i. 12.)—Spiculæ 1-floræ, in spicis unilateralibus secus pedunculum sessilibus subsessiles, cum pedicello brevissimo articulatæ, arcte confertæ, 2-seriatim imbricatæ, flore hermaphrodito. Glumæ 3, 2 exteriores vacuæ, angustæ, carinatæ, valde inæquales, tertia florens secundæ æquilonga v. paullo longior latiorque, præter carinam fere hyalina; palea vix inclusa, gluma sæpe paullo longior latiorque, tenuis fere hyalina, tenuiter 2-nervis, florem involvens. Stamina 3. Stylus filiformis, elongatus, superne in ramos stigmatosos 2 filiformes papillosos v. breviter plumosos divisus. Caryopsis gluma paleaque parum rigescentibus inclusa, libera, linearis, teres v. leviter compressa.—Gramina maritima, rigidula, sæpe elata, basi cæspitosa v. repentia, foliis convoluto-teretibus v. basi explanatis. Spicæ secus pedunculum terminalem erectæ, appressæ, nunc confertæ paniculam longam dense spiciformem formantes, nunc dissitæ angustæ pedunculo appressæ. Spiculæ in spicis numerosæ, secundæ, imbricato-confertæ, rhachi spicæ ultra spiculas plus minus producta.

Species 5 v. 6, quarum una, per littora Americæ Europæ et Africæ late dispersa, sub nominibus pluribus descripta, 2 v. 3 Americæ boreali, 1 Americæ australi extratropicæ, 1 ins. Tristan d'Acunha et Amsterdam propriæ. *Beauv. Agrostogr.* 25, *t.* 7, *f.* 6. *Kunth, Enum. Pl.* i. 277. *Jacq. Ecl. Gram. t.* 27. *Host, Gram. Austr.* iv. *t.* 66 (*Limnetis*). *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 41. *Reichb. Ic. Fl. Germ. t.* 25. *Groves in Trim. Journ. Bot.* 1882, *t.* 225. *Fabre in Ann. Sc. Nat. ser.* 3, xiii. *t.* 3. *Brongn. in Duperr. Voy. Coq. Bot. t.* 2. *Torr. Fl. N. York, t.* 153. *Dœll in Mart. Fl. Bras.* ii. ii. *t.* 8 (*Solenachne*), *et* ii. iii. *t.* 23.

20. **Xerochloa,** *R. Br. Prod.* 196.—Spiculæ angustæ, in spica brevi simplici v. ramosa intra bracteam vaginantem paucæ, rhachi spicæ ultra spiculam sæpe breviter producta, flore hermaphrodito v. fœmineo unico terminali, addito sæpe masculo inferiore. Glumæ 4, tenues, extima brevis, lata, obtusissima, fere hyalina, secunda pariter vacua, longior et rigidior, obtussima v. retusa, tertia rigida, apice sub-2-fida, paleam magnam 2-fidam facile 2-partibilem sæpeque florem ♂ fovens; terminalis angusta, tenuior at rigidula, paleam angustam et florem ♀ v. ☿ includens. Stamina 3. Styli plus minus connati, stigmatibus longis plumosis. Caryopsis gluma paleaque tenuibus rigidulis inclusa, libera.—Gramina erecta, basi ramosa, foliis erectis angustis v. fere teretibus. Bracteæ spiculas includentes in parte superiore caulis dissitæ, rigidule paleaceæ, bracteas interiores spicasque breves sæpe fere ad apicem obtegentes.

Species 3, omnes Australianæ. *Benth. Fl. Austral.* vii. 501.

21. **Stenotaphrum,** *Trin. Fund. Agrost.* 175. (Diastemanthe, *Steud. Syn. Pl. Glum.* i. 360.)—Spiculæ acutæ v. acuminatæ, per 2–4 in fasciculis v. spicis brevissimis secus rhachin complanatam paniculæ spiciformis dissitis confertæ, rhachi fasciculorum ultra fasciculum producta, flore hermaphrodito unico terminali, addito sæpe infero masculo v. imperfecto. Glumæ 3–4, extima parva rarius deficiens, secunda spiculam æquans v. paullo brevior pariter vacua, tertia secundæ subsimilis paleam v. florem ♂ fovens, rarius vacua; terminalis florem ☿ fovens, cum palea inclusa cæteris rigidior. Stamina 3. Styli a basi distincti, stigmatibus plumosis. Caryopsis oblonga, gluma paleaque tenuibus at rigidulis inclusa, libera.—Gramina repentia, radicantia, ramis brevibus adscendentibus sæpius compressis, foliis planis v. convolutis patentibus. Inflorescentia terminalis, spiciformis, rhachi nunc angusta angulata, nunc lata crassiuscula subplana, demum haud raro articulatim divisa, spicularum fasciculis ad faciem inferiorem seu exteriorem in scrobiculis alternis sessilibus v. semi-immersis, fasciculorum rhachi apice breviter mucroniformi rarius spiculis longiore.

Species 2 v. 3, per regiones tropicas utriusque orbis imprimis in maritimis latissime dispersæ, in insulis maris Indici et Pacifici australis frequentissimæ. *Steud. Syn. Pl. Glum.* i. 118. *Trin. Spec. Gram. t.* 360. *Kunth, Rev. Gram. t.* 211. *Dœll in Mart. Fl. Bras.* ii. ii. *t.* 39.

22. ? **Phyllorhachis,** *Trim. in Journ. Bot.* 1879, 353, *t.* 205.—Spiculæ 1-floræ,

angustæ, in spicis brevissimis seu fasciculis 3–4 subsessiles, superiores 2–3 steriles, inferior florem hermaphroditum fovens, rhachi spicæ ultra spiculas breviter producta, spicis in pedunculo foliaceo-dilatato complicato subinclusis 1-seriatis. Spiculæ fertilis gluma infima brevis, rigide setiformis, secunda tertiaque vacuæ, quasi laterales, anguste lanceolatæ, tenuiter membranaceæ, quarta (v. potius palea ad axillam glumæ tertiæ) maxima, rigida, obtusa, 2-carinata, inter carinas profunde sulcata ; gluma summa florens, paullo brevior, hyalina, tenuissime ∞-nervis ; palea subæquilonga, angustior, hyalina. Stamina . . . Stylus . . . Caryopsis oblonga, glumis laxe inclusa.—Gramen elatiusculum, perenne, caulibus rigidulis subramosis, foliis paucis lanceolatis planis, lamina basi sagittata caulem amplectente. Pedunculus terminalis, spathiformis v. fere cymbiformis, elongatus, falcatus, spiculis vix ultra margines prominentibus ; adsunt etiam interdum spiculæ singulæ cæteris multo longiores in pedunculo axillari solitariæ.

Species 1, Angolensis. Genus ad specimina fructifera descriptum, affinitatis dubiæ. Spicam unicam tantum examinare potuimus. Inflorescentia primaria fere *Spartinæ.* Spicæ basi tantum fertiles *Thuareæ.* Palea sub gluma tertia maxima *Xerochloæ,* a Trimenio (an rite?) pro gluma 2-carinata descripta, sub anthesi forte florem ♂ fovens, staminibus a speciminibus fructiferis jam delapsis.

23. **Thuarea,** *Pers. Syn. Pl.* i. 110. (Microthuareia, *Thou. Gen. Nov. Madag.* 3. Ornithocephalochloa, *Kurz in Trim. Journ. Bot.* 1875, 332, *t.* 171.)—Spiculæ monoicæ, in spica unilaterali sessiles, 1-seriatæ, superiores 4–6 masculæ 2-floræ, inferiores 1–2 flore uno terminali hermaphrodito v. sæpius fœmineo, addito sæpius masculo inferiore. Glumæ 3–4, extima parva hyalina v. in spicula ♂ sæpe deficiens, secunda vacua spiculæ æquilonga, v. in spicula ♂ paullo brevior, tertia et quarta florentes subæquales ; fructifera in spicula ♀ rigidior etsi tenuis. Stamina 3. Styli a basi distincti, stigmatibus dense plumosis. Sub fructu spicæ rhachis valde dilatatur spiculam fructiferam includens et fide collectorum in arena sepelitur. Caryopsis gluma paleaque rigidulis vix tamen induratis inclusa, libera.—Gramen longe repens, radicans, caulibus breviter adscendentibus, foliis planis brevibus sæpius minute sericeo-pubescentibus. Spica terminalis, basi bractea vaginante inclusa, fructifera bractea delapsa denudata.

Species 1 a nonnullis in 4 v. 5 divisa, ad littora maris Indici et Pacifici late dispersa. *Beauv. Agrostogr.* 127, *t.* 22, *f.* 9. *Steud. Syn. Pl. Glum.* i. 112. *Benth. Fl. Austral.* vii. 502. *Kunth, Rev. Gram. t.* 35.

Nomen genericum a Kunthio auctoribusque pluribus falso Thouarea scriptum, nam a Persoonio a *Microthuareia,* Thou. (tunc inedita) contractum fuit, nec Thouarsio dicatum.

24. **Spinifex,** *Linn. Mant.* 163, *n.* 1333.—Spiculæ unisexuales, dioicæ, spicatim v. sigillatim bractea stipatæ, cum bracteis dense globoso-capitatæ. Spiculæ ♂ intra bracteam sæpius spicatæ v. fasciculatæ, 2-floræ. Glumæ 4, subsimiles, 2 exteriores vacuæ, nunc minores nunc majores quam 2 interiores florentes paleamque foventes. Stamina 3. Ovarii rudimentum 0. Spiculæ ♀ intra bracteam solitariæ, flore unico hermaphrodito v. fœmineo terminali, addito interdum inferiore imperfecto rarissime masculo. Stamina v. sæpius staminodia 3, cum palea plus minus evoluta. Styli 2, a basi distincti, stigmatibus longis breviter plumosis. Caryopsis gluma paleaque induratis inclusa, libera.—Gramina dura, diffusa v. repentia, ramosa, foliis angustis v. marginibus involutis haud raro sericeo-pubescentibus. Inflorescentiæ terminales, bracteis nunc foliaceis nunc lanceolatis concavis subtentæ ; spicæ ♂ in capitulo sessiles v. pedicellatæ, spiculæ ♀ v. potius spicæ 1-spiculatæ cum bracteis nunc in capitulum magnum densum confertæ, spicarum rhachibus longe prominentibus spinescentibus, v. in *S. paradoxo* capitulum ♀ minor, bracteis varie auctis heteromorphis margine sæpe scariosis.

Species 4, quarum una in maritimis Asiæ tropicæ crescens a *S. hirsuto* Australiano parum diversa, cæteræ Australianæ, una etiam in Nova Zelandia et Nova Caledonia reperta. *Beauv. Agrostogr.* 137, *t.* 25, *f.* 1. *Steud. Syn. Pl. Glum.* i. 113. *Benth. Fl. Austral.* vii. 503. *Labill. Pl. Nov. Holl. t.* 230, 231. *Benth. in Hook. Ic. Pl. t.* 1243, 1244. *Buchan. N. Zeal. Grass. t.* 8, 9.

25. **Olyra,** *Linn. Gen. n.* 1045.—Spiculæ 1-floræ, unisexuales, monoicæ, paniculatæ; ♂ in parte inferiore paniculæ v. rarius omnes in distincta panicula angustæ. Gluma 1, membranacea, uninervis, sæpe acuminata v. brevissime aristata, addita rarius altera exteriore brevi lineari; palea 2-nervis, glumam fere æquans, mutica. Stamina 3. Ovarii rudimentum 0. Spiculæ ♀ in parte superiore paniculæ ovatæ. Glumæ 3, 2 exteriores vacuæ, membranaceo-herbaceæ, æquales v. exterior in acumen v. aristam producta; terminalis florens, brevior, obtusissima, cum palea inclusa cartilaginea, demum indurata. Staminodia 0. Styli 2, basi connati. Caryopsis gluma paleaque plus minus induratis inclusa, libera.—Gramina nunc elata, foliis amplis latis planis venosis, panicula terminali laxe floribunda, nunc humiliora, ramosa, inflorescentia partim v. omnino axillari.

Species ad 20, quarum una Africæ tropicæ, cæteræ Americæ tropicæ incolæ, nonnullæ forte ad varietates *O. latifoliæ* reductæ. *Beauv. Agrostogr.* 124, *t.* 22, *f.* 7. *Steud. Syn. Pl. Glum.* i. 35. *Dœll in Mart. Fl. Bras.* ii. ii. 313. *Kunth, Rev. Gram. t.* 12. *Trin. Spec. Gram. t.* 341 *ad* 344, 346, 347. *Brongn. in Duperr. Voy. Coq. Bot. t.* 22. *Wawra, Maxim. Reise, Bot. t.* 95.

LITHACHNE, *Beauv. Agrostogr.* 135, *t.* 24, *f.* 2, STREPHIUM, *Schrad. in Nees, Agrostol. Bras.* 298, *Fourn. Gram. Mex.* 4, et RADDIA, *Bertol. in Opusc. Scient. Bologna,* iii. 410, sectionem formant, species paucas continentem parum distinctas, caulibus brevibus fasciculatis v. rarius elongatis, foliis sæpius parvulis subdistichis, paniculis axillaribus inferioribus paucifloris androgynis v. fœmineis, superioribus spiculis numerosioribus masculis. In una specie scapi adsunt ad basin ramorum breves aphylli paucispiculati, paniculæ tamen nonnullæ parvæ in ramis foliatis evolvuntur. Ad sect. *Lithachnem* pertinent *Trin. Spec. Gram. t.* 345. *Dœll in Mart. Fl. Bras.* ii. ii. *t.* 45.

26. **Pharus,** *Linn. Gen. n.* 1063.—Spiculæ unisexuales, monoicæ, 1-floræ, secus ramulos paniculæ geminæ, altera sessili fœminea, altera multo minore pedicellata mascula. Spicula ♂: Glumæ 3, omnes membranaceæ, latiusculæ, ∞-nerves, 2 exteriores vacuæ, infima paullo brevior, secunda florenti sublongior; tertia florens parum latior; palea 0. Stamina 6. Pistilli rudimentum 0. Spicula ♀: Glumæ 3, 2 exteriores vacuæ membranaceæ, ∞-nerves, subæquales; tertia florens multo longior, angusta, mox indurata, marginibus involutis subclausa, paleam membranaceam circa florem convolutam apice 2-fidam includens. Staminodia 0. Stylus filiformis, elongatus, apice 3-fidus, stigmatibus pube brevi papillosis. Caryopsis subteres, linearis, cum palea intra glumam induratam inclusa.—Gramina valida, foliis supra vaginam longe petiolatis amplis acuminatis oblique subpenniveniis et multivenulosis, petiolo torto sæpius reversis. Panicula terminalis, ampla, laxe composita, ramulis elongatis tenuibus sæpe divisis. Spiculæ fœmineæ masculis 2–3-plo longiores, pedicello masculorum spiculam fœmineam sæpe superante. Gluma fructifera superne sæpe pilis brevibus subreversis hirsuta.

Species editæ 5, Americæ tropicæ a Brasilia usque ad Mexicum et Floridam incolæ, inter se valde affines, nec limitibus certis definitæ. *Beauv. Agrostogr.* 125, *t.* 22, *f.* 8. *Steud. Syn. Pl. Glum.* i. 8. *Dœll in Mart. Fl. Bras.* ii. ii. 19, *t.* 6. *Fl. des Serres, t.* 316.

27. **Leptaspis,** *R. Br. Prod.* 211.—Spiculæ unisexuales, monoicæ, 1-floræ, secus ramulos paniculæ breviter racemulosæ, 1–2 inferioribus racemuli fœmineis, terminali mascula multo minore. Glumæ 3, 2 exteriores vacuæ, parvæ, latæ; tertia florens major, membranacea, 5–7-nervis, ovoidea v. inflato-globosa, in spicula mascula introrsum longitudinaliter aperta, in spicula fœminea clausa, apice solo oblique perforata; palea inclusa, lanceolata, plana, apice 2-dentata. Stamina in masculis 6, absque rudimento pistilli; staminodia in fœmineo 0. Stylus elongatus, filiformis, apice in stigmata 3 plumosa divisus. Caryopsis gluma aucta inflata inclusa, libera.—Gramina elatiuscula, foliis supra vaginam longiusculam petiolatis late lanceolatis planis. Panicula terminalis, ramis paucis longis tenuibus sæpius indivisis. Spiculæ ♀ in racemulis 1–2 breviter pedicellatis, nec ut in *Pharo* ad basin pedicelli masculi sessiles.

Species 3 v. 4, Africæ, Asiæ et Australiæ inter tropicos incolæ. *Steud. Syn. Pl. Glum.* i. 8 *et* 416. *Benn. Pl. Jav. Rar. t.* 6.

28. **Lygeum,** *Linn. Gen. n.* 70.—Spicula unica, 2- rarius 3-flora, magna, acuminata, in apice pedunculi vix articulata, floribus hermaphroditis, rhachilla non producta. Glumæ

3–4, exterior vacua, spathiformis, acuminata v. in aristam brevem producta ; 2, rarius 3, florentes in exteriore inclusæ, æquales, gluma exteriore breviores ; infra medium in tubum 2–3-locularem extus pilis longis dense plumosis connatæ, superne liberæ, tenuiter membranaceæ, obtusæ ; palea membranacea, anguste linearis, convoluta, genitalia includens, apice 2-fida, glumas interiores longe superans. Lodiculæ 0. Stamina 3. Stylus filiformis, indivisus, longe exsertus, superne papillis parvis stigmatosus. Caryopses tubo glumarum indurato densissime plumoso et glumarum parte libera coronato arcte inclusæ, nunc in tubo abortu solitariæ, nunc 2–3 in loculis segregatæ, liberæ.—Gramen perenne, caulibus in rhizomate duro repente confertis erectis rigidis, foliis erectis convoluto-teretibus longe subulato-acuminatis. Pedunculus terminalis, basi vagina folii breviter subulati stipatus. Spicula in ordine magna, unica, erecta v. nutans.

Species 1, in maritimis petrosisque per regionem Mediterraneam late dispersa. *Beauv. Agrostogr.* 140, *t.* 25, *f.* 6. *Kunth, Enum. Pl.* i. 18. *L. C. Rich. in Mem. Soc. Hist. Nat. Par. Ann.* 7, 28, *t.* 3, *tract. opt. anglice reddita et ic. repetita in Kœn. et Sims Ann. Bot.* ii. 548, *t.* 15. *Schreb. Beschr. Gräs. t.* 52, 53.

29. **Streptochæta,** *Schrad. ex Nees, Agrostol. Bras.* 536. (Lepideilema, *Trin. in Mém. Acad. Sc. Petersb. ser.* 6, i. 93.)—Spiculæ angustæ, teretes, acuminatæ, 1-floræ, in spica dissitæ, subsessiles, articulatæ ; flore hermaphrodito terminali. Glumæ 12, rigidæ, nervoso-striatæ, undique imbricatæ nec distichæ, 6 exteriores abbreviatæ, latæ, inæquales, varie denticulatæ, 6 interiores elongatæ, concavæ, quarum extima maxima cæteras fere includens, in aristam longissimam filiformem insigniter spiraliter tortam producta ; subsequentes 2 multo breviores, angustiores, acutæ sed muticæ ; interiores 3 his similes nisi paullo longiores etsi extima multo breviores, fere convolutæ, florem includentes ; palea 0. Lodiculæ 0. Stamina 5–7, filamentis in tubum tenuissime membranaceum primum brevem demum glumas subsuperantem connatis, antheris supra tubum breviter stipitatis. Stylus longe filiformis, apice in ramos 3 stigmatosos filiformes brevissime papillosos divisus. Caryopsis elongata, styli basi coronata, hinc sulcata, glumis rigidulis arcte inclusa, libera. —Gramen subramosum, erectum, foliis ovato-lanceolatis supra vaginam subsessilibus multinervibus. Spiculæ longæ, in spica simplici tenui terminali erectæ, rhachi subappressæ.

Species 1, Brasiliæ australioris incola. *Trin. Spec. Gram. t.* 296, 297. *Dœll in Mart. Fl. Bras.* ii. iii. 217, *t.* 56.

Genus glumis numerosis non distichis et arista cirrhiformi insignis, quoad folia *Parianæ*, quoad stylum *Pharo* accedit, cæteris characteribus ab utroque longe recedit nec cum ullo alio bene comparandum.

30. **Anomochloa,** *Brongn. in Ann. Sc. Nat. ser.* 3, xvi. 368, *t.* 23.—Spiculæ 1-floræ, per 2–3 intra bracteam spathaceam inclusæ, pedicellis brevibus basi articulatis, flore hermaphrodito. Glumæ 2, exterior lata, membranacea, ∞-nervis, mutica, vacua, interiorem florentem includens ; hæc rigidior, obscure venosa, in parte inferiore marginibus arcte appressis clausa, compressiuscula, quam gluma exterior paullo brevior, apice in appendiculam linearem canaliculatam exsertam producta ; palea 0. Lodiculæ 0, sed discus circa genitalia pilis rufis fimbriatus. Stamina 4, filamentis primum brevibus crassis demum tenuissimis exsertis. Stylus filiformis, indivisus, longissime exsertus longeque papillis brevibus stigmatosus. Caryopsis oblonga, gluma indurata arcte inclusa, libera.—Gramen humile (vix pedale), foliorum vaginis distichis, lamina longe petiolata ovato-lanceolata prominule multinervi. Inflorescentiæ bracteæ spathiformes rigidule multinerves, magnæ, in spica terminali plures, infima interdum a cæteris distans, lamina foliacea terminata, omnes spiculas inclusas superantes. Bracteolæ intra spatham sub quoque pedicello breves, latæ, membranaceæ, additis sæpius nonnullis minoribus vacuis v. spicularum rudimenta foventibus.

Species 1, Brasiliensis, adhuc nota tantum e speciminibus hortensibus, seminibus olim e provincia Bahiensi acceptis. *Dœll in Mart. Fl. Bras.* ii. ii. 24, *t.* 7. *Bot. Mag. t.* 5331.

TRIBUS II. MAYDEÆ.

31. **Pariana,** *Aubl. Pl. Gui.* 876, *t.* 337.—Spiculæ unisexuales, monoicæ, 1-floræ, ad quemque nodum rhacheos spicæ articulatæ, masculæ ∞ cum fœmineis 1–2. Spiculæ ♂ ad nodum 5–6, verticillatæ, pedicello complanato erecto fultæ. Glumæ 3, 2 exteriores sublaterales, vacuæ, breves, lanceolatæ v. subsetaceæ, rigidæ, acutæ; tertia florens oblonga, coriacea, erecto-patens, 3-nervis; palea vix brevior, concava, 4-nervis. Lodiculæ longiusculæ. Stamina ∞ (10–20, v. fide Neesii usque ad 40) exserta. Pistilli rudimentum 0. Spiculæ ♀ intra masculos sessiles 1–2. Glumæ 3, 2 exteriores vacuæ, membranaceæ, fere hyalinæ, subæquales, 1-nerves; tertia florens vacuis subæquilonga, rigidior, mox indurata, 1–3-nervis; palea vix brevior, concava. Staminodia 0? Styli liberi v. basi in membranam connati, stigmatibus plumosis. Caryopsis oblonga, gluma paleaque plus minus induratis inclusa, libera.—Gramina valida, perennia, caule simplici v. rarius diviso. Folia latiuscula, subplicata, vaginis nunc ad os longe rigideque ciliatis nunc nudis; lamina brevissime petiolata, interdum deest in caule florido. Spica terminalis, simplex, densa, verticillis masculis cum spicula fœminea rhacheosque articulo inclusis facillime secedentibus.

Species ad 10, Americæ tropicæ incolæ. *Beauv. Agrostogr.* 121, *t.* 22, *f.* 2. *Steud. Syn. Pl. Glum.* i. 113. *Dœll in Mart. Fl. Bras.* ii. ii. 331, *t.* 47.

Lodiculæ floris ♀ ex Dœll 5, in floribus a nobis examinatis 3 vidimus majusculas quarum 2 plus minus connatæ; adsunt tamen interdum squamellæ nonnullæ interiores minutæ, quæ forte pro staminum rudimentis habendæ.

EREMITIS, *Dœll in Mart. Fl. Bras.* ii. ii. 338, *t.* 48, quæ *Pariana parviflora,* Trin., nobis videtur potius *Parianæ* cujusdam forma depauperata, quam genus proprium. In spica unica a nobis visa verticillum unicum adest perfectum, et stamen in floribus masculis unicum. Cætera omnino *Parianæ.*

32. **Coix,** *Linn. Gen. n.* 1043. (Lithagrostis, *Gærtn. Fruct.* i. 7, *t.* 1.)—Spiculæ unisexuales, monoicæ, spicatæ, superiores plures masculæ, fœmineæ 1–2 ad basin spicæ, rhachi tenui supra spiculas ♀ articulata. Spiculæ ♂ ad dentes rhacheos 2–3-næ, una pedicellata, 1–2-floræ. Glumæ 4, 2 exteriores rigidulæ v. herbaceæ, parum inæquales, vacuæ, 2 interiores cum paleis inclusis hyalinæ, utraque florens, v. tertia præter paleam vacua. Stamina 3. Pistilli rudimentum 0. Spiculæ ♀ in articulationibus 1 v. 2 inferioribus spicæ singulæ, cum spiculis 1–2 sterilibus e glumis 1–2 linearibus constantibus, cum rhacheos internodio tenui, intra vaginam clausam globosam v. oblongam lapideam apice poro parvo perforatam inclusæ, 1–2-floræ. Glumæ 4, omnes tenues, plus minus hyalinæ, 2 exteriores vacuæ latæ acuminatæ, 2 interiores paleam hyalinam floremque ♀ includentes, v. tertia præter paleam vacua. Staminodia rarissime adsunt 3. Styli fere a basi liberi, longissimi, filiformes, pilis brevibus papilloso-villosis stigmatosi. Caryopsis globosa v. oblonga, cum glumis emarcidis intra bracteam globosam v. oblongam lapideam arcte inclusa.—Gramina elata, foliosa, ramosa. Spicæ sæpius plures in vaginis foliorum superiorum pedunculatæ, interdum dense fasciculatæ, parte mascula tardius decidua, internodiis seu articulis fœmineis globosis v. oblongis sæpius solitariis rarius 2 superpositis diu persistentibus demum articulatim solvendis.

Species 3 v. 4, quarum una per regiones calidiores utriusque orbis late dispersa indigena v. inquilina, cæteræ Indiæ Orientalis incolæ a specie typica tamen parum diversæ. *Beauv. Agrostogr.* 137, *t.* 24, *f.* 5. *Steud. Syn. Pl. Glum.* i. 9, *excl. sp. plur. Jacq. Ecl. Gram. t.* 40. *Parlat. in Webb. Phytogr. Canar. t.* 242, 243. *Dœll in Mart. Fl. Bras.* ii. ii. *t.* 10.

33. **Polytoca,** *R. Br. in Benn. Pl. Jav. Rar.* 20, *t.* 5. (Cyathorhachis, *Nees ex Steud. Syn. Pl. Glum.* i. 403.)—Spiculæ unisexuales, monoicæ, ad dentes alternos spicæ sessiles, masculæ in eadem v. in distincta spica superiores, fœminei inferiores, rhachi inter spiculas ♀ articulata. Spiculæ ♂ secus rhachin geminæ, erecto-patentes, angustæ, 2-floræ. Glumæ 4, 2 exteriores vacuæ, extima acuta v. in setam longam producta, secunda brevior, minus rigida, 2 interiores tenuiores, muticæ, cum paleis inclusis hyalinæ, flores foventes. Stamina 3. Pistilli rudimentum 0. In spicæ parte inferiore fœminea spiculæ geminæ, altera stipitata angusta sterilis, glumis sæpius 4 angustis inæqualibus vacuis, altera

fœminea in excavatione rhacheos sessilis, arcte appressa. Glumæ 4, extima lata, cartilaginea mox indurata ad latera utrinque sæpius lobulo v. fasciculo pilorum aucta; secunda angustior acuminata, duriuscula, tertia tenuior, pariter vacua; terminalis florens cum palea angusta fere hyalina. Staminodia 0. Styli vix basi connati, longissime filiformes, stigmatibus pilis brevibus papilloso-villosis. Caryopsis gluma exteriore indurata cum rhacheos internodio angusto involuta.—Gramina elata, quam in *Tripsaco* ramosiora, foliis planis inferioribus longissimis latiusculis, superioribus angustis in vaginas sessilibus. Pedunculus terminalis spicas 3–∞ masculas subdigitatas ferens, inferiores breves, ad axillas plus minus fasciculati, singuli basi vagina spathiformi inclusi spicam androgynam superne breviter masculam inferne fœmineam ferentes; rhachis partis masculæ continuus, partis fœminei articulatus, articulis cum spicula fructifera solvendis.

Species nobis notæ 4, quarum 3 Indiæ orientalis incolæ: *P. bracteata*, Br. (*Coix heteroclita*, Roxb.). *P. Wallichiana*, Benth. (*Cyathorhachis Wallichiana*, Nees), et *P. semiteres*, Benth. (*Tripsacus semiteres*, Wall. Cat. Herb. Ind. n. 8628); quarta *P. macrophylla*, Benth., a M'Gillivrayio in Archipelago Louisiade lecta. *Benth. in Journ. Linn. Soc.* xix. 52.

34. **Chionachne,** *R. Br. in Benn. Pl. Jav. Rar.* 15.—Spiculæ unisexuales, monoicæ, ad dentes alternos spicæ sessiles, masculæ superiores, 2-floræ, fœmineæ inferiores, 1-floræ, rhachi inter spiculas ♀ articulata. Spiculæ ♂ secus rhachin geminæ. Glumæ 4, extima cæteris major, membranacea, ∞-nervis, secunda tenuior, nervis paucioribus, pariter vacua, 2 interiores tenues, hyalinæ, paleam hyalinam floremque foventes. Stamina 0. Pistilli rudimentum 0. Spiculæ ♀ ad excavationes rhacheos sessiles, sigillatim superpositæ v. solitariæ. Glumæ 4, extima lata, crassa, lævis, dura demum lapidea, interiores includens, marginibus crassis rhachin tenuem amplectentibus nec includentibus; secunda tertiaque vacuæ, tenues; intima cum palea angusta inclusa hyalina. Staminodia 0. Stylus intra spiculam simplex, filiformis, apice in stigmata 2 longe filiformia brevissime papilloso-pilosa divisus. Caryopsis intra glumam lapideam ovoideo-oblongam v. subglobosam inclusa, libera.—Gramina valida, sæpe elata, ramosa, foliis planis, vaginis haud raro scabro-pilosis. Pedunculi in axillis superioribus solitarii v. fasciculati, singuli bractea vaginante stipati, spicam unicam ferentes.

Species 3, Indiæ orientalis, Archipelagi Malayani et Australiæ tropicæ incolæ. *Benth. Fl. Austral.* vii. 515.

In specie typica *C. barbata*, Br., articulus fructifer spicæ unicus primo aspectu ei *Coicis* similis, sed facile distinguitur rhachi in sulco glumæ lapideæ immersa nec intra bracteam clausam inclusa. In *C. cyathopode*, F. Muell., et in *C. Wightii*, Munro, articuli fructiferi plures fere *Tripsaci*, sed rhachis immersa tenuis nec lapideo-incrassata glumæ subæquilata.

35. **Sclerachne,** *R. Br. in Benn. Pl. Jav. Rar.* 15, *t.* 4.—Spiculæ unisexuales, monoicæ, in spica brevi 2–3, summa mascula 2-flora, inferiores 1–2, fœmineæ, 1-floræ. Spicula ♂ supra fœmineam rhachi producta pedicellata. Glumæ 4, 2 exteriores membranaceæ, æquales, ∞-nerves, 2 interiores tenues, 3-nerves, paleam floremque masculam foventes. Stamina 3. Pistilli rudimentum 0. Spiculæ ♀ infra masculam ad excavationes rhacheos sessiles, 2 superpositæ v. unica. Glumæ 4, extima quoad dimidium inferius lata, cartilaginea, marginibus rhachin tenuem amplectentibus, in parte superiore membranaceo-herbacea, aperta; secunda tertiaque vacuæ, subcartilagineæ, ∞-nerves; intima florens cum palea angusta hyalina. Staminodia 0. Stylus intra spiculam simplex, filiformis, apice in stigmata 2 filiformia brevissime papilloso-pilosa divisus. Caryopsis gluma indurata inclusa, libera.—Gramen elatiusculum, ramosum, basi decumbens, foliis planis angustis. Spicæ ad axillas foliorum superiorum 2–3, longiuscule pedunculatæ, singulæ intra vaginam bracteæ foliaceæ sessiles semi-inclusæ.

Species 1, in Java legit *Horsfield*. Specimina Horsfieldiana examinare nequivimus, et char. noster imprimis ex ic. et descr. Brownii sumptus.

36. **Tripsacum,** *Linn. Gen. n.* 1044.—Spiculæ unisexuales, monoicæ, ad dentes alternos spicæ sessiles, masculæ superiores 2-floræ, fœmineæ inferiores 1-floræ, rhachi inter spiculas

♀ articulata. Spiculæ ♂ secus rhachin geminæ, subpatentes. Glumæ 4, 2 exteriores tenuiter coriaceæ v. rigidulæ vacuæ, 2 interiores paullo breviores, tenuiores, sæpius hyalinæ, paleam hyalinam floremque foventes. Stamina 3. Pistilli rudimentum 0. Spiculæ ♀ in excavationibus rhacheos crassæ solitariæ, sessiles, arcte appressæ. Glumæ 4, latæ, concavæ, exterior coriacea demum indurata, secunda tenuior, rigidula, pariter vacua, 2 interiores cum paleis inclusis tenuiter hyalinæ, tertia cæterum vacua; terminalis florem ♀ fovens. Staminodia 0. Styli basi brevissime connati, longissime exserti, filiformes, pilis brevibus dense papilloso-pubescentibus. Caryopsis intra glumam exteriorem induratam lapideam et rhacheos internodium crassum arcte inclusa, libera.—Gramina valida, elatiuscula, foliis longe subulato-acuminatis. Pedunculi in axillis superioribus solitarii v. gemini, apice spicas sæpius 2–3 rarius 4–∞ v. unam solam, erectas strictas sibimet arcte applicitas ferentes, spicæ parte superiore mascula floribunda rhachi inarticulata, parte inferiore fœminea demum in articulos monospermos solvenda.

Species 3, quarum 2 ab auctoribus nonnullis pro unius varietatibus habitæ, in America calidiore a Brasilia usque ad Mexicum et Texas extensæ, tertia (*T. fasciculata*, Trin.) differt spicis in panicula terminali numerosis, plerisque masculis paucis basi tantum breviter fœmineis. *Beauv. Agrostogr.* 118, *t.* 22, *f.* 1. *Kunth, Enum. Pl.* i. 468. *Steud. Syn. Pl. Glum.* i. 362. *Lam. Illustr. t.* 750, *f.* 1. *Willd. Hort. Berol. t.* 1. *Fourn. Gram. Mex.* 68.

37. **Euchlæna,** *Schrad. Ind. Sem. Hort. Gœtt.* 1832, *ex Linnæa*, viii. *Littbl.* 25. (Reana, *Brign. Ind. Sem. Hort. Modena*, 1850, *ex Flora*, 1850, 400.)—Spiculæ unisexuales, monoicæ, masculæ in panicula terminali ad dentes alternos spicarum geminæ, 2-floræ, fœmineæ in spicis axillaribus fasciculatis foliaceo-bracteatis 1-seriatæ, 1-floræ. Spiculæ ♂ in quoque pari inæqualiter pedicellatæ. Glumæ 4, acutæ, 2 exteriores majores, membranaceæ, vacuæ, 2 interiores florentes cum paleis inclusis hyalinæ. Stamina 3. Pistilli rudimentum 0. Spiculæ ♀ ad dentes alternos rhacheos sessiles, solitariæ, ob rhachin flexuosam quasi superpositæ. Glumæ 4, extima latissima, fere cymbiformis, lævis, mox indurata, interiores et rhachin angustam amplectens, secunda pariter vacua, coriacea at minus dura, tertia hyalina, paleam fovens, cæterum vacua; terminalis sola florens cum palea inclusa hyalina. Staminodia 0. Stylus longissime filiformis, apice breviter 2-fidus, papillis stigmatosis parum prominulis. Caryopsis intra glumam cum internodio rhacheos lapideam arcte inclusa, libera.—Gramina elata, foliis elongatis. Panicula terminalis ♂ dense floribunda *Maydis*, spicarum seu ramulorum simplicium rhachi inarticulata. Spicæ ♀ intra vaginas foliorum fasciculatæ, singulæ bractea paleacea ampla semi-inclusæ more *Polytocæ* et *Chionachnis*, rhachi cujusve articuli angustissima, cum marginibus glumæ mox connata, supra glumam abrupte uncinato-refracta, articulum superiorem specie dorsalem ferens.

Species 2, Mexicanæ, quarum *E. luxurians* sola nobis nota. *Fournier in Bull. Soc. Bot. Belg.* xv. 467. *Gram. Mex.* 69. *Bot. Mag. t.* 6414. *E. Bourgæi, Fourn. l. c.* 468, ad specimen masculum a nobis non visum descripta adhuc quodammodo dubia est. *Reana Giovaninni*, Brign., est evidenter eadem ac *E. mexicana*, spiculis pro floribus descriptis.

38. **Zea,** *Linn. Gen. n.* 1042. (Mays, *Gærtn. Fruct.* i. 6, *t.* 1.)—Spiculæ unisexuales, monoicæ, masculæ in panicula terminali ad dentes alternos spicarum geminæ, 2-floræ, fœmineæ in spica axillari maxima vaginis paleaceis amplis involuta densissime confertæ, longitudinaliter ∞-seriatæ, 1-floræ. Spiculæ ♂ in quoque pari breviter inæqualiterque pedicellatæ v. una sessilis. Glumæ 4, acutæ, 2 exteriores majores, membranaceæ, vacuæ, 2 interiores florentes cum paleis inclusis hyalinæ. Stamina 3. Pistilli rudimentum 0. Spiculæ ♀ arcte sessiles, in seriebus longitudinalibus densissime imbricatæ, rhachi crassa subspongiosa inarticulata. Glumæ 4, omnes membranaceæ, hyalinæ v. rarius subherbaceæ, breves, latissimæ, obtusæ v. emarginato-2-lobæ; 2 exteriores vacuæ interdum crassiores, tertia hyalina paleam brevem sæpe fovens, terminalis florens hyalina, sæpe 2-fida, palea pariter lata sed indivisa. Staminodia 0. Stylus longissime filiformis, apice breviter 2-fidus, papillis stigmatosis brevissimis. Caryopsis subglobosa, dura, glumis paleisque emarcidis semitecta v. basi stipata, cæterum nuda v. in una varietate glumis acutis subherbaceis

obtecta.—Gramen elatum, foliis amplis. Panicula terminalis ♂ longe pedunculata, speciosa, in speciminibus nonnullis in India orientali cultis spiculas nonnullas fœmineas abnormales cum masculis intermixtas fert. Spica ♀ in axillis foliorum solitaria, florens stylis numerosis longissime exsertis pendulis insignis, fructifera longa crassa vaginis paleaceis imbricatis omnino occlusa.

Species 1, originis verisimiliter Americanæ, jam diu in regionibus calidioribus temperatisque utriusque orbis latissime culta; stirps indigena tamen ignota, verisimiliter cultura valde mutata. *Beauv. Agrostogr.* 136, *t.* 24, *f.* 3. *Kunth, Enum. Pl.* i. 19. *Bonafous, Hist. Nat. Mays, Paris,* 1836, *folio cum tabb.* 19. *Dœll in Mart. Fl. Bras.* ii. ii. 30, *t.* 11. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 3, 4.

Tribus III. Oryzeæ.

39. **Hydrochloa,** *Beauv. Agrostogr.* 135, *t.* 24, *f.* 4.—Spiculæ parvæ, unisexuales, monoicæ, spicatæ, spica mascula terminali, fœmineis axillaribus. Glumæ 2, parum inæquales, membranaceæ, concavæ, muticæ, inferiore parum majore; palea 0. Stamina 6. Styli breves, distincti, ad apicem ovarii sublaterales, stigmatibus elongatis breviter plumosis. Caryopsis glumis inclusa, libera.—Gramen tenue, ramosum, fluitans v. reptans, foliis angustis planis. Pedunculus terminalis, tenuis, spiculis ♂ paucis (3–5) apicem versus subsessilibus. Spiculæ ♀ in axillis superioribus subsessiles, paucifloræ, e vagina folii parum exsertæ, stigmatibus e glumis longiuscule exsertis.

Species 1, in aquosis Carolinæ et Floridæ ut videtur haud frequens. *Chapm. Fl. S. U. St.* 549.

40. **Zizania,** *Linn. Gen. n.* 1062, *excl. Z. terrestri.* (Hydropyrum, *Link, Hort. Berol.* i. 252. Melinum, *Link, Handb. Nutzb. Gew.* i. 96.)—Spiculæ angustæ, unisexuales, monoicæ, 1-floræ, secus ramos inarticulatos paniculæ articulatæ sessiles v. breviter pedicellatæ. Glumæ 2, annulo cartilagineo plus minus prominente cinctæ, parum inæquales, membranaceæ convolutæ concavæ v. subcomplicatæ, exterior latior acuta v. in spicula ♀ aristata, vacua, interior florens vix brevior, mutica; palea 0. Stamina 6. Styli breviter v. longe connati, stigmatibus pilis simplicibus plumosis. Caryopsis glumis membranaceis laxe inclusa v. involuta, libera.—Gramina aquatica, elata, foliis longis planis. Panicula terminalis, ampla, laxe floribunda, ramis numerosis tenuibus elongatis.

Species bene notæ 2, boreali-Americanæ, quarum una etiam in Japonia et Rossia orientali invenitur. Ab auctoribus pluribus pro generibus distinctis habentur. In specie typica Linnæi, *Z. aquatica,* Lamb. in Trans. Linn. Soc. vii. 264, *t.* 13, Beauv. Agrostogr. t. 22, f. 6, Schreb. Beschr. Gräs. t. 29, quæ *Hydropyrum,* Link., Kunth, Enum. Pl. i. 9, paniculæ pars inferior mascula patens, pars superior fœminea stricta, spiculæ ♀ subteretes, glumis convolutis, exteriore longe aristata, styli basi breviter connati, stigmatibus pilis longis plumosis, caryopsis linearis. In *Z. miliacea,* Mich., Kunth, Enum. Pl. i. 10, quæ Zizaniopsis, *Dœll in Mart. Fl. Bras.* ii. ii. 12, *t.* 3, spiculæ ♂ et ♀ in panicula plus minus effusa mixtæ, fœmineæ subcompressæ, gluma exteriore brevius aristata, styli longe connati stigmatibus pilis brevibus plumosis et caryopsis ovata, sed genus in integrum servatum naturale evadit. *Z. latifolia,* Turcz., e Japonia et Rossia orientali a speciminibus Americanis *Z. aquaticæ,* Linn., non differt. *Z. microstachys,* Nees, a Trinio descripta et a Dœllio l. c. delineata fuit ad exemplar Selloanum (an revera Brasilianum?) a nobis non visum, sed ex icone et descr. a *Z. miliacea* distinguere nequimus.

41. **Luziola,** *Juss. Gen. Pl.* 33.—Spiculæ ovatæ, parvæ, unisexuales, monoicæ, 1-floræ, secus ramos inarticulatos paniculæ articulatæ subsessiles v. pedicellatæ. Spiculæ ♂: Glumæ 2, tenuiter membranaceæ, muticæ, exterior latior vacua, interior florens angustior vix brevior; palea 0. Stamina 6 v. ∞ (usque ad 18). Pistilli rudimentum 0. Spiculæ ♀ quam masculæ minores, gluma exteriore latiore striato-multinervi. Staminodia 0. Styli breves, distincti, stigmatibus pilis simplicibus plumosis. Caryopsis ovata, glumis membranaceis laxe inclusa, libera.—Gramina basi repentia v. natantia, humilia v. elata, foliis planis. Paniculæ terminales v. axillares, effusæ, ramis filiformibus ramulosis.

Species ad 6, Americæ calidioris a Brasilia usque ad Mexicum et Americæ borealis civitates australiores incolæ.

In specie typica *L. peruviana*, Juss.; Beauv. Agrostogr. 136, t. 24, f. 1; Dœll in Mart. Fl. Bras. t. 5 (*L. brasiliensi*, Moric. Pl. Nouv. Amer. 94, t. 60), ut in *L. alabamense*, Chapm. Fl. S. Un. Stat. 584, et in specie inedita Guianensi, paniculæ ♂ et ♀ in caulibus seu ramis distinctis omnes terminales. In *L. Spruceana*, Benth., Dœll in Mart. Fl. Bras. ii. ii, 18, cui referenda videtur *L. peruviana*, Mey., Prim. Fl. Esseq. 269, t. 2, non Juss., ut in speciminibus nonnullis a Selloio in Brasilia australi lectis ex Herb. Reg. Berol. sub nomine *L. peruvianæ* distributis, paniculæ ♂ terminales, ♀ axillares in eodem caule seu ramo, quales etiam dicuntur in *L. longivalvi*, Dœll, l. c., a nobis non visa. In Caryochloa, *Trin. Gram. Panic. Diss.* ii. 54 *et* 248, *Dœll l. c. t.* 4 (Arrozia, *Schrad.*; *Kunth, Enum. Pl.* i. 11), specie brasiliensi, spiculæ ♂ et ♀ in eadem panicula mixtæ, ♂ tamen in ramulis seu in panicula terminalibus, ♀ inferioribus. Characteres cæteri omnino *Luziolæ*. Stamina semper 6 videntur, quod sæpe in aliis speciebus *Luziolæ* observatur.

42. **Potamophila,** *R. Br. Prod.* 211. (Maltebrunia, *Kunth, Rev. Gram.* i. 183, *t.* 3.) —Spiculæ angustæ, subteretes, 1-floræ, secus ramos inarticulatos paniculæ articulatæ breviter pedicellatæ, flore hermaphrodito v. abortu unisexuali. Glumæ 4, 2 exteriores minimæ setiformes v. acuminatæ, 2 interiores subæquales, membranaceæ, concavæ v. convolutæ, muticæ, quarum exterior vacua, interior florens angustior vix brevior; palea 0. Stamina 6. Styli breves, a basi distincti, stigmatibus plumosis. Caryopsis angusta, glumis rigidule membranaceis nec induratis arcte inclusa.—Gramina aquatica, elata, foliis planis v. siccitate convolutis. Panicula terminalis, nunc longissima stricta, nunc brevior effusa, ramis filiformibus ramulosis.

Species 3, una Australiæ, altera Madagascariæ, tertia Africæ australis, incolæ.

In specie typica Brownii, *Benth. Fl. Austral.* vii. 550, *Kunth, Rev. Gram. t.* 5, *Trin. Spec. Gram. t.* 249, spiculæ pleræque nec omnes unisexuales sed pistillum sterile in masculis, staminodia in fœmineis semper adesse videntur, nisi hinc inde spiculæ omnino vacuæ, folia longa siccitate convoluta et panicula longissima spiculis parvulis. In *P. leersioide* (*Maltebrunia*, Kunth), e Madagascaria, a nobis non visa, spiculæ ex ic. et descr. omnes hermaphroditæ, folia plana, supra vaginam petiolata, panicula cæterique characteres omnino *P. parvifloræ*, Br. In specie Capensi *P. prehensili* (*Maltebrunia*, Nees, Gram. Fl. Afr. Austr. 194) spiculæ majores compressiusculæ, pleræque perfecte hermaphroditæ, folia plana in vagina sessilia et panicula brevior laxe effusa. Genus tamen in integrum servatum naturale est *Oryzam* cum *Zizania* connectens. Kunth præterea *Potamophilam* a *Maltebrunia* distinxit spiculis 2-floris, florem alterum tamen in speciminibus a nobis visis frustra quæsivimus, nec a Brownio commemoratur, et spiculæ quales in icone Kunthii l. c. t. 5, f. 1, 2 et 5 delineantur verisimiliter raræ et abnormes erant, nos nunquam invenimus.

43. **Hygroryza,** *Nees in Edinb. N. Phil. Journ.* xv. 380. (Potamochloa, *Griff. in Journ. Asiat. Soc. Beng.* v. 571, *t.* 22; *Ic. Pl. As. t.* 140.)—Spiculæ angustæ, vix compressæ, 1-floræ, secus ramos inarticulatos paniculæ subsessilis articulatæ, flore hermaphrodito. Glumæ 2, basi nudæ, membranaceæ, exterior latior, in aristam tenuam producta, marginibus carinaque ciliatis interiorem florentem parum breviorem exaristatam amplectens; palea 0. Stamina 6. Styli in ovarii apice contracto distincti, breves, stigmatibus pilis ramosis plumosis. Caryopsis anguste oblonga, glumis membranaceis inclusa, libera.—Gramen aquaticum, natans v. repens, ramosum, foliis brevibus latiusculis planis obtusis. Panicula terminalis, brevis, ramulis brevibus fasciculatis. Spiculæ paucæ, ratione inflorescentiæ magnæ.

Species 1, Indiæ orientalis incola.

44. **Oryza,** *Linn. Gen. n.* 448. (Padia, *Zoll. et Mor. Verz. Pl. Zoll.* 103.)—Spiculæ plano-compressæ, 1-floræ, secus ramos inarticulatos paniculæ articulatæ, sessiles v. breviter pedicellatæ, flore hermaphrodito. Glumæ 4, 2 exteriores minimæ, squamiformes v. setiformes, 2 superiores complicato-carinatæ, rigidulæ, exterior paullo major, vacua, aristata v. mutica, carina sæpius anguste alata v. muricata, interior florens vix brevior, angustior, arista breviore v. 0, carina nuda; palea 0. Stamina 6. Styli breves, vix basi connati, stigmatibus pilis ramosis plumosis. Caryopsis oblonga v. angusta, glumis parum induratis basique sæpe subconnatis arcte inclusa, libera.—Gramina paludosa, elatiuscula, foliis

longis planis. Panicula terminalis, angusta, ramis tenuibus erectis subflexuosis sæpe longis parum ramosis ; spiculæ sigillatim dissitæ, gluma majore prominenter 3-5-nervi.

Species editæ fere 20, sed vix 5 bene distinguendæ, omnes Indiæ Orientalis incolæ, et fere omnes haud male ad varietates *O. sativæ*, Linn., reducendæ. Hæc species, etiam in Australia indigena, jam diu per regiones calidiores utriusque orbis late culta, in pluribus locis Americæ et Africæ inquilina dicitur et quam maxime variabilis est. *O. coarctata*, Griff., tamen, species Himalaica, bene distincta videtur. *O. subulata*, Nees, a Trinio descripta et in Kunth, Rev. Gram. sub t. 101 delineata ad specimen Selloanum Brasiliæ australis, est forte forma abnormis *O. sativæ* glumis more *Poæ* v. *Festucæ viviparæ* elongato-acuminatis. *Beauv. Agrostogr.* 27, *t.* 7, *f.* 7. *Steud. Syn. Pl. Glum.* i. 2. *Dœll in Mart. Fl. Bras.* ii. ii. 5, *t.* 1 (*excl. sect.* 2). *Host, Gram. Austr.* iv. *t.* 25. *Griff. Ic. Pl. As. t.* 142. *Kunth, Rev. Gram. t.* 4. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 2.

45. **Leersia,** *Swartz, Nov. Gen. et Sp. Pl.* 21. (Homalocenchrus, *Mieg ex Hall. Stirp. Helv.* ii. 201. Ehrhartia, *Wigg. Prim. Fl. Holsat.* 63. Asprella, *Schreb. Gen. Pl.* 45. Blepharochloa, *Endl. Gen. Pl.* 1352.)—Spiculæ compressæ, 1-floræ, secus ramos tenues inarticulatos paniculæ sessiles v. breviter pedicellatæ, cum pedicello articulatæ, flore hermaphrodito. Glumæ 2, basi annulo cartilagineo sæpe vix prominulo cinctæ, complicato-carinatæ, rigidulæ, muticæ, exterior latior exalata carina v. marginibus sæpe ciliatis, vacua, interior florens paullo minor ; palea 0. Stamina 6, 3 v. pauciora. Styli breves v. tenues, distincti, stigmatibus pilis ramosis plumosis. Caryopsis ovata v. anguste oblonga, glumis rigidulis laxe inclusa, libera.—Gramina paludosa, elatiuscula, foliis angustis. Panicula terminalis, gracilis, ramis filiformibus erectis v. patentibus parum ramulosis. Spiculæ quam in *Oryza* minores, tenuiores, magis approximatæ et in *L. lenticulari* fere imbricatæ, glumarum nervi parum prominentes.

Species 5, omnes Americanæ, boreales v. tropicæ, quarum tamen *L. oryzoides*, Sw., etiam in Europa et Asia temperata frequens, et *L. hexandra*, Sw., per regiones tropicas orbis veteris latissime dispersa. *Beauv. Agrostogr.* 2, *t.* 4, *f.* 2 (*Asprella*). *Steud. Syn. Pl. Glum.* i. 1. *Dœll in Mart. Fl. Bras.* ii. ii. 9, *t.* 2 (*Oryzæ sect.*). *Schreb. Beschr. Gräs. t.* 22 (*Phalaris*). *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 1. *Host, Gram. Austr.* 1, *t.* 35. *Reichb. Ic. Fl. Germ. t.* 52. *Griff. in Journ. Asiat. Soc. Beng.* v. 570. *t.* 22 (*Zizania*). *Kunth, Rev. Gram. t.* 1, 2, 201. *Fourn. Gram. Mex.* 1.

46. **Achlæna,** *Griseb. Cat. Pl. Cub.* 228.—Spiculæ 1-floræ, secus ramos inarticulatos paniculæ cum pedicello brevissimo articulatæ, rhachilla supra articulationem sub glumis barbellata, flore hermaphrodito. Glumæ 4 (v. 3 cum palea), infima longe aristiformis, secunda coriacea, convoluta, lanceolato-linearis, 7-nervis, in aristam longam abiens, tertia lanceolata, convoluta, acuminata, 3-nervis, quarta sub flore (palea ?) paullo brevior angustiorque, hyalina, acuta, carinata, 1-nervis v. tenuissime 3-nervis. Stamen (fide Griseb.) 1. Styli breves, distincti, stigmatibus simpliciter plumosis. Caryopsis linearis.—Gramen pluripedale, perenne, glabrum, foliis planis. Panicula terminalis, ramis semiverticillatis patentissimis simpliciter racemiformibus.

Species 1, Cubensis, Grisebach cum genere Australiana *Microlæna* comparat, sed ob glumarum infra articulationem deficientia ad *Oryzeas* nec ad *Phalarideas* referenda. Stamina a spiculis examinatis jam delapsa fuerunt.

47. **Beckera,** *Fresen. in Mus. Senckenb.* ii. 132, *t.* 8.—Spiculæ 1-floræ, secus rhachin simplicem, inarticulatam spicæ quaquaversæ, in pedicello brevissimo articulatæ, flore hermaphrodito. Glumæ 2 v. 4, 2 exteriores si adsint minute squamiformes vix prominulæ, 2 superiorum exterior vacua, membranacea, 3-5-nervis, in aristam rectam tenuem producta, interior florens paullo brevior, tenuior fere hyalina, breviter mucronato-aristata v. mutica ; palea 0. Stamina 3. Styli distincti, stigmatibus (pilis simplicibus ?) plumosis. Caryopsis oblonga, glumis vix rigidulis inclusa, libera.—Gramina basi decumbentia, ramosa, foliis planis flaccidis. Spicæ tenues, singulæ longe pedunculatæ, pedunculis tenuibus in axillis superioribus sæpius geminis inæqualibus, sæpeque pluribus ad apicem caulis laxissime subpaniculatis.

Species 2 v. 3, Abyssinicæ. *A. Rich. Fl. Abyss.* ii. 358. *Steud. Syn. Pl. Glum.* i. 117, quoad ser. *a*; species sub ser. *b* enumeratæ ad *Penniseti* sect. *Beckeropsis* pertinent.

Genus *Leersiæ* proxime affine, inflorescentia aliisque notis paucis facile distinctum. De stigmatorum pilis incerti sumus, ex Fresenio simplices sunt, nobis videbantur hinc inde ramosi, stigmata tamen tenuissima fugacissimaque in speciminibus siccis haud facile rite observantur.

Tribus IV. Tristegineæ.

48. **Thurberia,** *Benth. in Journ. Linn. Soc.* xix. 58. (Greenia, *Nutt. in Trans. Amer. Phil. Soc.* v. 142, *non W. et Arn.* Sclerachne, *Torr. ex Trin. in Mem. Acad. Petersb. ser.* 6, vi. 273, *non R. Br.*)—Spiculæ 1-floræ, angustæ, secus ramulos continuos paniculæ dissitæ, cum pedicello articulatæ, flore hermaphrodito. Glumæ 3, 2 exteriores vacuæ, subæquales, muticæ, nervis inconspicuis; terminalis florens vix brevior, tenuis, apice breviter 2-fidus v. 2-dentatus, arista inter lobos tenui elongata geniculata v. flexuosa basi subtorta; palea paullo brevior, angusta, hyalina, 2-carinata. Stamina 3. Styli breves, distincti, stigmatibus breviter pilosis. Caryopsis anguste oblonga, glumis rigidule membranaceis inclusa, libera.—Gramina basi decumbentia, multicaulia v. ramosa, caulibus tenuibus adscendentibus v. erectis, foliis angustis planis. Panicula terminalis, angusta, elongata, gracilis, ramis filiformibus erectis breviter ramulosis. Spiculæ paucæ v. numerosæ, glabræ v. pubescentes nec ciliis cinctæ.

Species 2, Americæ borealis (Texas et Arkansas) incolæ.

Genus quodammodo *Polypogoni* accedit, differt inflorescentia laxa et glumis vacuis muticis nec aristatis. A Steudelio cum *Limnade* jungitur, a quo tamen arista glumæ fertilis terminali, stylis distinctis, aliisque notis abunde discrepat.

49. **Limnas,** *Trin. Fundam. Agrostogr.* 116, *t.* 6; *Spec. Gram. t.* 18.—Spiculæ 1-floræ, secus ramulos continuos paniculæ paucæ, cum pedicello articulatæ, flore hermaphrodito. Glumæ 3, 2 exteriores vacuæ, subæquales, acutæ, muticæ, prominenter 3-nerves; terminalis florens paullo latior, tenuiter 3–5-nervis, dorso prope basin arista exserta tenui geniculata v. flexuosa basi torta instructa, demum rigescens; palea angusta, hyalina, 2-carinata. Stamina 3. Styli fere ad medium connati, stigmatibus tenuibus plumosis, Caryopsis (adhuc immatura) gluma rigidula inclusa, libera.—Gramen cæspitosum, foliis basi confertis angustis subfiliformibus. Panicula brevis, angusta, laxiuscula, longe pedunculata, glabra, ramulis breviter filiformibus paucis.

Species 1, Asiæ Rossicæ orientalis incola. *Kunth, Enum. Pl.* i. 520.

50. **Garnotia,** *Brongn. in Duperr. Voy. Coq. Bot.* 132, *t.* 21. (Miquelia, *Nees, in Pl. Meyen.* 177. Berghausia, *Endl. Gen. Suppl.* iii. 57.)—Spiculæ 1-floræ, secus ramulos inarticulatos paniculæ geminæ, inæqualiter pedicellatæ, cum pedicello articulatæ, flore hermaphrodito. Glumæ 3, 2 exteriores vacuæ ∞-nerves subæquilongæ, extima latior rigidiorque, muticæ v. secunda arista brevi recta terminata; tertia terminalis florens tenuior, sæpe hyalina, mutica v. arista tenui brevi v. longiore subgeniculata terminata; palea hyalina. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis oblonga, glumis parum rigescentibus inclusa, libera.—Gramina sæpius elata, foliis planis. Panicula terminalis, pedunculata, sæpe valde elongata, nunc angusta stricta, nunc effusa, ramis filiformibus ramulosis. Spiculæ more *Miscanthi* regulariter geminæ sed nudæ, nec pilis cinctæ, paribus interdum cum ramulo sæpius tamen singulis cum pedicello articulatis.

Species ad 8, Indiæ orientalis, Chinæ et Japoniæ incolæ.

51. **Arundinella,** *Raddi, Agrostogr. Bras.* 36, *t.* 1, *f.* 3. (Goldbachia, *Trin. in Spreng. N. Entd.* ii. 81. Acratherum, *Link, Hort. Berol.* i. 230. Thysanachne, *Presl, Rel. Hænk.* i. 252. Brandtia, *Kunth, Rev. Gram.* ii. 511, *t.* 170.)—Spiculæ acutæ v. acuminatæ, secus ramulos inarticulatos paniculæ polymorphæ geminæ, inæqualiter pedicellatæ, cum pedicello articulatæ, flore terminali unico hermaphrodito, addito interdum inferiore masculo. Glumæ 4, extima spicula brevior, mutica, secunda pariter vacua, cæteris longior, acuminata v. in aristam brevem rectam producta, tertia brevior, tenuior, mutica, paleam hyalinam interdumque florem masculam fovens; terminalis florens membranacea,

hyalina v. opaca, apice integra v. ad latera aristæ utrinque in dentem producta, arista terminali tenui basi sæpe geniculata instructa v. rarius mutica; palea membranacea. Stamina 3. Styli a basi distincti, stigmatibus plumosis. Caryopsis oblonga, sæpe angusta, gluma paleaque arcte inclusa, libera.—Gramina nunc pumila nunc elata, foliis planis flaccidis. Panicula terminalis, variat nunc elongata ramosissima angusta densaque, v. effusa spiculis numerosissimis secus ramulos confertis, nunc gracilis laxe effusa spiculis minimis, nunc brevis densa ovata, spiculis majoribus confertissimis.

Species ad 24, per regiones tropicas utriusque orbis diffusæ, in Asia tamen numerosiores. *Steud. Syn. Pl. Glum.* i. 114. *Trin. Spec. Gram. t.* 265, 266, 268. *Dœll in Mart. Fl. Bras.* ii. ii. 297, *t.* 38. *Kunth. Rev. Gram. t.* 100 (*Ischæmum*). *Fourn. Gram. Mex.* 53.

Sectiones a Neesio propositæ: *Meliosaccharum* gluma florente ad latera aristæ in dentes producta, et *Acratherum* gluma florente integra, nec bene definitæ nec habitu satis distinctæ videntur. *A. flammida*, Trin. Spec. Gram. t. 267, glumis vacuis sub articulatione persistentibus aliisque notis ad *Trichopterygem* transferenda est.

52. **Phænosperma,** *Munro*; *Benth. in Journ. Linn. Soc.* xix. 59.—Spiculæ 1-floræ, secus ramulos inarticulatos paniculæ sparsæ, cum pedicello articulatæ, flore hermaphrodito. Glumæ 4, membranaceæ, acutiusculæ, muticæ, extima cæteris brevior, 1-nervis, cæteræ parum inæquales, 3-nerves, secunda tertiaque vacuæ; terminalis florens paullo latior, florem involvens; palea 0. Lodiculæ 3 (v. palea lodiculis 2 non longior ?). Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis oblique obovoidea, e gluma florente semi-exserta, cum glumis tamen stipantibus decidua.—Gramen elatum, glabrum, foliis planis. Panicula maxima, ramis tenuibus rigidulis vix ramulosis, secus axin paniculæ fasciculatis subverticillatis verticillis distantibus.

Species 1, Chinensis, in horto Parisiense e seminibus Davidianis educta, nuperque a Shearero ad Kiu Kiang lecta.

53. **Melinis,** *Beauv. Agrostogr.* 54, *t.* 11, *f.* 4. (Tristegis, *Nees, Hor. Phys. Berol.* 47 *et* 54, *t.* 7, *et, eo teste*, Suardia, *Schrank, Pl. Rar. Hort. Monac. t.* 58.)—Spiculæ 1-floræ, secus ramulos inarticulatos paniculæ solitariæ, cum pedicello articulatæ, flore terminali hermaphrodito. Glumæ 4, extima minuta squamiformis, secunda tertiaque inæquales, vacuæ, membranaceæ, emarginatæ v. 2-fidæ, tertiæ costa plus minus in aristam rectam tenuem producta; terminalis florens brevis, mutica, cum palea minore hyalina. Stamina 3. Styli a basi distincti, stigmatibus plumosis. Caryopsis oblonga, glumis majoribus paullo rigescentibus inclusa, libera.—Gramen basi ramosum sæpeque reptans, foliis planis vaginis villosis sæpe glutinosis. Panicula terminalis, angusta, densa, ramis filiformibus ramulosis, spiculis minimis numerosis confertis.

Species 1, Brasiliensis, nuper etiam in collibus Natalensibus Africæ australis detecta. *Dœll in Mart. Fl. Bras.* ii. ii. *t.* 33 (*Panicum*).

54. ? **Triscenia,** *Griseb. in Mem. Amer. Acad. ser.* 2, viii. 534.—Spiculæ 1-floræ, secus ramos inarticulatos paniculæ paucæ, cum pedicello articulatæ, flore hermaphrodito. Glumæ 4, muticæ, 3 inferiores vacuæ, membranaceæ, infima duplo minor, secunda tertiaque subæquales, 3-nerves; florens brevior, membranacea; palea glumæ subæqualis, 2-nervis. Stamina 3. Styli distincti. Caryopsis oblonga, libera, embryone minuto.—Gramen cæspitosum, habitu *Festucæ ovinæ*, foliis setaceis recurvis caulem sæpe æquantibus. Spiculæ racemosæ, raræ, racemique breves in panicula distantes. (*Char. ex Griseb.*)

Species 1, Cubensis, a nobis non visa. Genus ex charactere dato videtur *Arthropogoni* affine sed aristæ desunt.

55. **Arthropogon,** *Nees, Agrostol. Bras.* 319.—Spiculæ secus ramos inarticulatos paniculæ solitariæ, cum pedicello articulatæ, flore terminali unico hermaphrodito, addito interdum masculo inferiore. Glumæ 4, extima angusta, in acumen seu aristam angustata, secunda pariter vacua, paullo longior latiorque, rigidior, obtusa v. sub-2-dentata, costa in

aristam brevem producta, tertia secundæ similis nisi mutica, sæpiusque paleam v. florem ♂ fovens; terminalis florens brevior, mutica, tenuis, cum palea inclusa hyalina. Stamina 3. Styli a basi distincti, stigmatibus plumosis. Caryopsis oblonga, glumis rigidulis laxe inclusa, libera.—Gramina rigidula, foliis ad basin caulis confertis secus caulem paucis planis sæpe pilosis. Panicula terminalis, longe pedunculata, patens, ramis filiformibus parce ramulosis. Spiculæ pilorum fasciculo cinctæ.

Species 2, Brasilienses (altera adhuc inedita). *Kunth, Enum.* i. 519; *Rev. Gram. t.* 200.

56. **Reynaudia,** *Kunth, Rev. Gram.* 195, *t.* 9.—Spiculæ 1-floræ, secus ramos inarticulatos paniculæ tenuis thyrsoideæ solitariæ, cum pedicello articulatæ, flore hermaphrodito. Glumæ 4, 3 exteriores vacuæ, subsimiles, carinatæ, apice 2-fidæ, intra lobos arista recta instructæ, infima paullo minor longiusque aristata, 3–5-nervis, secunda paullo major, 5–7-nervis, tertia sub-5-nervis lobis aristaque brevioribus; terminalis florens angusta, hyalina, acuta, præter carinam enervis, vacuis paullo brevior; palea 0. Lodiculæ 4, quarum 2 exteriores (potius paleam nuncupandæ?) acuminatæ, 2 interiores latæ truncatæ. Stamina 2. Styli distincti, stigmatibus plumosis. Caryopsis . . .—Gramen cæspitosum, foliis ad basin caulis confertis filiformi-teretibus. Panicula longe pedunculata, brevis, angusta, gracilis, laxiuscula, ramis filiformibus brevibus paucispiculatis.

Species 1, ins. San Domingo et Cubæ incola. *Kunth, Enum. Pl.* i. 39.

57. **Rhynchelytrum,** *Hochst. in Flora,* 1844, 249, *non Nees.*—Spiculæ secus ramos inarticulatos paniculæ solitariæ, cum pedicello articulatæ, flore terminali unico hermaphrodito, addito interdum masculo inferiore. Glumæ 4, extima a cæteris distans, brevis, angusta, mutica, fasciculo pilorum cincta, secunda pariter vacua, concava, carinata, 3–5-nervis, dorso pilis longis ciliata, 2-dentata et inter dentes longe tenuiterque aristata, tertia secundæ similis æqualisque nisi sæpius paleam tenuem et interdum florem ♂ fovens; terminalis florens multo brevior, cum palea subhyalina glabra, mutica. Stamina 3. Styli a basi distincti, stigmatibus plumosis elongatis. Caryopsis (in speciminibus immatura) glumis induratis inclusa, libera.—Gramina (annua?) elatiuscula, foliis siccitate convolutis complicatisve. Panicula terminalis, laxe thyrsoidea, ramulis pedicellisque tenuissimis sparsis v. subfasciculatis.

Species 2 v. 3, Africæ tropicæ incolæ. *Steud. Syn. Pl. Glum.* i. 119, quoad species Abyssinicas. Specimina Abyssinica Schimperi n. 2310, a typicis Kotschyanis n. 370, spiculis minoribus minus pilosis aristis brevioribus etc. paullulum differre videntur. *R. ruficomum*, Hochst. in Steud. l. c. nobis ignotum est. Genus *Rhynchelythrum* ad plantam Dregeanam a Neesio in Fl. Afr. Austr. Gram. 64, constitutum valde diversum est, et evidenter *Panicum* (*Tricholænam*) *roseum* refert.

58. **Thysanolæna,** *Nees in Pl. Meyen.* 180. (Myriachæta, *Zoll. et Mor. Verz. Pl. Zoll.* 101, *ex descr.*)—Spiculæ 1-floræ, minimæ, secus ramulos filiformes paniculæ subfasciculatæ, cum pedicello articulatæ, flore hermaphrodito. Glumæ 4, 2 exteriores multo breviores inæquales latæ muticæ, tertia pariter vacua, longior, membranacea, acute acuminata; terminalis florens brevior tenuiorque latior, obtusa, longe ciliata; palea angusta, hyalina. Stamina 2–3. Styli a basi distincti, stigmatibus plumosis. Caryopsis minima, glumis inclusa quarum tertia rigescit.—Gramen elatum, foliis longis latisque. Panicula terminalis, maxima, ramis numerosissimis longe ramulosis primum strictis demum sæpe effusis, undique fasciculis subsecundis spicularum dense obtectis; spiculæ ipsæ breviter pedicellatæ.

Species 1, per Asiam tropicam late dispersa, in Mauritio inquilina. *Steud. Syn. Pl. Glum.* i. 119. *Trin. Spec. Gram. t.* 87 (*Panicum*).

Setæ longæ, tenuissimæ, glumæ florenti in sicco appressæ, a glumis exterioribus fere obtectæ, oculo nudo non apparent, et a Steudelio prætermissæ, qui speciem alteram falsam setis destitutam distinxit.

59. **Cleistachne,** *Benth. in Hook. Ic. Pl.* xiv. 60, *t.* 1379.—Spiculæ 1-floræ, oblongæ, secus paniculæ ramos capillares inarticulatos solitariæ, dissitæ, cum pedicello ciliato articulatæ, flore hermaphrodito. Glumæ 4, 2 inferiores vacuæ, subæquales, latæ, rigidæ,

acutiusculæ, muticæ, plurinerves, circa florem convolutæ, clausæ, tertia vacua subbrevior, angusta, hyalina v. superne breviter membranacea villosaque; quarta sub flore a basi minima tenuissime hyalina in aristam longam rigidam tortam producta; palea minima, hyalina, truncata, ciliolata. Lodiculæ majusculæ. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis oblonga, glumis inferioribus rigide coriaceis arcte inclusa.—Gramina elatiuscula, foliis longis planis. Panicula longa, anguste thyrsoidea, floribunda, pilosa, ramulis erectis flexuosis.

Species v. potius varietates 2, altera Peninsulæ Indiæ orientalis, altera Africæ tropicæ incola.

Genus primo aspectu *Sorgho* subsimile, sed spiculæ omnes hermaphroditæ nec unquam geminæ.

TRIBUS V. ZOYSIEÆ.

60. **Hilaria,** *H. B. et K. Nov. Gen. et Sp.* i. 116, *t.* 37. (Pleuraphis, *Torr. in Ann. Lyc. N. York*, i. 148, *t.* 10.)—Spiculæ ternæ, in fasciculum ebracteatum articulatim deciduum congestæ, centralis flore unico fœmineo v. hermaphrodito, laterales floribus 2 masculis, fasciculis secus rhachin spicæ simplicis fere sessilibus. Glumæ 4, 2 exteriores vacuæ, rigidulæ, tenues v. induratæ, involucrum simulantes, extima major, polymorpha, sæpius ∞-nervis, indivisa v. bifida, apice dentata v. lacera, dorso inter lobos aristata v. mutica, secunda angustior, sæpius carinata, integra v. 2-dentata, mucronata subaristata v. mutica, tertia et quarta membranaceo-hyalinæ integræ v. apice dentatæ, utraque in spiculis masculis florem paleamque angustam involvens, tertia in spicula fertili vacua (v. interdum deficiens?); terminalis spiculæ fertilis nunc a basi lata longe lineari-acuminata, nunc gradatim angustata v. undique æquilata, florem ☿ v. ♀ paleamque angustam includens. Stamina 3. Styli basi breviter connati (v. distincti?), stigmatibus breviter plumosis. Caryopsis ovata v. breviter oblonga, glumis involucrantibus inclusa, libera.—Gramina basi decumbentia, ramosa v. cæspitosa, stolones repentes sæpius emittentia, foliis angustis planis v. convoluto-teretibus. Spicæ in pedunculo terminali solitariæ, breves v. longiusculæ, fasciculis approximatis quaquaversis basi sæpius annulo pilorum cinctis a rhachi articulatim secedentibus. Spiculæ in fasciculo sessiles.

Species 5 v. 6, Mexicanæ, ab America centrali usque ad Texas et Californiam extensæ. *Fourn. Gram. Mex.* 72. *Thurb. in Wats. Calif. Bot.* ii. 293 (*Pleuraphis*). *Benth. in Journ. Linn. Soc.* xix. 61.

Genus naturale et spicularum dispositione facile dignoscendum, etsi glumarum forma de specie in speciem magnopere variat, nec semper in eadem specie constans. In specie typica, *H. cenchroide*, H. B. et K., glumæ exteriores quam in cæteris magis induratæ et gluma florens spiculæ fertilis basi breviter dilatata, in acumen longum producta insign et florem ♀ includit. In *Pleuraphi mutica*, Buckl., glumæ exteriores latæ, integerrimæ, exaristatæ, et in hac flos spiculæ fertilis ♀ videtur. In *P. Jamesii*, Torr., flos spiculæ fertilis ☿ est.

HEXARRHENA, *Presl, Rel. Hænk.* i. 326, *t.* 45, a nobis non visa, ex icone et descriptione est plane *Hilariæ* species.

61. **Ægopogon,** *Humb. et Bonpl. in Willd. Spec. Pl.* iv. 899. (Schellingia, *Steud. in Flora*, 1850, 231, *t.* 1. Hymenothecium, *Lag. Elench. Hort. Matr. Gen. et Sp. Nov.* 4.)—Spiculæ 1-floræ, per 2–6 fasciculatæ, fasciculis secus pedunculum seu rhachin continuam spicæ simplicis secundæ fere sessilibus dissitis, rhachilla ultra florem non producta, flore hermaphrodito. Glumæ 3, apice plus minus 3-dentatæ, dentibus lateralibus abbreviatis, medio aristiformi v. in aristam producto, 2 exteriores vacuæ, subbreviores, tertia florens, variant tamen exteriores v. una sola integerrima acuta, v. omnes apice latiusculæ emarginatæ muticæ, florens sæpius vacuis major, et evidentius 3-cuspidata; palea gluma paullo brevior, angustior, 2-nervis, 2-cuspidata. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis oblonga, glumis inclusa, fasciculo toto spicularum demum articulatim deciduo.—Gramina diffusa v. cæspitosa, tenuia, foliis angustis planis. Spicularum fasciculi secus pedunculum secundi, demum penduli, haud raro spiculas 1–3 tenues steriles v. ananthas cum fertilibus mixtas continent.

Species 2, Americæ tropicæ occidentalis a Bolivia usque ad Mexicum incolæ. *Kunth, Enum. Pl.* i. 235. *Beauv. Agrostogr. t.* 22, *f.* 3, 4. *H. B. et K. Nov. Gen. et Sp. t.* 42, 43. *Fourn. in Bull. Soc. Bot. Belg.* xv. 461; *Gram. Mex.* 71. *Dœll in Mart. Fl. Bras.* ii. iii. 45, *t.* 12.

Genus habitu *Melanocenchrum* refert, characteribus potius *Hilariæ* affine.

62. ? **Cathestechum**, *Presl, Rel. Hænk.* i. 294, *t.* 42.—Spiculæ 2-floræ, ternatim fasciculatæ, fasciculis secus rhachin continuam spicæ simplicis secundæ fere sessilibus, floribus (omnibus ?) hermaphroditis. Glumæ 2 inferiores vacuæ, inæquales, mucronatæ v. breviter aristatæ, secunda spiculæ centralis breviter 2-loba, inter lobos breviter aristata; florentes longiores, breviter 4-fidæ, inter lobos aristatæ, aristis breviter plumosis; palea gluma brevior, apice breviter 2–3-dentata. Stamina 3. Styli distincti, longiusculi, stigmatibus plumosis. Caryopsis . . .—Gramen diffuse cæspitosum, ramis prostratis, foliis brevibus planis. Pedunculi ad apices ramorum plures, breves, spicularum fasciculis paucis parvulis approximatis (*char. ex Presl*).

Species 1, Mexicana, a nobis non visa.

Spicula centralis cujusve fasciculi ex descr. auctoris 4-flora, ex icone 2-flora, et descriptio nonnullis aliis notis vix cum icone convenit. Genus cæterum ex Preslio *Ægopogoni* affine, differre videtur imprimis floribus in spicula 2, utroque hermaphrodito.

63. **Anthephora**, *Schreb. Beschr. Gräs.* ii. 105, *t.* 44.—Spiculæ 1-floræ, plures (ad 4) in fasciculum ebracteatum demum induratum articulatim deciduum congestæ, in quoque fasciculo sæpius 1–2 florem perfectum includentes, 2–3 steriles, fasciculis secus rhachin spicæ simplicis fere sessilibus. Glumæ 3 v. 4, extima dum adsit minima, secunda vacua, maxima, rigida, acuta v. in aristam brevem producta, tertia pariter vacua, sed brevis tenuisque; quarta florens tertiæ subæquilonga, sed cum palea inclusa tenuior. Stamina 3. Styli basi breviter connati, stigmatibus plumosis. Caryopsis ovata v. oblonga, compressa, glumis paleaque inclusa, libera.—Gramina ramosa v. cæspitosa, interdum elata, foliis planis mollibus v. elongatis angustisque. Spica terminalis, elongata, cylindracea, spicularum fasciculis quaquaversis v. secundis, rhachi flexuosæ arcte appressis.

Species nobis notæ 5, quarum una Americæ tropicæ, 4 Africæ tropicæ v. australis incolæ. *Beauv. Agrostogr.* 58, *t.* 13, *f.* 8. *Steud. Syn. Pl. Glum.* i. 111 (*excl. sp.* 5 *et* 6 *ad Hilariam referendis*). *Dœll in Mart. Fl. Bras.* ii. ii. 312, *t.* 44.

Hypudæurus, *Hochst.*, genus ab A. Braunio in Flora 1841, 275, aliisque citatum, est *Anthephora abyssinica*, A. Rich. Fl. Abyss. ii. 389.

64. **Trachys**, *Pers. Syn. Pl.* i. 85. (Trachyozus, *Reichb. Consp.* 48. Trachystachys, *A. Dietr. Spec. Pl.* ii. 16.)—Spiculæ 1-floræ, plures in fasciculum 1-bracteatum demum induratum articulatim deciduum congestæ, in quoque fasciculo sæpius 1–3 florem perfectum includentes, cæteræ (3–6) steriles v. florem ♂ includentes, fasciculis secus rhachin spicæ subsessilibus. Glumæ 3–4, muticæ, 1–2 exteriores breves, tenues, inæquales, vacuæ, tertia maxima, rigidula, ∞-nervis, vacua; terminalis florens brevior, cum palea inclusa tenuis, subhyalina. Stamina 3. Styli basi brevissime connati, stigmatibus plumosis. Caryopsis oblonga, gluma paleaque tenuibus rigidulis inclusa, libera.—Gramen annuum, ramosum, foliis planis mollibus. Spicæ ad apicem pedunculi terminalis geminæ, rhachi flexuosa leviter dilatata. Spicularum fasciculi in facie inferiore rhacheos alterni, subsessiles, receptaculo pedicellisque spicularum post anthesin induratis, glumis majoribus rigidis post anthesin muricati.

Species 1, Peninsulæ Indiæ orientalis incola. *Beauv. Agrostogr.* 107, *t.* 21, *f.* 7. *Kunth, Enum. Pl.* i. 168. *Schreb. Beschr. Gräs. t.* 34 (*Cenchrus*). *Retz, Obs.* v. *t.* 1 (*Panicum*). *Roxb. Corom. Pl. t.* 206 (*Panicum*).

65. **Tragus**, *Hall. Stirp. Helv.* ii. 203. (Lappago, *Schreb. Gen. Pl.* 55.)—Spiculæ 1-floræ, plures (3–5) in fasciculum laxum demum articulatim deciduum confertæ, terminalis cujusve fasciculi sæpius sterilis, cæteræ florem hermaphroditum includentes, fasciculis

secus rhachin spicæ brevissime pedicellatis quaquaversis. Glumæ 2 v. 3, infima minima sæpe deest, secunda vacua, rigida, costis aculeis glochidiatis echinatis; terminalis florens brevior, cum palea inclusa tenuis, hyalina. Stamina 3. Styli breves, distincti, stigmatibus longiusculis plumosis. Caryopsis oblonga, glumis inclusa, libera.—Gramen annuum, diffuse ramosum, foliis planis flaccidis. Spica terminalis, simplex, laxiuscula, fasciculis spicularum lappaceis facile secedentibus.

Species 1, per regiones tropicas temperatasque utriusque orbis latissime diffusa. *Beauv. Agrostogr.* 23, *t.* 6, *f.* 13. *Kunth, Enum. Pl.* i. 169. *Rev. Gram. t.* 120 (*Lappago*). *Schreb. Beschr. Gräs.* 45, *t.* 4 (*Cenchrus*). *Host, Gram. Austr.* i. *t.* 36 (*Lappago*). *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 23. *Reichb. Ic. Fl. Germ. t.* 30 (*Lappago*). *Sibth. Fl. Græc. t.* 101 (*Lappago*). *Dœll in Mart. Fl. Bras.* ii. ii. *t.* 18.

66. **Latipes,** *Kunth, Rev. Gram.* i. 261, *t.* 42.—Spiculæ 1-floræ, in pedicello basi articulato solitariæ v. geminæ, secus rhachin racemi quaquaversæ, flore hermaphrodito, rarius in spicula una deficiente. Glumæ 3, infima angusta, rigida, valde concava, dorso muricata, secunda pariter vacua, infima subæquilonga, angustior, sæpe recurvo-patens, margine v. dorso muricata; terminalis florens multo brevior, cum palea inclusa, hyalina, lævis. Stamina 3. Styli distincti, breves, stigmatibus plumosis. Caryopsis oblonga, gluma exteriore indurata muricata arcte inclusa, libera, gluma intima paleaque emarcidis sub fructu sæpius evanescentibus.—Gramen annuum, tenue, multicaule, rigidum, subramosum, foliis angustis. Racemus terminalis, simplex, laxus, elongatus, rhachi demum flexuosa. Spiculæ parvæ, in pedicello superne compresso dilatato sessiles.

Species 1, Africæ tropicæ et Asiæ occidentalis incolæ a Senegambia usque ad Scinde. Genus a Steudelio cum *Trago* junctum.

67. **Lopholepis,** *Dcne. in Archiv. Mus. Par.* i. 147. (Holboellia, *Wall. in Hook. Bot. Misc.* ii. 144, *t.* 76, *non ejusd. Tent. Fl. Nepal.*)—Spiculæ 1-floræ, minimæ, pedicellis basi articulatis, in racemo simplici quaquaversæ, flore hermaphrodito. Glumæ 3, extima vacua, incumbens, basi dorso in gibbum compressum ciliato-cristatum producta, et supra gibbum iterum in cristam ciliatam dilatata, secunda pariter vacua, a prima semitecta, qua subbrevior, recta, carina dorso ciliato-cristata; terminalis florens hyalina, vacuis 3–4-plo brevior, ovata, acuta; palea hyalina, inclusa. Stamina 2. Styli distincti, breves, stigmatibus plumosis. Caryopsis a basi gibboso-incurva oblonga, glumis rigidulis inclusa, libera.—Gramen annuum, gracile, elegans, multicaule, foliis planis. Racemus terminalis, simplex, spiculis numerosissimis breviter pedicellatis. Flores minutissimi, intra spiculas mox emarcidi, in speciminibus siccis rari, spiculis fere omnibus jam fructiferis.

Species 1, Peninsulæ Indiæ Orientalis incola.

68. **Neurachne,** *R. Br. Prod.* 196.—Spiculæ secus rhachin continuam spicæ densæ ovoideæ v. cylindraceæ sessiles, articulatæ, quaquaversæ, flore hermaphrodito unico terminali, addito rarissime altero inferiore masculo. Glumæ 4, 2 exteriores vacuæ, quarum secunda cæteris major, utro latere pilis intramarginalibus ciliata, tertia minor tenuiorque, sæpius paleam parvam rarissime florem masculum fovens; terminalis minor paleaque subæquilonga tenuiter hyalinæ. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis gluma paleaque tenuibus inclusa, libera.—Gramina perennia, basi cæspitosa subramosa, caulibus sæpius strictis rigidulis, foliis planis v. convoluto-subteretibus. Spicæ terminales, pedunculatæ, in una specie spiculis inferioribus sterilibus quasi involucratæ, in cæteris anguste cylindraceæ.

Species 3, Australianæ. *Benth. Fl. Austral.* vii. 507, *et in Hook. Ic. Pl. t.* 1239 *ad* 1241.

69. **Perotis,** *Ait. Hort. Kew.* i. 85. (Xystidium, *Trin. Fund. Agrost.* 102.)—Spiculæ 1-floræ, angustæ, secus rhachin continuam spicæ v. racemi laxi tenuis sessiles v. breviter pedicellatæ, cum pedicello articulatæ, flore hermaphrodito. Glumæ 3, 2 exteriores vacuæ, lineares, rigidæ, in aristas longas rectas productæ, extima longiore; terminalis florens,

multo minor, cum palea adhuc minore tenuiter hyalina. Stamina 3. Styli basi breviter connati, stigmatibus plumosis brevibus. Caryopsis linearis, glumam intimam paleamque superans, glumis exterioribus inclusa, libera.—Gramina annua v. perennia, multicaulia v. basi ramosa, foliis sæpius brevibus. Spica terminalis, longa, rhachi tenui, spiculis nunc minimis densissime confertis, nunc longioribus sparsis.

Species apud auctores nonnullos 7, sed ad 2 v. 3 inter se ægre distinguendas reducendæ, Asiæ, Africæ et Australiæ inter tropicos incolæ. *Beauv. Agrostogr.* 5, *t.* 4, *f.* 9. *Steud. Syn. Pl. Glum.* i. 185. *Kunth, Rev. Gram. t.* 92.

P. rara, Br., species Australiana, a speciminibus Asiaticis Africanisve *P. latifoliæ*, Ait., primo aspectu distinctissima apparet, quacum tamen intermediis numerosis connectitur.

70. **Leptothrium,** *Kunth, Enum. Pl.* i. 470, *t.* 38, *f.* 2.—Spiculæ 1-floræ, secus rhachin continuam spicæ breviter pedicellatæ, flore hermaphrodito. Glumæ 3, 2 inferiores vacuæ, subcoriaceæ, acutato-subulatæ, infima brevior, subcarinata, inæquilateralis, secunda involuta, a latere compressiuscula; florens hyalina, ovata, subcarinata, 1-nervis; palea triplo brevior. Stamina 3. Styli distincti, stigmatibus penicilliformibus. Caryopsis . . .—Gramen cæspitosum, glabrum, rigidum, caulibus simplicibus, foliis margine involutis rigidis. Spica simplex, rhachi triangulari subflexuosa; spiculæ alternæ, pedicello cum rhachi articulato (*char. ex Kunth*).

Species 1, Americæ calidioris incola, a nobis non visa, a Kunthio ad specimen Humboldtianum descripta.

Genus evidenter *Zoysiæ* quam maxime affine, nec diversum nisi glumis vacuis 2, et patria.

71. **Zoysia,** *Willd. in Gesellsch. Nat. Fr. Berlin N. Schr.* iii. 440. (Matrella, *Pers. Syn. Pl.* i. 73. Osterdamia, *Neck. Elem.* iii. 218.)—Spiculæ 1-floræ, secus rhachin continuam spicæ subsessiles v. breviter pedicellatæ, appressæ, flore hermaphrodito. Glumæ 2, exterior vacua, lata, complicato-carinata, acutiuscula, mutica, interior florens multo minor, cum palea inclusa tenuis, hyalina. Stamina 3. Styli distincti, longiusculi, stigmatibus plumosis. Caryopsis gluma exteriore leviter indurata inclusa, libera.—Gramina repentia, caulibus e basi ramosa breviter erectis rigidulis, foliis distichis rigidis sæpe pungentibus. Spica terminalis, pedunculata, simplex, tenuis, spiculis arcte appressis nec unilateralibus.

Species 2 v. 3 in maritimis Asiæ australis et orientalis, ins. Mascarensium, Australiæ et Novæ Zelandiæ late dispersæ. *Beauv. Agrostogr.* i. *t.* 4, *f.* 1. *Kunth, Enum. Pl.* i. 471. *Benth. Fl. Hongk.* 418. *Hance in Seem. Journ. Bot.* vii. 168. *Franch. et Savat. Enum. Pl. Jap.* ii. 186, 608. *Buchan. Grass. N. Zeal. t.* 13 A.

72. **Schaffnera,** *Benth. in Hook. Ic. Pl.* xiv. 59, *t.* 1378.—Spiculæ 1-floræ, in pedunculis axillaribus brevissimis 1–3 subsessiles, articulatæ, rhachilla brevissima ultra florem non producta, flore hermaphrodito interdum sterili. Glumæ 2, inferior vacua, spiculam æquans, ∞-nervis, 3–5-aristata, aristis lateralibus basi sæpe hyalino-appendiculatis; superior florens membranacea, fere hyalina, brevissime 2-loba, arista inter lobos fere dorsali longiuscula patente; palea gluma paullo brevior, tenuiter hyalina, 2-nervis, apice 2-dentata v. obtusa. Stamina 3, antheris longis angustis. Styli 2, distincti, elongati, tenuissimi, stigmatibus breviter plumosis. Caryopsis . . .—Gramen annuum, humile, diffuse ramosum, foliis brevibus setaceis, caulinis longe vaginatis. Pedunculi intra vaginas foliorum floralium subinclusi, inferior interdum solitarius elongatus, 3-spiculatus, superiores in vagina fasciculati, breves, inæquales. Spiculæ in quoque pedunculo 1 v. 2, aliæ perfectæ fertilesque, aliæ steriles v. vacuæ.

Species 1, Mexicana.

Genus affinitatis valde dubiæ. Primo aspectu iconem *Cathestechi* refert, spicularum structura *Zoysiæ* accedit, folia floralia *Andropogonis* (*Cymbopogonis*) v. *Apludæ*.

TRIBUS VI. ANDROPOGONEÆ.

73. **Imperata,** *Cyr. Pl. Rar. Ic.* ii. 26, *t.* 11, fide *Parlat. Fl. Ital.* i. 136.—Spiculæ secus ramulos continuos paniculæ angustæ densæ geminæ, inæqualiter pedicellatæ, cum pedicello articulatæ, flore unico hermaphrodito terminali, addito rarius altero inferiore sterili. Glumæ 4, omnes tenues, hyalinæ, muticæ, 2 exteriores vacuæ, pilosæ, tertia glabra, vacua v. rarius paleam floremque masculum v. sterilem fovens; terminalis florens, adhuc minor, glabra; palea apice truncata dentataque. Stamina 1–2. Styli distincti, stigmatibus plumosis. Caryopsis parva, glumis inclusa, libera.—Gramina perennia, erecta, sæpe elata, foliis longis. Panicula spiciformis, terminalis, longa, dense cylindracea, pilis longis spiculas involventibus pulchre argenteo-sericea.

Species 3 v. 4, per regiones tropicas et subtropicas utriusque orbis late dispersæ, in orbe vetere usque ad Europam australem Chinam et Japoniam extensæ. *Beauv. Agrostogr.* 7, *t.* 5, *f.* 1. *Steud. Syn. Pl. Glum.* i. 405. *Anders. in Ofvers. K. Vet. Akad. Stockh.* 1855, 157. *Cav. Ic. t.* 292 (*Saccharum*). *Reichb. Ic. Fl. Germ. t.* 55. *Sibth. Fl. Græc. t.* 54 (*Saccharum*). *Host, Gram. Austr.* iv. *t.* 40. *Ten. Fl. Neap. t.* 211 (*Saccharum*).

I. sacchariflora, Maxim. Prim. Fl. Amur. 331, e China boreali et regione Amurense, paniculæ ramis elongatis patentibus et staminibus 3, melius sub *Miscantho* militare videtur, etsi glumæ exaristatæ. *I. ramosa*, Anders., species gerontogea, est, docente Munroio, omnino eadem ac *I. caudata*, Anders., ex America. Hæc species cum speciminibus Americanis *I. arundinaceæ*, genus SYLLEPIS, *Fourn. Gram. Mex.* 52, format ab auctore distinctum lodiculis connatis, quas tamen frustra quæsivimus. An Fournier paleam latam hyalinam truncato-4-dentatam pro lodiculis connatis habet?

74. **Miscanthus,** *Anders. in Ofvers. K. Vet. Akad. Stockh.* 1855, 165. (Eulalia, *Trin. pro parte, Munro in Benth. Fl. Hongk.* 420, *non Kunth.*)—Spiculæ secus ramulos continuos paniculæ patentis geminæ, inæqualiter pedicellatæ, cum pedicello articulatæ, flore unico hermaphrodito. Glumæ 4, 2 exteriores majores vacuæ, membranaceæ, 3–7-nerves v. extima rarius parinervi, muticæ, tertia pariter vacua, sed tenuior, interdum tenuissime hyalina, mutica; terminalis florens tenuiter hyalina, breviter v. alte 2-fida, arista inter lobos sæpius tenuissima subgeniculata basi torta, rarius brevissima v. omnino deficiens; palea tenuiter hyalina. Stamina 3. Styli distincti, stigmatibus plumosis.—Gramina elata, foliis angustis sæpius planis. Panicula terminalis, ampla, pilis longis sericea v. rarius fere glabra, ramis patentibus simplicibus v. vix divisis.

Species 8, quarum una Africæ australis, cæteræ Asiæ orientalis ab Archipelago Malayano usque ad Japoniam incolæ. *Labill. Sert. Austr. Calid. t.* 18 (*Saccharum*). *Benth. in Journ. Linn. Soc.* xix. 64.

Præter species ab Andersonio l. c. enumeratas ad *Miscanthum* pertinent *Eriochrysis fusca*, Trin. (*E. attenuata*, Nees in Steud. Syn. Glum. i. 411), ex India orientali, *Imperata sacchariflora*, Maxim., e China boreali, gluma florente mutica, et *Eulalia cotulifera*, Munro (ECCOILOPUS, *Steud. Syn. Pl. Glum.* i. 123), species Japonica, panicula pilis sericeis orbata insignis; glumæ ipsæ parcissime tantum pubescentes.

Genera *Imperata* et *Miscanthus* quoad paniculæ ramos inarticulatos *Tristegineis* imprimis *Garnotiæ* et *Arundinellæ* prope accedunt, ob habitum tamen et glumæ florentis tenuitatem a vicinitate *Erianthi* et *Sacchari* non removenda.

75. **Saccharum,** *Linn. Gen. n.* 73.—Spiculæ secus ramulos articulatos paniculæ densæ v. amplæ geminæ, altera sessili, altera pedicellata, utraque fertili, flore unico hermaphrodito v. rarius in spicula pedicellata fœmineo. Glumæ 4, 3 vacuæ, acutæ v. subsetoso-acuminatæ, hyalinæ v. basi membranaceæ v. leviter induratæ, ab extima majore ad tertiam minorem gradatim tenuiores; terminalis florens brevior, mutica, cum palea brevi tenuiter hyalina. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis oblonga, glumis inclusa, libera.—Gramina elata, foliis planis v. angustis siccitateque convolutis. Panicula terminalis, pilis longis sericeis undique dense obtecta, nunc ampla dense floribunda, ramulis numerosissimis tenuibus spiciformibus ad quodque par spicularum articu-

latis, nunc contracta dense spiciformis, articulis minus caducis. Spiculæ minimæ, pilis longis involutæ, terminales cujusve ramuli nunc ternæ, centrali sessili, lateralibus pedicellatis, nunc ut ad nodos inferiores geminæ.

Species ad 12, nonnullæ tamen inter se parum distinctæ, genuinæ orbis veteris regionum tropicarum et subtropicarum incolæ, quarum una etiam in America calidiore diu culta. *Beauv. Agrostogr.* 6, *t.* 4, *f.* 10. *Kunth, Enum. Pl.* i. 474. *Steud. Syn. Pl. Glum.* i. 405. *Hook. Bot. Misc. t.* 26. *Hayne, Arzneigew.* ix. *t.* 30, 31. *Roxb. Corom. Pl. t.* 232. *Beauv. Fl. Ow. et Ben. t.* 103.

ERIOCHRYSIS, *Beauv. Agrostogr.* 8, *t.* 4, *f.* 11, *Lam. Illustr. t.* 908, est species Americana tropica a *Saccharo* non distinguenda nisi panicula contracta densissima spiciformi continua v. interrupta spiculis rufo-villosis. Glumæ exteriores membranaceæ demum rigidulæ, non tamen magis induratæ quam in *Saccharis* nonnullis genuinis, nec basi incrassatis ut in *Saccharo spontaneo*. In speciebus gerontogeis a Neesio et Munroio *Eriochrysi* additis e.g. in *Eriochryse pallida*, Munro in Harv. Gen. S. Afr. Pl. ed. 2,440, ex Africa australi et præsertim in *E. Narenga*, Nees in Steud. Syn. Pl. Glum. i. 411, et in *E. longifolia*, Munro, ex India orientali, spicæ v. paniculæ ramuli longiores et habitus fere specierum genuinarum, in his glumæ non rigidiores quam in *S. officinarum*. *Eriochrysis fusca*, Trin. (*E. attenuata*, Nees), ex India orientali, est *Miscanthi* species.

Hackel in litteris monet genus *Eriochrysin* retinendum esse ad *E. cayennensem* speciesque 2 austro-Americanas ei affines (incluso *Anathero holcoide*, Nees, Agrostol. Bras. 324, *Andropogone holcoide*, Kunth, Rev. Gram. t. 160) quas distinxit imprimis spicula pedicellata cujusve paris florem fœmineum nec hermaphroditum fovente. In *E. Narenga* et in *E. longifolia* stamina certe perfecte in utraque spicula. In *E. pallida*, spicula pedicellata sessili simillima est, pistillum perfectum fovens sed stamina in utraque frustra quæsivimus, omnibus verisimiliter jam delapsis. In *E. cayennense* et in *E. holcoide*, spicula pedicellata etsi fertilis et cæterum sessili simillima, sæpius nec semper minor est, et stamina omnino deesse videntur v. ad staminodia brevia reducta. In spicula sessili stamina caducissima, pauca tamen in speciminibus supersunt. Cæterum differentia inter flores ♀ et ☿, si pariter fertiles, multo minoris momenti videtur quam inter flores ♂ steriles et ♀ v. ☿ fertilesque et Hackel in litteris ultimis de genere suo dubius videtur. Habitus *E. holcoidis* potius speciebus gerontogeis quam *E. cayennensi* accedit.

76. **Erianthus,** *Mich. Fl. Bor. Amer.* i. 54. (Ripidium, *Trin. Fundam. Agrostogr.* 169.)—Spiculæ secus ramulos articulatos paniculæ densæ longæ v. amplæ geminæ, homogamæ, altera sessili altera pedicellata, flore unico hermaphrodito. Glumæ 4, 2 exteriores membranaceæ, sæpe rigidulæ, subæquales, vacuæ, extima 4–5-nervis sæpe 2-dentata, secunda tenuior ∞-nervis, tertia brevior, hyalina, vacua; terminalis florens hyalina, nunc setaceo-acuminata, nunc in aristam rectam v. vix subgeniculatam producta; palea hyalina, parva v. rarius longiuscula. Stamina 3. Styli distincti, elongati, stigmatibus plumosis. Caryopsis oblonga, glumis inclusa, libera.—Gramina sæpius elata, foliis planis v. angustis siccitateque convolutis. Panicula terminalis, nunc angusta densissima, nunc laxius patens v. interdum unilateralis, pilis longis sericeis sæpius densissime obtecta, ramis primariis sæpius ramosis ultimis seu spicis ad quodque par spicularum articulatis. Spiculæ pubescentes v. sæpius sericeo-pilosæ, terminales cujusve ramuli sæpius terni.

Species ad 12, per regiones calidiores utriusque orbis dispersæ, usque ad Europam australem Chinam Japoniam et civitates australiores Americæ borealis extensæ. *Beauv. Agrostogr.* 14, *t.* 5, *f.* 2. *Anders. in Ofvers. K. Nat. Akad. Stock.* 1855, 160 (excl. sp. nonnullis ad *Polliniam* referendis). *Jacq. Ecl. Gram. t.* 5 (*Saccharum*). *Host, Gram. Austr.* ii. *t.* 3, iii. *t.* 1 (*Andropogon*). *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 90. *Reichb. Ic. Fl. Germ. t.* 55 (*Saccharum*). *Sibth. Fl. Gr. t.* 52 (*Saccharum*).

Genus quoad species typicas, *E. saccharoidem*, Mich., et *E. Ravennæ*, Beauv., affinesque facillime distinctum; species tamen paucæ Austro-Americanæ gluma fertili apice ad latera aristæ sæpe 2-fida genus cum *Polliniæ* sect. *Eulalia* arcte connectunt. *E. stricta*, Nees, ex America boreali insignis est glumis pubescentibus quidem, sed panicula pilis sericeis cæterum specierum omnino orbata.

77. **Spodiopogon,** *Trin. Fundam. Agrostogr.* 192, *t.* 17.—Spiculæ ad apices ramulorum articulatorum paniculæ ternæ, una sessili inter 2 stipitatas, interdumque adsunt paria 1–2 inferiora, altera in pari sessili altera stipitata, flore in omnibus unico hermaphrodito

v. abortu fœmineo terminali, addito interdum inferiore masculo. Glumæ 4, 2 exteriores vacuæ, tenuiter membranaceæ, longe ciliatæ, subæquales, muticæ, tertia minor, hyalina, paleam sæpeque in spicula sessili florem ♂ fovens; terminalis florens hyalina, alte 2-fida, arista inter lobos longa geniculata, basi torta, palea tenuissima brevi, flore ☿ v. abortu ♀. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis ovoideo-oblonga, glumis exterioribus inclusa, libera.—Gramina elata, foliis latiusculis planis. Panicula longe pedunculata, anguste thyrsoidea, laxa v. densa, molliter sericeo-ciliata, ramulis pedunculisque breviter filiformibus.

Species 3, Asiæ temperatæ et Indiæ orientalis incolæ. *Benth. in Journ. Linn. Soc.* xix. 66.

Genus a *Pollinia*, uti *Chrysopogon* ab *Andropogone*, differt inflorescentia, et includit præter *S. sibiricum*, Turcz., *S. pogonanthum*, Boiss., et *S. albidum*, Benth. (*Andropogon albidum*, Wall. Cat. Herb. Ind. n. 8821).

Spodiopogones Mexicanæ, Fourn. Gram. Mex. 52, 53, nobis videntur omnino *Erianthо* conformes. Specimina Bourgeana n. 2970, *S. foliati*, Fourn., a typico *Erianthо saccharoidi*, Mich., distinguere nequimus. *S. angustifolius*, Trin., est *Polliniæ* species, aliæ nonnullæ in *Ischæmo* quærendæ.

78. **Pollinia,** *Trin. in Mem. Acad. Petersb. ser.* 6, ii. 304, *non Spreng.*—Spiculæ secus ramulos simplices articulatos paniculæ geminæ, homogamæ, altera sessili altera pedicellata, flore unico hermaphrodito. Glumæ 4 v. rarius 3, extima major, vacua, membranacea, mutica, sæpius truncata, dentata v. ciliata, secunda pariter vacua, sæpius tenuior, acuta v. in aristam tenuem rectam producta, tertia tenuiter hyalina, vacua v. deficiens; terminalis florens, hyalina, nunc apice 2-fida sæpiusque inter lobos tenuiter v. valide aristata, nunc ad basin hyalinam stipitiformem aristæ validæ reducta, arista geniculata basi plus minus torta; palea parva hyalina v. 0. Stamina (an semper?) 3. Styli distincti, stigmatibus plumosis. Caryopsis glumis exterioribus inclusa, libera.—Gramina nunc tenuia basi decumbentia ramosaque, nunc elatiora, foliis sæpius angustis interdum longe subulato-acuminatis. Panicula terminalis, ramis simplicibus spiciformibus ad apicem pedunculi subdigitato-approximatis, v. secus pedunculum numerosioribus inferioribus interdum basi geminatim v. subfasciculatim conjunctis, nec ut in *Erianthо* ulterius ramulosis.

Species ad 25, Asiæ, Africæ et Australiæ tropicæ incolæ, in Asia orientali extra tropicos parce extensæ. *Benth. in Journ. Linn. Soc.* xix. 66.

Genus inflorescentia *Andropogoni* sect. *Gymnandropogoni* accedit, spiculis cujusve paris homogamis potius *Erianthо* affine, in sectiones 2 sequentes facile dividitur:—

1. *Eulalia.* Spicæ densifloræ, rhachi pedicellisque plus minus pilis sericeis sæpe fulvis more *Erianthi* obtectis. *Benth. Fl. Austral.* vii. 524. *Brongn. in Duperr. Voy. Coq. Bot. t.* 17 (*Pogonatherum*). *Bory, Voy. Iles Afr. t.* 21 (*Andropogon*). Eulalia, *Kunth, Rev. Gram.* i. 359, *t.* 93. *Trin. Spec. Gram. t.* 332. *P. eriopoda*, Hance (*Spodiopogon angustifolius*, Trin. Spec. Gram. t. 336), ex India et China, insignis est caule basi incrassato dense lanato. Ad sect. *Eulaliam* etiam referendæ videntur *Erianthus longisetus*, Anders., *E. versicolor*, Nees, *E. filifolius*, Nees, aliæque nonnullæ, spicis numerosis in paniculam longam amplam dense confertis longe sericeo-pilosis, inferioribus basi sæpe fasciculatim conjunctis.

2. *Leptatherum.* Spicæ sæpius tenues iis *Arthraxi* accedentes, rhachi præter annulum pilorum brevium ad basin spicularum nuda. *Brongn. in Duperr. Voy. Coq. Bot. t.* 19 (*Eulalia*).

In *P. nuda*, Trin. (*P. imberbi*, Nees), spicæ undique glabræ, ciliis ad basin spicularum deficienti[illegible] arista glumæ fertilis tenuissime capillacea e spicula exseritur. Microstegium, *Nees in Steud. Syn. Pl. Glum.* i. 411, est species *P. nudæ* vaide affinis, *P. Willdenowianum*, Benth., rhachi spicarum pariter nuda, sed arista glumæ fertilis deest. Leptatherum, *Nees in Proc. Linn. Soc.* i. (1841) 92, est *P. lancea*, Nees in Steud. Syn. Pl. Glum. i. 410, *P. nudæ* affinis, sed spiculæ annulo ciliarum nunc brevissimarum nunc longiuscularum cinctæ sunt. Nemastachys, *Steud. Syn. Pl. Glum.* i. 357, ex ins. Taiti, ex char. dato videtur *Polliniæ* (*Leptatheri*) species.

Pollinia, *Spreng. Pl. Min. Cogn. Pug.* ii. 10, genus fictum fuit ad species varias *Andropogonis Chrysopogonis* et *Polliniæ*, charactere manco junctas, et a Trinio rite deletum fuit et de novo constitutum.

79. **Pogonatherum,** *Beauv. Agrostogr.* 56, *t.* 11, *f.* 7. (Homoplitis, *Trin. Fundam. Agrostogr.* 166.)—Spiculæ secus rhachin articulatam spicæ simplicis secundæ geminæ,

altera sessili altera stipitata, flore in utraque unico fertili, addito interdum altero infero masculo. Glumæ 4 v. rarius 3, tenues, extima vacua, spicula paullo brevior, mutica, secunda pariter vacua, cæteris paullo longior, latiuscula, membranacea, subhyalina, dorso sub apice longe aristata, tertia hyalina, mutica, in spicula sessili vacua v. florem ♂ rarissime ☿ sterilemque fovens, in spicula pedicellata vacua v. deficiens; terminalis florens brevis, hyalina, 2-fida, inter lobos longe tenuiterque aristata, flore in utraque spicula ♀ v. in sessili ☿; palea brevis, nunc minima. Stamina 1 v. 2. Styli distincti, stigmatibus plumosis. Caryopsis glumis membranaceis inclusa, libera.—Gramen tenue, sæpe ramosissimum. Pedunculi filiformes, basi vagina stipati; spica unica, obliqua, tenuis sed densa, aristis longis tenuibus insignis.

Species 1, Indiæ orientalis, Archipelagi Malayani, Chinæ et Japoniæ incola. *Kunth, Enum. Pl.* i. 477. *Rev. Gram. t.* 161, 162. *Thunb. Fl. Jap. t.* 7 (*Andropogon*).

80. **Apocopis,** *Nees in Proc. Linn. Soc.* i. (1841) 93. (Amblyachyrum, *Hochst. in Steud. Syn. Pl. Glum.* i. 413, *et in Flora,* 1856, 25.)—Spiculæ perfectæ secus rhachin articulatam spicæ sessiles, cum rudimento stipitiformi ciliato spiculæ alterius, flore fertili unico terminali addito sæpissime altero masculo infero. Glumæ 4, extima vacua latissima, membranacea, multinervis, truncata, denticulata, cæteras involvens, secunda pariter vacua, angustior, tenuior v. subhyalina, truncato-dentata, mutica v. arista recta instructa, tertia angusta, hyalina, paleam angustam sæpissimeque florem ♂ fovens; terminalis tenuissima, hyalina, angusta, in aristam exsertam geniculatam basi tortam nunc longam nunc minimam producta v. rarius mutica, paleam angustam hyalinam floremque ♀ v. rarius ☿ fovens. Stamina 2. Styli distincti. Caryopsis oblonga, gluma extima involuta, libera.—Gramina perennia, basi sæpe diffuse ramosa, glabra v. molliter pilosa, foliis planis angustis non cordatis. Spicæ ad apicem pedunculi sæpe tenues, solitariæ v. geminæ, densæ, erectæ, rhachi ad nodos annulo pilorum ciliata, et gluma extima ipsa interdum fasciculo pilorum instructa. Spiculæ inferiores spicæ interdum tenuiores, exaristatæ, florem unicum ♂ includentes.

Species 5 v. 6, Indiæ orientalis, Chinæ et Archipelagi Malayani incolæ. *Benth. in Journ. Linn. Soc.* xix. 67. Huc pertinent *A. Royleana,* Nees (*Ischæmum paleaceum,* Trin. Spec. Gram. t. 333, *Andropogon paleaceus* et *A himalayensis,* Steud.), arista sæpius brevissima v. evanida rarius spicula longiore, et *A. tridentata,* Benth., *Andropogon tridentatus,* Roxb., species insignis arista longa, et spicis junioribus sæpius bractea ampla spathiformi caduca inclusis. Dentes laterales glumæ extimæ cæteris sæpius distincte longiores.

81. **Dimeria,** *R. Br. Prod.* 204. (Haplachne, *Presl, Rel. Hænk.* i. 234, *t.* 38. Didactylon, *Zoll. et Mor. Verz. Pfl. Zoll.* 99. Psilostachys, *Steud. Syn. Pl. Glum.* i. 413. Pterygostachyum, *Nees ex Steud. Syn. Pl. Glum.* 413.)—Spiculæ 1-floræ, angustæ, secus rhachin tenuem continuam spicæ unilateralis solitariæ, sessiles, cum rhachi articulatæ, flore hermaphrodito. Glumæ 4, 2 exteriores vacuæ, lineares, rigidulæ, carinatæ, muticæ, tertia pariter vacua sed minor, tenuis, hyalina; florens tenuiter hyalina, integra v. 2-loba, arista terminali v. inter lobos tenui basi torta geniculata; palea minuta v. 0. Stamina (an semper?) 2. Styli distincti, stigmatibus plumosis. Caryopsis glumis exterioribus inclusa, libera.—Gramina tenuia, annua, cæspitosa v. rarius elatiora et forte perennia, glabra v. patentim pilosa. Spicæ tenues, ad apicem pedunculi terminalis elongati, solitariæ geminæ v. plures confertæ.

Species ad 10, Asiæ tropicæ et orientalis, Archipelagi Malayani et Australiæ tropicæ incolæ. *Steud. Syn. Pl. Glum.* i. 412. *Benth. Fl. Austral.* vii. 522.

82. **Arthraxon,** *Beauv. Agrostogr.* 111, *t.* 11, *f.* 6. (Pleuroplitis, *Trin. Fundam. Agrostogr.* 174. Batratherum, *Nees in Edinb. N. Phil. Journ.* xviii. 180. Lucæa, *Kunth, Rev. Gram.* ii. 489, *t.* 159. Lasiolytrum, *Steud. in Flora,* 1846, 18. Alectoridia, *A. Rich. Fl. Abyss.* ii. 447, *t.* 99. Psilopogon, *Hochst. in A. Rich. Fl. Abyss.* ii. 447).—Spiculæ perfectæ 1-floræ, secus rhachin articulatam spicæ sessiles, cum rudimento stipitiformi brevi rarius glumifero v. deficiente, flore hermaphrodito. Glumæ 4, extima cæteris major,

vacua, membranacea, multinervis, sæpius acuta, secunda pariter vacua, angustior, carinata, acuta, tertia parva, hyalina, vacua ; terminalis florens quam exteriores brevior, hyalina sed carinata, dorso prope basin arista tenui geniculata basi torta instructa ; palea minima, hyalina. Stamina (an semper ?) 3. Styli distincti, stigmatibus plumosis. Caryopsis glumis exterioribus inclusa, libera.—Gramina tenera, sæpius diffusa, ramosa, rarius elatiora. Folia plana, vagina appressa, lamina in caule sessili plana, plus minus cordato-lanceolata. Spicæ tenues, laxæ, sæpius plures ad apicem pedunculi irregulariter subdigitatæ. Spiculæ secundæ rudimentum valde variabile, in specie Japonica (*Pleuroplitis*, Trin.) nonnullisque aliis sæpius nec semper deest, in plerisque setiforme, in aliis apice in glumam expansum.

Species ad 10, plures tamen inter se ægre distinguendæ, pro maxima parte Asiæ tropicæ incolæ, sed usque ad Chinam, Japoniam, Australiam tropicam, Africam tropicam et Orientem extensæ.

83. **Elionurus,** *Humb. et Bonpl. in Willd. Spec. Pl.* iv. 941.—Spiculæ secus spicæ rhachin articulatam ad nodos excavatam geminæ, altera sessili fertili, altera pedicellata sterili, flore in sessili unico hermaphrodito addito rarius altero infero masculo, in pedicellata unico masculo v. sæpius 0. Glumæ 4, omnes muticæ, extima cæteris major, membranacea, sæpissime apice 2-fida, secunda pariter vacua brevior tenuior rigidula acuta, tertia sæpius vacua et terminalis florens tenuissime hyalinæ ; palea minuta v. 0. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis glumis exterioribus rigidulis inclusa, libera.—Gramina nunc elatiuscula ramosa, nunc humilia cæspitosa, foliis sæpius rigidulis v. elongatis siccitate convolutis. Spicæ terminales, simplices, pilis longis sericeis dense obtectæ, spiculis fertilibus rhachi appressis, sterilium gluma extima sæpe patens.

Species ad 12, pro maxima parte Americæ tropicæ et Africæ tropicæ et extratropicæ incolæ, una in Oriente obvia, una in Australia tropica. *Kunth, Enum. Pl.* i. 480 ; *Rev. Gram. t.* 94. *J. A. Schmidt, Fl. Cap. Verd. Ins.* 154. *Benth. Fl. Austral.* vii. 509. *Delile, Fl. Eg. t.* 14, *f.* 1. (*Rottboellia*). *H. B. et K. Nov. Gen. et Sp. t.* 62, 63.

Genus a *Rottboellia* differt imprimis pilis longis sericeis rhachin spicæ et pedicellos obtegentibus, a *Steud. Syn. Pl. Glum.* 364, aliisque ad *Andropogonem* relatum, sed spiculæ nunquam aristatæ.

Lasiurus, *Boiss. Diagn. ser.* 2, iv. 145, est *Rottboellia hirsuta*, Vahl, a Munroio bene ad *Elionurum* relata, a Boissiero distinguitur imprimis spiculis ad nodos rhacheos ternis, 2 sessilibus, tertia pedicellata, quod tamen certe non constans est etsi sæpe in parte inferiore spicæ densæ spiculas ternas v. quaternas vidimus, in aliis spicis omnes ad normam geminæ sunt.

84. **Rottboellia,** *Linn. f. Nov. Gram. Gen. in Amœn. Acad.* x. 22, *pro parte.* (Stegosia, *Lour. Fl. Cochinch.* 51.)—Spiculæ secus spicæ cylindraceæ rhachin articulatam ad nodos excavatam geminæ, altera sessili fertili, altera pedicellata sterili v. vacua, flore in perfecta unico hermaphrodito, addito interdum inferiore masculo. Glumæ spiculæ perfectæ 4, obtusæ, muticæ, extima ovata, coriacea, cavum rhacheos obtegens, secunda pariter vacua rigidula at tenuior, tertia vacua v. florem ♂ fovens, et terminalis florens cum palea tenuiter hyalinæ. Stamina 3. Styli distincti. Caryopsis glumis exterioribus inclusa, libera.—Gramina sæpe elata, hispida v. glabra, foliis planis. Pedunculi in vaginis superioribus solitarii v. fasciculati, spicam simplicem v. rarissime basi in ramos 2–3 divisam ferentes. Rhachis glabra v. rarius ad nodos ciliata. Spicula perfecta arcte appressa, pedicellata, gluma exteriore sæpe patente, variat flore specie hermaphrodito sed sterili v. masculo, v. ad glumas 1–2 vacuas reducta.

Species ad 18, per regiones calidiores utriusque orbis dispersæ, una in Oriente obvia. *Steud. Syn. Pl. Glum.* i. 360. *Benth. Fl. Austral.* vii. 512. *Kunth, Rev. Gram. t.* 91. *Roxb. Corom. Pl. t.* 157. *Labill. Sert. Austr. Caled. t.* 20.

In *R. muricata*, Retz (*R. glandulosa*, Trin.), quæ Cœlorhachis, *Brongn. in Duperr. Voy. Coq. Bot.* 64, *t.* 14, et in *R. myuro*, Benth. (quæ Peltophora, *Desv. Journ. Bot.* i. (1813) 73, *Beauv. Agrostogr.* 119, *t.* 21, *f.* 11, *Manisuris sp. Roxb. Corom. Pl. t.* 117, *Schreb. Beschr. Gräs. t.* 43), gluma exterior spiculæ perfectæ rigida, apice utrinque ala membranacea aucta, quod tamen etsi minus distincte observatur in *R. rugosa*, Nutt. Hæ species omnes nobis veræ *Rottboelliæ* videntur, nec cum *Hemarthria* nec cum *Manisuri* associandæ.

PHACELURUS, *Griseb. Spicil. Pl. Rumel.* ii. 423 (PHOLIURUS, *Trin. in Spreng. N. Entd.* ii. 67, *non ejud. Fundam. Agrost.*), est *R. digitata*, Sibth. Fl. Gr. t. 92 (*R. Sandorii*, Friwaldsky in A. Magyár. Tudós Tarsaság Evkönyvei, v. Hungariæ Sc. Soc. Annal. iv. 206, t. 12, v. 2), species orientalis insignis spica elongata interdum at rarius basi ramis paucis brevibus instructa, spicularum paribus dissitis, gluma exteriore longe acuminata, et spicula utraque sæpe florem hermaphroditum cum masculo fovente. Rhachillæ continuationem inter glumas florentes a Grisebachio indicatam frustra quæsivimus. Species sectionem distinctissimam potius quam genus proprium offert.

CYMBACHNE, *Retz, Obs.* vi. 36, gramen Bengalense, nobis ignotum a Willdenowio ad *Rottboelliam* refertur. Descriptio Retzii potius *Hemarthriam* refert, sed ab omnibus speciebus utriusque generis discrepat foliis supra vaginam longe ciliatis et glumis vacuis dorso longe ciliatis, genus igitur dubium remanet.

APOGONIA, *Fourn. Gram. Mex.* 63, species 2 continet Mexicanas quas a genere *Rottboellia* distinguere nequimus. Sectio *Apogonia*, Nutt. Gen. N. Amer. Pl. i. 83 (*Rottboellia ciliaris*), est *Elionuri* species, seu varietas *E. ciliaris*, H. B. et K., a forma typica parum distincta spiculis brevius ciliatis; gluma exterior variat in speciminibus Austro-Americanas dorso plus minus pilosa v. glabrata.

85. **Ophiurus,** *R. Br. Prod.* 206.—Spiculæ perfectæ 1-floræ, secus spicæ cylindraceæ rhachin articulatam ad nodos excavatam solitariæ v. geminæ, sessiles, absque spicula pedicellata, flore hermaphrodito. Glumæ 4, obtusæ v. acutæ, muticæ, extima dura, cavum rhacheos obtegens, secunda pariter vacua, rigidula at tenuior, concava v. carinata, tertia vacua v. florem ♂ fovens et terminalis florens cum palea tenuiter hyalinæ. Stamina 3. Styli distincti. Caryopsis glumis exterioribus inclusa, libera.—Gramina sæpius ramosa, foliis planis. Pedunculi in vaginis superioribus solitarii v. fasciculati, singuli basi vagina stipati, spicam simplicem ferentes. Rhachis glabra.

Species nobis notæ 4, Asiæ, Africæ et Australiæ incolæ. *Beauv. Agrostogr.* 116, *t.* 21, *f.* 3. *Kunth, Enum. Pl.* i. 464. *Benth. in Journ. Linn. Soc.* xix. 69.

Genus *Ophiurus* primum a Gærtnero fil. Fruct. iii. 3, t. 181, includit *Lepturum*, Br., et *Ophiurum*, Br., charactere imprimis ad priorem instructo. Quale a Brownio reformatum constat e *O. corymbosa*, Gærtn. (*Rottboellia*, Linn., Roxb. Corom. Pl. t. 181; *O. æthiopica*, Steud. Syn. Pl. Glum. i. 360), et *O. monostachya*, Presl (*O. undulata*, Nees), quæ omnes a *Rottboellia* differunt spicularum sterilium stipitatarum absentia. His addenda est *O. lævis*, Benth. (MNESITHEA, *Kunth, Enum. Pl.* i. 465; THYRIDOSTACHYUM, *Nees in Lindl. Introd. Nat. Syst. ed.* 2, 379, *Rottboellia lævis*, Retz, Obs. iii. 11, *R. perforata*, Roxb. Corom. Pl. t. 182), species Indica spiculis in parte inferiore spicæ v. interdum in tota spica ad quemque nodum rhacheos geminis, cavo rhacheos inter spiculas septo longitudinali interdum perforato diviso. Pars superior spicarum plurimarum omnino *Ophiuri*, spiculis ad nodos singulis, sed facile decidua, parte inferiore spiculis geminis diutius persistente. Interdum vero spica junior usque ad apicem spiculas geminas ferre videtur.

86. **Ratzeburgia,** *Kunth, Rev. Gram.* ii. 487, *t.* 158.—Spiculæ perfectæ 1-floræ, ad quemque nodum spicæ geminæ, complanatæ, erectæ, faciebus sibimet applicitis, in flexuris alternis rhacheos sessiles, inter rhachim et stipitem spiculæ sterilis quibus cinctæ, paribus alternatim 2-seriatis sed specie 1-seriatim superpositis, flore hermaphrodito. Glumæ 3, muticæ, extima coriacea margine tuberculata dorso scrobiculata, secunda pariter vacua paullo brevior fere hyalina at rigidula; terminalis florens, cum palea minore tenuissime hyalina. Stamina 3. Styli distincti stigmatibus plumosis. Caryopsis compressa, gluma extima indurata inclusa, libera.—Gramen humile, cæspitosum, decumbens, foliis brevibus planis. Spica in pedunculo terminali elegantissima, complanata, undique æquilata et continua apparet spiculis superpositis, sed rhachis marginibus spicularum alternatim a dextro et a sinistro accumbit, stipite spiculæ sterilis ad marginem oppositam sita; hujus glumæ sæpius 1–2 minimæ vacuæ.

Species 1, ad ripas fluminis Irawaddi *Burmæ* a Wallichio detecta. *Wall. Pl. As. Rar.* iii. 46, *t.* 273 (AIKINIA *in tabula*).

87. **Manisuris,** *Linn. Mant.* 164, *n.* 1334.—Spiculæ secus spicæ rhachin articulatam ad nodos excavatam geminæ, altera sessili flore unico hermaphrodito, altera pedicellata

anantha. Glumæ spiculæ perfectæ 4, muticæ, extima vacua, dura, globosa, cavum rhacheos obtegens, secunda pariter vacua, minor, concava, tenuis at rigidula, tertia vacua et terminalis florens parvæ, tenues, hyalinæ; palea minuta v. 0. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis gluma extima globosa inclusa, libera.—Gramen annuum, ramosum, sæpius patentim pilosum, foliis planis. Pedunculi singuli vagina folii floralis stipati, spicam unicam ferentes, inflorescentia tota sæpe paniculam irregularem foliatam formante, spiculis parvis graniformibus foveolatis insignem.

Species 1, per regiones calidiores utriusque orbis late dispersa. *Beauv. Agrostogr.* 119, *t.* 21, *f.* 10; *Kunth, Enum. Pl.* i. 469. *Roxb. Corom. Pl. t.* 118. *Beauv. Fl. Ow. et Ben. t.* 14. *Dœll in Mart. Fl. Bras.* ii. ii. *t.* 46.

88. **Hemarthria,** *R. Br. Prod.* 207.—Spiculæ secus spicæ rhachin subarticulatam ad nodos excavatam geminæ, altera sessilis, flore unico hermaphrodito; altera pedicellata, anantha v. flore unico sterili, pedicello sæpe rhachi adnato. Glumæ spiculæ perfectæ 4, extima vacua, acuta v. acuminata, arcte appressa, cavum rhacheos obtegens, secunda pariter vacua, tenuior, concava v. carinata, tertia vacua et terminalis florens cum palea parva tenuiter hyalinæ. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis glumis exterioribus inclusa, libera.—Gramina basi sæpius decumbentia ramosaque, foliis planis. Pedunculi terminales v. in axillis superioribus subfasciculati vaginaque stipati, spica simplici sæpius plus minus compressa. Spiculæ pedicellatæ e glumis 2–3 vacuis v. rarius florem sterilem foventibus, pedicello sæpe usque ad nodum superiorem rhacheos adnato, quo spicula sessilis apparet perfectæ nodi superioris subopposita.

Species vix 3, bene distinctæ, per regiones calidiores utriusque orbis late dispersæ, in maritimis orbis veteris frequentiores, ubi usque ad regionem Mediterraneam extensæ; in America rariores. *Steud. Syn. Pl. Glum.* i. 358. *Benth. Fl. Austral.* vii. 510. *Desf. Fl. Atl. t.* 36 (*Rottboellia*). *Beauv. Agrostogr. t.* 21, *f.* 8 (*Rottboellia*). *Roxb. Corom. Pl. t.* 156 (*Rottboellia*). *Brongn. in Duperr. Voy. Coq. Bot. t.* 15.

Lodicularia, *Beauv. Agrostogr.* 108, *t.* 21, *f.* 6, ob synonymon ab auctore citatum ad *Hemarthriam* refertur, sed nec character nec icon Beauvoisii conveniunt, et genus omnino dubium remanet.

89. **Vossia,** *Wall. et Griff. in Journ. Asiat. Soc. Beng.* v. 572, *t.* 23.—Spiculæ secus rhachin flexuosam subarticulatam ad nodos excavatam spicæ cylindraceæ v. subunilateralis geminæ, altera sessilis flore terminali hermaphrodito inferiore masculo, altera pedicellata floribus 1–2 masculis. Glumæ 4, 2 exteriores vacuæ, rigidæ, extima major, sæpe muricata, acute acuminata v. in spicula pedicellata in aristam longam producta, tertia et quarta florentes breviores, cum paleis tenuissime hyalinæ, muticæ. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis glumis exterioribus inclusa, libera.—Gramina sæpe aquatica, procera, foliis planis. Spicæ (paniculæ rami simplices) secus pedunculi apicem sæpius plures, dissitæ, rarius ad unam elongatam reductæ.

Species nobis notæ 5, Africanæ, tropicæ v. australes, quarum una etiam in India orientali late dispersa. *Munro in Harv. Gen. S. Afr. Pl. ed.* 2, 441. *Grant in Trans. Linn. Soc.* xxix. *t.* 116.

Genus *Ischæmo* affine, differt spicis sæpissime pluribus et glumis florentibus ut in *Rottboellieis* constanter exaristatis. *Ischæmum speciosum,* Nees, ex India orientali, forte *Vossiis* Africanis addendum est.

Eremochloa, *Büse in Pl. Jungh.* 357, species Sumatrana nec a Miquelio nec a nobis visa, ex charactere dato ad *Vossiam* referenda videtur, glumarum acumine (si verba auctoris recte intellegimus) rigidiore spinescente.

90. **Thelepogon,** *Roth, Nov. Pl. Spec.* 62. (Jardinia, *Steud. in Flora,* 1850, 229; *Syn. Pl. Glum.* i. 360.)—Spiculæ perfectæ secus rhachin flexuosam subarticulatam ad nodos excavatam spicæ unilateralis sessiles, cum pedicello anguste glumiformi spiculæ alterius abortivæ, flore hermaphrodito unico terminali cum inferiore masculo. Glumæ 4, 2 exteriores vacuæ, rigidæ, acutæ, exaristatæ, dorso tuberculato-rugosæ, extima rhachi arcte

applicita, tertia brevior, hyalina, mutica, paleam brevem floremque ♂ fovens; terminalis hyalina, 2-fida, inter lobos arista longa rigida superne torta instructa, paleam parvam floremque ☿ fovens. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis oblonga, glumis exterioribus rigidis inclusa, libera.—Gramina decumbentia v. erecta, foliis planis. Spicæ 2–∞, ad apicem pedunculi fasciculatæ, erectæ, glabræ, rhachi rigida flexuosa; spiculæ in facie inferiore alternæ, rhachi applicitæ, pedicello nudo sæpius spiculam perfectam paullo superante.

Species editæ 3, Indiæ orientalis et Africæ tropicæ incolæ, vix tamen inter se distinctæ. *A. Rich. Fl. Abyss. t.* 102 (*Andropogon*).

Synonymon Rothii a Neesio in Pl. Wight. distrib. perperam ad *Ischæmum semisagittatum* relatum est. Descriptio Rothii cum planta vera optime convenit.

91. **Ischæmum**, *Linn. Gen. n.* 1148.—Spiculæ secus spicæ rhachin articulatam ad nodos geminæ, altera sessilis flore terminali hermaphrodito cum inferiore masculo, altera pedicellata, nunc sessili conformis, nunc flore unico hermaphrodito v. masculo v. floribus 2 masculis v. ad glumas vacuas reducto. Glumæ spiculæ sessilis 4, extima vacua, cæteris major, truncata v. 2-dentata, mutica, secunda pariter vacua, carinata, interdum in aristam brevem producta, tertia paullo minor, hyalina v. rigidula, paleam floremque masculum fovens; terminalis sub flore hermaphrodito (v. fœmineo?) basi hyalina, integra v. 2-fida, sæpe vix arista latior, in aristam longam basi tortam superne geniculatam v. rarius ad setam parvam reductam producta, rarissime omnino mutica; palea parva, tenuiter hyalina v. 0. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis glumis exterioribus rigidulis inclusa, libera.—Gramina annua v. perennia, foliis planis nunc angustis nunc latioribus brevibusque. Spicæ ad apicem pedunculi terminalis solitariæ v. sæpius 2–∞, confertæ, sessiles, rhachi ad nodos sæpius leviter excavata.

Species ad 30, per regiones calidiores utriusque orbis late dispersæ. *Beauv. Agrostogr.* 107, *t.* 21, *f.* 5. *Kunth, Enum. Pl.* i. 511; *Rev. Gram. t.* 98, 99. *Steud. Syn. Pl. Glum.* i. 368 *et* 374 (*Andropogonis sect.* 6 *et* 14). *Benth. Fl. Austral.* vii. 518. *Salisb. Ic. Stirp. Rar. t.* 1. *Brongn. in Duperr. Voy. Coq. Bot. t.* 12, 13.

Genus ab *Andropogone* differt spiculis sessilibus 2-floris, spicis sæpius rigidioribus v. crassioribus glabrioribusque etc.; cæterum quoad spiculæ pedicellatæ indolem, rhacheos articulorum formam, aliasque notas sat polymorphum, sed genera plura monotypica ab auctoribus proposita melius pro speciebus distinctis habenda videntur.

ISCHÆMUM, *Beauv. Agrostogr.* 107, *t.* 21, *f.* 5, est *I. muticum*, Linn., gluma sub flore hermaphrodito hyalina arista minute setiformi v. omnino deficiente. MEOSCHIUM, *Beauv. l. c.* 111, *t.* 21, *f.* 4, includit species cæteras arista glumæ fertilis sæpissime exserta.

Ischæmum a Trinio limitatum fuit ad species quibus spicula pedicellata exaristata florem masculum solum includit, v. ad glumas vacuas reducitur. Species spicula utraque 2-flora ad genus suum *Spodiopogon* adjunxit.

I. semisagittatum, Roxb., a Neesio perperam ad *Thelepogonem*, Roth., refertur, ex icone et descr. Roxburghii videtur *I. rugosi*, Salisb., var.

COLLADOA, *Cav. Ic.* v. 37, *t.* 460. *Beauv. Agrostogr.* 112, *t.* 21, *f.* 9, ex ins. Mindanao, ex icone videtur *Ischæmi* species *I. barbato*, Retz, valde affinis, nisi eadem. Icon Beauvoisii potius *I. rugosum* refert.

ISCHÆMOPOGON, *Griseb. Fl. Brit. W. Ind.* 560, est *I. latifolium*, Kunth, Rev. Gram. t. 99, spicis pluribus fasciculatis, spicula utraque cujusve paris 2-flora.

HOLOGAMIUM, *Nees in Edinb. N. Phil. Journ.* xviii. 185, est *I. laxum*, R. Br. (*Andropogon nervosus*, Roth.), spica unica longa, spiculis pedicellatis flores 2 masculos continentibus. In eadem sectione (v. specie?) includendæ sunt *I. insculptum*, Hochst., et *I. macrostachyum*, A. Rich., ex Africa tropica, et, ex descr., SEHIMA, *Forsk. Fl. Æg. Arab.* 178.

I. pectinatum, Trin., *I. leersioides*, Munro, *I. ophiuroides*, Munro, cum specie quarta inedita, sectionem formant valde distinctam (*Pectinariam*), spica simplici tenui recta v. falcata, spiculis approximatis secundis, gluma majore spiculæ sessilis margine eleganter pectinata, spicula pedicellata sterili valde imperfecta v. fere rudimentaria.

92. **Trachypogon,** *Nees, Agrostol. Bras.* 341, *pro parte.*—Spiculæ 1-floræ, secus spicæ rhachin subarticulatam ad nodos geminæ, altera subsessilis, flore masculo v. si hermaphrodito sterili, altera pedicellata, flore hermaphrodito. Glumæ sæpius 4, extima vacua, rigida, mutica, cæteras amplectens, secunda subsimilis nisi paullo minor tenuiorque, tertia tenuissima, hyalina, vacua, nunc angustissima v. evanida ; terminalis florens in spicula sessili tenuissime hyalina, mutica, in spicula pedicellata basi angustissime (in *T. capensi* brevissime) hyalina, in aristam longissimam tortam superne geniculatam producta ; palea minima v. 0. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis oblonga, glumis exterioribus inclusa, libera.—Gramina elata, perennia, foliis longis angustis planis v. siccitate convolutis. Spicæ ad apicem pedunculi solitariæ v. 2–3-næ, sessiles, erectæ, longiusculæ, simplices, aristis longis rigidis iis *Heteropogonis* subsimiles. Spiculæ subimbricatæ, rhachi appressæ.

Species 11 enumerat Anderson in Ofvers. K. Vet. Akad. Stockh. 1857, 46, quarum una Africæ australis, cæteræ Americæ tropicæ et subtropicæ a Brasilia usque ad Mexicum incolæ; plures tamen vix inter se distinguendæ et a Hackelio (in litt.) omnes in unam junguntur. *Kunth, Rev. Gram.* ii. 561, *t.* 195 (*Andropogon*). *Fourn. Gram. Mex.* 65.

Flos spiculæ sessilis, ut rite observavit Kunth, saltem in *T. Montufati* (*T. molli*) hermaphroditus apparet, ovarium tamen semper macrum vidimus, stigmatibus imperfectis v. 0, nec unquam post anthesin auctum.

93. **Heteropogon,** *Pers. Syn. Pl.* ii. 533.—Spiculæ 1-floræ, secus spicæ rhachin articulatam ad nodos geminæ, altera sessilis, flore fœmineo (v. hermaphrodito ?) fertili, altera pedicellata, flore masculo v. anantha. Glumæ spiculæ sessilis 4, extima vacua, dura, convoluta, mutica, secunda, pariter vacua, tenuior, carinata, tertia tenuissime hyalina, vacua ; florens ad aristam longam rigidam tortam geniculatamque ima basi attenuatam hyalinamque reducta ; palea parva hyalina v. 0 ; in spicula pedicellata exaristata gluma extima quam in sessili tenuior. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis angusta, glumis exterioribus induratis inclusa, libera.—Gramina annua (v. perennia ?) erecta, interdum elata, foliis angustis vaginis compressis. Spicæ in pedunculo terminali solitariæ, erectæ, densæ, spiculis sessilibus ad unum latus subpatentibus, aristis longis tortis insignes ; spiculæ pedicellatæ muticæ ad alterum latus appressæ, 2-seriatim imbricatæ.

Species 5 v. 6, regionum calidiorum Europæ, Asiæ, Africæ et Australiæ incolæ, quarum 2 genuinæ: *H. contortus*, Rœm. et Sch. (*H. hirtus*, Pers.), et *H. melanocarpus*, Ell. (*H. Roylei*, Nees, *H. acuminatus*, Trin., *Trachypogon scrobiculatus*, Nees), etiam in America tropica et boreali late dispersæ, et prior in Europa præsertim Mediterranea invenitur. Adsunt præterea 3 v. 4 Africanæ tropicæ adhuc minus certæ. *Kunth, Enum. Pl.* i. 486. *All. Fl. Ped.* iii. *t.* 91. *Mogg. Fl. Ment. t.* 48 (*omnes sub Andropogone*). *Beauv. Agrostogr.* 134, *t.* 23, *f.* 8. *Benth. Fl. Austral.* vii. 516, *et in Journ. Linn. Soc.* xix. 71. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 94. *Reichb. Ic. Fl. Germ. t.* 53. *Fourn. Gram. Mex.* 64.

94. **Andropogon,** *Linn. Gen. n.* 1145.—Spiculæ secus spicæ rhachin articulatam ad nodos geminæ, altera sessilis, flore unico hermaphrodito (v. rarius abortu fœmineo ?), altera pedicellata, exaristata, flore masculo v. rarius hermaphrodito sterilique, v. ad glumas vacuas reducta. Glumæ spiculæ sessilis 4, extima cæteris major, vacua, mutica, 3-∞-nervis, nervo medio interdum tenuiore v. evanido, secunda vacua, carinata, acuta v. rarius in aristam rectam producta, tertia multo minor, tenuiter hyalina, vacua ; terminalis florens basi hyalina, angustissime stipitiformis v. parum dilatata, integra v. 2-fida, arista sæpius rigida torta superne geniculata terminali v. inter lobos instructa ; palea parva hyalina v. 0. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis glumis exterioribus inclusa, libera.—Gramina habitu vario, sæpe elata, ramosa, foliis sæpius angustis planis. Spicæ quam in *Ischæmo* sæpius tenuiores, pilis rhacheos et pedicellorum sæpius hirtæ subsericeæ v. fere lanatæ, in pedunculo solitariæ geminæ v. plurimæ confertæ, simplices v. rarius ima basi divisæ, spicularum paribus secus rhachin semper pluribus ; spiculæ terminales cujusve spicæ sæpe ternæ, centralis sessilis cum 2 pedicellatis.

Species vix 100 bene distinctas agnoscimus, etsi ab auctoribus nonnullis permultæ sub diversis nominibus repetitæ, per regiones calidiores utriusque orbis late dispersæ, speciebus paucis usque ad Europam australem Asiam orientalem temperatam et Americam borealem extensis. *Beauv. Agrostogr.* 130, *t.* 23, *f.* 2, 3, 4. *Kunth, Enum. Pl.* i. 485, (*excl. spp. plur*, 501). *Steud. Syn. Pl. Glum.* i. 363 (*excl. sp. numerosis*). *Benth. Fl. Austral.* vii. 527, *et in Journ. Linn. Soc.* xix. 71. *Fourn. Gram. Mex.* 55 (*excl. sect. Sorghastrum*).

Genus quoad spiculam pedicellatam floriferam v. ad glumas vacuas interdum minutas reductam, spiculam sessilem aristatam v. submuticam, aliasque notas variabile, et præsertim a Neesio v. ab Andersonio in genera plura divisum, a Steudelio aliisque ad *Ischæmum*, *Polliniam* aliaque includenda extensum, a Munroio inter limites supra datos reductum, in sectiones infra enumeratas ad inflorescentiam dividitur. Dolemus nobis nondum pervenisse fasciculum novissimum Floræ Brasiliensis, *Andropogoneas* a Hackelio elaboratas continentem, ubi verisimiliter auctor sectiones quoad species austro-Americanas accuratius definivit.

1. *Schizachyrium*, (*Acropogon*, Fourn.). Spicæ in pedunculo solitariæ, sæpius tenues, glabræ v. breviter rarius longius pilosæ. Species ad 12, Asiaticæ Africanæ v. Americanæ. *Kunth, Rev. Gram. t.* 196 *ad* 199. *Delile, Fl. Eg. t.* 8. SCHIZACHYRIUM, *Nees, Agrostol. Bras.* 331.

DIECTOMIS, *H. B. et K. Nov. Gen. et Sp.* i. 193, *t.* 64; *non Beauv.*, est *A. fastigiatus*, Sw., species Americæ tropicæ, etiam in Africa tropica obvia, spica solitaria, rhachi pedicellisque incrassatis, spiculæ sessilis glumis exterioribus rigidis, secunda aristata, spicula pedicellata ad glumas vacuas reducta. HOMOEATHERUM, *Nees in Hook. et Arn. Bot. Beech. Voy.* 239, est species Asiatica vix ac ne vix ab *A. fastigiato* distincta. Hæ species habitu *Ischæmo laxo*, Br., accedunt, sed spiculæ sessiles flore masculo carent. Hackel *Diectomem* pro sectione a *Schizachyrio* bene distincta habet.

2. *Cymbopogon.* Spicæ geminæ, sæpius breves, haud raro longe pilosæ v. lanatæ, pedunculo intra vaginam spathiformem bracteæ seu folii floralis incluso v. breviter exserto. Species ad 40, habitu vario, nonnullæ tamen in regionibus calidioribus orbis veteris latissime dispersæ sæpe odoratæ, insignes sunt caule elato ramoso paniculam amplam foliatam formante. *Trin. Spec. Gram. t.* 326, 327, 330. *Reichb. Ic. Fl. Germ. t.* 53. *Host, Gram. Austr.* iv. *t.* 1. *Vent. Jard. Cels. t.* 89. *Moggr. Fl. Ment. t.* 73, *f.* C, D. *Wall. Pl. As. Rar. t.* 280. CYMBOPOGON, *Spreng. Pl. Min. Cogn. Pug.* ii. 14. HYPOGYNIUM, *Nees, Agrostol. Bras.* 364 (species Brasiliensis).

GYMNANTHELIA et HYPARRHENIA, *Anders.*, genera in variis scriptis auctoris indicata absque charactere generico, ex specierum enumeratione in Schweinf. Beitr. Fl. Æthiop. 299, 300, ad sectionem *Cymbopogonem* referenda videntur, *Gymnanthelia* ad *A. Schœnanthum* affinesque, *Hyparrhenia* ad *A. hirtum* affinesque. Fournier, Gram. Mex. 51, 67, genus *Hyparrheniam* admisit, charactere 'spiculis numerosis polygamis fasciculatis;' Munro tamen species utrasque Mexicanas in *Cymbopogone* includit.

3. *Gymnandropogon.* Spicæ geminæ v. plures, ad apicem pedunculi elongati sessiles, fasciculatæ v. approximatæ, simplices, interdum longiusculæ, glabræ v. pilosæ. Species ad 36, pleræque gerontogeæ. *Trin. Spec. Gram. t.* 325, 328, 329. *Kunth, Rev. Gram. t.* 96. *Schreb. Beschr. Gräs. t.* 28, *f.* 1 (*sp. dubia*), *t.* 33, 48. *Jacq. Ic. Rar. t.* 630; *Fl. Austr. t.* 384. *Host, Gram. Austr.* ii. *t.* 2, iii. *t.* 2 *Reichb. Ic. Fl. Germ. t.* 54, *f.* 1500 *et* 1501 (*Pollinia*). *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 92. *Moggr. Fl. Ment. t.* 73, *f.* A, E. *Vis. Fl. Dalm. t.* 2. *Sibth. Fl. Græc. t.* 69. *Delile, Fl. Eg. t.* 7.

DICHANTHIUM, *Willem. Herb. Maurit. in Ust. Ann. Bot.* xviii. 11, est *A. annulatus*, Forsk., species *A. Ischæmo*, Linn., valde affinis, sed ab auctoribus plerisque distincta servata.

LEPEOCERCIS, *Trin. Fundam. Agrostogr.* 203, genus ad *A. serratum*, Retz, propositum, ab auctore ipso serius ad *Andropogonem* (*Gymnandropogonem*) reductum, insigne est gluma extima latissima fere herbacea multinervi, secunda duplo angustiore fere hyalina, tertia tenuissime hyalina. Cæterum prope accedit ad *A. mollicomum*, *A. annulatum* aliosque, etsi spicæ haud raro ut in *Schizachyrio* solitariæ.

EUKLASTAXON, *Steud. Syn. Pl. Glum.* i. 412, e Brasilia, est verisimiliter, e charactere dato *Andropogon virginicus*, Linn.

4. *Amphilophis*, Trin. Spicæ quam in *Gymnandropogone* sæpius numerosiores, in pedunculo elongato sæpe pedicellatæ, et interdum basi divisæ sed elongatæ, multispiculatæ, nec ut in *Chrysopogone* ad spicularum paria 1–2 reductæ. Huc pertinent *A. laguroides*, DC., *A. argenteus*, DC., ex America tropica, *A. scandens*, Roxb., *A. Vachellii*, Nees, ex Asia tropica, affinesque paucæ. *Jacq. Ecl. Gram. t.* 5 (*Saccharum*). *Colla, Pl. Rar. Chil. t.* 60.

5. *Petiveria.* Spicæ secus axin paniculæ simplicis longæ, amplæ, verticillatæ, in quoque verticillo numerosæ, glabræ v. sub spiculis minute pilosæ, glumis exterioribus sæpe pilis minutis rigidis

quasi muricatis. Huc pertinent *A. muricata*, Retz, *A. nigritana*, Benth. in Hook. Fl. Nig. 573, *Vetiveria arundinacea*, Griseb. Fl. Brit. W. Ind. 559, omnes, sententia Munroi, varietates speciei unicæ in Africa tropica et India orientali frequentis, in America inquilinæ tantum, quæ tamen variat gluma floris hermaphroditi integerrima v. apice 2-fida, arista nunc minima, nunc spiculam fere duplo superante. VETIVERIA, *Thou. ex Virey in Journ. Pharm. ser.* 1, xiii. 499 (charactere manco). MANDELORNA, *Steud. Syn. Pl. Glum.* i. 359.

ANATHERUM, *Beauv. Agrostogr.* 128, *t.* 22, *f.* 10, 11, genus propositum fuit ad species nonnullas *Cymbopogonis*, *Gymnandropogonis* et *Vetiveriæ*, arista glumæ florentis minuta v. obsoleta, ab auctoribus nonnullis pro synonymo *Vetiveriæ* habetur. AGENIUM, *Nees in Lindl. Introd. Nat. Syst. ed.* ii. 447, species (Brasiliensis ?) nobis ignota, ex charactere dato videtur species *Andropogonis* e sectione *Gymnandropogone*, glumis exaristatis, spicula pedicellata interdum florem hermaphroditum sed sterilem includente.

95. **Chrysopogon,** *Trin. Fundam. Agrostogr.* 187. (Rhaphis, *Lour. Fl. Cochinch.* 552, *non Linn.* Centrophorum, *Trin. Fundam. Agrostogr.* 106, *t.* 5, *male.* Holcus, *R. Br. Prod.* 198, *pro maxima parte.*)—Spiculæ in ramulis articulatis paniculæ ternæ, centrali sessili flore unico hermaphrodito, lateralibus pedicellatis flore masculo v. ananthis v. ad stipitem reductis, additis interdum paribus spicularum 1–3 ad nodos inferiores ramuli. Glumæ spiculæ sessilis 4, extima cæteris major, vacua, mutica, 3–∞-nervis, secunda vacua, angusta, carinata, acuta v. in aristam rectam producta, tertia multo minor, tenuiter hyalina, vacua; terminalis florens basi hyalina, nunc angustissima stipitiformis, nunc dilatata 2-fida, arista cum stipite continua v. inter lobos terminalis tenuis v. rigida torta superne geniculata; palea parva hyalina v. 0. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis glumis exterioribus inclusa, libera.—Gramina annua v. perennia, nunc elatiuscula foliata, nunc humilia cæspitosa, foliis planis. Panicula terminalis, stricta v. effusa, sæpius laxa, ramis ramulosis v. rarius simplicibus glabris v. sub spicula sessili pilosis.

Species vix 20, per regiones calidiores utriusque orbis dispersæ, usque ad Europam australem et Americam borealem extensæ. *Kunth, Enum. Pl.* i. 503 (*Andropogonis sp.* ∞). *Steud. Syn. Pl. Glum.* i. 395 (*Andropogonis* § 27). *Benth. in Journ. Linn. Soc.* xix. 73. *Fourn. Gram. Mex.* 55 (*Andropogonis sect. Sorghastrum*). *Trin. Spec. Gram.* *t.* 8, 9 (*Rhaphis*) *et t.* 331. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 93. *Reichb. Ic. Fl. Germ. t.* 64, *f.* 1502 (*Pollinia*). *Moggr. Fl. Ment. t.* 73, *f.* B. *Host, Gram. Austr.* ii. *t.* 1. *Sibth. Fl. Gr. t.* 67 (*omnes sub Andropogone*).

In speciebus typicis gerontogeis cum paucis Americanis spiculæ pedicellatæ florem masculum v. rarius glumas vacuas tantum continent; in Americanis plerisque (*C. nutans*, *C. avenaceus*, *C. stipoides*, *C. Minarum*, etc.), spiculæ pedicellatæ reducuntur ad stipitem pilis longis ciliatum apice nudum v. glumæ rudimentum minutum ferentem. Hæ sectionem *Stipoidem* formant. Hackel genus totum ad *Sorghi* sectiones refert.

96. **Sorghum,** *Pers. Syn. Pl.* i. 101. (Blumenbachia, *Koel. Gram. Gall. et Germ.* 28.)—Spiculæ in ramulis vix articulatis paniculæ ternæ, centrali sessili flore unico hermaphrodito, lateralibus pedicellatis flore masculo v. sterili, additis interdum paribus spicularum 1–3 ad nodos inferiores. Glumæ spiculæ sessilis 4, extima cæteris major, vacua, mutica, lanceolata v. ovata, dura nitidaque, obscure venosa, secunda vacua, angustior, carinata, duriuscula, acuta, tertia multo minor, tenuiter hyalina, vacua; terminalis florens basi tenuissime hyalina, 2-loba, arista inter lobos terminali tenui v. rigida tortaque superne geniculata; palea parva hyalina v. 0. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis glumis exterioribus induratis inclusa, libera.—Gramina annua v. perennia, sæpius elata, foliis planis sæpe longis latisque. Panicula terminalis ampla densa v. effusa, spiculis numerosis diu persistentibus.

Species paucæ a nonnullis ad 2 reductæ (*S. halepense* et *S. vulgare*), ab aliis inordinate multiplicatæ, per regiones calidiores utriusque orbis latissime dispersæ, plus minus in temperatis extensæ, quarum una fere cosmopolitana, alteraque in orbe vetere diu culta et in America sæpe inquilina, varietates numerosas præbent sæpe species distinctas nuncupatas. *Kunth, Enum. Pl.* i. 501, *et Rev. Gram. t.* 97 (*Andropogon*). *Benth. Fl. Austral.* vii. 539. *Schreb. Beschr. Gräs. t.* 18 (*Holcus*). *Reichb.*

Ic. Fl. Germ. t. 54. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 91. *Host, Gram. Austr.* i. *t.* 1 (*Holcus*) *et* iv. *t.* 2 *ad* 4. *Sibth. Fl. Græc. t.* 68 (*Andropogon*). *Jacq. Ecl. Gram. t.* 18.

Genus *Chrysopogoni* valde affine, vix nisi habitu et paniculæ ramulis subcontinuis, spiculis latioribus induratis differt.

97. **Anthistiria,** *Linn. f. Nov. Gram. Gen. in Amœn. Acad.* x. 38, *et Suppl. Pl.* 13. (Themeda, *Forsk. Fl. Æg. Arab.* 178. Anthistirieæ, *Anders. in Nov. Act. R. Soc. Upsal.* ii. 229, *t.* 3.)—Spiculæ in spica fasciculiformi 7, rarius 6, 9 v. 11, quarum 4 ad basin rhacheos quasi verticillatæ involucrantesque florem unicum masculum continentes v. vacuæ, 3 rarius 2 ad apicem rhacheos, centrali sessili flore unico hermaphrodito, lateralibus pedicellatis florem masculum continentibus v. vacuis, additis rarius secus rhachin paribus spicularum 1–2 intermediis. Glumæ spiculæ vacuæ sæpius 2, exterior rigidule membranacea v. subherbacea ∞-nervis, interior tenuior hyalina, in spicula mascula additur tertia hyalina, parva, florem fovens; spiculæ perfectæ glumæ 4, 2 exteriores vacuæ, parum inæquales, sæpius rigidulæ, extima obscure 5–7-nervis, interior nervis 2 prominentibus cum centrali tenuissima, tertia multo minor hyalina vacua; terminalis florens, a basi angustissima tenuique in aristam longam sæpius basi tortam superne geniculatam producta; palea parva v. inconspicua. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis glumis inclusa, libera.—Gramina paniculato-ramosa, foliis planis. Spicæ fasciculiformes, sæpius numerosæ, singulæ pedunculo intra vaginam bracteæ foliaceæ incluso v. rarius exserto fultæ. Aristæ nunc longæ validæ tortæ, nunc tenues breves v. omnino nullæ.

Species vix 10 bene distinctæ, apud auctores nonnullos plus duplo plures, per regiones calidiores orbis veteris late dispersæ. *Beauv. Agrostogr.* 133, *t.* 23, *f.* 7. *Kunth, Enum. Pl.* i. 481. *Benth. Fl. Austral.* vii. 541, *et in Journ. Linn. Soc.* xix. 73.

Genus in integrum servatum naturale et spiculis 4 involucrantibus facillime distinctum, ab auctoribus variis in genera v. sectiones characteribus parvi valoris distinctis separatur:—

Anthistiria, Anders., ad species limitatur spiculis involucrantibus sessilibus, intermediis nullis. Inter has Aristaria, *Jungh. in Hœv. et De Vr. Tijdschr.* vii. 296, est *A. frondosa*, R. Br. (*A. Junghuhniana*, Nees; sect. *Heterelytron*, Anders., non Jungh.), species insignis bracteis sub fasciculo longe foliaceis basi margine pilis longis ciliato-hispidis, spiculis involucrantibus e glumis 2 vacuis. Perobachne, *Presl, Rel. Hænk.* i. 348, *t.* 48, est *A. arundinacea*, Roxb. (subsect. *Chrysanthistiria*, Anders.), species elata, glumis exterioribus pilis longis fulvis dense hirsutis, spiculis involucrantibus florem ♂ includentibus. *Lam. Illustr. t.* 841. *Kunth, Rev. Gram. t.* 95. Subsectio *Evanthistiria*, Anders., constat ex *A. ciliata*, Linn., affinibusque, *Cav. Ic. t.* 459, *Desf. Fl. Atl. t.* 254, *Hook. f. Fl. Tasm. t.* 156, quarum species seu formæ 12 ab Andersonio enumeratæ, 'facile ad unam tantum per terras calidas late dispersam speciem reducuntur.'

Androscepia, *Brongn. in Duperr. Voy. Coq. Bot.* 77 (Heterelytron, *Jungh. in Hœv. et De Vr. Tijdschr.* vii. 294), continet species 2 v. 3, inclusa *A. gigantea*, Cav. Ic. t. 458, spicularum paribus 1–2 secus rhachin fasciculi inter inferiores involucrantes et terminales ternas additis. Sectio tamen minime naturalis nam *Anthistiria minuta*, Anders., cæterum simillima est *Androscepiæ anatheræ*, Anders.; et *Androscepia gigantea*, var. *armata*, Anders., pariter *Anthistiriam arundinaceam*, Roxb., simulat.

Iseilema, *Anders. in Nov. Act. R. Soc. Upsal.* ii. 250, species continet 2 Indicas, inter se valde affines, cum tertia Australiana ratione generis humiles, subdiffusæ, quodammodo ad *Apludam* accedentes. Spicularum fasciculi parvuli, glabri, spiculis etiam involucrantibus plus minus stipitatis.

Exotheca, *Anders. l. c.* 253, est *A. abyssinica*, Hochst., spicularum fasciculis seu spicis e bractea foliacea longe exsertis, in pedunculo longo tenui interdum geminis. Huc pertinet etiam *A. fasciculata*, Thw. Enum. Pl. Zeyl. 366.

Germainea, *Balansa et Poitrasson in Bull. Soc. Hist. Nat. Toulouse*, vii. 344, *cum tab.*, species v. formas 2 continet, quarum altera e Saigou nobis e sola icone et descriptione auctorum nota, alteram legit Clarke in Khasiya et Sampson et Hance prope Canton Chinæ australis (*Anthistiria caudata*, Nees ex Hance in Trim. Journ. Bot. 1878, 234, cui tamen char. Neesii in Steud. Syn. Pl. Glum. i. 402, vix convenit). Habitus *Exothecæ* pedunculo elongato, inflorescentia fere *Androscepiæ*. Spiculæ exteriores involucrantes vacuæ in speciminibus Clarkianis et Chinensibus 4, in *G. capitata*, Bal. 6; intermediæ masculæ v. steriles in prioribus 4, in *G. capitata* 6–9; centrales 3 in utraque forma

omnes fœmineæ dum in *Anthistiriis* cæteris sæpissime 1 ♀ 2 ♂. In *A. fasciculata* tamen haud raro spiculæ ♀ adsunt 2, quod etiam rarius in *A. gigantea* observavimus.

98. **Apluda,** *Linn. Gen. n.* 1147, *pro parte*.—Spiculæ intra bracteam concavam v. complicatam 3, una sessilis flore terminali hermaphrodito cum inferiore masculo, altera pedicello brevi lato fulta flore unico masculo v. anantha, v. ad pedicellum fere glumiformem reducta, tertia nunc secundæ similis, sæpius tamen in pedicello longiore latioreque articulata, floribus 1 v. 2 masculis v. uno rarius hermaphrodito sterilique. Glumæ spiculæ perfectæ 4, extima striato-venosa interdum subherbacea, secunda pariter vacua, sæpe paullo major, tenuior at rigidior, tertia tenuiter hyalina, florem ♂ fovens v. rarius vacua; terminalis sub flore fertili tenuissime hyalina, apice 2-fida, mutica v. arista tenui tortili geniculata inter lobos instructa; palea hyalina parva v. 0. Stamina 3 v. rarius 2. Styli distincti, stigmatibus plumosis. Caryopsis ovato-oblonga, glumis exterioribus (præsertim secunda) rigidulis inclusa, libera.—Gramina ramosissima, diffusa v. elata, foliis angustis planis. Spicularum ternationes intra bracteam latam fere glumiformem sessiles, complures in fasciculo bractea majore foliacea stipato subsessiles v. pedicellatæ; fasciculis numerosis in paniculam amplam foliatam sæpe ramosissimam dispositis.

Species editæ plures; pleræque tamen ad duas typicas Linnæi, *A. muticam* et *A. aristatam* reducendæ, per Asiam tropicam late dispersæ, etiam in China, Nova Caledonia et in insulis maris Pacifici australis repertæ; in Africa deesse videntur. *Kunth, Enum. Pl.* i. 516 (*excl. sp.* 5 *et* 6). *Steud. Syn. Pl. Glum.* i. 403 (*excl. sp.* 8 *ad* 10). *Lam. Illustr. Gen. t.* 841. *Schreb. Beschr. Gräs. t.* 42.

Linnæus primum has duas species solas in genere uno inclusit, charactere tamen valde imperfecto designavit, postea plantam Americanam diversissimam (*Zeugitem*) addidit, charactere male e duabus formis composito. Schreber, Gen. Pl. 810, rite *Zeugitem* pro genere proprio restituit.

Diectomis, *Beauv. Agrostogr.* 132, *t.* 23, *f.* 5, *non H. B. et K.*, est, ex icone, *Apluda aristata*, Linn., charactere tamen haud perfecto. Calamina, *Beauv. l. c.* 128, *t.* 23, *f.* 1, est evidenter *A. mutica*, Linn., sed character ibid. 129 minime convenit, et partim ad species quasdam *Anthistiriæ* confectus est. Apluda, qualis a Beauv. l. c. t. 23, f. 6 delineatur, est certe generis alieni, et forte *Chrysopogonis* species.

Tribus VII. Phalarideæ.

99. **Ehrharta,** *Thunb. in K. Vetensk. Akad. Stock. Handl.* 1779, 216, *t.* 8, *et Nov. Gen. Pl.* 16. (Trochera, *L. C. Rich. in Journ. Phys.* xiii. 225, *t.* 3 *ex Kunth.*)—Spiculæ 1-floræ, in panicula rarius ad racemum reducta pedicellatæ, rhachilla supra glumas inferiores articulata, flore hermaphrodito terminali. Glumæ 6, 2 inferiores infra articulationem persistentes sæpius parvæ, tertia varia et quarta sæpius cæteris major basi callosæ v. fasciculo pilorum instructæ sæpeque aristatæ, quinta paullo minor et sexta (v. palea?) angustior tenuiorque carinatæ muticæ; palea cæterum 0. Lodiculæ valde variabiles, liberæ ciliatæque v. in annulum connatæ v. minimæ v. 0. Stamina 6, rarius 3. Styli breves v. longiusculi, distincti, stigmatibus plumosis. Caryopsis ovoidea v. oblonga, glumis majoribus inclusa, libera.—Gramina perennia, v. rarius annua, basi interdum bulbosa, foliis planis. Panicula terminalis, laxa, nunc effusa, nunc angusta v. fere ad racemum reducta, spiculis sæpe majusculis, glumis interdum fere paleaceis.

Species ad 24, quarum 2 Novæ Zelandiæ, 2 ins. Mascarensium, cæteræ omnes Africæ australis incolæ, harum tamen 2 in Australia australiore v. in ins. Stæ Helenæ inquilinæ, nam *E. Urvilleana*, Kunth, omnino eadem videtur ac *E. longiflora*, Sm. *Swartz in Trans. Linn. Soc.* vi. 40, *t.* 3, 4. *Beauv. Agrostogr.* 60, 61, *t.* 12, *f.* 2 *ad* 4 (*Ehrarta et Trochera*). *Nees, Gram. Fl. Afr. Austr.* 196. *Sm. Ic. Ined. t.* 9, 32, 33. *Kunth, Enum. Pl.* i. 11; *Rev. Gram. t.* 6. *Brongn. in Duperr. Voy. Coq. Bot. t.* 24. *Hook. f. Fl. Nov. Zel. t.* 65. *Buchan. N. Zeal. Grasses, t.* 1. *Petrie in Trans. N. Zeal. Inst.* xii. 356, *t.* 10.

100. **Microlæna,** *R. Br. Prod.* 210. (Diplax, *Hook. f. Fl. Tasm.* ii. 105.)—Spiculæ 1-floræ, in panicula laxa pedicellatæ, rhachilla supra glumas inferiores articulata, flore hermaphrodito terminali. Glumæ 6, 2 inferiores infra articulationem breves, persistentes, tertia quartaque longæ, angustæ, in aristam productæ, quinta sextaque (an palea?) breviores, acutæ, muticæ, omnes carinatæ; palea cæterum 0. Lodiculæ majusculæ.

Stamina 4 v. 2. Styli distincti, stigmatibus plumosis. Caryopsis glumis majoribus inclusa, libera.—Gramina perennia, foliis sæpius brevibus planis v. siccitate convolutis. Panicula terminalis, anguste laxa, pedicellis filiformibus.

Species 5, Australiæ et Novæ Zelandiæ incolæ. *Benth. Fl. Austral.* vii. 552. *Hook. f. Handb. N. Zeal. Fl.* 320. *Labill. Pl. Nov. Holl. t.* 118 (*Ehrharta*). *Hook. f. Fl. Tasm. t.* 155 (*Microlæna et Diplax*). *Raoul, Choix Pl. Nouv. Zel. t.* 4. *Buchan. N. Zeal. Grasses, t.* 2 *ad* 4.

101. **Tetrarrhena,** *R. Br. Prod.* 210.—Spiculæ 1-floræ, in spica simplici v. vix ramosa subsessiles, rhachilla supra glumas inferiores articulata, flore terminali hermaphrodito. Glumæ 6, 2 inferiores infra articulationem persistentes, parvæ, tertia varia, quarta cæteris sæpius major, rigida, quinta ei similis nisi minor, terminalis (v. palea ?) angustior, omnes carinatæ, muticæ; palea cæterum 0. Lodiculæ majusculæ. Stamina 4. Styli breves, distincti, stigmatibus plumosis. Caryopsis glumis majoribus inclusa, libera.—Gramina perennia, foliis planis. Spicæ v. paniculæ spiciformes terminales, pedunculatæ, sæpius simplices, interdum ramulis paucis brevibus instructæ.

Species 4, Australianæ. *Benth. Fl. Austral.* vii. 553. *Labill. Pl. Nov. Holl. t.* 117 (*Ehrharta*). *Hook. f. Fl. Tasm. t.* 154.

102. **Phalaris,** *Linn. Gen. n.* 74.—Spiculæ 1-floræ, compressæ, in panicula spiciformi dense confertæ, rhachilla supra glumas inferiores articulata, flore terminali hermaphrodito. Glumæ sæpius 6, 2 inferiores infra articulationem persistentes, cæteris majores, tenuiter paleaceæ, carinato-complicatæ, muticæ, carina interdum alata, 2 intermediæ cæteris breviores tenuissimæ, anguste lanceolatæ v. ad setas reductæ v. rarius una deficiente, 2 superiores tenues v. hyalinæ carinatæ muticæ, quarum quinta latior tenuiter 3–5-nervis nervo medio interdum obsoleto, sexta (v. palea ?) ob nervum medium sæpius obsoletum tenuiter 2-nervis; palea cæterum 0. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis oblonga, glumis superioribus inclusa, libera.—Gramina annua v. perennia, foliis planis. Panicula in pedunculo terminali nunc stricte spiciformis v. capituliformis, nunc subinterrupta dense thyrsoidea, spiculis in ramulis brevissimis subsessilibus.

Species 9 v. 10, regionis Mediterraneæ ab ins. Canariensibus usque ad Affghanistan et Americæ extratropicæ tam borealis quam australis incolæ, duæ ex Europæis in Africa, Australia aliisque regionibus inquilinæ. *Beauv. Agrostogr.* 36, *t.* 7, *f.* 1. *Kunth, Enum. Pl.* i. 31. *Schreb. Beschr. Gräs.* 83, *t.* 10, 12. *Trin. Spec. Gram. t.* 74 *ad* 82. *Cav. Ic. t.* 64. *Host, Gram. Austr.* ii. *t.* 38 *ad* 40. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 12. *Reichb. Ic. Fl. Germ. t.* 52. *Sibth. Fl. Græc. t.* 55 *ad* 58. *Webb, Phytogr. Canar. t.* 241. *Doell in Mart. Fl. Bras.* ii. ii. 28, *t.* 9.

Alæ glumarum inferiorum valde variabiles sunt. In *P. canariensi* latissimæ; in *P. paradoxa* aliisque angustissimæ; in *P. intermedia,* Bosc. (*P. americana,* Ell.), omnino desunt.

DIGRAPHIS, *Trin. Fundam. Agrostogr.* 127 (BALDINGERA, *Gærtn. Mey. et Schreb. Fl. Wetter. ex Schrad. Fl. Germ.* 181, *t.* 6, *f.* 5. *Reichb. Ic. Fl. Germ. t.* 52. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 13. TYPHOIDES, *Mœnch, Meth.* 201), est *P. arundinacea,* Linn.; Host, Gram. Austr. ii. 25, t. 33, a speciebus carina exalata parum diversa, caule elato arundinaceo, et panicula distincte ramosa, dense thyrsoidea, ramuli tamen breves densissimeque spiciformes, et characteres alii ad genus distinguendum desunt.

103. **Anthoxanthum,** *Linn. Gen. n.* 42.—Spiculæ 1-floræ, angustæ, parum compressæ, in panicula spiciformi cylindracea confertæ, rhachilla supra glumas inferiores articulata sæpius pilosa, flore terminali hermaphrodito. Glumæ 6, 2 inferiores infra articulationem persistentes, acutæ mucronatæ v. in aristam brevissimam productæ, secunda cæteris longior, 2 intermediæ multo breviores vacuæ angustæ carinatæ medio dorso v. prope basin aristatæ, 2 superiores multo breviores hyalinæ obtusæ muticæ, quarum quinta latissima sextam (v. paleam ?) angustam 1-nervem floremque includens; palea cæterum 0. Stamina 2. Styli distincti, stigmatibus elongatis plumosis. Caryopsis oblonga, glumis interioribus non induratis inclusa, libera.—Gramina aromatica, erecta, annua v. perennia, foliis planis. Panicula spiciformis terminalis, pedunculata, densa v. laxiuscula, ramulis brevissimis dense plurispiculatis.

Species 4 v. 5, Europææ, quarum una per Asiam temperatam et borealem late dispersa et in America boreali, Australia aliisque regionibus temperatis verisimiliter inquilina. *Beauv. Agrostogr.* 64, *t.* 12, *f.* 8. *Kunth, Enum. Pl.* i. 37. *Steud. Syn. Pl. Glum.* i. 12. *Schreb. Beschr. Gräs.* 49, *t.* 5. *Trin. Spec. Gram. t.* 13 *ad* 16. *Host, Gram. Austr.* i. *t.* 5. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 16. *Reichb. Ic. Fl. Germ. t.* 106. *Brot. Phytogr. Lusit. t.* 4. *Towns. in Trim. Journ. Bot.* 1875, *t.* 157.

104. **Hierochloe,** *Gmel. Fl. Sibir.* i. 100. (Savastana, *Schrank, Baier. Fl.* i. 100, 337. Disarrenum, *Labill. Pl. Nov. Holl.* ii. 82, *t.* 232. Torresia, *Ruiz et Pav. Prod. Fl. Per. et Chil.* 125, *Syst. Veg.* 251.)—Spiculæ flore unico fertili, parum compressæ, paniculatæ, rhachilla supra glumas inferiores articulata, flore terminali hermaphrodito, inferioribus 2 dum adsint masculis. Glumæ 6, 2 inferiores infra articulationem persistentes, carinatæ, acutæ, sub-3-nerves, glabræ, 2 intermediæ vix breviores, obtusæ emarginatæ v. 2-fidæ, carinatæ, costa sæpe in aristam brevem producta, villosæ, paleam angustam sæpiusque stamina 3 foventes, 2 superiores sub flore paullo breviores, carinatæ, quarum quinta lata 5-nervis obtusa, carina sæpe in mucronem brevem producta, sexta (an palea?) angustior 3-nervis v. præter carinam enervis; palea cæterum 0. Stamina in flore fertili sæpe 2. Styli distincti, longiusculi, stigmatibus plumosis. Caryopsis oblonga, glumis superioribus inclusa, libera.—Gramina odorata, perennia, foliis planis sæpe subulato-acuminatis, Panicula pyramidalis, effusa v. contracta, spiculis sæpe nitentibus subscariosis.

Species ad 8, regionum montanarum v. frigidarum hemisphærii borealis, Australiæ, Novæ Zelandiæ, Americæ antarcticæ et Africæ australis incolæ. *Beauv. Agrostogr.* 62, *t.* 12, *f.* 5 *et* 7 (*Torresia*). *Kunth, Enum. Pl.* i. 35; *Rev. Gram. t.* 8, 203. *Host, Gram. Austr.* i. *t.* 4 *et* iii. *t.* 3 (*Holcus*). *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 15. *Reichb. Ic. Fl. Germ. t.* 107. *Brongn. in Duperr. Voy. Coq. Bot. t.* 23. *Hook. f. Fl. Antarct. t.* 52; *Fl. Tasm. t.* 157. *Buchan. N. Zeal. Grass. t.* 6, 7.

Ataxia, *R. Br. Chlor. Melv. in App. Parr. Voy.* 292, species continet 1 v. 2 Asiaticas, cum 2 Africæ australis, et quinta Mexicana, sectionem formantes *Hierochlois*, a genuinis parum distinctas glumis cujusve paris magis inæqualibus, superiore intermediarum (v. quarta) vacua v. paleam tenuissimam absque staminibus fovente, profunde 2-fida, longeque aristata. *Benn. Pl. Jav. Rar.* 8, *t.* 3. *Nees, Fl. Afr. Austr. Gram.* 7. *Griseb. in Nachr. Götting.* 1868, 77. In specie Mexicana, *Ataxia mexicana*, Rupr.; Fourn. Gram. Mex. 71, glumas vidimus cujusve paris minus inæquales et in una spicula quartam florem ♂ foventem.

105. **Crypsis,** *Ait. Hort. Kew.* i. 48. (Antitragus, *Gærtn. Fruct.* ii. 7, *t.* 80. Pallasia, *Scop. Introd. fide Beauv.*)—Spiculæ 1-floræ, capitatæ, bracteis 2–3 basi dilatatis involucratæ, in receptaculo convexiusculo pedicellis brevissimis articulatæ, flore hermaphrodito. Glumæ 4, tenuiter membranaceæ, obtusiusculæ, muticæ, complicato-carinatæ, 3 exteriores vacuæ ab extimo minore ad tertiam gradatim auctæ, terminalis florens (v. palea?) vacuis similis nisi paullo minor tenuiorque; palea cæterum 0. Stamina 2 (rarius 3?). Styli distincti, stigmatibus plumosis. Caryopsis oblonga, glumis tenuibus inclusa, libera; pericarpium laxum, tenuissime membranaceum.—Gramen humile v. diffusum, ramosum, foliis brevibus rigidulis. Capitula terminalia intra vaginas latas concavas bractearum v. foliorum floralium semi-immersa, lamina bractearum patente rigida interdum subspinescente. Spiculæ in receptaculo numerosæ, pedicellis brevibus prope basin calloso-articulatis.

Species 1, regionis Mediterraneæ incola. *Beauv. Agrostogr.* 22, *t.* 6, *f.* 12. *Cav. Ic. t.* 52, *excl. f.* v. (*Phleum*). *Schreb. Beschr. Gräs. t.* 32 (*Schœnus*). *Host, Gram. Austr.* i. *t.* 31. *Reichb. Ic. Fl. Germ. t.* 48, *f.* 1469. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 5, *quoad fig.* 17, 18.

Species cæteræ ab auctoribus sub *Crypsi* editæ ad *Heleochloam*, Host, referendæ sunt. Specimina nonnulla *Heleochloæ schœnoidis*, spicis abbreviatis intra bracteam sessilibus, sæpe cum *Crypsi aculeata* in herbariis confusa, facile distinguuntur spicæ rhachi cylindracea, pedicellis inarticulatis palea 2-nervi plus minus 2-carinata 2-dentataque et staminibus 3.

106. **Cornucopiæ,** *Linn. Gen. n.* 72.—Spiculæ 1-floræ, capitatæ, intra involucrum tubuloso-campanulatum ∞-dentatum in receptaculo subplano sessiles articulatæ, flore hermaphrodito. Glumæ 3, 2 exteriores vacuæ, membranaceæ, complicato-carinatæ, subæquales, muticæ, 3-5-nerves, carina ciliolata v. subalata, terminalis (v. palea) florens,

vacuis sublongior, latissima, hyalina, tenuissime 4–5-nervis, florem involvens, marginibus basi plus minus in tubum connatis, dorso infra medium arista brevi v. mucrone instructa; palea cæterum 0. Stamina 3. Styli a basi distincti, stigmatibus elongatis pilis brevibus subplumosis. Caryopsis ovato-oblonga, glumis tenuibus inclusa, libera.—Gramen annuum, caulibus cæspitosis, foliis angustis. Pedunculi in axillis superioribus gemini, inæquales v. ad apices ramorum fasciculati, 1-cephali, demum sub involucro incrassato rigidi recurvi.

Species 1, Orientalis. *Schreb. Beschr. Gräs. t.* 41. *Beauv. Agrostogr.* 3, *t.* 4, *f.* 3, 4. *Kunth, Enum. Pl.* i. 21. *Sm. Spicileg. Bot. t.* 14. *Sibth. Fl. Græc. t.* 51.

107. **Alopecurus,** *Linn. Gen. n.* 78.—Spiculæ 1-floræ, complanatæ, in spica seu panicula spiciformi cylindracea confertæ, cum pedicello apice calloso articulatæ, flore hermaphrodito. Glumæ 3 v. 4, 2 exteriores vacuæ acutæ muticæ v. breviter aristatæ, basi interdum in tubum connatæ complicato-carinatæ, carina ciliolata v. subalata, tertia lata, obtusa, hyalina, 3-nervis, dorso arista brevi v. mucrone instructa, marginibus basi interdum in tubum connatis, florem involvens; quarta (v. palea) dum adsit sub flore angusta, hyalina, carinata, acuta, intra tertiam semi-inclusa; palea cæterum 0. Stamina 3. Styli distincti v. basi rarius ad medium connati, stigmatibus elongatis pilis brevibus subplumosis.—Gramina annua v. perennia, erecta v. basi decumbentia, foliis nunc planis flaccidis, nunc rigidulis tereti-convolutis. Spicæ v. paniculæ spiciformes, terminales, supra vaginam folii superioris longe pedunculatæ.

Species vix 20 (ultra 40 in operibus variis enumeratæ), Europæ et Asiæ temperatæ incolæ, quarum 2 v. 3, per alias regiones utriusque orbis latissime dispersæ sæpe tamen inquilinæ. *Beauv. Agrostogr.* 4, *t.* 4, *f.* 5, 6. *Schreb. Beschr. Gräs. t.* 19, *f.* 1, 2. *Steud. Syn. Pl. Glum.* i. 147. *Trin. Spec. Gram. t.* 1, 2, 37 *ad* 46, 241. *Kunth, Rev. Gram. t.* 7. *Jacq. Ecl. Gram. t.* 13; *Ic. Rar. t.* 301 (*Phleum*). *Host, Gram. Austr.* ii. *t.* 31, 32, iii. *t.* 12. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 7. *Reichb. Ic. Fl. Germ. t.* 49. *Sibth. Fl. Græc. t.* 63, 64. *Hook. f. Fl. Antarct. t.* 130. *Buchan. N. Zeal. Grass. t.* 5.

Colobachne, *Beauv. Agrostogr.* 22, *t.* 6, *f.* 9, *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 8, *Reichb. Ic. Fl. Germ. t.* 50, *f.* 1480, species continet paucas spica sæpius brevi densa, glumis exterioribus aristatis, quarta lineari v. lanceolata plus minus evoluta, hæc tamen etiam sæpe apparet in *A. pratensi*, et semper distincte 1-nervis.

Tozzettia, *Savi in Mem. Soc. Ital. Sc.* viii. 477, est *A. utriculatus*, Pers., *Host, Gram. Austr.* iii. *t.* 7 (*Phalaris*), glumis inferioribus vacuis basi in tubum connatis.

Tribus VIII. Agrostideæ.

108. **Aristida,** *Linn. Gen. n.* 94.—Spiculæ 1-floræ, angustæ, paniculatæ, rhachilla supra glumas inferiores articulata, sub flore anguste obconica v. vix incrassata, ultra florem non producta, flore hermaphrodito terminali. Glumæ 3, 2 inferiores vacuæ sub articulatione sæpius persistentes, angustæ, carinatæ, muticæ, tertia florens angusta, rigidula, circa florem arcte convoluta, acumine in aristam trifidam v. 3-partitam producto, sub divisione recta v. torta, ramis setaceis v. centrali flexuoso v. centrali v. omnibus plumosis, lateralibus rarius abbreviatis erectis rarissime obsoletis; palea 2-nervis, gluma arcte inclusa, interdum lodiculis subsimilis v. brevior, nunc minima v. obsoleta. Lodiculæ 2. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis angusta, gluma arcte involuta, libera.—Gramina cæspitosa, humilia v. elatiuscula, foliis angustis sæpe convoluto-setaceis. Panicula variat effusa ramis patulis, v. angusta, interdum fere ad racemum reducta.

Species editæ numerosæ et fere 100 bene distinguendæ videntur, per regiones calidiores utriusque orbis latissime dispersæ, in Europa tamen et Asia extratropica pauciores; in America boreali plures. *Kunth, Enum. Pl.* i. 187. *Trin. in Mem. Acad. Sc. Petersb. ser.* 6, v. 99. *Steud. Syn. Pl. Glum.* i. 132. *Dœll in Mart. Fl. Bras.* ii. iii. 11, *t.* 3 *ad* 6. *Fourn. Gram. Mex.* 76. *Benth. Fl. Austral.* vii. 560, *et in Journ. Linn. Soc.* xix. 79.

Lodiculas descripsit 3 Nees in Fl. Afr. Austr. Gram. quoad sect. *Chætariam*; Dœll l. c., quoad genus totum. Ex Kunthio Trinio aliisque 2 tantum adsunt quod ex observationibus nostris con-

firmatur. Nees et Doell verisimiliter paleam sæpe minimam pro lodicula tertia habuerunt; in iconibus Doellianis lodiculæ non delineatæ sunt.

Genus in sectiones sequentes dividitur:—

1. *Chætaria.* Arista cum gluma continua, a basi 3-partita, i.e. infra ramos potius glumæ acumen nuncupanda rectum v. leviter tortum, glumis exterioribus longius. *Cav. Ic. t.* 468, 469, 470, *f.* 2, 471, 589. *Jacq. Ecl. Gram. t.* 6. *Kunth, Rev. Gram. t.* 44, 172, 173. *Trin. Spec. Gram. t.* 313 *ad* 316. *Desf. Fl. Atl. t.* 21. *Labill. Sert. Austr. Caled. t.* 17. *Rudge, Pl. Gui. t.* 30. Chætaria, *Beauv. Agrostogr.* 30, *t.* 8, *f.* 5, 6.

Curtopogon, *Beauv. Agrostogr.* 32, *t.* 8, *f.* 7, est *A. dichotoma*, species boreali-Americana e sectione *Chætaria*, aristæ ramis lateralibus brevibus erectis evidenter e nervis lateralibus glumæ productis, medio longiore reflexo v. torto. *Kunth, Rev. Gram. t.* 174. *Torr. Fl. N. York, t.* 149. In toto tamen genere rami laterales aristæ a nervis lateralibus proveniunt etsi in speciebus plerisque in acumine jam sub ramificatione aristiformi haud distinguendæ sint.

Streptachne, *H. B. et K. Nov. Gen. et Sp.* i. 124, *t.* 40, *non Br.* (Ortachne, *Nees in Seem. Bot. Her.* 225, *absque char.*; *Fourn. Gram. Mex.* 80), species includit 2 v. 3 Mexicanas v. Colombianas, aristæ ramis lateralibus brevissimis inæqualibus v. uno v. utroque omnino evanido, rami tamen interdum adsunt v. desunt in diversis spiculis ejusdem speciminis. Ortachne, *Steud. Syn. Pl. Glum.* i. 121, e Patagonia, est verisimiliter *Stipæ* species.

2. *Arthratherum.* Arista cum gluma articulata jam infra ramos tenuis tortaque, gluma ipsa vacuis multo breviore. *Cav. Ic. t.* 470, *f.* 1. *Grant in Trans. Linn. Soc.* xxix. *t.* 114. Arthratherum, *Beauv. Agrostogr.* 32, *t.* 8, *f.* 8.

3. *Stipagrostis.* Arista cum gluma articulata, infra ramos vix torta, plumosa supra ramificationem. Stipagrostis, *Nees in Linnæa*, vii. 290. Huc referendæ ic. sequentes (1) ramis omnibus plumosis *Desf. Fl. Atl. t.* 35. *Kunth, Rev. Gram. t.* 171, (2) ramo centrali plumoso lateralibus brevioribus nudis. *Beauv. Agrostogr. t.* 8, *f.* 10. *Vahl, Symb. t.* 3. *Delile, Fl. Eg. t.* 13. *Jaub. et Spach, Ill. Pl. Or. t.* 334 *ad* 338. *Welw. in Trans. Linn. Soc.* xxvii. *t.* 25. Schistachne, *Fig. et Notar. in Mem. Acad. Turin. ser.* 2, xii. 252.

109. **Stipa,** *Linn. Gen. n.* 90.—Spiculæ 1-floræ, angustæ, paniculatæ, rhachilla supra glumas inferiores articulata, sub flore longiuscule obconica v. breviter nunc brevissime callosa, ultra florem non producta, flore hermaphrodito terminali. Glumæ 3, 2 inferiores vacuæ sub articulatione persistentes, angustæ, carinatæ, acutæ v. rarius in aristam tenuem productæ, tertia florens angusta, rigidula, circa florem arcte convoluta, apice in aristam attenuata v. rarius emarginata 2-dentata v. breviter 2-fida; arista terminalis v. in emarginatura rigida, indivisa, plus minus geniculata, basi sæpe torta a gluma articulatim secedens v. rarius continua persistensque; palea 2-nervis v. 2-carinata, tenuis, gluma florente inclusa. Lodiculæ sæpissime 3, æquales v. una minore (interdum deficiente?). Stamina 3, v. rarius pauciora, antheris sæpissime apice barbellatis. Styli breves, distincti, stigmatibus plumosis. Caryopsis angusta, subteres, gluma arcte involuta, libera.—Gramina cæspitosa, elata v. rarius humilia, foliis convoluto-teretibus v. rarius planis. Panicula terminalis, sæpius tenuis, parum ramosa, spiculis longiusculis sparsis erectis arista longa nunc longissima, rarius effusa spiculis numerosis minoribus, v. interdum longe denseque subspiciformis.

Species vix 100, per regiones tropicas temperatasque utriusque orbis latissime dispersæ. *Beauv. Agrostogr.* 18, *t.* 6, *f.* 2, 3, 4. *Kunth, Enum. Pl.* i. 179; *Rev. Gram. t.* 43, 121. *Steud. Syn. Pl. Glum.* i. 124. *Benth. Fl. Austral.* vii. 564, *et in Journ. Linn. Soc.* xix. 80. *Cav. Ic. t.* 467. *Host, Gram. Austr.* iii. *t.* 5. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 26. *Reichb. Ic. Fl. Germ. t.* 46. *Brot. Phytogr. Lusit. t.* 3. *Desf. Fl. Atl. t.* 27 *ad* 29, 31. *Jaub. et Spach, Ill. Pl. Or. t.* 339. *Sibth. Fl. Græc. t.* 85, 86. *Ledeb. Ic. Pl. Ross. t.* 98, 99, 222, 223. *Labill. Pl. Nov. Holl. t.* 29, 30. *Hook. f. Fl. Tasm. t.* 157; *Fl. Nov. Zel. t.* 66 (*Dichelachne*). *Buchan. N. Zeal. Grass. t.* 14 *ad* 16 (*Dichelachne*) *et t.* 17, 2. *H. B. et K. Nov. Gen. et Sp. t.* 680. *Dœll in Mart. Fl. Bras.* ii. iii. 6, *t.* 1, *f.* 2. *C. Gay, Fl. Chil. t.* 76. *Fourn. Gram. Mex.* 73.

Genus quoad paniculæ evolutionem, rhachillæ internodium (sic dictum callum inter glumas inferiores et florentem), aristæ indolem, sat polymorphum, sectiones tamen adhuc vix limitibus certis definitæ, etsi formæ sequentes insigniores a variis auctoribus pro generibus propriis habitæ.

Macrochloa, *Kunth, Rev. Gram.* i. 58, includit *S. tenacissimam*, Linn.; Desf. Fl. Atl. t. 30, et

S. arenariam, Brot. Phytogr. Lusit. t. 7, 8, species spiculis magnis membranaceis insignes, gluma florente apice membranaceo-2-fida, quod tamen plus minus in aliis speciebus observatur.

ARISTELLA, *Bertol. Fl. Ital.* i. 690, est *S. aristella*, Linn., *Sibth. Fl. Græc. t.* 87. *Host, Gram. Austr.* iv. *t.* 34, a speciebus typicis distincta rhachillæ internodio seu callo non evoluto, gluma florente ad latera aristæ breviter 2-fida, antheris imberbibus et lodiculis 2 nec 3. Rhachillæ internodium tamen etsi abbreviatum distincte obconicum est et vix brevius quam in *S. sibirica*, Lam., *S. Redowskii*, Trin., *S. altaica*, Ledeb., speciebus cæterum *S. aristellæ* plus minus affinibus; gluma florens in speciebus pluribus præsertim Australianis apice 2-dentata v. 2-fida, antherarum barba in genere inconstans, et lodicula tertia etsi sæpius lateralibus æqualis, in speciebus nonnullis minima v. deficiens dicitur.

STREPTACHNE, *R. Br. Prod.* 174; *Benth. Fl. Austral.* vii. 571 (ORTHORAPHIUM, *Nees in Proc. Linn. Soc.* i. (1841), 94), species paucæ Indicæ v. Australianæ, vix ab *Aristella* differunt. Arista in his ut in *Aristella* cum gluma sæpissime (an semper?) continua nec articulata.

JARAVA, *Ruiz et Pav. Prod. Fl. Per.* 2, *t.* 1; *Fl. Per. et Chil.* i. 5, *t.* 6, est *S. Jarava*, Kunth, (*S. eriostachys*, H. B. et K. Nov. Gen. et Sp. t. 41, *S. papposa*, Nees), spiculis in ramulis densis paniculæ elongatæ parvis, gluma florente ad originem aristæ pilis longis coronata quasi papposa. Glumæ similes observantur in speciebus 5 v. 6 austro-Americanis habitu vario. *Cav. Ic. t.* 466. *Dœll in Mart. Fl. Bras.* ii. iii. *t.* 2.

S. pennata, Linn., cum speciebus paucis tam gerontogeis quam Americanis insignes sunt glumæ florentis arista supra basin plus minus pilis longis patentibus plumosa. *Host, Gram. Austr.* iv. *t.* 33.

LASIAGROSTIS, *Link, Hort. Berol.* i. 99, *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 25 (ACHNATHERUM, *Beauv. Agrostogr.* 19, *t.* 6, *f.* 7), genus primum ad *S. calamagrostem*, Wahlenb., *Reichb. Ic. Fl. Germ. t.* 46, propositum, a Neesio v. Trinio ad species plures Africanas v. Asiaticas extensum, a *Stipis* pluribus parvifloris non differt nisi gluma fertili infra medium v. totum pilis subpatentibus plumosa. Inter illas PTILAGROSTIS, *Griseb. in Ledeb. Fl. Ross.* iv. 447, est *S. mongholica*, Trin., cui pili glumæ usque ad dimidium aristæ extensi sunt.

Stipa verticillata, Nees, a Benth. in Fl. Austral. dubie sed ut videtur errore ad *S. micrantham*, Cav., relata, et *Apera arundinacea*, Hook. f. Fl. N. Zel. i. 295, t. 67; Buchan. N. Zeal. Grass. t. 17, species inter se simillimæ at bene distinctæ quasi medium tenent inter *Stipam* et *Muehlenbergiam*. Inflorescentia et spiculæ parvæ *Muehlenbergiæ*; arista in *S. verticillata* sæpius persistens, sed articulatio in spicula florente ut in *Stipa* distincta, et in *S.* (*Apera*, Hook. f.) *arundinacea*, arista caducissima. Stamina in *S. verticillata* 3, in *S. arundinacea* sæpius 1. His valde affinis est *S. rariflora* (*Muehlenbergia rariflora*, Hook. f. Fl. Ant. t. 131) ex America antarctica. De planta Cavanillesii confer F. Muell. in Trim. Journ. Bot. 1878, 327.

110. **Oryzopsis,** *Mich. Fl. Bor. Amer.* i. 51, *t.* 9. (Urachne, *Trin. Fundam. Agrostogr.* 109. Dilepyrum, *Rafin. ex Endl. Gen. Pl.* 87.)—Spiculæ 1-floræ, sæpius ovatæ v. acuminatæ, paniculatæ, rhachilla supra glumas inferiores articulata, sub flore brevissime late sæpiusque oblique callosa, ultra florem non producta, flore hermaphrodito terminali. Glumæ 3, 2 inferiores sub articulatione persistentes, vacuæ, æquales v. extima parum brevior, obtusæ v. acuminatæ; tertia florens brevior v. paullo longior, lata, sub anthesi hyalina v. tenuiter membranacea, florem paleamque 2-carinatam arcte involvens, apice obtusa v. truncata, arista terminali sæpius excentrica geniculata basique torta, cum gluma articulata sæpiusque caducissima. Lodiculæ (an semper?) 2. Stamina 3. Styli breves v. longiusculi, distincti, stigmatibus plumosis. Caryopsis oblonga, gluma plus minus indurata oblique ovata v. angustiore arcte involuta, libera.—Gramina cæspitosa, interdum elata, foliis nunc planis mollibus, nunc convoluto-teretibus. Panicula terminalis, laxa, nunc angusta ramulis strictis paucispiculatis nunc effusa floribunda.

Species ad 24, regionum temperatarum et subtropicarum hemisphærii borealis et Americæ australis incolæ, vix intra tropicos extensæ. *Kunth, Enum. Pl.* i. 175 (*Oryzopsis*) et 176 (*Piptatherum*). *Steud. Syn. Pl. Glum.* i. 121 (*Urachne*). *Benth. in Journ. Linn. Soc.* xix. 81.

Genus olim pro sectione aristata *Milii* habitum, revera *Stipæ* affine, et vix nisi gluma fructifera latiore sæpius obliqua distinctum, genera plura a variis auctoribus proposita includit et bene in sectiones 3 sequentes dividitur:—

1. *Piptatherum.* Rhachilla sub flore nuda. Gluma fructifera parum obliqua, glabra v. villosa, arista subcentrali. Species omnes gerontogeæ. *Schreb. Beschr. Gräs. t.* 28, *f.* 2 (*Milium*). *Host,*

Gram. Austr. iii. *t.* 23 (*Milium*) *et t.* 45 (*Agrostis*). *Reichb. Ic. Fl. Germ. t.* 45, *f.* 1459, 1460 (*Milium*). *Desf. Fl. Atl. t.* 12 (*Milium*). *Sibth. Fl. Gr. t.* 66 (*Milium*). *Brot. Phyt. Lusit. t.* 102, 103 (*Agrostis*). *Ledeb. Ic. Fl. Ross. t.* 221. PIPTATHERUM, *Beauv. Agrostogr.* 17, *t.* 5, *f.* 10, 11. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 24.

2. *Euoryzopsis.* Rhachilla sub flore annulo pilorum instructa. Gluma fructifera inæquilatera, glabra v. pilis brevibus villosa, lævis v. striata, arista excentrica. Species omnes Americanæ. *Beauv. Agrostogr.* 19, *t.* 6, *f.* 5. *Dœll in Mart. Fl. Bras.* ii. iii. *t.* 1, *f.* 1 (*Urachne*). *Kunth, Rev. Gram. t.* 122 (*Stipa*). CARYOCHLOA, *Spreng. Syst. Cur. Post.* 22, 30, *non Trin.* PIPTOCHÆTIUM, *Presl, Rel. Hænk.* i. 222, *t.* 37. *E. Desv. in C. Gay, Fl. Chil. t.* 75, *f.* 2. NASSELLA, *E. Desv. in C. Gay, Fl. Chil.* vi. 263, *t.* 75, *f.* 1 (a Trinio primum pro sectione *Stipæ*, serius *Urachnis*, proposita).

3. *Eriocoma.* Omnia *Euoryzopseos* nisi gluma fructifera pilis longis sericeis dense obtecta. Species Americanæ. ERIOCOMA, *Nutt. Gen. N. Amer. Pl.* i. 40. FENDLERIA, *Steud. Syn. Pl. Glum.* i. 419.

111. **Milium,** *Linn. Gen. n.* 79, *pro parte.* (Miliarium, *Mœnch, Meth.* 204.)—Spiculæ 1-floræ, laxe paniculatæ, rhachilla supra glumas inferiores articulata, ultra florem non producta, glabra, flore hermaphrodito. Glumæ 3, tenues, obtusæ, muticæ, 2 inferiores vacuæ sub articulatione persistentes, subæquales; terminalis florens inter illas subsessilis, sub anthesi tenuiter membranacea, demum rigescens, glabra v. pubescens, sub-3-nervis; palea vix brevior, 2-nervis. Stamina 3. Styli breves, distincti, stigmatibus plumosis. Caryopsis ovoidea v. oblonga, gluma paleaque nitidulis rigescentibus arcte inclusa, libera. —Gramina annua v. perennia, foliis planis. Panicula composita, laxe thyrsoidea v. effusa, rarius stricta, spiculis parvulis, interdum minimis.

Species 5 v. 6, Europæ et Asiæ temperatæ incolæ, quarum una etiam in America boreali late dispersa. *Kunth, Enum. Pl.* i. 65, *quoad species n.* 1 *et* 2. *Host, Gram. Austr.* iii. *t.* 22. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 17. *Reichb. Ic. Fl. Germ. t.* 45, *f.* 1456 *ad* 1458.

112. **Aciachne,** *Benth. in Hook. Ic. Pl. t.* 1362.—Spiculæ unisexuales, ♂ ignotæ; ♀ 1-flora, in pedunculo terminali unica, erecta, rhachilla brevissima supra glumas inferiores articulata, ultra florem non producta. Glumæ 3, 2 inferiores vacuæ, latæ, tenuiter membranaceæ subhyalinæ at rigidæ, obtusæ, muticæ, parum inæquales, sub articulatione persistentes; terminalis florens multo longior, rigida, basi lata circa florem convoluta, superne in acumen longum teres rigidum producta; palea brevior, inclusa, hyalina, latiuscula, circa florem convoluta, tenuiter 2-nervis. Lodiculæ parvæ. Stamina 0. Styli distincti, stigmatibus plumosis. Caryopsis (immatura) oblonga, gluma rigida subindurata inclusa, libera.—Gramen nanum, perenne, dense cæspitosum, caulibus brevibus foliorum vaginis latis distichis obtectis, laminis brevibus patentibus rigidis. Pedunculus terminalis, brevis, folia rarius superans.

Species 1, Andium Americæ australis a Bolivia usque ad Novam Granadam lecta a collectoribus pluribus recepta, specimina florida numerosa nobis adsunt omnia tamen fœminea, nisi huic congenera (vix conspecifica) sint specimina Peruviana *Lechler n.* 2599, foliis pariter rigidis sed erectis longioribusque panicula terminali laxe thyrsoidea rigida 1–1½-pollicari; glumæ omnino *A. pulvinatæ*, sed stamina 3 perfecta et ovarii rudimentum tantum obovoideum 2-mucronatum, stylis 0.

113. **Muehlenbergia,** *Schreb. Gen. Pl.* 44.—Spiculæ 1-floræ, parvæ, paniculatæ, rhachilla supra glumas inferiores articulata, sub gluma florente brevissime subcallosa sæpius pilosa, ultra florem non producta, flore hermaphrodito. Glumæ 3, 2 inferiores vacuæ, sub articulatione persistentes, membranaceæ v. hyalinæ, æquales v. sæpius inæquales, nunc minutæ v. una omnino deficiens, nunc florenti subæquales, carinatæ, acutæ mucronatæ v. rarius in aristam brevissimam productæ; terminalis florens 3–5-nervis, rigidula v. tenuiter membranacea, obtusa acuta mucronata v. sæpissime capillaceo-aristata, ad latera aristæ interdum utrinque in dentem brevem producta, circa florem arcte convoluta; palea hyalina, inclusa, 2-carinata. Stamina sæpius 3. Styli distincti, stigmatibus plumosis. Caryopsis angusta, subteres, gluma arcte involuta, libera.—Gramina nunc elatiuscula v. tenuia, erecta v. laxe adscendentia v. diffusa, nunc cæspitosa, rarius annua, foliis planis v.

sæpe convoluto-teretibus. Panicula terminalis, sæpius floribunda, nunc angusta tenuissima, nunc densa thyrsoidea v. fere spiciformis, nunc laxa effusa ramulis capillaceis. Spiculæ parvæ, tenues, interdum minimæ; gluma florens dorso glabra v. rarius parce pilosa; arista sæpius longiuscula, tenuissima, interdum curva at non torta.

Species fere 60, pro maxima parte Americanæ boreales v. Andinæ, paucæ Asiæ mediæ v. orientalis incolæ. *Beauv. Agrostogr.* 27, *t.* 7, *f.* 9. *Schreb. Beschr. Gräs. t.* 51. *Kunth, Enum. Pl.* i. 198. *Steud. Syn. Pl. Glum.* i. 177 (*excl. sp. plur.*). *Fourn. Gram. Mex.* 81. *Benth. in Journ. Linn. Soc.* xix. 82. *Dœll in Mart. Fl. Bras.* ii. iii. 40, *t.* 9. *Willd. Hort. Berol. t.* 12 (*Agrostis*).

Genus quoad species plerasque sat naturale, sed male definitum; species aliæ vix a *Stipa* differunt spiculis parvis gluma fructifera minus rigida, aliæ ab *Epicampe* gluma fructifera circa caryopsin arctius convoluta. Magnopere variat, panicula densa stricta v. laxe effusa, glumarum vacuarum ratione etc., sed difficile in sectiones dividitur, etsi species nonnullæ ab auctoribus variis generice separantur. In generis typo *M. diffusa*, Schreb., aliisque nonnullis, glumæ vacuæ minutæ, infima haud raro ad callum vix prominulum reducta v. omnino deficiente; in sectione *Acroxi*, Trin., glumæ vacuæ æquales v. inæquales, quarum secunda dimidium spiculæ v. interdum glumam ipsam florentem superat.

VASEYA, *Thurb. in Proc. Acad. Nat. Sc. Philad.* 1863, 79, est species Californica (*M. comata*, Thurb.), speciminibus Canadensibus *M. sylvaticæ* in omnibus simillima, nisi pilis rhachilla sub gluma florente duplo longioribus et gluma ipsa paullo tenuiore.

PODOSÆMUM, *Desv. in Nuov. Bull. Soc. Philom.* ii. 188, *et in Journ. Bot.* i. (1813) 67 (TRICHOCHLOA, *Beauv. Agrostogr.* 29, *t.* 8, *f.* 2), distinguitur imprimis panicula laxa effusa, ramulis pedicellisque elongatis capillaribus. *H. B. et K. Nov. Gen. et Sp. t.* 681 *ad* 683.

TOSAGRIS, *Beauv. Agrostogr.* 29, *t.* 8, *f.* 3, ab auctore ipso ad *Podosæmum* relata, prius separata fuit ob glumam florentem dorso longe pilosam. Specimina non vidimus.

CLOMENA, *Beauv. Agrostogr.* 28, *t.* 7, *f.* 10, est *M. Clomena*, Trin. (*M. nana*, Benth.), species Andina, nana, gluma vacua secunda cæteris majore apice latiuscule 3-dentata, character pariter observatus in *M. gracili*, Trin. (CALYCODONE, *Nutt. in Journ. Acad. Philad. ser.* 2, i. 186), aliisque paucis.

114. **Brachyelytrum,** *Beauv. Agrostogr.* 39, *t.* 9, *f.* 2.—Spiculæ 1-floræ, angustæ, in panicula tenui paucæ, rhachilla supra glumas inferiores articulata, sub flore subglabra, ultra florem in stipitem nudum v. minute glumiferum producta, flore hermaphrodito. Glumæ 2 inferiores minimæ, vacuæ, sub articulatione persistentes, extima minuta interdum vix conspicua; tertia florens elongata, 5-nervis, rigidula, acuminata, in aristam longam rectam producta; palea paullo brevior, rigidula, dorso sulcata, tenuiter 2-nervis. Stamina 2 (v. 3?). Styli breves, distincti, stigmatibus elongatis plumosis. Caryopsis oblonga, gluma paleaque involuta, libera.—Gramen elatum, foliis planis. Panicula terminalis, angusta, ramis paucis filiformibus erectis. Spiculæ in subtribu longiusculæ, iis *Stipæ* subsimiles, rhachilla sub flore leviter callosa vix pilis paucis brevibus ciliolata.

Species 1, Americæ borealis incola. *A. Gray, Man. Bot. N. U. St. ed.* 5, 614, *t.* 8. *Schreb. Beschr. Gräs. t.* 50 (*Muehlenbergia*).

115. **Pereilema,** *Presl, Rel. Hœnk.* i. 233, *t.* 37, *f.* a.—Spiculæ 1-floræ, in fasciculos seu spicas breves secus axin paniculæ sessiles subsecundas densissime confertæ, rhachilla supra glumas inferiores articulata, ultra florem non producta, flore hermaphrodito, spiculis tamen numerosis intermixtis sterilibus v. ananthis. Glumæ 3, tenuiter hyalinæ, carinatæ, costa omnium in aristam longam rectam producta, 2 inferiores vacuæ, ad basin aristæ breves nunc brevissimæ; tertia florens arista neglecta duplo longior, apice integra v. ad latera aristæ utrinque breviter producta; palea hyalina, 2-carinata. Stamina 3. Styli breves, distincti, stigmatibus plumosis. Caryopsis ovoidea v. oblonga, gluma vix rigescente inclusa.—Gramina annua, cæspitosa v. diffusa, foliis angustis planis. Panicula terminalis, spiciformis, continua v. interrupta, fasciculis spicularum minimarum seu spicis secus axin simplicem paniculæ subsecundis sessilibus densissimis, ob glumarum præsertim vacuarum aristas numerosas quasi crinitis, glumis fertilibus cum caryopsi inclusa caducis.

Species 3 v. 4, Americæ tropicæ a Brasilia et Colombia usque ad Mexicum incolæ. *Steud. Syn.*

Pl. Glum. i. 185. *Dœll in Mart. Fl. Bras.* ii. iii. 41, *t.* 10. *Trin. Spec. Gram. t.* 358. *Kunth, Rev. Gram. t.* 213 (*Muehlenbergia*). *Fourn. Gram. Mex.* 92.

Genus characteribus plerisque *Muehlenbergiæ* affine, et etiam habitu ab *M. diffusa* non longe recedit.

116. **Lycurus,** *H. B. et K. Nov. Gen. et Sp.* i. 141, *t.* 45. (Pleopogon, *Nutt. in Journ. Acad. Philad. ser.* 2, i. 189.)—Spiculæ 1-floræ, angustæ, secus rhachin spicæ densæ cylindraceæ v. racemi spiciformis sparsæ, sæpius geminæ, sessiles v. breviter pedicellatæ, rhachilla brevissima supra glumas inferiores subarticulata, ultra florem non producta, flore hermaphrodito, spiculis tamen sterilibus sæpe intermixtis. Glumæ 3, extima vacua nervis 2 rarius 3 in aristas productis, secunda pariter vacua minor, angustior, 1-aristata; tertia florens cæteris major longiusque aristata, 3-nervis; palea paullo minor, tenuior, 2-nervis v. 2-carinata, brevissime 2-dentata. Stamina 3. Styli breves, distincti, stigmatibus plumosis. Caryopsis gluma vix indurata inclusa, libera.—Gramina basi cæspitosa, adscendentia v. erecta, foliis angustis siccitate sæpius convolutis. Spica e vagina folii supremi breviter pedunculata, angusta, cylindracea, spiculis numerosis inæqualiter pedicellatis v. subsessilibus, irregulariter solitariis geminis v. fasciculatis; steriles masculæ v. ananthæ præsertim in parte superiore spicæ plures, ex Kunthio in utroque pari altera perfecta altera sterilis, sæpe tamen, si geminæ, utramque perfectam v. utramque sterilem invenimus.

Species editæ 2, inter se vix distinguendæ, Americæ incolæ. *Kunth, Enum. Pl.* i. 203.

117. **Echinopogon,** *Beauv. Agrostogr.* 42, *t.* 9, *f.* 5. (Hystericina, *Steud. Syn. Pl. Glum.* i. 35.)—Spiculæ 1-floræ, in paniculam dense capituliformem v. spiciformem confertæ, rhachilla supra glumas inferiores articulata, ultra florem in stipitem brevem producta, flore (in plerisque) hermaphrodito. Glumæ 3, 2 exteriores sub articulatione persistentes, vacuæ, subæquales, carinatæ, acutæ; tertia florens tenuis, lata, 5-nervis, apice 3-loba, lobis lateralibus brevibus acutis, medio in aristam tenuem rectam producto; palea brevior, angusta, 2-nervis. Stamina 3. Styli distincti, stigmatibus brevissime plumosis. Caryopsis gluma inclusa, libera.—Gramen adscendens v. elatiusculum, glabrum, foliis planis scabris. Panicula spiciformis, ovoidea v. cylindracea, longe pedunculata, aristis numerosis echinata. Spiculæ irregulariter fasciculatæ, nonnullæ minores flores masculos foventes v. interdum ananthæ.

Species 1, Australiæ et Novæ Zelandiæ incola. *Benth. Fl. Austral.* vii. 599. *Labill. Pl. Nov. Holl. t.* 21 (*Agrostis*). *Buchan. N. Zeal. Grass. t.* 13 B.

118. **Diplopogon,** *R. Br. Prod.* 176. (Dipogonia, *Beauv. Agrostogr.* 125.)—Spiculæ 1-floræ, in panicula capituliformi ovoideo-globosa dense confertæ, rhachilla supra glumas inferiores articulata, ultra florem non producta, flore hermaphrodito. Glumæ 3, 2 inferiores sub articulatione persistentes, angustæ, carinatæ, in aristam brevem tenuem rectam productæ; tertia florens angusta, circa florem convoluta, nervis lateralibus in aristas breves rectas productis, arista centrali terminali longiuscula rigida basi incrassata torta v. refracta; palea angusta, hyalina, prominenter 2-nervis, breviter 2-aristata. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis. . . .—Gramen perenne, tenue at rigidiusculum, foliis convoluto-teretibus. Panicula capituliformis, terminalis, pedunculata, aristis supra glumas purpurascentes sæpius tortis albidisque insignis.

Species unica, Australiæ austro-occidentalis incola. *Benth. Fl. Austral.* vii. 573.

119. **Amphipogon,** *R. Br. Prod.* 175. (Ægopogon, *Beauv. Agrostogr.* 122, *t.* 22, *f.* 4, *non Willd.* Pentacraspedon, *Steud. Syn. Pl. Glum.* i. 151.)—Spiculæ 1-floræ, in panicula densa capituliformi v. spiciformi confertæ, rhachilla supra glumas inferiores articulata, ultra florem non producta, flore hermaphrodito. Glumæ 3, 2 inferiores vacuæ, sub articulatione persistentes, membranaceæ, 3-nerves, acutæ v. in aristam brevem productæ, v. rarius apice 3-fidæ, lobis acutis; tertia florens circa florem involuta, alte 3-fida, lobis acutis v. in aristas rectas productis; palea glumam subæquans, apice in lobos 2 rigidos v. aristi-

formes divisa. Stamina 3. Styli basi plus minus connati, stigmatibus plumosis. Caryopsis gluma nonnihil indurata inclusa, libera.—Gramina perennia, cæspitosa, rigidula, foliis convoluto-teretibus v. rarius planis angustis rigidisque. Panicula spiciformis, densa, parum divisa, pedunculata, nunc in capitulum globosum v. ovoideum contracta, nunc longior cylindracea.

Species 5, Australianæ. *Benth. Fl. Austral.* vii. 597.

Gamelythrum, *Nees in Pl. Preiss.* ii. 101, est *A. turbinatus*, Br., species a cæteris parum distincta, rhachilla sub flore magis evoluta stipitiformi.

120. **Heleochloa,** *Host, Gram. Austr.* i. 23, *t.* 29, 30. (Pechea, *Pour. Chlor. Narb. ex Kunth.* Crypsis, *sp. Auct.*)—Spiculæ 1-floræ, in spica v. panicula densa spiciformi confertæ, rhachilla brevissima supra glumas inferiores subarticulata, ultra florem non producta, flore hermaphrodito. Glumæ 3, 2 exteriores vacuæ, persistentes, parum inæquales, membranaceæ, acutæ, complicato-carinatæ, exaristatæ, carina plus minus ciliata; tertia florens subsimilis nisi paullo longior; palea brevior, hyalina, emarginata v. 2-loba, tenuissime 2-nervis v. 2-carinata. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis oblonga, gluma laxe inclusa, libera.—Gramina perennia, cæspitosa, sæpius humilia, basi diffusa, caulibus adscendentibus, nunc nana, dense cæspitosa, foliis planis. Spica v. panicula spiciformis, cylindracea oblonga v. rarius ovoidea, rhachi lineari, intra vaginam folii floralis sessilis v. longiuscule pedunculata.

Species 7 v. 8, regionis Mediterraneæ incolæ, quarum 1 v. 2 per Europam et Asiam mediam latissime dispersæ. *Kunth, Enum. Pl.* i. 21 (*Crypsis sect.* 1). *Benth. in Journ. Linn. Soc.* xix. 84. *Jacq. Ic. Rar. t.* 15 (*Phleum*). *Cav. Ic. t.* 52, *f.* v. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 5, *f.* 1, 16. *Reichb. Ic. Fl. Germ. t.* 48, *f.* 1470, 1471. *Delile, Fl. Eg. t.* 9 (*omnes sub Crypsi*).

Genus a Hostio bene distinctum, etsi serius auctor ipse cum *Crypsi*, Ait., junxit; differt inflorescentia, rhachi lineari nec disciformi, pedicellis inarticulatis, aliisque notis.

Rhizocephalus, *Boiss. Diagn.* v. 68, xiii. 43, genus ad *Crypsim pygmæam*, Jaub. et Spach. Ill. Pl. Or. t. 307, propositum, cum *C. ambigua*, Balansa, et *C. crucianelloide*, Balansa, sectionem format *Heleochloæ* parum distinctam, habitu nano dense cæspitoso, spiculis quasi echinatis, glumis nempe exterioribus angustis 3-nervibus rigide acuminatis. Characteres essentiales tamen nobis omnino *Heleochloæ* videntur.

Heleochloa, *Beauv. Agrostogr.* 23, *t.* 7, *f.* 3, genus compositum videtur e specie *Sporoboli*, cum specie *Phlei* (*Chilochloæ*).

121. **Maillea,** *Parlat. Pl. Nov.* 31.—Spiculæ 1-floræ, plano-compressæ, dense subcapitato-spicatæ, rhachilla supra glumas inferiores articulata, supra florem interdum in stipitem brevem producta, flore hermaphrodito. Glumæ 3, 2 exteriores vacuæ, persistentes, subæquales, rigidulæ, complicatæ, exaristatæ, carina alata; tertia florens, paullo minor, complicato-carinata exalata; palea linearis. Stamina 2 v. 3. Styli breves, distincti, stigmatibus elongatis pilis brevibus plumosis. Caryopsis parva, ovoidea, intra basin glumæ laxe inclusa, libera.—Gramen annuum, nanum, cæspitosum, foliis brevibus rigidulis. Spicæ ovoideæ, intra vaginas foliorum floralium sessiles, spiculis undique arcte imbricatis.

Species 1, maritima, insularum Archipelagi Græci incola, nuper etiam in insula Sardinia a Reverchonio detecta. *Steud. Syn. Pl. Glum.* i. 152. *Jaub. et Spach. Illustr. Pl. Or. t.* 308 (*Phalaris*). *Kunth, Rev. Gram. t.* 202 (*Phalaris*).

Planta ab auctoribus citatis ad *Phalaridem* relata, verisimiliter ob spiculas compressas glumis exterioribus alatis, qui character tamen in *Phalaride* non constans, et cætera omnia affinitatem potius cum *Phleo* v. *Heleochloa* indicant.

122. **Phleum,** *Linn. Gen. n.* 77. (Stelephuros, *Adans. Fam.* ii. 31.)—Spiculæ 1-floræ, in panicula dense spiciformi confertæ, rhachilla brevissima supra glumas inferiores articulata, ultra florem interdum in stipitem brevem producta, flore hermaphrodito. Glumæ 3, 2 inferiores vacuæ, persistentes, parum inæquales, membranaceæ, complicato-carinatæ, subtruncatæ, carina in mucronem seu aristam brevem producta, tertia florens multo

brevior, latior, hyalina, truncata v. denticulata, paleam angustiorem hyalinam floremque involvens. Stamina 3. Styli distincti, longiusculi, stigmatibus plumosis. Caryopsis ovoidea, gluma paleaque tenuissime hyalinis involuta, libera.—Gramina annua v. perennia, erecta, foliis planis. Panicula longiuscule pedunculata, semper dense spiciformis, nunc elongata anguste cylindracea, nunc brevior oblonga v. fere ovoidea, sæpe pubescens.

Species ad 10, Europæ, Asiæ mediæ et borealis, Africæ borealis et Americæ borealis et antarcticæ incolæ. *Kunth, Enum. Pl.* i. 28. *Steud. Syn. Pl. Glum.* i. 150. *Schreb. Beschr. Gräs. t.* 14. *Jacq. Ic. Rar. t.* 14. *Trin. Spec. Gram. t.* 5 *ad* 7, 21, 22. *Host, Gram. Austr.* ii. *t.* 34 *ad* 37 (*Phalaris*), iii. *t.* 9 *ad* 11, iv. *t.* 21. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 10. *Reichb. Ic. Fl. Germ. t.* 50. *Ten. Fl. Nap. t.* 103.

CHILOCHLOA, *Beauv. Agrostogr.* 37, *t.* 7, *f.* 2. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 9. *Reichb. Ic. Fl. Germ. t.* 51 (ACHNODON, *Link. Hort. Berol.* i. 65. *Nees, l. c. n.* 11), species includit plures quibus rhachilla ultra florem plus minus in stipitem producta. ACHNODONTON, *Beauv. l. c.* 24, *t.* 7, *f.* 5, est *P. tenue*, Schrad., charactere nullo à cæteris *Chilochlois* separandum. *Phalaris trigyna*, Host, Gram. Austr. iv. t. 20, videtur *P. Michelii*, All., forma abnormis stylis 3.

123. **Mibora,** *Adans. Fam.* ii. 495. (Chamagrostis, *Borkh. Fl. Oberkatzenellenbogen*, *ex Kunth.* Sturmia, *Pers. Syn. Pl.* i. 76. Knappia, *Sm. Fl. Brit.* iii. 1387.)—Spiculæ 1-floræ, minimæ, in spica simplici alternæ, subsessiles, rhachilla supra glumas inferiores articulata, ultra florem non producta, flore hermaphrodito. Glumæ 2 inferiores vacuæ, sub articulatione persistentes, subæquales, tenuiter membranaceæ, concavæ, subcarinatæ, obtusæ, muticæ; tertia florens parum brevior, tenuior, fere hyalina, lata, 5-nervis, dorso pilosa, obtusa, mutica; palea multo angustior, hyalina, 2-nervis, pilosa. Stamina 3. Styli distincti, stigmatibus longis pilosulis. Caryopsis elliptica, compressa, gluma paleaque obtecta, libera.—Gramen annuum, nanum, tenue, cæspitosum, foliis brevibus angustis fere filiformibus. Pedunculi tenues, foliis longiores, spica tenui glabra.

Species 1, Europæ præsertim occidentalis incola. *Beauv. Agrostogr.* 29, *t.* 8, *f.* 4. *Kunth, Enum. Pl.* i. 23. *Trin. Spec. Gram. t.* 17 (*Knappia*). *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 6 (*Chamagrostis*). *Reichb. Ic. Fl. Germ. t.* 26.

124. **Coleanthus,** *Seid. in Rœm. et Schult. Syst.* ii. 11, 276. (Schmidtia, *Tratt. ex Rœm. et Schult. l. c.*)—Spiculæ 1-floræ, minimæ, secus paniculæ axin parum divisum fasciculatæ, pedicellatæ, rhachilla vix evoluta cum pedicello continua, flore hermaphrodito. Gluma sub flore 1, persistens, hyalina, ovata, carinata, in aristam brevem rectam producta; palea pariter persistens, brevior, latior, 2-carinata, 2-fida v. 2–4-dentata. Lodiculæ 0 (v. minutissimæ ?). Stamina 2. Styli distincti, stigmatibus tenuiter plumosis. Caryopsis angusta, oblonga, compressiuscula, libera, nuda, cum toro staminifero e gluma paleaque persistentibus articulatim decidua.—Gramen annuum, nanum, pusillum, subramosum, foliis brevibus planis. Panicula e vagina folii supremi breviter exserta, axi simplici v. ramulum proferente, spicularum fasciculis paucis dissitis. Spiculæ in quoque fasciculo numerosæ, breviter pedicellatæ.

Species 1, Bohemiæ et Norwegiæ incola, et recentius etiam in insula Sauvies ad ostium fluminis Oregon Americæ boreali-occidentalis detecta. *Reichb. Ic. Fl. Germ. t.* 48. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 27 (*Schmidtia*). Genus a *Phippsia* vix differt glumis vacuis omnino abortivis.

Planta primum a Seidelio detecta et nomine *Coleanthi subtilis* signata, a Trattinickio ex Rœm. et Schult. sub nomine *Schmidtiæ subtilis* edita, a Rœmerio et Schulteso tamen sub nomine Seideliano in Systemate recepta, a Sternbergio serius in Flora 1819, 6, cum tab. in Sturm, Deutschl. Fl. repetita, nomine novo *Schmidtia utriculosa* fusius descripta. Nomen Seidelianum hodie ab omnibus botanicis adoptatur.

125. **Phippsia,** *R. Br. Chlor. Melv. in App. Parr. Voy.* 285.—Spiculæ 1-floræ, minimæ, secus paniculæ rhachin parum divisam fasciculatæ, pedicellatæ, rhachilla supra glumas inferiores articulata, ultra florem non producta, flore hermaphrodito. Glumæ vacuæ sub articulatione persistentes, 2 minutæ inæquales v. una sola; tertia florens tenuiter membranacea, carinata, apice subdentata exaristata; palea vix brevior, 2-carinata. Stamen 1,

v. rarius 2–3. Styli breves, distincti, stigmatibus tenuiter plumosis. Caryopsis oblonga, a glumis paleaque libera, facile exserta v. decidua.—Gramen annuum, nanum, cæspitosum, foliis angustis planis. Panicula folia vix superans, angusta, tenuis, spiciformis v. laxiuscula, ramulis nonnullis brevibus erectis. Pedicelli ut in *Coleantho* fasciculati, plerique spiculam unicam, nonnulli spicula 2–3 ferentes.

Species 1, regionum arcticarum hemisphærii borealis incola. *Kunth, Enum. Pl.* i. 204. *Trin. Spec. Gram. t.* 83, 84 (*Vilfa*). Genus *Coleantho* et *Sporobolo* valde affine.

126. **Sporobolus,** *R. Br. Prod.* 169. (Vilfa, *Beauv. Agrostogr.* 16, *t.* 5, *f.* 8, *non Adans.* Agrosticula, *Raddi, Agrostogr. Bras.* 33, *t.* 1, *f.* 2. Triachyrum, *Hochst. in Steud. Syn. Pl. Glum.* i. 176. Cryptostachys, *Steud. Syn. Pl. Glum.* i. 181.)—Spiculæ parvæ, 1-floræ, v. rarissime 2-floræ, varie paniculatæ, rhachilla brevissima vix articulata, cum pedicello continua, ultra florem non producta, flore hermaphrodito. Glumæ 3, membranaceæ, 1–3-nerves, sæpius acutæ, exaristatæ, persistentes v. sigillatim caducæ, 2 inferiores vacuæ extima breviore; tertia florens vacuis longior v. subæqualis; palea glumæ florenti æquilonga v. brevior, prominenter 2-costata, sæpeque alte 2-fida v. 2-partita. Stamina 2–3. Styli brevissimi, distincti, stigmatibus plumosis. Caryopsis a palea glumisque libera sæpeque facile decidua, pericarpio tenuissimo nunc laxo nunc vix distinguendo.—Gramina perennia v. rarius annua habitu vario, sæpe tenuia, foliis planis v. convoluto-teretibus. Panicula nunc dense spiciformis anguste cylindracea, nunc elongata angusta stricta, v. laxe effusa et gracillima, spiculis interdum minutis.

Species ad 80, per regiones temperatas calidioresque utriusque orbis late dispersæ, in America numerosæ, in Europa et Asia Rossica perpaucæ. *Beauv. Agrostogr.* 26, *t.* 6, *f.* 11. *Kunth, Enum. Pl.* i. 209; *Rev. Gram. t.* 45, 46, 123 *ad* 127. *Benth. Fl. Austral.* vii. 620, *et in Journ. Linn. Soc.* xix. 86. *Jacq. Ecl. Gram. t.* 28. *Trin. Spec. Gram. t.* 10 *ad* 12, 23, 24, 47, 48, 56 *ad* 60, 250 *ad* 252, 348. *Brongn. in Duperr. Voy. Coq. Bot. t.* 4. *Beauv. Fl. Ow. et Ben. t.* 80. *Rothr. Bot. Wheel. Exped. t.* 27. *H. B. et K. Nov. Gen. et Sp. t.* 684, 685. *Dœll in Mart. Fl. Bras.* ii. iii. 29, *t.* 8. *Fourn. Gram. Mex.* 97 (*omnes sub Sporobolo v. Vilfa*). Agrostis species, *Cav. Ic. t.* 111. *Jacq. Ic. Rar. t.* 16. *Tchihatch. As. Min. Bot. t.* 43. *Delile, Fl. Eg. t.* 10. *Labill. Pl. Nov. Holl. t.* 23. *Buchan. N. Zeal. Grass. t.* 18. *C. Gay, Fl. Chil. t.* 76.

Diachyrium, *Griseb. Pl. Lorentz.* 209, *t.* 2, *f.* 8, e Catamarca reipublicæ Argentinæ, ab auctore a *Sporobolo* separatur ob paleam ad basin 2-partitam, quod haud raro in aliis speciebus *Sporoboli* observatur, et interdum (e.g. in Nees, Gen. Fl. Germ. Monocot. i. n. 28, f. 18, 19) paleæ segmenta pro pericarpii valvulis descripta v. delineata.

Spermachiton, *Llanos, Fragm. Pl. Filip.* 25, species Philippinensis a nobis non visa, ex auctoris descriptione ad *Sporobolum* referenda videtur.

In *S. compresso*, Trin., et *S. serotino*, A. Gray, ex America boreali, spiculæ interdum etsi rarius 2-floræ, flore utroque ut in *Isachne* perfecto sed terminalis ab inferiore subdistans. Habitus tamen, spiculæ minimæ, caryopsis brevis ovoidea demum intra glumam vix inclusa, cæteraque omnino *Sporoboli*, nec *Isachnis* nec *Colpodii*.

127. **Epicampes,** *Presl. Rel. Hænk.* i. 235, *t.* 39.—Spiculæ parvæ, 1-floræ, anguste paniculatæ, rhachilla supra glumas inferiores articulata, sub gluma florente brevissima, ultra florem non producta, flore hermaphrodito. Glumæ 3, 2 inferiores vacuæ, sub articulatione persistentes, parum (v. conspicue ?) inæquales, membranaceæ, dorso convexæ vix carinatæ, tenuissime 3-nerves; florens vacuis æqualis v. paullo brevior rarius longior, tenuiter 3-nervis, obtusa v. emarginata, arista terminali v. paullo infra apicem affixa, nunc minuta v. obsoleta, nunc longiuscula, tenuis, caducissima; palea hyalina, glumæ vix brevior, 2-carinata v. 2-nervis. Stamina 3. Styli distincti, breves, stigmatibus plumosis. Caryopsis angusta, glumis membranaceis inclusa, libera.—Gramina elata, foliis planis. Panicula dense floribunda, nunc longissima fere spiciformis, nunc thyrsoidea laxior vix tamen effusa.

Species ad 16, plures tamen nobis vix notæ forte reducendæ, Mexicanæ Californicæ v. Andinæ. *Fourn. Gram. Mex.* 87.

Genus hinc *Muehlenbergiæ*, hinc *Sporobolo* arcte connatum, nec limitibus certis definiendum,

Agrosti etiam pluribus notis accedit. Arista glumæ florentis sæpius quam in *Muehlenbergia* minor, nec stricte terminalis, et gluma circa caryopsin laxior. Panicula longa dense floribunda *Epicampis* in *Sporobolo* rara, in *Muehlenbergia* non observatur.

Crypsinna, *Fourn. Gram. Mex.* 90, est *Cinna macroura*, Kunth (*Epicampes macroura*, Benth.), a qua *C. strictam*, Kunth, distinguere nequimus nec ab *Epicampi* generice separanda videtur. A cæteris speciebus paullulum differt panicula dense spiciformi, glumis paullo longioribus rigidioribusque, florentis nervo medio apice in mucronem producto v. mutico. Panicula in speciminibus nostris sat numerosis variat 4 ad 9 poll. longa, nec unquam pedalem vidimus. *Cinna macroura*, Thurb. in S. Wats. Calif. Bot. ii. 276, e California, est species a Mexicana bene distincta (*Epicampes rigens*, Benth.), panicula quam in *E. macroura* multo longiore tenuiore basi sæpe interrupta spiculis parvis, glumis membranaceis *E. strictæ*, Presl, nisi muticis v. obscure mucronatis.

128. **Bauchea,** *Fourn. Gram. Mex.* 87.—Spiculæ 1-floræ, anguste paniculatæ. Glumæ 3, 2 exteriores vacuæ valde inæquales, hyalinæ, infima linearis, secunda navicularis, florens longior, virescens, dorso convexa, mutica, ampla, paleam subæqualem approximate 2-nervem 2-dentatam involvens. Stamina 3. Styli breves, stigmatibus plumosis. Caryopsis pericarpium non solubile.—Gramen elatum, panicula longa composita caudiformi, ramulis subfasciculatis erecto-patentibus spiculis densis. (*Char. ex Fourn.*)

Species 1, Mexicana, a nobis non visa. Genus ex auctore ab *Epicampi* differt glumis vacuis valde inæqualibus, et verisimiliter ei referendum.

129. **Agrostis,** *Linn. Gen. n.* 80, *pro parte.* (Vilfa, *Adans. Fam.* ii. *ex syn. allat. p.* 495.) —Spiculæ parvæ, 1-floræ, paniculatæ, rhachilla supra glumas vacuas articulata, ultra florem non producta, glabra v. vix pilosa, flore hermaphrodito. Glumæ 3, 2 inferiores vacuæ, sub articulatione persistentes, carinatæ, acutæ, exaristatæ; tertia florens brevior, lata, tenuiter hyalina, mutica v. sæpius infra medium arista tenui dorsali instructa; palea tenuissime hyalina, brevis, rarius dimidium glumæ superans, nunc minuta v. obsoleta. Stamina sæpius 3. Styli distincti, brevissimi, stigmatibus plumosis. Caryopsis gluma membranacea involuta, libera.—Gramina annua v. perennia, cæspitosa, humilia v. elongata, foliis planis v. setaceis. Panicula terminalis, sæpius gracilis, ramosissima, saltem sub fructu effusa, ramulis filiformibus, spiculis numerosissimis, rarius erecta, stricta, dense conferta, continua v. interrupta.

Species fere 100, per orbem terrarum latissime dispersæ, præsertim in regionibus temperatis hemisphærii borealis, nonnullæ fere cosmopolitanæ. *Kunth, Enum. Pl.* i. 217, *excl. sect.* 2. *Steud. Syn. Pl. Glum.* i. 162, *excl. spec.* ∞. *Beauv. Agrostogr.* 21, *t.* 6, *f.* 10. *Trin. Spec. Gram. t.* 25 *ad* 32, 34 *ad* 36. *Kunth, Rev. Gram. t.* 128 *ad* 130, 169. *Host, Gram. Austr.* iii. *t.* 49, 50, iv. *t.* 52 *ad* 59. *Reichb. Ic. Fl. Germ. t.* 33 *ad* 36. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 29. *Desv. Journ. Bot.* ii. (1809) *t.* 8. *Guss. Pl. Rar. Ic. t.* 5. *Ten. Fl. Nap. t.* 102. *Beauv. Fl. Ow. et Ben. t.* 80. *Hook. f. Fl. Ant. t.* 53, 132. *Hook. f. Fl. Tasm. t.* 158, 159. *Benth. Fl. Austral.* vii. 525. *A. Rich. Fl. N. Zel. t.* 23. *Buchan. N. Zeal. Grass. t.* 19, 20. *Dœll in Mart. Fl. Bras.* ii. iii. 27, *t.* 7. *Fourn. Gram. Mex.* 94.

Trichodium, *Mich. Fl. Bor. Amer.* i. 41, *t.* 8, includit species plures palea minuta v. obsoleta, nec aliter a cæteris separandas. Beauv. Agrostogr. 5, t. 4, genus ad species Americanas limitavit, et species Europæas palea minima (*A. caninam* affinesque) pro genere proprio distinxit sub nomine Agrauli.

130. **Chæturus,** *Link in Schrad. Journ. Bot.* 1799, ii. 313.—Spiculæ 1-floræ, angustæ, in ramulis paniculæ 2-3-natim fasciculatæ, rhachilla supra glumas inferiores articulata, ultra florem non producta, flore hermaphrodito. Glumæ 3, 2 inferiores vacuæ, sub articulatione persistentes, angustæ, carinatæ, infima majore in aristam longam producta, secunda tenuior, mutica v. breviter mucronata; tertia florens paullo brevior, tenuiter hyalina, mutica, apice subdenticulata; palea parva, hyalina, gluma inclusa. Stamina 3. Styli distincti, breves, stigmatibus plumosis. Caryopsis angusta, gluma inclusa, libera.—Gramen annuum, humile, tenue, multicaule, foliis brevibus angustis. Panicula terminalis, thyrsoidea, laxiuscula; ramuli breves, sæpius spiculis 3 brevissime pedicellatis

terminati, additis interdum spicularum paribus v. spiculis singulis inferioribus secus ramulum dissitis.

Species 1, peninsulæ Hispanicæ incola. *Beauv. Agrostogr.* 15, *t.* 5, *f.* 7. *Kunth, Rev. Gram. t.* 214.

131. **Polypogon,** *Desf. Fl. Atl.* i. 66. (Santia, *Savi in Mem. Soc. Ital. Sc.* viii. ii. 479. Raspailia, *Presl, Rel. Hænk.* i. 238, *t.* 40, *nomen ibid.* 351 *in* Nowodworskyam *mutatum.*) —Spiculæ 1-floræ, secus ramulos inarticulatos paniculæ densæ spicæformis v. vix effusæ confertæ, in pedicello articulatæ, flore hermaphrodito. Glumæ 3, 2 exteriores vacuæ, subæquales, integræ, in aristam tenuem rectam productæ; terminalis florens minor, tenuior, sæpius hyalina, integra emarginata v. 2-fida, apice in emarginatura v. dorso sub apice arista tenui nunc longa basi torta medio geniculata nunc abbreviata recta v. ad mucronem reducta instructa; palea gluma minor. Stamina 1–3. Styli breves, distincti, stigmatibus plumosis. Caryopsis gluma paleaque tenuibus hyalinis vix rigescentibus inclusa, libera.—Gramina sæpius annua, caulibus decumbentibus v. rarius erectis, foliis planis. Paniculæ terminales, nunc densissimæ spiciformes cylindraceæ spiculis sub aristis numerosis fere occultis, nunc majores irregulares laxioresque. Spiculæ sæpius annulo pilorum brevium cinctæ.

Species ad 10 per regiones temperatas subtropicasque utriusque orbis latissime dispersæ, inter tropicos rariores. *Kunth, Enum. Pl.* i. 232. *Steud. Syn. Pl. Glum.* i. 183. *Benth. Fl. Austral.* vii. 546. *Reichb. Ic. Fl. Germ. t.* 31. *Schreb. Beschr. Gräs. t.* 20, *f.* 3 (*Phleum*). *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 32. *Host, Gram. Austr.* iii. *t.* 46 (*Agrostis*). *Guss. Pl. Rar. Ic. t.* 5. *Sibth. Fl. Græc. t.* 62 (*Phleum*). *H. B. et K. Nov. Gen. et Sp. t.* 44. *Dœll in Mart. Fl. Bras.* ii. iii. 43, *t.* 11, 12. *C. Gay, Fl. Chil. t.* 77.

Genus prius a Benthamio, ob pedicelli in speciebus typicis articulationem, inter *Tristegineas* locatum; in *P. elongato*, H. B. et K. (*Nowodworskya*, Presl), tamen pedicelli sub spicula more generis incrassato-clavellati sed articulatio indistincta, et hæc species *Tristegineas* quodammodo cum *Agrostideis* connectit et generis affinitatem cum his naturalem vindicat.

132. ? **Arctagrostis,** *Griseb. in Ledeb. Fl. Ross.* iv. 434.—Spiculæ 1-floræ, anguste paniculatæ, rhachilla supra glumas inferiores articulata, glabra, ultra florem non producta v. rarissime minute setifera, flore hermaphrodito. Glumæ 2 vacuæ, sub articulatione persistentes, parum inæquales, acutiusculæ; membranaceæ; tertia florens subæqualis v. paullo longior, obtusa v. 3-dentata, sub 5-nervis, nervis lateralibus tamen obscuris, exaristata; palea glumæ æqualis v. sublongior, 2-nervis, obtusa v. obtuse 2-dentata. Stamina 2 v. 3. Styli distincti, brevissimi, stigmatibus plumosis. Caryopsis oblonga, gluma paleaque membranaceis inclusa, libera.—Gramen perenne, cæspitosum, foliis planis. Panicula angusta, parum ramosa, sæpius densa, spiculis quam in *Agrosti* majoribus.

Species 1 per regiones arcticas v. subarcticas Europæ, Asiæ et Americæ late dispersa. *Trin. Spec. Gram. t.* 55 (*Vilfa*).

Genus a Brownio olim dubie ad *Colpodium* relatum nobis *Deyeuxiæ* affinius videtur, *Agrostideas* tamen cum *Festuceis* bene connectit.

133. **Calamagrostis,** *Adans. et Auct. recent.* (*genus ex auctoris char. et syn., Fam. Nat.* ii. *nequaquam dignoscendum*).—Spiculæ 1-floræ, paniculatæ, rhachilla supra glumas inferiores articulata, sub gluma florente annulo pilorum glumam superante instructa, ultra florem non producta v. rarissime minute setifera, flore hermaphrodito. Glumæ 2 vacuæ, sub articulatione persistentes, angustæ, carinatæ, acutissimæ, parum inæquales; florens multo brevior, tenuissime hyalina, 3-nervis, arista tenui dorsali interdum ad mucronem parvum reducta; palea parva, angusta, tenuissime hyalina. Stamina 3. Styli breves, distincti, stigmatibus plumosis. Caryopsis obovata, gluma inclusa, libera.—Gramina erecta, interdum elata, panicula nunc densa stricta, nunc sæpius laxe thyrsoidea multispiculata, spiculis quam in *Agrosti* longioribus.

Species ad 5, inter se non semper facile dignoscendæ, per Europam et Asiam borealem et mediam late dispersæ, quarum una etiam in Africa australi Natalensi reperta, forte inquilina. *Beauv. Agrostogr.* 15, *t.* 5, *f.* 9. *Kunth, Enum. Pl.* i. 236 (*excl. sp. n.* 5, *et* 10 *ad* 12). *Host, Gram. Austr.*

iv. *t.* 42 *ad* 47, 50, 51. *Reichb. Ic. Fl. Germ. t.* 40 *ad* 43. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 33. *Parlat. Fl. Ital.* i. 205.

Genus *Agrosti* arcte affine, et species nonnullæ, e.g. *C. tenella*, Kunth, et *C. olympica*, Boiss., omnino intermediæ videntur.

134. **Cinna,** *Linn. Gen. n.* 15. (Abola, *Adans. Fam.* ii. 31. Blyttia, *Fries, Novit. Fl. Suec. Mant.* ii, 2.)—Spiculæ 1-floræ, paniculatæ, rhachilla supra glumas inferiores articulata, sub flore vix incrassata glabra, ultra florem non v. in stipitem minimum producta, flore hermaphrodito. Glumæ 2 inferiores vacuæ, sub articulatione persistentes, carinatæ, acutæ, præter carinam subenerves; tertia florens simillima nisi sub apice obtusiusculo arista brevissima v. mucrone dorsali instructa; palea paullo minor sed pariter carinata (nervis 2 in unum coalitis?), carinis omnibus pilis minimis ciliatis. Stamen 1. Styli breves, distincti, stigmatibus plumosis. Caryopsis lineari-oblonga, gluma paleaque inclusa, libera.—Gramina elata, foliis planis. Panicula longa, ramulis filiformibus fasciculatis ramulosis confertis v. sub anthesi expansis, densę v. laxiuscule multispiculiferis.

Species 2, Americæ et Europæ regionum borealium incolæ, ab auctoribus nonnullis pro unius varietatibus habitæ, nobis tamen ex speciminibus siccis satis distinctæ videntur. *Schreb. Beschr. Gräs. t.* 49. In *C. pendula*, Trin. (*C. expansa*, Link., *C. latifolia*, Griseb.), rhachillæ continuationem ultra florem frustra quæsivimus, quæ tamen sæpissime observatur in *C. arundinacea*, Linn.; Beauv. Agrostogr. 31, t. 7, f. 12. Ex Behrensio in Bot. Zeit. 1877, 431, paleæ carina in *C. latifolia*, Griseb., e nervis 2 consistit arcte approximatis sed parenchymate distincto separatis, quod tamen ex observatione repetita speciminum nostrorum confirmare nequimus. An revera in utraque specie nervi 2 nunc arcte coaliti nunc subdistincti?

135. **Gastridium,** *Beauv. Agrostogr.* 21, *t.* 6, *f.* 6.—Spiculæ 1-floræ, parvæ, in panicula densa spiciformi cylindracea confertæ, rhachilla supra glumas inferiores articulata, ultra florem in stipitem brevem producta, flore hermaphrodito. Glumæ 3, 2 inferiores infra articulationem persistentes, vacuæ, angustæ, basi concavæ, superne carinatæ, acutæ v. in aristam brevem productæ, parum inæquales; tertia florens subtriplo brevior, tenuiter hyalina, lata, truncato-dentata, mutica v. sub apice arista dorsali instructa; palea angusta, gluma vix brevior. Stamina 3. Styli breves, distincti, stigmatibus plumosis. Caryopsis subglobosa, nitida, glumis basi ventricosis inclusa, libera.—Gramina annua, cæspitosa, foliis planis. Panicula spiciformis, longiuscule pedunculata, nitidula, rarius prope basin subramosa. Gluma florens pubescens.

Species 2, regionis Mediterraneæ, Europæ occidentalis et ins. Canariensium incolæ, una etiam in Africa tropica et America australi extratropica obvia, forte inquilina. *Kunth, Enum. Pl.* i. 220. *Schreb. Beschr. Gräs. t.* 23, *f.* 3 (*Milium*). *Host. Gram. Austr.* iii. *t.* 24 (*Milium*). *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 31. *Reichb. Ic. Fl. Germ. t.* 32. *Sibth. Fl. Græc. t.* 65 (*Milium*). *Coss. et Dur. Expl. Alg. t.* 40, *f.* 2, 3.

136. **Chætotropis,** *Kunth, Rev. Gram.* i. 271, *t.* 47.—Spiculæ parvæ, 1-floræ, in panicula densa interrupte spiciformi numerosæ, rhachilla supra glumas inferiores articulata glabra, ultra florem sæpius in aristam capillarem producta, flore hermaphrodito. Glumæ 2 inferiores vacuæ, sub articulatione persistentes, angustæ, carinatæ, acutæ v. breviter mucronatæ, parum inæquales; tertia florens multo brevior, lata, hyalina, truncato-dentata, mutica v. sub apice setula minuta aristata; palea parva, hyalina. Stamina 3. Styli distincti, breves, stigmatibus plumosis. Caryopsis parva, gluma inclusa, libera.—Gramen perenne?, elatiusculum, foliis planis. Panicula coarctata, densissima, ramulis breviter spiciformibus sessilibus ovoideis v. cylindraceis densissime multispiculatis. Glumarum inferiorum carinæ ciliatæ.

Species 1, Chilensis. Genus *Agrosti* arcte affine, differt inflorescentia et rhachillæ continuatione setacea.

137. **Triplachne,** *Link, Hort. Berol.* ii. 241.—Spiculæ 1-floræ, parvæ, in panicula densa spiciformi confertæ, rhachilla supra glumas inferiores articulata, ultra florem in stipitem

brevem sæpius producta, flore hermaphrodito. Glumæ 3, 2 inferiores sub articulatione persistentes, vacuæ, angustæ, a basi carinatæ, acutæ, muticæ, parum inæquales; tertia florens subtriplo brevior, tenuiter hyalina, lata, apice truncato-dentata et in setas 2 ad latera aristæ producta, arista prope basin dorsalis, subtorta, e spicula exserta v. abbreviata; palea angusta, gluma vix brevior. Stamina 3. Styli breves, distincti, stigmatibus plumosis. Caryopsis ovoidea, glumis non ventricosis inclusa, libera.—Gramen annuum, cæspitosum, foliis planis. Panicula spiciformis, longiuscule pedunculata, nitidula. Gluma florens pubescens.

Species 1, regionis Mediterraneæ occidentalis incola. *Coss. et Dur. Expl. Alg. t.* 40. *f.* 1 (*Gastridium*). Habitu quidem *Gastridio* accedit sed characteribus *Agrosti* affinior.

138. **Apera,** *Adans. Fam. Nat.* ii. 495. (Anemagrostis, *Trin. Fund. Agrostogr.* 128.)—Spiculæ 1-floræ, parvæ, laxe paniculatæ, rhachilla supra glumas inferiores articulata, sub gluma florente brevissima glabra, ultra florem in setam brevem producta, flore hermaphrodito. Glumæ 3, 2 inferiores vacuæ, sub articulatione persistentes, inæquales, tenuiter membranaceæ, carinatæ, acutæ, exaristatæ, secunda cæteris major, 3-nervis; tertia florens paullo brevior, membranacea, subhyalina, apice breviter 2-fida, arista sub apice dorsali tenui flexuosa instructa; palea tenuis, gluma parum brevior, 2-carinata, 2-dentata. Stamina 3. Styli distincti, breves, stigmatibus plumosis. Caryopsis angusta, gluma inclusa, libera.—Gramina annua, elatiuscula, foliis angustis planis. Panicula terminalis, elegantissima, ampla diffusa v. contracta, ramis numerosis filiformibus ramulosis, inferioribus fasciculatis subverticillatis, spiculis numerosissimis nitidulis.

Species v. varietates insignes 2, Europæ et Asiæ occidentalis incolæ. *Beauv. Agrostogr.* 31, *t.* 7, *f.* 11. *Kunth, Enum. Pl.* i. 225 (*Agrostis*). *Steud. Syn. Pl. Glum.* i. 177 (*Muehlenbergiæ spec. n.* 5 *et* 6). *Host, Gram. Austr.* iii. *t.* 47, 48. *Reichb. Ic. Fl. Germ. t.* 32. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 30.

139. **Cinnagrostis,** *Griseb. Pl. Lorentz.* 208, *t.* 2, *f.* 7.—Spiculæ 1-floræ, parvulæ, in panicula androgyna unisexuales, rhachilla supra glumas inferiores articulata glabra, ultra florem in setam longe pilosam producta. Glumæ 3, 2 inferiores vacuæ, sub articulatione persistentes, membranaceæ, 1-nerves, acutæ; tertia florens vix longior, 5-nervis, denticulata, arista setiformi medio dorso instructa; palea glumæ subæqualis, in flore ♂ 2-nervis, in flore ♀ 1-nervis.—Gramen elatum, perenne, foliis planis. Paniculæ rami patentes, semi-verticillati, flexuosi. (*Char. ex Griseb.*)

Species 1, provinciæ Tucuman Americæ australis incola, a nobis non visa. Genus verisimiliter ad *Deyeuxiam* reducendum.

140. **Deyeuxia,** *Clarion in Beauv. Agrostogr.* 43, *t.* 9, *f.* 9, 10. (Lachnagrostis, *Trin. Fund. Agrostogr.* 128; *Spec. Gram. t.* 242, 243.)—Spiculæ 1-floræ, varie paniculatæ, sæpius densæ, rhachilla supra glumas inferiores articulata, sub gluma florente annulo pilorum instructa v. rarius glabra, ultra florem in setam pilosam v. apice penicillatam rarius glabram sæpissime producta, flore hermaphrodito. Glumæ 3, 2 inferiores vacuæ, sub articulatione persistentes, parum inæquales, carinatæ, muticæ, membranaceæ v. scariosæ; tertia florens nunc brevior fere hyalina, nunc secundæ æqualis v. vix longior rigidiorque, lata, 5-nervis, integra v. 2–4-dentata, arista tenui torta infra v. supra medium dorsali, rarius brevissima recta v. obsoleta; palea tenuis, glumæ æqualis v. subdimidio brevior, 2-nervis v. 2-carinata. Stamina 3. Styli distincti, breves, stigmatibus plumosis. Caryopsis obovoidea v. oblonga, sæpe obliqua, gluma paleaque tenuibus inclusa, libera v. iis siccitate partim adhærens.—Gramina habitu vario, sæpius perennia foliis planis. Panicula terminalis, nunc stricta densa spiciformis subcylindracea v. oblonga, nunc sæpius thyrsoidea, interdum effusa fere *Agrostis*, spiculis tamen sæpissime majoribus.

Species fere 120, per regiones temperatas montanasque utriusque orbis late dispersæ, in Andibus Americanis numerosæ, usque ad terras frigidas tam hemisphærii australis quam borealis extensæ.

Kunth, Enum. Pl. i. 239. *Parlat. Fl. Ital.* i. 210. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 34. *Jacq. Ecl. Gram. t.* 30 (*Agrostis*). *Munro in Henders. Yark.* 339, *cum ic. Benth. Fl. Austral.* vii. 577. *Labill. Pl. Nov. Holl. t.* 31, 32 (*Avena*). *Trin. Spec. Gram. t.* 33 (*Agrostis*). *Hook. f. Fl. Tasm. t.* 159 *ad* 161 (*Agrostis*); *Fl. N. Zel. t.* 65. *Buchan. N. Zeal. Grass. t.* 21 *ad* 26 (*Agrostis*), *et t.* 26, 2. *H. B. et K. Nov. Gen. et Sp. t.* 46, 686. *C. Gay, Fl. Chil. t.* 78. *Wedd. in Bull. Soc. Bot. Fr.* xxii. 153 (173). CALAMAGROSTIS sect., *Reichb. Ic. Fl. Germ. t.* 37 *ad* 39, *f.* 1439 *ad* 1443. *Host, Gram. Austr.* iv. *t.* 48, 49. *Trin. Spec. Gram. t.* 354. *Jaub. et Spach. Ill. Pl. Or. t.* 340. *A. Gray, Man. Fl. N. U. St. ed.* 5, 615. *Torr. Fl. N. York, t.* 150 *ad* 152. *F. Schmidt, Reise Amurl.* 202, *t.* 8.

Genus quoad species plerasque bene distinctum, sed intermediis nonnullis hinc *Calamagrosti* hinc *Agrosti* arcte annexum, nam pili rhachillæ v. arista dorsalis glumæ interdum desunt, et rhachillæ continuatio in speciebus paucis minima est v. omnino obsoleta. Spiculæ quam in *Agrosti* majores, palea ratione glumæ florentis longior, pili rhachillæ glumam florentem circumdantes semper multo breviores quam in *Calamagrosti*. Species rhachilla glabra vix ab *Apera* differunt, habitu, spiculis majoribus et arista dorsali nec fere apicali.

BROMIDIUM, *Nees in Pl. Meyen.* 154, species continet plures Andinas, Chilenses, v. Australianas, fere æquo jure ad *Deyeuxiam* et ad *Agrostim* referendas. Panicula angusta, densa, rhachillæ continuatio brevissima sæpe omnino deest, gluma florens apice 2–4-seta v. dentata, palea brevis. Huc pertinent DIDYMOCHÆTA, *Steud. Syn. Pl. Glum.* i. 185, *quoad D. australem* et fide Neesii CHAMÆCALAMUS, *Meyen, Reise*, i. 456, *nomen tantum*, et *Bromidium anomalum*, Dœll in Mart. Fl. Bras. ii. iii. 103, t. 30 (*Agrostis kœlerioides*, E. Desv. in C. Gay, Fl. Chil. vi. 317, t. 77, f. 2).

ACHÆTA, *Fourn. Gram. Mex.* 109, species continet 2 Mexicanas a nobis non visas. Ex charactere dato a *Deyeuxiis* typicis rhachillæ continuatione pilosa non differunt nisi aristæ deficientia, quod in aliis paucis speciebus *Deyeuxiæ* observatur.

In RELCHELA, *Steud. Syn. Pl. Glum.* i. 101 (quæ *Agrostis sesquiflora*, E. Desv. in C. Gay, Fl. Chil. vi. 318, t. 77, f. 3), in CINNASTRO, *Fourn. Gram. Mex.* 90, saltem quoad *D. poæformem*, Kunth, in *D. mutica*, Wedd., in *D. breviglumi*, Benth., paucisque aliis, rhachillæ continuatio glabra, et gluma florens mutica v. mucrone minimo instructa. *Apera Liebmanni*, Fourn., species Mexicana a nobis non visa, est forte melius *Deyeuxiæ* species.

Agrostis æquivalvis, Trin., seu sectio *Podagrostis*, Griseb. in Ledeb. Fl. Ross. iv. 436, nobis omnino *Deyeuxiæ* species videtur, rhachilla brevissime pilosa, ultra florem in setam apice brevissime penicillatam producitur.

141. **Ammophila**, *Host, Gram. Austr.* iv. 24, *t.* 41. (Psamma, *Beauv. Agrostogr.* 143, *t.* 6, *f.* 1.)—Spiculæ 1-floræ, in panicula longa stricta confertæ, rhachilla supra glumas inferiores articulata, sub gluma florente annulo pilorum instructa, ultra florem in tuberculum v. in stipitem filiformem producta, flore hermaphrodito. Glumæ rigide paleaceæ, exaristatæ, 2 inferiores vacuæ, sub articulatione persistentes, acutæ, carinatæ, tenuiter 5-nerves, parum inæquales; tertia florens vacuis subæqualis v. paullo longior similisque nisi apice subdentata, dente medio interdum in mucronem minutum producto; palea glumis æquilonga, paleacea, 2-dentata, 2-carinata, dorso inter carinas profunde sulcata. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis obovoidea, gluma paleaque laxe inclusa, libera.—Gramina elata, stolonifera, foliis angustis rigidis superne convoluto-teretibus. Panicula longa, ramulis brevibus dense spiciformibus, v. laxior ramulis tenuibus elongatis. Spiculæ quam in *Deyeuxia* majores.

Species 4, quarum 2 typicæ, littoreæ, per hemisphæriam borealem late dispersæ, panicula densa spiciformi rhachilla setifera; 2 boreali-Americanæ (sect. *Calamovilfa*, A. Gray), panicula laxiore rhachilla non producta. *Kunth, Enum. Pl.* i. 245. *A. Gray, Man. Bot. N. U. St. ed.* 5, 616. *Reichb. Ic. Fl. Germ. t.* 44. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 35. *Trim. Journ. Bot.* 1872, *t.* 127 (*Psamma*).

Beauvois stylos 3 descripsit, verisimiliter ex specimine abnormi. Nos semper 2 tantum invenimus.

142. **Dichelachne**, *Endl. Prod. Fl. Norf.* 20.—Spiculæ 1-floræ, angustæ, in panicula angusta densa v. laxiore dispositæ, rhachilla supra glumas inferiores articulata, sub flore obconica v. breviter cylindracea, ultra florem interdum in stipitem minutum producta, flore hermaphrodito. Glumæ 3, 2 inferiores vacuæ, persistentes, angustæ, membranaceæ, acute acuminatæ, carinatæ, parum inæquales; tertia florens vix brevior, carinata, integra

v. breviter 2-fida, dorso sub apice arista tenui flexuosa instructa; palea paullo brevior, dorso sulcata v. 2-carinata. Stamina 3 v. pauciora. Styli breves, distincti, stigmatibus plumosis. Caryopsis angusta, gluma vix rigescente inclusa, libera.—Gramina cæspitosa, interdum elata, foliis angustis planis v. setaceo-convolutis. Panicula terminalis, nunc longa angusta densissime cylindracea aristis numerosissimis crinita, nunc laxior subsecunda.

Species 2, Australiæ et Novæ Zelandiæ incolæ. *Benth. Fl. Austral.* vii. 573. *Hook. f. Handb. N. Zeal. Fl.* 325 (*excl. D. stipoide*); *Fl. Tasm. t.* 158 A. *Labill. Pl. Nov. Holl. t.* 263 (*Anthoxanthum*). *Buchan. N. Zeal. Grass. t.* 15, 16.

Rhachillæ continuationem in *D. sciurea*, Hook. f., observavimus, in *D. crinita*, Hook. f., deesse videtur. *Stipa micrantha*, Cav. Ic. v. 42, t. 467, in Fl. Austral. vii. 566, dubie ad *S. verticillatam*, Nees, relata, est *D. sciurea*, Hook. f., ex F. Muell. in Trim. Journ. Bot. 1878, 327, qui specimen authenticum vidit. Spicula a Cavanilleso fig. B delineata minime convenit, et forte ad stirpem quamdam alienam pertinet.

143. **Trisetaria,** *Forsk. Fl. Æg. Arab.* 27. (Anomalotis, *Steud. Syn. Pl. Glum.* i. 198.) —Spiculæ 1-floræ (v. interdum 2-floræ ?), angustæ, in panicula densa angusta confertæ, rhachilla supra glumas inferiores articulata, sub flore lineari obconica ultra florem in stipitem producta, flore hermaphrodito. Glumæ sæpius 3, 2 inferiores vacuæ, persistentes, angustæ, tenuiter membranaceæ, carinatæ, acuminatæ; tertia florens parum brevior, fere hyalina, carinata, apice 2-fida, lobis in aristas tenues rectas productis, arista dorsali longiore flexuosa; palea paullo brevior, angusta, 2-carinata. Stamina 3. Styli breves, distincti, stigmatibus plumosis. Caryopsis angusta, gluma non indurata inclusa, libera.—Gramen annuum, cæspitosum, foliis planis. Panicula longa, angusta, aristis numerosis eam *Dichelachnis crinitæ* simulans.

Species 2, quarum 1 in maritimis Egypti et Syriæ crescens. *Kunth, Enum. Pl.* i. 294. *Labill. Dec. Pl. Syr.* v. *t.* 7 (*Trisetum*). *Delile, Fl. Eg. t.* 12, *f.* 3; altera Abyssinica, nobis ignota, a *Hochst. in Flora*, 1855, 282, fusius descripta.

Forskahl, Labillardière et Delile flores in spicula 2 perfectos descripserunt, Kunth florem unicum tantum vidit (præter rhacheos continuationem quam florem imperfectum v. neutrum nuncupat), et nos in speciminibus pluribus prope Alexandriam lectis florem secundum frustra quæsivimus. Genus cæterum potius *Dichelachni* quam *Triseto* affine videtur, differt imprimis aristis lateralibus glumæ florentis, et rhachillæ continuatione magis evoluta.

144. **Pentapogon,** *R. Br. Prod.* 173.—Spiculæ 1-floræ, angustæ, paniculatæ, rhachilla supra glumas inferiores articulata, sub flore annulo pilorum instructa, ultra florem in stipitem producta, flore hermaphrodito. Glumæ 3, 2 inferiores vacuæ, persistentes, membranaceæ, angustæ, carinatæ, acutæ v. in aristam brevem productæ, parum inæquales; tertia florens membranacea, 5-nervis, circa florem convoluta, nervis 4 lateralibus in lobos v. aristas breves rectas productis, arista dorsali longa rigida demum geniculata basi torta; palea gluma brevior, anguste hyalina. Stamina 3. Styli breves, distincti, stigmatibus plumosis. Caryopsis angusta, gluma vix rigescente involuta, libera.—Gramen annuum, cæspitosum, interdum elatiusculum, foliis angustis planis v. siccitate convolutis. Panicula terminalis, angusta, sæpius densa, ramulis brevibus fasciculatis erectis v. subpatentibus.

Species 1, Australiana, Victoriæ et Tasmaniæ incola. *Beauv. Agrostogr.* 34, *t.* 8, *f.* 11. *Benth. Fl. Austral.* vii. 572. *Labill. Pl. Nov. Holl. t.* 22 (*Agrostis*).

145. **Lagurus,** *Linn. Gen. n.* 92.—Spiculæ 1-floræ, in panicula densissima capituliformi v. oblonga mollissime villosa confertæ, rhachilla supra glumas inferiores articulata, sub flore pilosula, ultra florem in stipitem producta, flore hermaphrodito. Glumæ 3, 2 inferiores vacuæ, lineares, longe plumoso-ciliatæ; tertia florens angusta, glabra, tenuiter membranacea, in aristas 2 tenues erectas producta, dorsoque supra medium arista rigidiore longiore subgeniculata instructa; palea angusta, hyalina, 2-carinata. Stamina 3. Styli breves, distincti, stigmatibus plumosis. Caryopsis angusta, gluma vix rigescente inclusa, libera.—Gramen annuum, molle, foliis planis. Panicula spiciformis, longe pedunculata,

nunc breviter ovoidea, nunc oblongo-cylindracea, pilis mollissimis glumarum vacuarum insignis.

Species 1, per regionem Mediterraneam ab insulis Canariensibus usque ad Orientem latissime dispersa, præsertim in maritimis, et secus Oceanum usque ad ins. Sarnienses extensa. *Beauv. Agrostogr.* 34, *t.* 8, *f.* 12. *Kunth, Enum. Pl.* i. 294. *Schreb. Beschr. Gräs. t.* 19, *f.* 3. *Host, Gram. Austr.* ii. *t.* 46. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 45. *Reichb. Ic. Fl. Germ. t.* 31. *Sibth. Fl. Græc. t.* 90.

TRIBUS IX. AVENEÆ.

146. **Eriachne,** *R. Br. Prod.* 183. (Achneria, *Beauv. Agrostogr.* 72.)—Spiculæ æqualiter 2-floræ, laxe v. dense paniculatæ, rhachilla brevissima supra glumas inferiores articulata, ultra flores non producta, floribus hermaphroditis. Glumæ 2 inferiores vacuæ, sub articulatione persistentes, ∞-nerves, carinatæ, acutæ, muticæ, subæquales; 2 florentes æquales, nervis paucioribus, dorso v. ad margines longe ciliatæ, muticæ v. in aristam tenuem rectam productæ, mox cum palea inclusa rigescentes, angustæ sed facie plana sibimet applicitæ; palea plana, nervis 2 fere marginalibus, apice 2-dentata v. 2-aristata. Stamina 3. Styli breves v. elongati, distincti, stigmatibus plumosis. Caryopsis a dorso compressa, gluma paleaque sæpe induratis inclusa, libera.—Gramina perennia v. rarius annua, cæspitosa, foliis angustis convoluto-teretibus v. rarius planis. Panicula terminalis, nunc densa thyrsoidea v. elongata angustaque, nunc laxe effusa, spiculis quam in *Isachne* sæpissime majoribus.

Species ad 22, quarum 2 Asiæ tropicæ incolæ, cæteræ omnes Australianæ et ex his una etiam in Asia tropica obvia. *Benth. Fl. Austral.* vii. 626. *Kunth, Rev. Gram. t.* 63, 64. *Brongn. in Duperr. Voy. Coq. Bot. t.* 3.

MEGALACHNE, *Thw. Enum. Pl. Zeyl.* 372, *non Steud.*, est *Eriachne triseta*, Nees, species Zeylanica, ob paleæ dentes in aristas longas productos insignis. *Eriachnis* species Africanæ a Neesio descriptæ ad *Achneriam*, Munro, pertinent.

147. **Prionachne,** *Nees in Lindl. Introd. Nat. Syst. ed.* 2, 447. (Chondrolæna, *Nees, Fl. Afr. Austr. Gram.* 133.)—Spiculæ æqualiter 2-floræ, secus rhachin continuam spicæ v. paniculæ spiciformis subsessiles, rhachilla continua vix evoluta ultra flores non producta, floribus hermaphroditis v. uno abortu sterili. Glumæ 2 inferiores vacuæ, persistentes, carinato-complicatæ, dorso cartilagineæ et pectinato-dentatæ, marginibus late membranaceis, parum inæquales; 2 florentes singulæ vacuis subinclusæ iisque paullo breviores, hyalinæ, carinatæ, acutæ, muticæ; paleæ paullo minores, hyalinæ, 2-nerves, 2-dentatæ. Stamina 3. Styli breves, distincti, stigmatibus breviter plumosis. Caryopsis anguste oblonga, gluma inclusa, libera.—Gramen annuum, cæspitosum, erectum, basi subramosum, foliis angustis planis v. siccitate convolutis. Spica in pedunculo terminali simplex v. ramulis paucis brevissimis strictis aucta; spiculæ secus rhachin geminæ v. rarius solitariæ, v. in ramulis brevissimis 3–4-næ, omnes erectæ, rigidæ.

Species 1 v. 2, austro-Africanæ. *Steud. Syn. Pl. Glum.* i. 430. *Trin. Spec. Gram. t.* 73 (*Chilochloa*, in corrigend. *Lasiochlois* sect. *Ctenachne*).

Specimina Dregeana longiora tenuioraque quam Thunbergiana in herb. Gouan, foliis multo tenuioribus, spica simpliciore tenuiore. An species 2 distinctæ?

Huc forte pertinet KTENOSACHNE, *Steud. Syn. Pl. Glum.* i. 150, gramen a nobis non visum, patria ignota, a Steudelio ex herb. Lenormandi descriptum.

148. **Zenkeria,** *Trin. in Linnæa,* xi. 150, *t.* 3. (Amphidonax, *Nees ex Steud. Syn. Pl. Glum.* i. 197, *pro parte, non Nees in Lindl. Introd.*)—Spiculæ æqualiter 2-floræ, paniculatæ, rhachilla brevissima supra glumas inferiores articulata pilosa, ultra flores non producta, floribus hermaphroditis. Glumæ 2 inferiores vacuæ, persistentes, membranaceæ, carinatæ, acutæ, muticæ, parum inæquales; florentes nunc paullo longiores acuminatæ subaristatæ, nunc parum breviores obtusæ, præter carinam utrinque tenuissime v. obscure 2–3-nerves; palea lata, glumam subæquans, carinis 2 prominentibus ciliatis. Stamina 3. Styli breves, distincti, stigmatibus plumosis. Caryopsis . . .—Gramina

perennia, elatiuscula, foliis longis planis v. convoluto-teretibus. Panicula floribunda, oblonga thyrsoidea v. demum effusa, ramulis filiformibus ramulosis, spiculis parvulis.

Species 2, Peninsulæ Indiæ orientalis et Zeylaniæ incolæ. *Benth. in Journ. Linn. Soc.* xix. 93.
Amphidonax Heynei et *A. tenella*, Nees et Steud. l. c., a specie typica *Z. elegante*, Trin., non differunt, glumis florentibus acuminatis subaristatis vacuas superantibus. *Amphidonax obtusiflora*, Thw. Enum. Pl. Zeyl. 370, est species altera, *Z. obtusiflora*, Benth., glumis florentibus obtusis quam vacuæ brevioribus. Genus cæterum *Isachni* affine.

149. **Micraira,** *F. Muell. Fragm. Phyt. Austral.* v. 208.—Spiculæ æqualiter 2-floræ, paniculatæ, rhachilla supra glumas inferiores articulata, brevissima, ultra flores non producta, floribus hermaphroditis v. uno abortu sterili. Glumæ 2 inferiores vacuæ, sub articulatione persistentes v. sigillatim caducæ, membranaceæ, acutiusculæ, tenuissime nervosæ, muticæ, subæquales ; 2 florentes subbreviores, membranaceæ, latæ, truncatæ, ∞-nerves, fructiferæ cum palea inclusa non induratæ subhemisphæricæ ; palea ∞-nervis, nervis 2 cæteris evidentioribus. Stamina 3 ? Styli breves, distincti, stigmatibus plumosis. Caryopsis gluma paleaque inclusa, libera.—Gramen humile, perenne, prostratum v. repens, basi ramosum, vaginis foliorum emarcidorum obtectum, foliis brevibus lineari-subulatis dense cæspitosis. Pedunculi breves, filiformes ; panicula parva, effusa, gracilis, spiculis minimis.

Species 1, Australiæ orientalis subtropicæ incola. *Benth. Fl. Austral.* vii. 624, *et in Hook. Ic. Pl. t.* 1361.

150. **Cœlachne,** *R. Br. Prod.* 187.—Spiculæ 2-floræ, parvæ, paniculatæ, rhachilla sub floribus articulata, inter flores nec ultra producta, flore utroque fertili, inferiore hermaphrodito superiore fœmineo. Glumæ membranaceæ, obtusæ v. acutiusculæ, muticæ, subenerves, 2 inferiores vacuæ, minores, parum inæquales, sub articulatione persistentes ; tertia florem ☿ fovens cæteris major, quarta florem ♀ fovens iterum minor ; palea latiuscula glumam subæquans, carinis 2 parum prominentibus. Stamina 2 v. 3. Styli breves, distincti, stigmatibus plumosis. Caryopsis ovoideo-oblonga, gluma paleaque laxe inclusa, libera.—Gramina debilia, tenuia, decumbentia v. cæspitosa, foliis planis v. angustissimis subconvolutis. Panicula laxa, angusta v. thyrsoidea effusaque, ramulis tamen brevibus sæpius paucis. Spiculæ glabræ v. pubescentes.

Species 3, Indiæ orientalis, Chinæ australis et Australiæ orientalis tropicæ incolæ. *Benth. Fl. Austral.* vii. 625. *Thw. Enum. Pl. Zeyl.* 373. *Endl. Iconogr. t.* 2. *Kunth, Rev. Gram. t.* 143.

151. **Airopsis,** *Desv. Journ. Bot.* i. (1808) 200, *pro parte.*—Spiculæ subæqualiter 2-floræ, subglobosæ, anguste paniculatæ, rhachilla brevissima cum pedunculo continua, ultra flores non producta, floribus hermaphroditis v. uno abortu sterili. Glumæ 2 inferiores vacuæ, semiglobosæ, obtusæ, muticæ, nitidulæ, subæquales, persistentes ; 2 florentes exterioribus inclusæ, parum breviores, cum palea inclusa hemisphæricæ, facie plana sibimet applicitæ, fructiferæ rigidulæ deciduæ ; palea hyalina, 2-nervis. Stamina 3. Styli breves, distincti, stigmatibus plumosis. Caryopsis gluma paleaque nitidulis inclusa, libera.—Gramen annuum, humile, pulchellum, foliis angustis fere subulatis. Panicula densa, irregulariter subcylindracea, spiculis parvis confertis nitidulis.

Species 1, Europæ occidentalis et Africæ borealis occidentalis incola. *Beauv. Agrostogr.* 71, *t.* 14, *f.* 8. *Kunth, Enum. Pl.* i. 293. *Cav. Ic. t.* 274 (*Milium*). *Thore in Desv. Journ. Bot.* i. (1808), *t.* 7 (*Aira*).
A. millegrana, Griseb., ex America australi extratropica, non differre videtur ab *Eragrosti airoidi*, Nees, et certe nequaquam cum *Airopsi* convenit.

152. **Aira,** *Linn. Gen. n.* 81, *pro parte.* (Fussia, *Schur, Enum. Pl. Transsylv.* 754.)—Spiculæ 2-floræ, parvæ, laxe paniculatæ, rhachilla sub glumis florentibus articulata, ultra flores non (v. vix ?) producta, floribus hermaphroditis. Glumæ tenuiter membranaceæ, subscariosæ, 2 inferiores sub articulatione persistentes, vacuæ, acutæ, muticæ, subæquales ;

florentes iis contiguæ v. una parum distante, hyalinæ, mucronatæ v. sæpius 2-dentatæ, arista infra medium dorsali tenui basi sæpius torta rarius deficiente; palea gluma parum brevior, hyalina, 2-nervis. Caryopsis gluma paleaque non induratis inclusa iisque sæpe adhærens.—Gramina elegantia, sæpius annua, tenuia, foliis angustis. Paniculæ ramuli capillares, ramulosi, effusi v. rarius conferti stricti.

Species 4 v. 5, omnes Europææ, quarum una hodie per regiones temperatas utriusque orbis tam australes quam boreales late dispersa, et altera hinc inde in variis locis observata. *Beauv. Agrostogr.* 89, *t.* 18, *f.* 4. *Kunth, Enum.* i. 288, *pro parte. Duv. Jouv. in Bull. Bot. Soc. Fr.* xii. 6, 50, 83, *t.* 1, 2. *Guss. Pl. Inarim. t.* 20. *Benth. in Journ. Linn. Soc.* xix. 94. *Trin. Spec. Gram. t.* 260. *Reichb. Ic. Fl. Germ. t.* 94. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 44. *Host, Gram. Austr.* ii. *t.* 44, iv. *t.* 35 *ad* 37.

Species a variis auctoribus in genera diversa separatæ ob glumas florentes aristatas v. muticas, inter se contiguas v. parum distantes. Omnes tamen variare videntur aristatæ v. exaristatæ, et rhachillæ inter flores evolutio parum constans. Parlatore, Fl. Ital. i. 250, auctoresque nonnulli alii *Airam* limitant ad *A. caryophyllaceam*, Linn., et *A. præcocem*, Linn., glumis florentibus sæpissime nec semper dorso aristatis inter se contiguis, quæ genus *Fussiam*, Schur, formant.

Fiorinia, *Parlat. Fl. Ital.* i. 232, est *A. Tenorii*, Guss., *Ten. Fl. Nap. t.* 102, *f.* 2, glumis florentibus integris, ut in *A. caryophyllacea* approximatis sed exaristatis. Variat tamen fide Gussonii glumis ad normam aristatis.

Molineria, *Parlat. Fl. Ital.* i. 236, est *A. minuta*, Lœfl., *Schreb. Beschr. Gräs. t.* 21, *f.* 2, glumis florentibus vacuas paullo superantibus exaristatis v. rarius aristatis.

Antinoria, *Parl. Fl. Palerm.* i. 92; *Fl. Ital.* i. 234, est *A. agrostidea*, Lois., spiculæ rhachilla inter flores evidentius producta, glumis florentibus 2–3-dentatis exaristatis. Ab illa tamen parum distincta videtur, *A. pulchella*, Willd. (*Bourgeau, Pl. Hisp. n.* 2572), glumis florentibus aristatis.

PeribALLIA, *Trin. Fundam. Agrostogr.* 133, est *A. involucrata*, Cav. Ic. t. 44, spiculæ rhachilla inter flores ut in *Antinoria* producta, gluma florente inferiore exaristata, superiore prope basin arista dorsali instructa. Habitus sæpe (nec semper) peculiaris ob paniculæ ramos inferiores subverticillatos sterilesque involucrum sic dictum formantes. Interdum vero rami omnes spiculiferi sunt.

A. sabulonum, Labill. Sert. Austr. Caled. t. 21, nobis ignota est. Ex icone omnino *Sporobolum virginicum* refert exceptis spiculis 2-floris. Specimina nomine Labillardieri signata a Vieillardio et a Panchero lecta, ad *Sporobolum virginicum* verum spiculis 1-floris pertinent.

153. **Corynephorus,** *Beauv. Agrostogr.* 90, *t.* 18, *f.* 2. (Weingærtneria, *Bernh. Fl. Erf.* 51, *ex Kunth.*)—Spiculæ 2-floræ, laxe paniculatæ, rhachilla sub glumis florentibus articulata, ultra flores in stipitem parvum penicillatum producta, floribus hermaphroditis. Glumæ tenuiter membranaceæ, subscariosæ, 2 inferiores vacuæ, sub articulatione persistentes, acutæ, muticæ, subæquales; florentes breviores, hyalinæ, integræ, arista infra medium dorsali, medio articulata, infra articulationem rigidula torta, ad articulationem breviter barbata, superne tenuissima, apice clavata; palea gluma parum brevior, angusta, 2-dentata. Stamina 3. Styli breves, distincti, stigmatibus plumosis. Caryopsis gluma tenuissima hyalina involuta eique plus minus adhærens.—Gramina elegantia, annua, habitu *Airæ*, foliis cæspitosis angustis v. filiformibus. Panicula gracilis, contracta v. effusa, ramulis capillaribus ramulosis.

Species 2, Europææ et per totam fere regionem Mediterraneam dispersæ, in Oriente tamen rariores. *Kunth, Enum. Pl.* i. 286. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 42. *Reichb. Ic. Fl. Germ. t.* 94.

154. **Deschampsia,** *Beauv. Agrostogr.* 91, *t.* 18, *f.* 3. (Campelia, *Link, Hort. Berol.* i. 122.)—Spiculæ paniculatæ, floribus 2 hermaphroditis, rhachilla sub glumis fertilibus articulata, ultra flores in stipitem nudum penicillatum v. glumam vacuam rarius florem ♂ ferentem producta. Glumæ 2 inferiores vacuæ, sub articulatione persistentes, carinatæ, acutæ, membranaceæ, subscariosæ, nitidulæ, rarius puberulæ, parum inæquales; florentes membranaceæ, fere hyalinæ, apice 2–∞-dentatæ, arista dorsali tenui, basi torta; palea angusta, 2-nervis. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis oblonga, gluma inclusa, libera.—Gramina perennia, foliis angustis convoluto-teretibus v. planis.

Panicula terminalis, nunc angusta densa, nunc sæpius laxe effusa, spiculis quam in *Aira* sæpius majoribus.

Species ad 20, regionum temperatarum frigidarumque utriusque orbis incolæ, una (*D. cæspitosa*), fere per totam aream extensa, inter tropicos perpaucæ adsunt montanæ. *Kunth, Enum. Pl.* i. 286. *Schreb. Beschr. Gräs. t.* 30. *Steud. Syn. Pl. Glum.* i. 219 *et* 222 (*Airæ sect.* 2 *et* 4). *Benth. in Journ. Linn. Soc.* xix. 95. *Host, Gram. Austr.* ii. *t.* 42, 43. *Reichb. Ic. Fl. Germ. t.* 95, 96. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 43. *Desf. Fl. Atl. t.* 13. *Trin. Spec. Gram. t.* 253 *ad* 259. *Hook. Ic. Pl. t.* 150; *Fl. Bor. Amer. t.* 227, 228. *Hook. f. Fl. Antarct. t.* 133 *ad* 135 (*ic. pleræque sub Aira*). *Buchan. N. Zeal. Grass. t.* 37.

Vahlodea, *Fries in Bot. Notiz.* 1842, *ex ejusd. Summ. Veg. Scand.* 242, est *D. atropurpurea* (*Aira*, Wahlenb.), species borealis, dentibus glumæ fertilis minutis v. vix distinctis. Cætera omnia *Deschampsiæ*.

Avenella, *Parlat. Fl. Ital.* i. 244 (Lerchenfeldia, *Schur, Enum. Pl. Transsylv.* 753), est *D. flexuosa* (*Aira*, Linn.), glumis florentibus basi pilis stipatis apice truncato-denticulatis. Caryopsis ex Parlatoreo paleæ inferne adhæret, quod tamen ex speciminibus nostris confirmare nequimus.

Monandraira, *Em. Desv. in C. Gay, Fl. Chil.* vi. 341, *t.* 79, species includit 2 Chilenses (*Trisetum Berteroanum*, Kunth, Rev. Gram. t. 142, et *T. airæforme*, Steud. Syn. Pl. Glum. i. 229) a *Deschampsia* separatas ob stamen in flore unicum tantum. In *M. Berteroana*, tamen interdum stamina 2 invenimus, et in specie affini *D. antarctica*, Hook. f., stamina haud raro ad 2 reducta etsi sæpius 3. Forma antherarum eadem videtur in *Monandraira* ut in speciebus aliis nonnullis parvifloris *Deschampsia.*

Airidium, *Steud. Syn. Pl. Glum.* i. 423, est species Magellanica, quam a *Deschampsia antarctica*, Hook. f., distinguere nequimus.

Rytidosperma, *Steud. l. c.* i. 425, est *D. cæspitosa* v. species ei valde affinis statu morbido, ovario a larva quadam destructo quam auctor pro caryopsi descripsit.

Peyritschia, *Fourn. Gram. Mex.* 109, est *Aira kœlerioides*, Peyr. in Linnæa, xxx. 5 (*Deschampsia kœlerioides*, nob.) species Mexicana diandra, a nobis non visa, sed ex descriptione fusiore Peyritschii et notis Fournieri evidenter *D. antarcticæ* affinis, nec longe a *D. nitida* et *D. holciformi*, Presl, distare videtur.

155. **Achneria,** *Munro in Harv. Gen. Pl. Cap. ed.* 2, 449, *non Beauv.*—Spiculæ 2-floræ, laxe v. densiuscule paniculatæ, rhachilla supra glumas inferiores articulata, ultra flores sæpe in stipitem glabrum productæ, floribus hermaphroditis. Glumæ 2 inferiores vacuæ, sub articulatione persistentes, rigidulæ, carinatæ, læves, vix venosæ, subæquales; florentes 2 inter se parum distantes, vacuis paullo breviores, membranaceæ, glabræ v. puberulæ, obtusæ, integræ v. vix obtusissime denticulatæ, exaristatæ; palea angusta, hyalina, gluma involuta. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis angusta, gluma membranacea inclusa, libera.—Gramina perennia, cæspitosa, foliis angustis sæpius convoluto-teretibus. Panicula terminalis, nunc brevis densa subcylindracea v. angusta paucispiculata, nunc sæpius effusa pyramidata v. laxissima.

Species ad 8, Africæ australis incolæ, cum una ex Africa tropica orientali. *Nees, Fl. Afr. Austr. Gram.* 273 (*Eriachne*). *Kunth, Rev. Gram. t.* 216, 217 (*Airopsis*).

Genus *Achneria* a Beauvoisio propositum fuit ad species Australianas *Eriachnis*, quarum glumæ florentes vix v. non in aristam producuntur. His addidit Nees species Africanas a Munroio primum pro genere proprio acceptas, quæ affinitatem potius cum *Deschampsia*, quam cum *Eriachni* exhibent.

156. **Monachyron,** *Parlat. in Hook. Nig. Fl.* 190.—Spiculæ 2-floræ, paniculatæ, rhachilla brevi, flore inferiore hermaphrodito, superiore masculo. Glumæ 2 inferiores vacuæ, infima ad basin rhachillæ, secunda altius affixa, concava, carinata, 5-nervis, apice acute 2-fida, arista in sinu setacea flexuosa; florentes membranaceæ, muticæ, concavo-carinatæ, apice obtuso 2-fidæ; palea sub flore ☿ glumam subæquans, sub flore ♂ brevior, linearis, 2-carinata. Stamina in flore ☿ 3, in flore ♂ 1 v. 2. Styli breves. Caryopsis . . .—Gramen gracile, foliis anguste linearibus. Panicula ramosa, ramulis subgeminis capillaribus flexuosis. Spiculæ solitariæ, pedicellis apice incrassatis villosisque. (*Char. ex Parlat.*)

Species 1, ins. S. Jacobi Capitis Viridis incola, a nobis non visa, specimine descripto verisimiliter in herb. Webbiano hodie Florentino servato.

157. **Holcus,** *Linn. Gen. n.* 1146, *pro parte.*—Spiculæ 2-floræ, in panicula sæpius densa oblonga v. interrupta confertæ, rhachilla supra glumas inferiores articulata, ultra flores in stipitem parvum producta, flore inferiore hermaphrodito, superiore masculo. Glumæ 2 inferiores vacuæ, sub articulatione persistentes, carinatæ, extima 1-nervis, acuta v. breviter acuminata, secunda latior, 3-nervis, acuta v. in aristam producta ; florentes vacuis sub-breviores, membranaceæ, quarum inferior florem ☿ fovens exaristata, demum rigidula, superior subsimilis sed florem ♂ v. sterilem fovens, et dorso arista tenui subtorta instructa ; palea angusta, 2-carinata. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis oblonga, gluma rigidula inclusa, libera.—Gramina annua v. perennia, mollia, foliis planis v. rarius rigidioribus siccitate convolutis. Panicula pedunculata, nunc fere spiciformis, sæpius laxior, interrupta v. pyramidata, rarius effusa.

Species ad 8, Europææ v. Africanæ, imprimis occidentales, quarum una et interdum altera per varias orbis utriusque regiones temperatas dispersæ, sæpius inquilinæ. *Beauv. Agrostogr.* 87, *t.* 17, *f.* 10. *Kunth, Enum. Pl.* i. 34. *Steud. Syn. Pl. Glum.* i. 14. *Schreb. Beschr. Gräs. t.* 20. *Host, Gram. Austr.* i. *t.* 2, 3. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 14. *Reichb. Ic. Fl. Germ. t.* 105. *Boiss. Voy. Hisp. t.* 173 *b. Seub. Fl. Azor. t.* 1, *f.* 2.

H. grandiflorus, Boiss. et Reut. et *H. cæspitosus*, Boiss. Voy. Hisp. t. 173 a, sectionem formant *Homalachnen*, flore utroque hermaphrodito, gluma subtendente aristata, et forte melius ad *Deschampsiam* transferenda, etsi aspectu molli *Holco* accedant.

158. **Trisetum,** *Pers. Syn. Pl.* i. 97.—Spiculæ 2-floræ, rarius 3-6-floræ, laxe v. dense paniculatæ, rhachilla inter flores articulata, pilosa v. nuda, ultra flores in stipitem producta, floribus hermaphroditis v. summo masculo. Glumæ membranaceæ, subscariosæ v. florentes hyalinæ, carinatæ, 2 inferiores vacuæ sub articulatione persistentes acutæ, exaristatæ, inæquales ; florentes vacuis breviores v. rarius longiores, apice 2-dentatæ, dentibus sæpius in setas v. aristas tenues productis, arista inter dentes sub apice dorsali exserta sæpius tortili ; palea angusta, hyalina, 2-dentata. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis oblonga, sæpe longiuscula, exsulca, glabra v. apice pubescens, gluma inclusa, libera.—Gramina perennia v. rarius annua, cæspitosa, foliis planis. Panicula nunc dense spiciformis ovata v. oblonga, nunc laxa v. effusa, spiculis sæpius nitidulis.

Species fere 50, per regiones temperatas montanasve utriusque orbis late dispersæ. *Beauv. Agrostogr.* 88, *t.* 18, *f.* 1. *Kunth, Enum. Pl.* i. 295; *Rev. Gram. t.* 60, 142, 175. *Steud. Syn. Pl. Glum.* i. 224, *excl. sect.* 2 *et* 3. *Host, Gram. Austr.* ii. *t.* 45 (*Aira*) *et t.* 53 (*Avena*), iii. *t.* 38 *ad* 40. *Reichb. Ic. Fl. Germ. t.* 97 *ad* 99, *f.* 1687 *ad* 1696. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 46. *Boiss. Voy. Hisp. t.* 174, 175. *Lange, Pl. Nov. Hisp. t.* 35. *Ten. Fl. Nap. t.* 107. *Guss. Ic. Pl. Rar. t.* 9 *et* 10, *f.* 2. *Desf. Fl. Atl. t.* 31, 32. *Hook. f. Fl. Nov. Zel. t.* 68. *Buchan. N. Zeal. Grass. t.* 39, 40. *Torr. Fl. N. York, t.* 154. *Rothr. in Bot. Wheeler Exped. t.* 27. *Cav. Ic. t.* 591, *f.* 2 (*Bromus*). *H. B. et K. Nov. Gen. et Sp. t.* 687. *Fourn. Gram. Mex.* 107. *Dœll in Mart. Fl. Bras.* ii. iii. *t.* 29, *f.* 2 (*ic. plures sub Avena*).

Species nonnullæ Africanæ v. austro-Americanæ e.g. *T. hirtum*, Nees, *T. antarcticum*, Nees (inclusis *Bromo antarctico*, Hook. f. Fl. Ant. t. 54, et *B. bicuspide*, Nees), *Trisetum* cum *Avena* (*Avenastro*) arcte connectunt. Glumæ inferiores inæquales, carinatæ, 1–3-nerves, florentes quam in *Trisetis* typicis rigidiores, 5–7-nerves, vix carinatæ. Ovarium apice villosum ; caryopsis apice solo parce pubescens, nec ut in *Avena* sulcatum.

TRICHÆTA, *Beauv. Agrostogr.* 86, *t.* 17, *f.* 8, est *Trisetum ovatum*, Pers. (*Bromus ovatus*, Cav. Ic. t. 591), species *T. subspicato* affinis, differt panicula dense spiciformi ovoidea v. interdum subglobosa.

ACROSPELION seu ACROPSELION, *Bess. ex Trin. in Mem. Acad. Petersb. ser.* 6, i. 59, et *Spach, Suites Buff.* xiii. 163, est *Trisetum distichophyllum*, Beauv., nec *Ventenata*, Kœl., cui in Lindl. Veg. Kingd., refertur.

ROSTRARIA, Trin., Fundam. Agrostogr. 149, genus compositum fuit e *Triseto neglecto*, R. et Sch., et *Kœleria phleoide*, Pers.

159. **Ventenata,** *Kœl. Gram. Gall. et Germ.* 272.—Spiculæ 2-∞-floræ, paniculatæ, rhachilla inter flores articulata, ultra flores in stipitem producta, floribus hermaphroditis.

Glumæ 2 inferiores vacuæ, sub articulatione persistentes, inæquales, rigidulæ, 3-5-nerves, acutæ, muticæ v. in aristam brevissimam productæ, tertia florens vacuis contigua, 5-7-nervis, mutica v. in aristam brevissimam producta, dorso exaristata, superiores 1-3 pariter florentes sed apice 2-fidæ, arista dorsali tenui torta geniculataque; palea glumis brevior, 2-carinata. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis oblonga, glaberrima, exsulca, gluma inclusa, libera.—Gramina annua, foliis angustis sæpius convoluto-teretibus. Panicula gracilis, in *V. avenacea*, Kœl. (*Avena tenui*, Mœnch), angusta, ramulis filiformibus erectis v. demum effusa, in *V. macra*, Balansa, stricta, simplex, fere *Gaudiniæ*, sed rhachis inarticulata, et spiculæ pedicellatæ. Spiculæ in utraque angustæ longiusculæ.

Species 2, altera per regionem Mediterraneam late dispersa et in Europa centrali extensa, altera Orientalis. *Parlat. Fl. Ital.* i. 271. *Host, Gram. Austr.* ii. *t.* 55 (*Avena*). *Reichb. Ic. Fl. Germ. t.* 97, *f.* 1690. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 47.

Genus *Triseto* valde affine, quocum junxerunt Kunth, Trinius aliique, differt glumis rigide plurinervibus et inferiore florentium arista dorsali carente.

160. **Avena,** *Linn. Gen. n.* 91.—Spiculæ 2-∞-floræ, rarissime 1-floræ, paniculatæ, rhachilla inter flores fertiles articulata, floribus saltem inferioribus hermaphroditis, superioribus sæpe masculis v. imperfectis. Glumæ 2 inferiores vacuæ, sub articulatione persistentes, membranaceæ, parum inæquales; florentes dorso rotundatæ, acutæ, 5-9-nerves, apice sæpe breviter 2-fidæ, inferiores florem ☿ foventes, dorso arista torta geniculata instructæ, superiores florem ♂ foventes v. ananthæ, exaristatæ; palea angusta, 2-dentata v. 2-fida. Stamina 3. Styli breves, distincti, stigmatibus plumosis. Caryopsis oblonga v. elongato-fusiformis, pubescens v. rarius glabra, hinc profunde sulcata, gluma paleaque inclusa, libera v. paleæ plus minus adhærens.—Gramina annua v. perennia, sectionis diversæ habitu diversa.

Species ad 40, per regiones temperatas orbis veteris dispersæ, cum paucis Americanis borealibus v. australibus, una alterave ex annuis in variis locis inquilina. *Kunth, Enum. Pl.* i. 299. *Steud. Syn. Pl. Glum.* 229.

Genus in sectiones 2 sequentes habitu dictinctas, facile pro generibus propriis habendas dividitur:—

1. *Crithe*, Griseb. Gramina annua, sæpe elata, foliis planis, panicula laxa, spiculis pendulis, floribus fertilibus 1-2. Glumæ inferiores vacuæ, dorso rotundatæ, membranaceæ, 7-9-nerves, sub floribus fertilibus rigidiores 5-7-nerves, arista dorsali sæpius longa valida. *Schreb. Beschr. Gräs. t.* 15, 45, 46. *Beauv. Agrostogr. t.* 18, *f.* 5. *Host, Gram. Austr.* ii. *t.* 56 *ad* 59; iii. *t.* 42 *ad* 44. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 48. *Jacq. Ic. Rar. t.* 23. *Reichb. Ic. Fl. Germ. t.* 103. *Parlat. in Webb, Phytogr. Canar. t.* 247, 248. *Coss. et Dur. Explor. Alger. Bot. t.* 41. *Dœll in Mart. Fl. Bras.* ii. iii. *t.* 29, *f.* 1.

2. *Avenastrum*, Koch. Gramina perennia, foliis angustis interdum setaceis, panicula angusta stricta v. rarius laxa, spiculis erectis v. rarius patentibus sæpius flores fertiles plus quam 2 continentibus. Glumæ inferiores vacuæ 1-3-nerves v. secunda rarius sub-5-nervis, florentes post anthesin rigescentes, 5-7-nerves. *Schreb. Beschr. Gräs.* 76, *t.* 9. *Host, Gram. Austr.* ii. *t.* 50 *ad* 52; iii. *t.* 41, iv. *t.* 31, 32. *Reichb. Ic. Fl. Germ. t.* 99 *ad* 102, *f.* 1697 *ad* 1707. *Guss. Pl. Rar. Ic. t.* 9. *Sibth. Fl. Græc. t.* 80. *Boiss. Voy. Hisp. t.* 176. *C. Gay, Fl. Chil. t.* 79. *Ten. Fl. Nap. t.* 104, *f.* 1 (*Bromus*). HEUFFELIA, *Schur, Enum. Pl. Transsylv.* 760. HELICOTRICHUM, *Bess. in Reichb. Fl. Germ. Exc.* 140[b].

161. **Gaudinia,** *Beauv. Agrostogr.* 95, *pro parte, char. manco, t.* 19, *f.* 5.—Spiculæ ∞-floræ, spicatæ, ad excavationes rhacheos sessiles, rhachilla inter flores articulata et ultra flores sæpe producta, floribus hermaphroditis. Glumæ 2 inferiores vacuæ, sub articulatione persistentes, herbaceæ, acutæ, muticæ, inæquales, extima 3-5-nervis, secunda 5-9-nervis; florentes 5-9-nerves, apice 2-dentatæ v. breviter 2-fidæ, arista dorsali tenui sæpius geniculata basi torta; palea gluma brevior, angusta, 2-carinata, 2-dentata. Stamina 3. Styli brevissimi, distincti, stigmatibus plumosis. Caryopsis oblonga, exsulca, appendice parva villosa coronata cæterum glabra, gluma paleaque inclusa, libera v. vix adhærens.—Gramina annua, cæspitosa, basi sæpius ramosa, molliter pubescentia v. glabra,

foliis planis. Spica terminalis, elongata, rhachi demum articulata. Spiculæ erectæ, dissitæ, quaquaversæ, sæpius appressæ. Lodiculæ (an semper ?) 2-fidæ.

Species 2, quarum una per regionem Mediterraneam late diffusa, altera Azorica. *Kunth, Enum. Pl.* i. 303 (*Avenæ sect.*). *Schreb. Beschr. Gräs. t.* 24, *f.* 3 (*Avena*). *Host, Gram. Austr.* ii. *t.* 54 (*Avena*). *Reichb. Ic. Fl. Germ. t.* 13. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 84. *Sibth. Fl. Gr. t.* 88 (*Avena*).

Genus a Parlatoreo ob inflorescentiam ad *Hordeeas* transfertur, characteres cæteri tamen omnino *Avenearum* quibuscum ab auctoribus plerisque associatur.

Arthrostachya, *Link, Hort. Berol.* i. 151, est *G. geminiflora*, Gay, Kunth, Rev. Gram. t. 61 (*Avena*), species olim ad specimina hortensia originis ignotæ descripta, nuperius a Seubertio aliisque in ins. Azoricis detecta.

162. **Amphibromus,** *Nees in Hook. Lond. Journ.* ii. 420.—Spiculæ ∞-floræ, laxe paniculatæ, rhachilla inter flores articulata pilosa, floribus hermaphroditis v. summo imperfecto. Glumæ 2 inferiores vacuæ, sub articulatione persistentes, acutæ, carinatæ, margine scariosæ, prope basin 5-nerves, exaristatæ; florentes rigidiores, dorso rotundatæ, prominule 5-nerves, apice demum sæpe fissæ, lobis interdum brevissime 2-aristatis, medio dorso arista torta geniculataque tenui instructæ; palea tenuis, 2-dentata. Stamina 3. Styli breves, distincti, stigmatibus plumosis. Caryopsis oblonga, glabra, late profundeque sulcata, gluma parum rigescente inclusa, libera.—Gramen (perenne ?) elatiusculum, foliis planis. Paniculæ ramuli capillares, spiculis longiusculis, glumis florentibus imbricatis usque ad 10.

Species 1, Australiæ extratropicæ incola. *Benth. Fl. Austral.* vii. 589. *Hook. f. Fl. Tasm. t.* 163 (*Danthonia*).

163. **Arrhenatherum,** *Beauv. Agrostogr.* 55, *t.* 11, *f.* 5.—Spiculæ 2-floræ, paniculatæ, rhachilla supra glumas inferiores articulata inter flores evoluta pilosa, ultra florem superiorem in stipitem producta, flore inferiore masculo, superiore hermaphrodito v. fœmineo. Glumæ 2 inferiores vacuæ, persistentes, tenuiter membranaceæ, subscariosæ, carinatæ, breviter mucronato-acuminatæ, inæquales; florentes rigidiores, 5–7-nerves, apice subdentatæ, inferior florem ♂ fovens, dorso prope basin arista longa torta geniculataque instructa, superior florem ♀ v. ☿ includens, sub apice arista dorsali brevi instructa v. exaristata; palea angusta, fere hyalina, 2-carinata. Stamina 3. Styli breves, distincti, stigmatibus plumosis. Caryopsis ovoidea, haud sulcata, gluma vix rigescente inclusa, libera.—Gramina elata, perennia, foliis planis v. siccitate convolutis. Panicula ramosa, stricta v. sæpius laxa effusa subsecunda.

Species 3, Europæ, Africæ borealis et Asiæ occidentalis incolæ. *Kunth, Enum. Pl.* i. 307. *Schreb. Beschr. Gräs.* 25, *t.* 1 (*Avena*). *Host, Gram. Austr.* ii. *t.* 49, iv. *t.* 30 (*Avena*). *Reichb. Ic. Fl. Germ. t.* 104. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 49. *Jaub. et Spach, Ill. Pl. Or. t.* 198.

164. **Tristachya,** *Nees, Agrostol. Bras.* 458. (Monopogon, *Presl, Rel. Hænk.* i. 324, *t.* 44.)—Spiculæ 2-floræ, ad apices ramulorum paniculæ ternatim sessiles v. æqualiter breviterque pedicellatæ, rhachilla inter flores evoluta pilosa ultra florem superiorem non producta, flore inferiore masculo, superiore hermaphrodito v. fœmineo. Glumæ 2 inferiores vacuæ, persistentes, membranaceæ, muticæ, parum inæquales, glabræ v. exteriore latiore validiore tuberculata ciliataque, tertia florem ♂ fovens, membranacea, mutica; terminalis florem fertilem fovens, apice 2-fida v. 2-aristata, inter lobos v. aristas rectas in aristam centralem longam rigidam geniculatam tortamque producta; palea gluma florente inclusa, membranacea, hyalina, 2-carinata. Lodiculæ 2. Stamina 2 v. 3. Styli distincti, tenuissimi, stigmatibus plumosis. Caryopsis oblonga v. fere linearis, gluma plus minus indurata involuta, libera.—Gramina perennia (v. rarius annua ?) sæpe rigidula, foliis planis v. convoluto-teretibus. Panicula laxa, spiculis nunc magnis ternationibus paucis erectis v. subpendulis, nunc minoribus numerosis.

Species ad 8, quarum 2 per Americam tropicam dispersæ a Brasilia usque ad Mexicum, cæteræ

Africæ tropicæ v. australis v. Asiæ occidentalis incolæ. *Nees, Fl. Afr. Austr. Gram.* 266. *Grant in Trans. Linn. Soc.* xxix. *t.* 115. *Kunth, Rev. Gram. t.* 140, 141. *Dœll in Mart. Fl. Bras.* ii. iii. *t.* 31.

T. simplex, Nees, ex Africa australi, est *Trichoptericis* species.

165. **Trichopteryx,** *Nees in Lindl. Introd. Nat. Syst. ed.* 2, 449, *et Fl. Afr. Austr. Gram.* 339. (Loudetia, *Hochst. in Steud. Syn. Pl. Glum.* i. 238.)—Spiculæ 2-floræ, secus ramulos paniculæ sparsæ, rhachilla supra glumas inferiores articulata, inter flores evoluta, annulo pilorum instructa, ultra florem superiorem non producta, flore inferiore masculo superiore hermaphrodito v. fœmineo. Glumæ 2 inferiores vacuæ, persistentes, membranaceæ, muticæ, sæpius inæquales glabræque v. extima tuberculata ciliataque; tertia florem ♂ fovens vacuis sæpius longior, 3–5-nervis, glabra, mutica; terminalis florem ☿ v. ♀ involvens, sæpe longe pilosa, apice 2-fida v. tenuiter 2-aristata, inter lobos v. aristas rectas in aristam centralem longam rigidam geniculatam tortamque producta; palea gluma florente inclusa, membranaceo-hyalina, 2-carinata. Lodiculæ 2. Stamina 3 rarius 2. Styli distincti, tenuissimi, stigmatibus plumosis. Caryopsis oblonga v. fere linearis, gluma rigescente v. indurata involuta, libera.—Gramina perennia, sæpe elata, foliis planis v. rarius convoluto-teretibus. Panicula sæpius virgata, ramulis numerosis tenuibus erectis, rarius effusa.

Species ad 10, Africæ tropicæ et australis incola, una etiam in Brasilia obvia.

Huc pertinent, præter species a Steudelio enumeratas, *Tristachya simplex*, Nees ex Africa australi, *Arundinella flammea*, Trin. Spec. Gram. t. 267, ex Africa tropica et Brasilia, et species nonnullæ Africanæ adhuc ineditæ. In specie typica gluma sub flore fertili utrinque fasciculo pilorum longorum instructa, in *T. flammea* pili longi magis sparsi, in speciebus nonnullis multo breviores parumque conspicui.

166. **Anisopogon,** *R. Br. Prod.* 176.—Spiculæ 1-floræ, longæ, laxe paniculatæ, rhachilla supra glumas inferiores articulata, sub flore elongata, ultra florem in stipitem haud raro glumam vacuam v. floris rudimentum foventem producta, flore hermaphrodito. Glumæ 2 inferiores vacuæ, longæ, angustæ, acutæ v. acuminatæ, subcarinatæ, ∞-nerves, rigidulæ, subæquales; tertia florens dorso convexa, circa paleam floremque convoluta, apice 5-fida, lobis lateralibus breviter setaceis, intermediis in aristas longas setaceas rectas productis, arista centrali longiore rigida basi torta geniculata; palea gluma inclusa, circa florem convoluta, 2-nervis. Lodiculæ longæ. Stamina 3. Styli distincti, stigmatibus plumosis. Ovarium stipitatum, apice pilosulum. Caryopsis . . .—Gramen (annuum?) elatum, foliis longis angustis siccitate sæpius convolutis longe subulato-acuminatis. Panicula laxa, subsecunda, e spiculis paucis, maximis longe pedicellatis composita. Glumæ vacuæ glabræ, florens pubescens v. villosa.

Species 1, Australiæ austro-occidentalis incola. *Beauv. Agrostogr.* 43, *t.* 9, *f.* 8. *Benth. Fl. Austral.* vii. 589. *Kunth, Rev. Gram. t.* 62. *Trin. Spec. Gram. t.* 61 (*Danthonia*). Species altera Africæ australis, a *Nees, Fl. Afr. Austr. Gram.* 265, descripta, nobis ignota est et ex descriptione pluribus notis imprimis habitu a typica Australiana discrepat. Fructus speciei hujus typicæ nobis deest nec ab auctoribus descriptus. Lodiculæ a Kunthio delineantur 3, in floribus pluribus quos examinavimus semper 2 longas lanceolatas vidimus.

167. **Danthonia,** *DC. Fl. Fr.* iii. 32, *pro parte.*—Spiculæ 3–∞-floræ, paniculatæ, rhachilla inter flores articulata pilosa, ultra flores in stipitem producta, floribus hermaphroditis v. summo masculo. Glumæ 2 inferiores vacuæ, persistentes, 5–7-nerves v. rarius præter carinam enerves, carinatæ, acutæ, parum inæquales, spiculam æquantes v. rarius breviores; florentes dorso rotundatæ, nervis 7–9 parum prominentibus (rarius 3–5?), margine sæpe ciliatæ, apice 2-fidæ, lobis ad latera aristæ nunc minimis hyalinis v. vix prominulis nunc lanceolatis acutis muticis v. aristiformibus v. ipsis 2-fidis lobulo utroque v. interiore solo aristato; arista centralis inter lobos terminalis, rigida, basi plus minus complanata, sæpissime torta geniculataque; gluma summa sæpius minor, florem masculum v. paleam solam fovens v. vacua; palea intra glumas lata, hyalina, prope margines

2-carinata, obtusa v. 2-dentata. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis ovoidea v. oblonga, nunc a dorso compressa facieque interiore cava, nunc subteres, gluma rigescente v. membranacea inclusa, libera.—Gramina perennia v. rarius annua, habitu vario, foliis planis v. convolutis. Panicula terminalis, nunc effusa spiculis parvis fere *Airæ* v. numerosis in panicula ampla, nunc densa, spiculis paucis maximis fere *Anisopogonis* nisi erectioribus, nunc angusta stricta spiculis paucis erectis, v. dense pyramidata spiculis confertis subsessilibus. Spiculæ in omnibus sæpissime erectæ.

Species fere 100, per regiones calidiores temperatasque utriusque orbis latissime dispersæ, maxima tamen copia in Africa australi crescentes. *Beauv. Agrostogr.* 92, *t.* 18, *f.* 7. *Kunth, Enum. Pl.* i. 311, *excl. sp. n.* 1 *et* 2. *Steud. Syn. Pl. Glum.* i. 238. *Benth. Fl. Austral.* vii. 590, *et in Journ. Linn. Soc.* xix. 99. *Nees, Fl. Afr. Austr. Gram.* 280.

Genus aspectu polymorphum, etsi characteribus sat definitis limitatum, adhuc in sectiones naturales nondum divisum, duæ sequentes a Neesio ad species Africanas propositæ distinctæ videntur sed nimis artificiales, cæteræ infra memoratæ a variis auctoribus pro generibus propriis editæ, pleræque monotypicæ, characteres potius specificos tantum exhibent.

1. *Himantochæte*, Nees. Glumæ florentis lobi ad latera aristæ centralis integri, acuti v. aristati, interdum minimi. Species includit omnes extra-Africanas cum pluribus Africanis. *Reichb. Ic. Fl. Germ. t.* 103. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 50. *Trin. Spec. Gram. t.* 49, 51 *ad* 54, 62, 65, 67. *Kunth, Rev. Gram. t.* 65, 177. *Delile, Fl. Eg. t.* 12 (*Avena*). *Jaub. et Spach, Ill. Pl. Or. t.* 331. *Hook. f. Fl. Tasm. t.* 161, 162; *Fl. Nov. Zel. t.* 68, 69. *Raoul, Choix Pl. Nouv. Zel. t.* 3. *Buchan. Grass. N. Zeal. t.* 29 *ad* 36 *et t.* 36, 2. *Em. Desv. in C. Gay, Fl. Chil. t.* 80. *Dœll in Mart. Fl. Bras.* ii. iii. 100, *t.* 30. Streblochæta, *Hochst. Pl. Schimp. Abyssin. exs. n.* 412, 683.

2. *Pentaschista*, Nees. Glumæ florentis lobi ad latera aristæ centralis 2-fidi, lobulo interiore v. rarius utroque in aristam rectam producto, exteriore sæpius membranaceo dentato v. acuto interdum tenuissimo v. fere evanescente. Species omnes austro-Africanæ. *Trin. Spec. Gram. t.* 50, 63, 64, 66, 68. *Kunth, Rev. Gram. t.* 176, *et t.* 218 (*Pentameris*).

Pentameris, *Beauv. Agrostogr.* 92, *t.* 18, *f.* 8. *Kunth, Rev. Gram. t.* 66, genus a Neesio ad sectionem *Danthoniæ* reductum, est *D. Thouarsii*, Nees, species austro-Africana habitu et inflorescentia *D. pallescenti*, Nees, accedens, sed gluma fructifera tenuiore, caryopsi brevi crassa apice complanato-truncata insignis.

Triraphis, *Nees, Fl. Afr. Austr. Gram.* 270, *non R. Br.*, est *D. radicans*, Steud., species austro-Africana ad *Pentaschistas* pertinens, *D. crispæ*, Nees, affinis.

Chætobromus, *Nees in Lindl. Introd. Nat. Syst. ed.* 2, 449; *Fl. Afr. Austr. Gram.* 340, species continet paucas austro-Africanas, a *Danthonia* separatas ob florem unum alterumve in spicula imperfectum.

Monachather, *Steud. Syn. Pl. Glum.* i. 247, est *D. bipartita*, F. Muell., species Australiana, glumis fructiferis basi obliquis induratis sub lobis annulo pilorum cinctis, et arista centrali lobos laterales rigidos vix superante.

Plinthanthesis, *Steud. Syn. Pl. Glum.* i. 14, species 2 Australianæ forte ad *Danthoniam* pertinentes, charactere dato evidenter falso, nam arista torta in toto ordine nunquam ad latera paleæ (valvulæ superioris, *Steud.*) affixa est.

Crinipes, *Hochst. in Flora*, 1855, 279, est *D. abyssinica*, Hochst. in Rich. Fl. Abyss. ii. 419, species ad *Himantochæten* pertinens, glumis vacuis tamen spicula parum brevioribus setaceo-acuminatis v. subaristatis; et glumarum florentium arista centralis tenuissima, basi rigidior sed parum dilatata et vix torta.

Tribus X. Chlorideæ.

168. **Microchloa**, *R. Br. Prod.* 208.—Spiculæ 1-floræ, parvæ, secus rhachin continuam spicæ unilateralis sessiles, alternatim 2-seriatæ, rhachilla supra glumas inferiores articulata, ultra florem non producta, flore hermaphrodito. Glumæ 2 inferiores vacuæ, infra articulationem persistentes, membranaceæ, carinatæ, acutiusculæ v. obtusæ, parum inæquales; florens multo brevior, hyalina, mutica, carina ciliata; palea vix brevior, angustior, carinis 2 approximatis sæpius ciliatis. Stamina 3 (v. 2?). Styli distincti, stigmatibus plumosis. Caryopsis oblongo-fusiformis, glabra, gluma paleaque tenuissimis arcte involuta, libera.—

Gramina tenuia, cæspitosa, foliis convoluto-teretibus filiformibus v. rigidulis. Spica in pedunculo terminalis, unica, tenuis, sæpe elongata, recta v. curvula, spiculis distincte 2-seriatis, omnibus tamen secundis.

Species nobis notæ 3, quarum una per regiones calidiores utriusque orbis late dispersa, 2 Africæ tropicæ v. australis propriæ. *Beauv. Agrostogr.* 115, *t.* 20, *f.* 8. *Steud. Syn. Pl. Glum.* i. 202. *Roxb. Corom. Pl. t.* 132 (*Rottboellia*). *H. B. et K. Nov. Gen. et. Sp. t.* 22. *Dœll in Mart. Fl. Bras.* ii. iii. t. 21.

169. **Schœnefeldia,** *Kunth, Rev. Gram.* 283, *t.* 53.—Spiculæ 1-floræ, secus rhachin continuam spicarum unilateralium sessiles, alternæ, 2-seriatim confertæ, rhachilla supra glumas inferiores articulata pilosa, ultra florem non producta, flore hermaphrodito. Glumæ 2 inferiores vacuæ, sub articulatione persistentes, tenues, subhyalinæ, costa valida in mucronem brevem producta, plus minus inæquales; florens multo brevior, lata, hyalina, tenuiter 1-nervis, apice breviter 2-fida, costa inter lobos in aristam capillarem longissimam producta; palea minor, angustior, tenuissime 2-nervis. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis oblonga, glabra, gluma tenuissima involuta, libera.—Gramen (annuum?) multicaule, erectum, foliis angustis planis subulato-acuminatis. Spicæ ad apicem pedunculi erectæ, sessiles, 2–4-næ v. solitariæ, eleganter unilaterales, subpectinatæ, ante fructus delapsos aristis capillaribus numerosissimis insignes.

Species 1, Africæ tropicæ incola. *Kunth, Enum. Pl.* i. 258. *Trin. Spec. Gram. t.* 259.

170. **Cynodon,** *Pers. Syn. Pl.* i. 85. (Capriola, *Adans. Fam.* ii. 31. Fibichia, *Kœl. Gram. Gall. et Germ.* 308.)—Spiculæ 1-floræ, parvæ, secus rhachin continuam spicarum unilateralium sessiles, alternatim 2-seriatæ, rhachilla supra glumas inferiores articulata, ultra florem non v. in stipitem parvum producta, flore hermaphrodito. Glumæ 2 inferiores vacuæ, infra articulationem persistentes v. sigillatim deciduæ, tenues, carinatæ, acutæ v. obtusæ, muticæ; florens vacuis brevior v. longior, latior, membranacea, carina ciliata, interdum prope apicem transverse pilosa, exaristata; palea vix gluma brevior, hyalina, carinis 2 approximatis distantibusve sæpiusque ciliolatis. Stamina 3. Styli distincti, stigmatibus brevibus plumosis. Caryopsis oblonga, glabra, exsulca, gluma paleaque inclusa, libera.—Gramina perennia, cæspitosa reptantia v. stolonifera, foliis angustis planis brevibus v. rarius longiusculis. Spicæ tenues, ad apicem pedunculi per 3–6 digitatæ v. rarius geminæ, rectæ erectæ v. radiatim patentes. Spiculæ parvæ, secus rhachin secundæ, nunc approximatæ distincte 2-seriatæ, nunc subdissitæ specie 1-seriatæ.

Species 4, quarum typica per regiones calidiores utriusque orbis latissime dispersa et interdum in temperatas extensa, sæpe tamen inquilina, ab auctoribus variis in species usque ad 10 divisa, cæteræ Australiæ propriæ. *Kunth, Enum. Pl.* i. 259. *Steud. Syn. Pl. Glum.* i. 212.

Sectiones 2 sequentes vix non pro generibus propriis habendæ:—

1. *Fibichia.* Gluma florens vacuas sæpius superans. Rhachilla ultra florem sæpissime in stipitem parvum tenuem producta.—Species 1, cosmopolitana. *Beauv. Agrostogr.* 37, *t.* 9, *f.* 1. *Host, Gram. Austr.* ii. *t.* 18 (*Panicum*). *Reichb. Ic. Fl. Germ. t.* 26. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 39. *Sibth. Fl. Gr. t.* 60 (*Panicum*). *Dœll in Mart. Fl. Bras.* ii. iii. *t.* 21.

2. *Brachyachne.* Gluma florens vacuis brevior. Rhachilla ultra florem non producta. Sectio a *Microchloa* vix nisi habitu et inflorescentia differt. Species 3 Australianæ. *Benth. Fl. Austral.* vii. 609. *Kunth, Rev. Gram.* 439, *cum analysi in t.* 133. Icon princeps hujus tabulæ *Pennisetum cenchroidem* refert.

Nomen genericum Kœlerianum jure prioritatis gaudet sed jam diu ab omnibus botanicis prætermissum nunc futile restitueretur. DACTILON, *Vill. Pl. Dauph.* ii. 69, adhuc antiquius est, sed *Panicum sanguinale* cum *Cynodonte Dactylon* includit.

171. **Harpechloa,** *Kunth, Rev. Gram.* i. 92; *Enum. Pl.* i. 274.—Spiculæ 1–3-floræ, secus rhachin continuam spicæ unilateralis sessiles, 2-seriatim confertæ, rhachilla brevissima supra glumas inferiores articulata, inter flores continua, flore infimo hermaphrodito, cæteris dum adsint masculis. Glumæ 2 inferiores vacuæ, sub articulatione persistentes, membranaceæ, complicatæ, carinatæ, acutiusculæ, secunda paullo major 3-nervis; tertia

florens lata, complicato-carinata, obtusissima, exaristata, margine longe ciliata, 1–3 superiores minores, tenuiores, hyalinæ, truncatæ, florem ♂ includentes v. summa vacua; palea angusta, hyalina, 2-carinata, gluma inclusa. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis gluma paleaque tenuibus inclusa, libera.—Gramina perennia, foliis siccitate convolutis crassiusculis. Spica in pedunculo elongato terminalis, unica, densa, sæpius colorata, interdum falcata, spiculis confertis subpectinatis secundis.

Species 2, Africæ australis incolæ. *Nees, Fl. Afr. Austr. Gram.* 238. *Swartz in Gesellsch. Naturf. Fr. Berl. Mag.* iii. *t.* 1 (*Chloris*). *Trin. Spec. Gram. t.* 310 (*Chloris*).

172. **Ctenium,** *Panz. in Denkschr. Acad. Sc. Munch.* 1813, 288, *t.* 13. (Campulosus, *Desv. in Nouv. Bull. Soc. Philom.* ii. 189. Campuloa, *Ejusd. Journ. Bot.* i. (1813) 69. Monocera, *Ell. Bot. S. Carol. and Georg.* i. 176.)—Spiculæ 1–2-floræ, tenues, secus rhachin continuam spicarum unilateralium sessiles, 2-seriatim confertæ, rhachilla supra glumas inferiores articulata, flore unico v. inferiore hermaphrodito, superiore dum adsit masculo. Glumæ 2 inferiores vacuæ, sub articulatione persistentes, extima parva, tenuis, fere hyalina, carinata, mutica, secunda cæteris major, membranacea v. rigidula, 2–3-nervis, acuta v. breviter 2-fida, medio dorso arista sæpius horizontaliter divaricata tenuiter aculeiformi v. ad tuberculum reducta instructa, glumæ tertia quartaque vacuæ v. paleam angustam foventes, quam secunda breviores tenuioresque sæpe longe ciliata, sub apice arista dorsali erecta instructa; quinta florens vacuis brevior tenuiorque, arista sub apice tenui interdum longe capillari; superiores 1–2 angustæ, vacuæ v. paleam angustam foventes. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis oblonga, exsulca, gluma laxe inclusa, libera.—Gramina sæpe elatiuscula, foliis angustis planis v. convolutis. Spicæ in pedunculo terminali solitariæ v. rarius 2–3, erectæ, sessiles, sæpe incurvæ; spiculæ secundæ, densissime approximatæ, eleganter pectinatæ, medio quasi armatæ.

Species nobis notæ 7, quarum 4 Americanæ, boreales v. australes, 3 Africanæ v. Mascarenses. *Beauv. Agrostogr.* 63, *t.* 13, *f.* 1 (*Campulosus*). *Kunth, Enum. Pl.* i. 274. *Steud. Syn. Pl. Glum.* i. 202. *Trin. Spec. Gram. t.* 301 *ad* 304 (*Campulosus*). *Kunth, Rev. Gram. t.* 59, 136, 137. *Munby, Fl. Alg. t.* 1. *Dœll in Mart. Fl. Bras.* ii. iii. 71, *t.* 20.

Nomen *Campulosus*, Desv., vitiose confectum, ab auctore postea in *Campuloa* mutatum genus designavit *Harpechloam*, Kunth, *Monoceram*, Ell., includens, qua ratione a botanicis recentioribus rejicitur, etsi prius quam *Ctenium* editum.

173. **Enteropogon,** *Nees in Lindl. Introd. Nat. Syst. ed.* 2, 448.—Spiculæ 1–2-floræ, sublanceolatæ, secus rhachin continuam spicæ longæ unilateralis sessiles, 2-seriatim confertæ, appressæ, rhachilla supra glumas inferiores articulata, flore unico v. inferiore hermaphrodito, superiore dum adsit masculo v. sterili. Glumæ 2, vacuæ, sub articulatione persistentes, hyalinæ, carinatæ, acutæ, plus minus inæquales; tertia florens longior, rigidula, dorso rotundata, 3-nervis, arista sub apice integro v. breviter 2-fido subdorsali tenui recta; superiores 1–2 minores, florem ♂ v. paleam solam foventes; palea gluma paullo brevior, 2-nervis, 2-cuspidata. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis anguste oblonga, a dorso compressa v. antice late sulcata, gluma paleaque rigescentibus inclusa, libera.—Gramina (perennia?) cæspitosa, elatiuscula, foliis longis angustis planis v. angustissimis convolutisque. Spica terminalis, unica, elongata, sæpe curvula, spiculis secundis imbricatis.

Species 3 v. 4, Indiæ orientalis Africæ tropicæ et ins. Mascarensium incolæ. *Benth. in Journ. Linn. Soc.* xix. 101.

Huc pertinent, præter *E. melicoidem*, Nees, *Ctenium Scychellarum*, Baker, Fl. Maurit. 452, species vix a typica Indica distincta, *E. macrostachya*, Munro (*Chloris macrostachya*, Hochst.), ex Abyssinia, et *E. leptophylla*, Benth., e Madagascaria, *Boivin, n.* 3019.

174. **Chloris,** *Swartz, Prod.* 25; *Fl. Ind. Occid.* 189, *t.* 3.—Spiculæ 1-floræ, secus rhachin continuam spicarum unilateralium sessiles, 2-seriatim confertæ, rhachilla supra glumas inferiores articulata, ultra flores producta, apice glumifera, flore hermaphrodito.

Glumæ 2 inferiores vacuæ, sub articulatione persistentes, inæquales, carinatæ, angustæ nunc angustissimæ, acutæ, mucronatæ, rarius obtusæ v. secunda breviter aristata; florens angusta v. latiuscula, 1–3-nervis, acuta obtusa emarginata v. breviter 2-fida, costa in aristam tenuem producta v. rarius mutica, vacuæ ad apicem rhachillæ plures conniventes, v. unica, breves, latæ truncatæque v. angustæ, sæpius aristatæ v. ad aristam reductæ, rarius muticæ; palea gluma vix brevior, complicato-2-carinata. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis gluma involuta v. inclusa, libera, oblongo-fusiformis v. fere linearis, subteres v. fere 3-quetra, rarius sulcata.—Gramina sæpius perennia, foliis planis. Spicæ ad apicem pedunculi terminalis interdum solitariæ v. geminæ, erectæ, sæpius plures, digitatæ verticillatæ v. approximatæ erectæ v. demum stellato-patentissimæ. Gluma florens sæpe longe ciliata.

Species ad 40, per regiones calidiores utriusque orbis late dispersæ. *Beauv. Agrostogr.* 79, *t.* 16, *f.* 6. *Kunth, Enum. Pl.* i. 263. *Steud. Syn. Pl. Glum.* i. 203. *Dœll in Mart. Fl. Bras.* ii. iii. 61. *Benth. Fl. Austral.* vii. 610, *et in Journ. Linn. Soc.* xix. 102.

Genus in sectiones 2 sequentes dividitur, a nonnullis pro generibus propriis habitas:—

1. ***Euchloris.*** Glumæ exteriores vacuæ acutæ v. rarius obtusæ, exaristatæ, florens et superiores vacuæ sæpius nec semper aristatæ. *Jacq. Fragm. t.* 121; *Ecl. Gram. t.* 8 *ad* 10. *Kunth, Rev. Gram. t.* 55 *ad* 58, 134, 178 *ad* 180. *Trin. Spec. Gram. t.* 305 *ad* 308, 311, 312. *Dœll in Mart. Fl. Bras.* ii. iii. *t.* 18 *et t.* 23 (*Gymnopogon*).

Species quoad glumarum formam et aristas polymorphæ, *C. monostachya*, Poir., ex ins. Mascarensibus et *C. unispica*, F. Muell., ex Australia, insignes sunt habitu gracili spicis tenuibus solitariis v. rarius geminis erectis, gluma florente angusta terminalique vacua angusta aristatis. In *C. aciculari*, Br., et *C. Roxburghiana*, Edgew., ex Australia et India orientali, et in *C. radiata*, Sw., ex America et Africa, gluma florens pariter angusta, terminalis vacua vix arista latior, sed spicæ plures digitatæ v. fasciculatim approximatæ. In *C. foliosa*, Willd., sp. Americana a Dœllio ad *Gymnopogonem* relata, glumæ pariter angustæ, sed spicæ minus confertæ et gluma vacua ad stipitem 2-aristatum (an glumæ 2 aristiformes?) reducta. In *C. pumilione*, Br., *C. pectinata*, Benth., et *C. divaricata*, Br., ex Australia, gluma florens distincte 2-loba, arista inter lobos instructa. In speciebus pluribus Asiaticis v. Australiensibus glumæ terminales vacuæ plures, latæ, truncatæ; in pluribus Americanis gluma terminalis vacua pariter truncata sed unica; in *C. submutica*, Kunth, glumæ omnes obtusæ v. obtusiusculæ muticæ; in his plerisque spicæ digitatæ v. verticillatæ additis rarius una alterave inferiore v. superiore.

2. ***Eustachys.*** Gluma vacua secunda mucronata v. breviter aristata, florens et vacua terminalis obtusæ v. truncatæ, muticæ v. brevissime mucronato-aristatæ. Spicæ digitatæ. Species 5 v. 6, Americanæ. *Jacq. Ecl. Gram. t.* 11. *Trin. Spec. Gram. t.* 309. *H. B. et K. Nov. Gen. et Sp. t.* 49, 50. EUSTACHYS, *Desv. in Nouv. Bull. Soc. Philom.* ii. 188, *et in Journ. Bot.* i. (1813), 69. *Kunth, Enum. Pl.* i. 262; *Rev. Gram. t.* 54. *Dœll in Mart. Fl. Bras.* ii. iii. *t.* 19. SCHULTESIA, *Spreng. Pl. Pugill.* ii. 17.

175. **Cryptochloris,** *Benth. in Hook. Ic. Pl. t.* 1376.—Spiculæ 2-floræ (rarius 1-floræ ?), secus rhachin continuam spicæ subsecundæ sessiles, 2-seriatim confertæ. Glumæ 2 inferiores vacuæ, persistentes, angustissime lineares, complicatæ, glabræ, parum inæquales, spiculam subæquantes, acutæ, muticæ; florentes membranaceæ, late ovatæ, 1-nerves, extus longe ciliatæ, apice minute 2-dentatæ, sub apice dorso arista rigida instructæ; superiores plures vacuæ, obovatæ v. subglobosæ, gradatim minores glabrioresque, omnes aristatæ; palea gluma florente paullo minor, 2-dentata, pilosula, mutica. Stamina . . . Stylus . . . Caryopsis gluma inclusa, obovoidea, libera.—Gramen annuum, nanum, spica simplici densa intra bracteam spathiformem semi-inclusa.

Species unica, olim a Capt. Middleton verisimiliter in Patagonia lecta.

176. **Trichloris,** *Fourn. Gram. Mex.* 142.—Spiculæ 1- rarius 2-floræ v. fide Fournieri interdum plurifloræ, secus rhachin continuam spicarum unilateralium sessiles, 2-seriatim confertæ, rhachilla supra glumas inferiores articulata, ultra florem producta glumifera, floribus hermaphroditis. Glumæ 2 inferiores vacuæ, parvæ, membranaceæ, subhyalinæ, extima sæpius angustissima, acuta, mutica, secunda breviter 1-aristata; florens membranacea, sub-3-nervis, 3-aristata, aristis longis rectis subæqualibus v. lateralibus

multo brevioribus; superiores vacuæ, nunc 2–3 quarum infima florenti subsimilis nisi angustior et superiores minores 1-aristatæ v. muticæ, nunc unica ad aristas 3 v. 6 (glumis 2 contiguis ?) reducta; palea gluma inclusa, hyalina, prope margines 2-carinata. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis anguste oblonga, subteres, gluma inclusa, libera.—Gramina (perennia ?) elatiuscula, foliis planis. Spicæ plures, tenues, in pedunculo sessiles, erectæ, arcte approximatæ, subverticillatæ, paniculam formantes densam, oblongam, aristis longis numerosissimis molliter echinatam, spiculis tenuibus erectis.

Species nobis notæ 4 v. 5, quarum 2 regionis Mexicano-Texanæ, 2 v. 3 Americæ australis extratropicæ incolæ. Genus jam diu a J. Gayio et a Munroio ad species australes agnotam et nominibus in herbariis signatum, nec tamen foris editum. *Benth. in Journ. Linn. Soc.* xix. 102.

177. **Gymnopogon,** *Beauv. Agrostogr.* 41, *t.* 9, *f.* 3. (*Anthopogon*, *Nutt. Gen. N. Am. Pl.* i. 81.)—Spiculæ 1-floræ, secus rhachin continuam tenuem spicarum unilateralium dissitæ, subsessiles, rhachilla supra glumas inferiores articulata, ultra florem producta glumifera, flore hermaphrodito. Glumæ 2 inferiores vacuæ, sub articulatione persistentes v. sigillatim deciduæ, plus minus inæquales, angustæ, 1–3-nerves, acutæ v. secunda breviter aristata; florens paullo latior, 3-nervis, florem paleamque involvens, apice breviter 2-fida, costa in aristam rectam producta; terminalis vacua longe aristiformis basi sæpe vix dilatata; palea gluma inclusa, angusta, 2-carinata. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis linearis, subteres, gluma rigidula involuta, libera.—Gramina elatiuscula, foliis planis brevibus rigidulisque v. elongatis flaccidis. Spicæ tenues, interdum filiformes, secus pedunculum plures, dissitæ sparsæ v. inferiores subverticillatæ, primum erectæ, demum sæpe divaricato-patentes.

Species 5 v. 6, quarum una Zeylanica cæteræ Americanæ boreales v. australes. *Kunth, Enum. Pl.* i. 284; *Rev. Gram. t.* 139. *Dœll in Mart. Fl. Bras.* ii. iii. 79, excl. *G. foliosa* et *G. pullulante* ad *Chloridem* restituendis.

Genus speciebus *Chloridis C. aciculari*, Br., affinibus prope accedit, imprimis inflorescentia differt. Dichætaria, *Nees in Steud. Syn. Pl. Glum.* 145, est fide Munroi *G. rigidus*, Thw., species Zeylanica ab Americanis paullulum diversa foliis longis flaccidis, spicis in pedunculo paucis distantibus, spiculis majoribus longius aristatis, structura cæterum omnino eadem.

178. ? **Monochæte,** *Dœll in Mart. Fl. Bras.* ii. iii. 78, *t.* 22.—Spiculæ 1-floræ, secus rhachin continuam tenuem spicarum subunilateralium sessiles, approximatæ, rhachilla supra glumas inferiores articulata, ultra florem non producta, flore hermaphrodito. Glumæ 2 inferiores vacuæ, sub articulatione persistentes, angustæ, carinatæ, setaceo-acuminatæ; tertia florens paullo latior, carinata, subteres, in aristam tenuem producta; palea gluma inclusa, angusta, 2-carinata. Stamina 3. Styli distincti, stigmatibus villosulis. Caryopsis linearis, glabra, subteres, antice canaliculata, gluma involuta, libera.—Gramen herbaceum, foliis angustis convolutis. Spicæ plures ad apicem pedunculi, tenues, erectæ, inter se parum distantes. (*Char. ex Dœll.*)

Species 1, Brasiliana, a nobis non visa. Genus ex Dœllio a *Gymnopogone*, cui adscripsit Martius, differt spiculæ rhachilla ultra florem non producta. Nees tamen, Agrostogr. Bras. 430, continuationem descripsit setiformem absque gluma.

179. **Schedonnardus,** *Steud. Syn. Pl. Glum.* i. 146.—Spiculæ 1-floræ, acuminatæ, in rhachi spicarum unilateralium sessiles et alternatim dissitæ, rhachilla brevissima supra glumas inferiores articulata, ultra florem non producta, flore hermaphrodito. Glumæ 2 inferiores vacuæ parum inæquales, infra articulationem persistentes, angustæ, membranaceæ, acuminatæ; florens longior, membranacea, demum rigidula, mucronulata, paleam angustam breviorem floremque amplectens. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis linearis, gluma paleaque rigidule membranaceis inclusa, libera.—Gramen annuum, multicaule, basi ramosum, foliis angustis fere subulatis. Spicæ v. paniculæ simplicis ramuli plures, indivisi, tenuissimi, secus pedunculum elongatum gracilem dissiti, patentes, uno pedunculum terminante. Spiculæ secus rhachin tenuem longe dissitæ, arcte appressæ, exaristatæ.

Species 1, Americæ borealis incola. *Nutt. Gen. N. Amer. Pl.* i. 81 (*Lepturus paniculatus*). *Benth. in Hook. Ic. Pl. t.* 1360. Genus nobis *Gymnopogoni* potius quam *Lepturo* affine videtur. Ex charactere Steudeliano gluma florens exterioribus brevior, nos tamen semper in speciminibus ipsis Drummondianis longiorem vidimus. *Lepturus Bolanderi*, Thurb. in S. Wats. Bot. Calif. ii. 322, e California, a nobis non visa; auctoris descriptio nec cum *Schedonnardo* nec cum *Lepturo* bene convenit.

180. **Craspedorhachis**, *Benth. in Hook. Ic. Pl. t.* 1377.—Spiculæ 1-floræ, secus rhachin flexuosam marginatam spicarum unilateralium subsessiles, rhachilla supra glumas inferiores subarticulata brevissima, ultra florem non producta, flore hermaphrodito. Glumæ 2 inferiores vacuæ, persistentes, carinatæ, acutæ, 1-nerves, rigidule membranaceæ, subæquales, infima rhachi contigua, secunda per anthesin patens; tertia florens pluries brevior, lata, subtruncata, tenuissime hyalina, ciliata; palea gluma vix brevior, angustior, tenuissime hyalina, apice breviter 2-fida v. 2-dentata. Stamina 3. Styli sub anthesi breves, distincti, stigmatibus plumosis. Caryopsis . . .—Gramen elatiusculum, foliis paucis angustissimis a basi subplana convoluto-subulatis. Spicæ secus pedunculum sparsæ, rigidulæ, erectiusculæ v. subpatentes, paniculam angustam simplicem formantes; rhachis spicarum utrinque membrana angusta marginata, spiculis secus costam alternatim affixis appressis.

Species 1 Africæ tropicæ austro-orientalis incola.

Genus evidenter *Schedonnardo* affine, differt imprimis gluma florente paleaque minimis hyalinis lodiculas simulantibus.

181. **Bouteloua**, *Lag. Varied. Cienc. y Litter.* 1805, 141, *ex eod. Elench. Hort. Matr. Gen. et Sp. Nov.* 5. (Eutriana, *Trin. Fund. Agrost.* 161. Actinochloa, *Willd. in Rœm. et Schult. Syst.* ii. 22, 417.)—Spiculæ 1–2-floræ, secus rhachin continuam spicarum unilateralium sessiles, 2-seriatim confertæ, rarissime solitariæ, rhachilla continua v. supra glumas inferiores articulata, ultra flores producta glumifera v. stipitiformi, flore inferiore v. unico hermaphrodito, superiore dum adsit masculo v. sterili. Glumæ 2 inferiores vacuæ, angustæ, acutæ, carinatæ, æquales v. inæquales; florens sæpius tenuior, latior, florem involvens, apice 3-dentata v. 3–5-fida, lobis 1 v. 3 mucroniformibus v. aristiformibus, intermediis dum adsint brevioribus planis; glumæ vacuæ 1–3 ad apicem rhachillæ, varie 3–5-aristatæ, v. usque ad basin in aristas 3 divisæ; palea gluma florente inclusa, angusta, hyalina, integra v. 2-cuspidata. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis oblonga, gluma inclusa, libera.—Gramina annua v. perennia, humilia v. elatiuscula, foliis angustis planis v. convoluto-teretibus. Spicæ secus pedunculum elongatum terminalem simplicem sæpius plures, sessiles, secundæ, dissitæ, remotæ, rarius ad unam terminalem reductæ, primum erectæ, demum sæpe pendulæ. Spiculæ unilaterales, secus rhachin tenuem v. anguste complanatam alternæ, numerosæ paucæ v. rarissime solitariæ, rhachi ultra spiculam superiorem sæpissime plus minus in cuspidem continuata.

Species ad 25, Americæ tam borealis quam australis imprimis occidentalis incolæ. *Benth. in Journ. Linn. Soc.* xix. 104.

Glumæ tam florentes quam vacuæ terminales variant sæpe de specie in speciem quoad aristas v. lobos, et haud raro in eadem spica polymorphæ, et species plures characteribus certis ægre definiendæ. Sectiones tres sequentes potius inflorescentia quam spicularum structura separantur:—

1. *Chondrosium.* Spicæ in pedunculo sæpius paucæ, interdum solitariæ, rarius numerosiores, longiusculæ, plus minus falcatæ, spiculis numerosis (rarissime infra 12) pectinatim confertis, gluma vacua terminali sæpius 3-aristata. Species ad 15. *Jacq. Ecl. Gram. t.* 12 (*Atheropogon*). *Torr. in Williams. Exped. Bot. t.* 10. Chondrosium, *Desv. in Nouv. Bull. Soc. Philom.* ii. 188, *et in Journ. Bot.* i. (1813), 68. *Beauv. Agrostogr.* 41, *t.* 9, *f.* 7. *H. B. et K. Nov. Gen. et Sp. t.* 56 *ad* 59. *Fourn. Gram. Mex.* 136. *Torr. in Emory, Notes, t.* 12.

2. *Atheropogon.* Spicæ in pedunculo sæpius plures nunc numerosæ, breves sæpe fere fasciculiformes, rectæ, spiculis paucis rarius ultra 12, secundis at vix pectinatis, gluma vacua terminali in eodem specimine sæpe variabili nunc 3-aristata lobis intermediis 2 v. 0, nunc integra lineari v. in

stipite tenui obsoleta. Species ad 12. *Beauv. Agrostogr.* 40, *t.* 9, *f.* 6. ATHEROPOGON, *Muehl. in Willd. Spec. Pl.* iv. 937. *Jacq. Ecl. Gram. t.* 7. *Fourn. Gram. Mex.* 138. DINEBRA, *DC. Cat. Hort. Monsp.* 104, *pro parte, non Jacq. Beauv. Agrostogr. t.* 16, *f.* 1, 3. *H. B. et K. Nov. Gen. et Sp. t.* 51 *ad* 54. HETEROSTEGA (Heterosteca), *Desv. in Nouv. Bull. Soc. Philom.* ii. 188, *et in Journ. Bot.* i. (1813) 68.

3. *Triathera.* Spicæ in pedunculo plures, breves, tenues, sæpe spiculas singulas simulantes, spiculis 1–3 tenuibus appressis, gluma vacua terminali ad aristas 3 reducta. ARISTIDIUM, *Endl. Gen.* 94, *sect. pro genere admissa, Lindl. Veg. Kingd.* 116. Huc *B. aristidoides* (*Dinebra aristidoides*, H. B. et K. Nov. Gen. et Sp. t. 695), spiculis in quaque spica 2–4, et *B. triathera*, Benth. (TRIATHERA, *Desv. in Nouv. Bull. Soc. Philom.* ii. 188, *et in Journ. Bot.* i. (1813) 67, *Beauv. Agrostogr.* 39, *t.* 9, *f.* 4. TRIÆNA, *H. B. et K. Nov. Gen. et Sp.* i. 178, *t.* 61). In hac specie spicæ variant in eadem panicula 1-, 2- v. 3-spiculatæ, et spiculæ quodammodo polymorphæ ; in spicis 3-spiculatis glumam infimam spiculæ infimæ aristiformem vidimus, qualem in icone Kunthiana, t. 61, f. 1 delineatam, et pro arista ad basin glumæ describitur, in spicula terminali gluma infima secundæ subsimilis, spicula intermedia nunc infimæ nunc terminali similis est ; gluma florens variat integra 3-dentata v. 3-aristata.

4. *Polyodon.* Spicæ in pedunculo paucæ, breves, fere spiculiformes, spiculis paucis, gluma florente 3-aristata, terminalibus vacuis 2–3 confertis 3–5-aristatis glumam unicam multiaristatam simulantibus. POLYODON, *H. B. et K. Nov. Gen. et Sp.* i. 174, *t.* 55. TRIPLATHERA, *Endl. Gen.* 94, *sect. pro genere admissa in Lindl. Veg. Kingd.* 116. Huc pertinent *B. disticha*, Benth. (*Polyodon distichum*, H. B. et K. l. c.), a qua *Atheropogon affinis*, Fourn. (non *Eutriana affinis*, Hook. f.), vix distincta videtur, spiculis cum aristis infra semipollicaribus, et *B. multiseta*, Benth. (*Eutriana multiseta*, Nees, Kunth, Rev. Gram. t. 138, Trin. Spec. Gram. t. 295, Doell in Mart. Fl. Bras. ii. iii. t. 21), spiculis cum aristis ultrapollicaribus et habitu fere *Boissieriæ*, cui ex descriptione referendum videtur CORETHRUM, *Vahl in Skrivt. Naturk. Selsk. Kiobenh.* vi. 85, cujus specimen accepit Vahl a Thouinio cum plantis Syriacis, sed verisimiliter in America australi extratropica lectum.

182. **Melanocenchris,** *Nees in Proc. Linn. Soc.* i. 94. (**Ptiloneilema,** *Steud. Syn. Pl. Glum.* i. 201.)—Spiculæ 1-floræ, secus rhachin continuam spicarum unilateralium sessiles, paucæ, 2-seriatim confertæ, rhachilla continua v. supra glumas inferiores articulata, ultra florem producta glumifera, flore hermaphrodito. Glumæ 2 inferiores vacuæ, lineares, pilis longis plumoso-ciliatæ, in aristam rectam productæ, parum inæquales v. in spiculis superioribus una interdum deficiens ; florens latior, glabra v. vix dorso ciliata, membranacea, 3-fida, lobis aristiformibus, lateralibus intermedio brevioribus basique parum dilatatis ; superiores plures vacuæ, confertæ, quarum infima florenti subsimilis, cæteræ gradatim minores ; palea lata, membranacea, 2-carinata, gluma vix brevior. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis oblonga, a dorso leviter compressa, gluma paleaque inclusa, libera.—Gramina annua, humilia, multicaulia v. decumbentia, foliis brevibus angustis planis v. siccitate convolutis. Spicæ parvæ, fasciculiformes, subturbinatæ, secus pedunculum terminalem dissitæ, secundæ, articulatim deciduæ, iis *Ægopogonis* primo aspectu similes ; spiculæ tamen ut in *Bouteloua* omnes sessiles secundæque, sæpius 4–6-fertiles, 1–3 superiores angustiores sterilesque.

Species 3, inter se valde affines, Indiæ orientalis Arabiæ et Africæ tropicæ orientalis incolæ. *Steud. Syn. Pl. Glum.* i. 218. *Jaub. et Spach, Ill. Pl. Or. t.* 325, 326.

183. **Tripogon,** *Roth, Nov. Pl. Spec.* 79. (Plagiolytrum, *Nees in Proc. Linn. Soc.* i. 95.)—Spiculæ ∞-floræ, secus rhachin continuam spicæ longæ unilateralis sessiles, 2-seriatim subdissitæ, appressæ, rhachilla supra glumas inferiores sæpeque inter flores articulata, floribus hermaphroditis v. summo masculo. Glumæ 2 vacuæ, sub articulatione persistentes, hyalinæ, carinatæ, acutæ, plus minus inæquales ; florentes paullo longiores, hyalinæ, 3-nerves, 3-aristatæ v. inter aristas integræ v. in lobos breves hyalinos productæ, aristis tenuibus rectis lateralibus intermedia brevioribus rarius ad mucrones brevissimos reductis ; glumæ superiores sæpe 1–2, minores, florem ♂ foventes v. vacuæ ; palea angusta, hyalina, 2-carinata, 2-dentata v. 2-mucronata. Stamina 3. Styli breves, distincti, stigmatibus plumosis. Caryopsis anguste oblonga, teres v. subtriquetra, glabra, gluma paleaque

inclusa, libera.—Gramina annua v. perennia, cæspitosa, humilia v. elatiuscula, foliis planis v. convolutis interdum setaceis. Spica terminalis, unica, elongata, tenuis, sæpe curvula, spiculis alternis secundis haud imbricatis, floribus in spicula subdissitis.

Species ad 8, Indiæ orientalis et Africæ tropicæ incolæ. *Steud. Syn. Pl. Glum.* i. 301. *Hook. f. in Journ. Linn. Soc.* vii. 230. *Jaub. et Spach, Ill. Pl. Or. t.* 332, 333.

Genus *Enteropogoni* affine, differt spicis spiculisque laxis, his multifloris glumis florentibus 3-aristatis. Hac nota *Triraphi* convenit sed inflorescentia *Chloridearum*.

184. **Lepidopironia**, *A. Rich. Fl. Abyss.* ii. 442, *t.* 101.—Spiculæ ∞-floræ, secus rhachin continuam spicæ simplicis unilateralis sesssiles, 2-seriatæ, dissitæ, patentes, rhachilla . . ., floribus inferioribus hermaphroditis superioribus sterilibus. Glumæ inferiores vacuæ 2, carinatæ, acutæ, parum inæquales; florentes imbricatæ, subovatæ, acuminatæ, dorso dense pilosæ, sub apice aristatæ; palea brevior, plana, ovata, 2-carinata. Stamina 3. Styli . . . Caryopsis ovoidea, sublenticularis.—Gramen annuum, erectum, foliis planis. Spica solitaria, terminalis, laxiuscula. (*Char. ex A. Rich.*)

Species 1, Abyssinica, a nobis non visa. Planta ex auctoris descr. *Tripogoni abyssinico* affinis videtur, differt tamen generice, si rite observata, glumis florentibus brevibus latis dorso villosissimis, arista dorsali nec inter lobos terminali. Specimina tamen ab auctore descripta quoad flores imperfecta erant.

185. **Tetrapogon**, *Desf. Fl. Atl.* ii. 388, *t.* 255.—Spiculæ 2–3-floræ, secus rhachin continuam spicarum unilateralium sessiles, 2-seriatim confertæ, rhachilla supra glumas inferiores articulata, ultra flores producta glumifera, floribus hermaphroditis. Glumæ 2 inferiores vacuæ, sub articulatione persistentes, hyalinæ, carinatæ, inæquales, muticæ v. secunda in aristam producta; florentes latæ, concavæ v. complicatæ, dorso longe pilosæ, apice truncatæ v. emarginato-sub-2-fidæ, arista centrali longiuscula recta; superiores plures vacuæ, latæ, concavæ v. truncatæ, quarum extima sæpius aristata, cæteræ gradatim minores, arista reducta v. evanida; palea latiuscula, juxta margines 2-carinata, carinis breviter ciliatis. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis oblonga, gluma inclusa, libera.—Gramina cæspitosa, sæpe stolonifera, foliis planis. Spicæ ad apicem pedunculi solitariæ geminæ v. rarius ternæ, sessiles, erectæ, pilis sericeis glumarum *Eliomurum* referentes; spiculæ confertæ, secundæ v. fere distichæ.

Species 4, Africæ borealis, Abyssiniæ et Asiæ occidentalis incolæ. *Jaub. et Spach, Ill. Pl. Or. t.* 327, 328 (*Chloris*).

186. **Astrebla**, *F. Muell. in Benth. Fl. Austral.* vii. 602.—Spiculæ 3–4-floræ, secus rhachin continuam spicarum unilateralium sessiles, 2-seriatim alternæ, rhachilla supra glumas inferiores articulata, villosa, ultra flores producta glumifera, floribus hermaphroditis. Glumæ 2 inferiores vacuæ, sub articulatione persistentes, acutæ, ∞-nerves, exaristatæ, parum v. valde inæquales, extima interdum angustissima v. rarius omnino evanida; florentes sericeo-pilosæ, multinerviæ, 3-lobæ, lobo medio a basi lata in aristam rectam v. curvam nec tortam producto, lateralibus erectis rigidis 2–3-nervibus exaristatis; superiores 1–2, minores, vacuæ v. floris rudimentum foventes; palea 2-carinata, carinis ciliolatis. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis late ovata, compressa, glabra, gluma paleaque laxa inclusa, libera.—Gramina (perennia ?) erecta, glauca, foliis planis. Spicæ ad apicem pedunculi solitariæ v. geminæ, erectæ, spiculis crassiusculis majusculis.

Species 2 v. 3, Australianæ. Genus olim *Danthoniæ* adscriptum, a qua differt habitu, inflorescentia et arista nequaquam torta. Glumæ multinerves *Pappophoreas* referunt, sed inflorescentia omnino *Chloridearum*.

187. **Wangenheimia**, *Mœnch, Meth.* 200.—Spiculæ ∞-floræ, in rhachi continua spicæ unilateralis sessiles, 2-seriatim confertæ, rhachilla continua, floribus hermaphroditis v. subdioicis v. summo imperfecto. Glumæ 2 inferiores vacuæ, angustæ, rigidulæ, spiculam

æquantes v. subsuperantes, parum inæquales, extima 1-nervi, secunda parum latiore sub-3-nervi, acuta v. mucronulata; florentes paullo breviores latioresque, cæterum similes v. evidentius mucronatæ, summa sæpius vacua; palea gluma paullo brevior, rigidula, 2-carinata. Stamina 3. Styli breves, distincti, stigmatibus plumosis. Caryopsis ovali-oblonga, antice leviter sulcata, gluma paleaque arcte inclusa, libera.—Gramen annuum, humile, multicaule, foliis angustissimis convolutis. Spica terminalis, erecta, sæpe leviter falcata, quam in *Ctenopsi* crassior, pariter tamen eleganter pectinata, spiculis confertim secundis.

Species 1, Hispaniæ australis et Africæ borealis occidentalis incola. *Coss. et Dur. Fl. Alg. Glum.* 153. *Cav. Ic. t.* 91 (*Cynosurus*). *Desf. Fl. Atl. t.* 19 (*Cynosurus*).

188. **Ctenopsis,** *De Notar. Ind. Sem. Hort. Gen.* 1847, *ex Ann. Sc. Nat. ser.* 3, ix. 324. —Spiculæ 2–5-floræ, in rhachi continua spicæ unilateralis sessiles v. callo brevissimo impositæ, 2-seriatim confertæ, rhachilla sub floribus tardius articulata, ultra flores stipitiformis, floribus hermaphroditis v. summo imperfecto. Glumæ 1–2 inferiores vacuæ, persistentes, extima dum adsit minima squamiformis, secunda angusta, rigida, dorso rotundata, subenervis, acutissima, spiculam æquans; florentes parum breviores, carinatæ, rigidulæ, obscure 3-nerves, acutissimæ v. brevissime mucronato-aristatæ, summa interdum vacua; palea paullo brevior, 2-carinata. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis anguste oblonga fere linearis, subteres, antice sulcata, gluma paleaque inclusa, libera.—Gramen annuum, humile, tenellum, multicaule, foliis angustissimis plerisque filiformibus. Spica terminalis, erecta, sæpe leviter falcata, in pedunculo unica v. rarius addita altera inferiore minore. Spiculæ more *Chlorideарum* eleganter pectinatim secundæ, 1–2 ad apicem spicæ et interdum etiam ad basin spicæ parvæ ananthæ.

Species 1, Africæ borealis incola. *Steud. Syn. Pl. Glum.* 210. *Coss. et Dur. Expl. Alg. t.* 41 *bis v.* 42 (*Festuca.*) Icon Delilei ab auctoribus citata nunquam edita fuit.

189. **Tetrachne,** *Nees, Fl. Afr. Austr. Gram.* 375.—Spiculæ pauciflosæ, complanatæ, secus rhachin continuam spicæ unilateralis sessiles, 2-seriatim confertæ, rhachilla supra glumas inferiores articulata, floribus hermaphroditis. Glumæ carinatæ, acutæ, exaristatæ, rigidulæ, præter carinam enerves v. majores utrinque apice 1–2-nerves, 4 inferiores vacuæ a superiore gradatim minores, sequentes 2–4 florentes, summa sæpius minor vacua v. ad stipitem reducta; palea cum gluma æquilonga, complicato-2-carinata. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis elliptico-oblonga, compressiuscula, gluma laxe inclusa, seorsum decidua.—Gramen perenne, erectum, foliis angustissimis siccitate convoluto-teretibus. Spicæ secus pedunculum elongatum plures, dissitæ, sessiles, terminalis sæpe falcata, spiculis confertissime 2-seriatis imbricatis.

Species 1, Austro-Africana. Genus cum binis præcedentibus sæpius *Festuceis* adscriptum, sed inflorescentia omnino *Chloridearum* quibus a Munroio translatum.

190. **Dinebra,** *Jacq. Fragm.* 77, *t.* 121.—Spiculæ 2–3-floræ, secus rhachin continuam spicæ unilateralis sessiles, 2-seriatim confertæ, rhachilla supra glumas inferiores subarticulata, inter flores tenui, ultra flores in stipitem interdum glumiferum producta, floribus hermaphroditis. Glumæ 2 inferiores vacuæ, persistentes, angustæ, carinatæ, acuminato-subaristatæ, spiculam superantes; florentes multo breviores, hyalinæ, obtusiusculæ, 1-nerves, muticæ; palea hyalina, gluma inclusa. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis ovoidea, subtriquetra, lævis, gluma paleaque tenuibus inclusa, libera.—Gramen (annuum?) multicaule, basi decumbens, foliis planis. Spicæ secus pedunculum elongatum more *Boutelouæ* numerosæ, breves, primum erectæ, demum reflexæ.

Species 1, Africæ borealis et tropicæ et Indiæ orientalis incola. *Beauv. Agrostogr. t.* 16, *f.* 2. *Kunth, Enum. Pl.* i. 271 (*Leptochloa*). *Delile, Fl. Ēg. t.* 11. *Panz. in Denkschr. Acad. Münch.* 1813, *t.* 12.

Genus *Boutelouæ* quacum junxit De Candolle affinius quam *Leptochloæ*. Inflorescentia omnino prioris a qua differt floribus in spicula 2 fertilibus et glumis vacuis spiculam æquantibus v. superantibus.

191. **Eleusine**, *Gærtn. Fruct.* i. 7, *t.* 1.—Spiculæ ∞-floræ, secus rhachin continuam spicæ unilateralis alternæ, sessiles, rhachilla continua v. sub floribus fertilibus articulata, floribus hermaphroditis v. summo masculo. Glumæ imbricato-patentes, complicatæ, carinatæ, tenues, rigidulæ, 2 exteriores vacuæ cæteris paullo breviores inæqualesque, obtusæ acutæ v. mucronatæ; florentes sæpius obtusiores v. mucrone breviore, terminalis sæpius vacua v. floris rudimentum fovens; palea gluma vix brevior, complicato-2-carinata. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis gluma paleaque laxe inclusa, pericarpio tenuissime membranaceo nunc circa semen laxo persistente, nunc demum rupto exsiccato v. omnino evanido. Semen crassum, varie rugosum v. a dorso compressiusculum. —Gramina annua cæspitosa, v. perennia reptantiaque, foliis planis. Spicæ ad apicem pedunculi plures, digitatæ, additis interdum secus pedunculum inferioribus 1–2 dissitis v. pluribus sparsis v. subverticillatis. Spiculæ secundæ, arcte confertæ, sæpius numerosæ.

Species editæ plures, vix 7 bene distinguendæ, regionum tropicarum et subtropicarum orbis veteris incolæ, quarum 2 etiam per Americam calidiorem late dispersæ, sæpe tamen inquilinæ. *Schreb. Beschr. Gräs. t.* 35 (*Cynosurus*). *Beauv. Agrostogr.* 72, *t.* 15, *f.* 3. *Kunth, Enum. Pl.* i. 261 (*Dactyloctenium*) *et* 272. *Trin. Spec. Gram. t.* 70 *ad* 72. *Dœll in Mart. Fl. Bras.* ii. iii. *t.* 24. *Courb. in Ann. Sc. Nat. ser.* 4, xviii. 133. *Benth. in Journ. Linn. Soc.* xix. 106.

Genus ab auctoribus in tria dividitur, quoad species typicas sat distincta, sed speciebus v. varietatibus intermediis connexa. In *E. coracana*, Gærtn., spicæ digitatæ, glumæ omnes obtusæ, pericarpium laxum circa semen persistens; in *E. indica*, Gærtn., inflorescentia eadem v. adduntur spicæ inferiores 1–2, glumæ variant obtusæ v. breviter mucronatæ, pericarpium sæpius ut in *E. coracana* laxum. In *E. ægyptiaca*, Pers., quæ Dactyloctenium, *Willd. Enum. Hort. Berol.* 1029; *Beauv. Agrostogr.* 72, *t.* 15, *f.* 2; *Trin. Spec. Gram. t.* 69; *Dœll in Mart. Fl. Bras.* ii. iii. *t.* 25, spicæ digitatæ, breves, densissimæ, glumæ bene mucronatæ, pericarpium evanescens, semine maturo omnino nudo apparente; in specie ei affini, *E. brevifolia*, Wall. Cat. Herb. Ind. n. 3815, non Hochst., et in *E. glaucophylla*, Munro (*Dactyloctenio*, Courb.), spicæ digitatæ, glumæ bene mucronatæ *Dactyloctenii* sed pericarpii vestigia plus minus perfecta circa semen persistunt. In *E. verticillata*, Roxb., quæ Acrachne, *W. et Arn. in Lindl. Introd. Nat. Syst. ed.* 2, 381 (nomen tantum), spicæ numerosæ, secus pedunculum sparsæ v. verticillatæ, summæ digitatæ, spiculæ tenues, floribus quam in cæteris numerosioribus, glumæ mucronatæ sæpeque ad latera mucronis denticulatæ, semen maturum ut in *Dactyloctenio* nudum apparet. *Arthrochlæna*, Boiv. in Herb. J. Gay, est *Eleusinis* species insignis Madagascariensis, spiculis numerosis majusculis, floribus sæpe ultra 20, glumis rigide coriaceis, more *Eragrostis* distiche imbricatis.

192. **Leptochloa**, *Beauv. Agrostogr.* 71, *t.* 15, *f.* 1. (Oxydenia, *Nutt. Gen. N. Amer. Pl.* i. 76.)—Spiculæ 2-∞-floræ, rarius 1-floræ, complanatæ, secus rhachin continuam spicarum unilateralium alternæ v. subdistichæ, sessiles, rhachilla sub floribus sæpius articulata et ultra flores haud raro in stipitem parvum producta, floribus hermaphroditis. Glumæ 2 inferiores vacuæ carinatæ, obtusæ acutæ v. brevissime aristatæ, parum inæquales, spicula breviores, v. in speciebus 1-floris florentem superantibus; florentes vacuis similes v. obtusiores v. interdum arista tenui instructæ; palea gluma subinclusa, prominenter 2-nervis. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis gluma paleaque arcte inclusa, libera.—Gramina sæpius elatiuscula, foliis planis v. siccitate convolutis. Spicæ numerosæ, secus pedunculum elongatum sparsæ, patentes, paniculam longam simplicem formantes, rarius ad apicem pedunculi approximatæ, tenues, rhachi sæpe filiformi, spiculis parvis approximatis v. rarius dissitis.

Species ad 12, per regiones calidiores utriusque orbis late dispersæ, usque ad Americam borealem et Australiam extratropicam extensæ. *Kunth, Enum. Pl.* i. 269. *Jacq. Ecl. Gram. t.* 4 (*Eleusine*). *Jacq. Ic. Rar. t.* 22 (*Cynosurus*). *Dœll in Mart. Fl. Bras.* ii. iii. 88, *t.* 26. *Benth. Fl. Austral.* vii. 616, *et in Journ. Linn. Soc.* xix. 107. *Thurb. in S. Wats. Bot. Calif.* ii. 292.

Genus *Eleusini* præ aliis affine, nunc tamen *Cynodonti* nunc *Diplachni* v. *Poæ* accedit, in sectiones 2 dividitur:—

1. *Pseudocynodon.* Spiculæ 1-floræ, rarissime 2-floræ, glumis vacuis florente sæpius longioribus. Huc pertinent *L. uniflora*, Hochst. (*Cynodon gracilis*, Nees), *L. Neesii*, nob. (*Cynodon Neesii*, Thw.) et *L. polystachya*, Benth. (*Cynodon polystachyus*, Br.), duæ ultimæ forte unius varietates.

2. *Euleptochloa.* Spiculæ 2–∞-floræ, glumis vacuis spicula brevioribus. Huc referendæ icones supra citatæ.

RABDOCHLOA, *Beauv. Agrostogr.* 84, *t.* 17, *f.* 3, includit species *Leptochloæ*, quibus glumæ breviter aristatæ.

L. dubia, Nees (*Chloris dubia*, H. B. et K.), est nobis *Diplachnis* species. Planta Lorentziana a Grisebachio sub nomine *Leptochloæ fascicularis*, A. Gr., distributa, est *Panicum sanguinale* var.; *L.* (*Diplachne*) *fascicularis*, A. Gr., est vera *Diplachnis* species, ad Americam borealem limitata.

193. **Buchloë,** *Engelm. in Trans. Acad. Sc. St. Louis*, 1859, 432, *t.* 12, 14. (Sesleria, *Nutt. Gen. N. Am. Pl.* i. 64, *non Linn.* Bulbilis, *Rafin. in Journ. Phys.* lxxxix. 262. Calanthera, *Nutt.* (*nec Kunth*) *MS.*; *Hook. Kew Journ.* viii. 18.)—Spiculæ dioicæ, valde dissimiles, ♂ 2–3-floræ, secus rhachin continuam spicæ brevis complanatæ unilateralis sessiles, 2-seriatim confertæ, rhachilla continua. Glumæ 2 inferiores vacuæ membranaceæ, muticæ, 1-nerves, valde inæquales; florentes longiores, latiores, 3-nerves; palea gluma paullo brevior, 2-nervis. Stamina 3. Pistilli rudimentum 0. Spiculæ ♀ 1-floræ, in spica unilaterali in capitulum cenchroideum contracta sessiles, glumis majoribus induratis basi connatis involucrum simulantibus. Gluma infima, quoad spicam interior, parva, membranacea (interdum deficiens?) v. in infima spicæ spicula secundæ subsimilis; secunda vacua, maxima, dura, basi concava, apice 3-loba, lobis angustis medio lateralibus longiore; florens angusta, fere hyalina et rigidula, apice breviter 2-fida v. subintegra, paleam latam convolutam 2-nervem floremque involvens. Staminodia 0. Styli distincti, longi, stigmatibus elongatis breviter plumosis. Caryopsis ovata, a dorso compressiuscula, antice interdum concava, glumis inclusa, libera.—Gramen perenne, reptans v. stoloniferum, ramis foliatis breviter adscendentibus, foliis angustis planis. Spicæ ♂ ad apicem pedunculi 2–3, breviter pedicellatæ, confertæ, secundæ, ♀ sæpius 2, vix e vaginis foliorum superiorum exsertæ.

Species 1, Americæ borealis præsertim regionis Mexicano-Texanæ incola. *Torr. Bot. Emory Exped. t.* 10 (*Sesleria*). *Fourn. in Bull. Soc. Bot. Belg.* xv. 471.

194. ? **Jouvea,** *Fourn. in Bull. Soc. Bot. Belg.* xv. 475.—Spiculæ unisexuales, ♂ ignotæ. Spiculæ ♀ 1-floræ, in spica cylindracea rhachi immersæ et in dimidia parte inferiore adnatæ. Glumæ 3, exterior cartilaginea et secunda interior vacuæ, rhachi ad medium adnatæ; florens minor angusta; palea angusta. Lodiculæ triangulares. Stylus elongatus, stigmatibus exsertis. Caryopsis . . .—Gramen littoreum, junciforme, 1–1½-pedale, foliis brevibus acutis pungentibus. Spicæ fœmineæ 1–2 terminales, spiculis in quaque spica 1–3 alternis immersis. (*Char. ex Fourn.*).

Species 1, Mexicana, a nobis non visa. Genus ex Fourniero *Buchloi* affine.

195. **Opizia,** *Presl, Rel. Hænk.* i. 293, *t.* 41, *f.* 1 *ad* 11.—Spiculæ unisexuales, monoicæ v. sæpius dioicæ, 1-floræ, ♂ in spicas graciles alternas dispositæ. Glumæ integræ, 2 inferiores vacuæ, infima dimidio minor, secunda spiculam non æquans, tertia florens obtusa, 1-nervis; palea 2-nervis. Lodiculæ elongatæ, obtusæ. Spiculæ ♀ secus rhachin elongatam spicæ unicæ unilateralis discretæ. Gluma infima vacua brevis, obtusa, pilosa, cum lateribus secundæ adnexa, secunda vacua, coriacea, involucriformis, longe 3-aristata, involuta, lateribus antice coadunatis; tertia florens ampla, compressa, superne marginata, apice 2-loba, superiores 2–3 vacuæ longe aristatæ; palea gluma minor, obtusa, 2-carinata, caryopsin subcordiformem compressam stylo persistente mucronatam involvens. Lodiculæ longe lanceolatæ.—Gramen late repens, foliis (ex Presl) brevibus rigidulis planis. (*Char. ex Fourn.*)

Species 1, Mexicana, a nobis non visa. *Fourn. Gram. Mex.* 134. Genus fide Fournieri quoad plantam ♂ a *Buchloë* vix distinguendum, planta ♀ valde diversa; character Preslii non in omnibus cum Fournieriano convenit.

TRIBUS XI. FESTUCEÆ.

196. **Pommereulla,** *Linn. f. Gen. Nov. Gram.* 33, *in Amœn. Acad.* x.—Spiculæ 2-5-floræ, turbinatæ, in spica densa subsessiles, rhachilla supra glumas 2 inferiores articulata breviterque producta, inter cæteras brevissima, continua, floribus hermaphroditis. Glumæ 2 inferiores vacuæ, sub articulatione persistentes, fere hyalinæ, carinatæ, spicula paullo breviores, extima 1-nervis, secunda longior 3-nervis, 2 sequentes supra articulationem vacuæ, florentibus appressæ easque involucrantes, 4-fidæ, lobis hyalinis lanceolatis acutis v. seta brevi acuminatis; 2-5 florentes involucrantibus similes nisi paullo minores, summa minor vacua v. floris rudimentum fovens; palea intra glumas florentes latiuscula, juxta margines 2-carinata. Stamina 2 v. 3, antheris parvis. Styli distincti, brevissimi, tenuiter penicillato-stigmatosi. Caryopsis intra glumas involucrantes parum induratas subconnatasque inclusa, ovata v. obovato-oblonga, exsulca, libera, pericarpio tenuissimo sæpe laxo.—Gramen pumilum (annuum ?) cæspitosum v. stoloniferum, caulibus brevissimis vaginis foliorum imbricatis obtectis, laminis brevibus planis. Spica brevis, intra vaginam folii supremi semi-inclusa.

Species 1, Indiæ orientalis incola. *Beauv. Agrostogr.* 91, *t.* 18, *f.* 6. *Kunth in Ann. Sc. Nat. ser.* 1, xxiii. *t.* 7; *Enum. Pl.* i. 320, excl. *P. monoica. Roxb. Corom. Pl. t.* 131.

197. **Pappophorum,** *Schreb. Gen. Pl.* 787.—Spiculæ 1-2- rarius 3-floræ, angustæ, rhachilla supra glumas inferiores articulata, floribus 1-2 hermaphroditis, summo sæpe masculo. Glumæ 2 inferiores vacuæ, persistentes, membranaceæ, acutæ, carinatæ, lateribus enervibus v. utrinque 1-3-nervibus; florentes basi latæ subcoriaceæ, obscure ∞-nerves, in lobos plus minus aristiformes 9-23 sæpe inæquales divisæ; superiores 2-3 angustiores, vacuæ v. una alterave paleam v. floris rudimentum foventes; palea gluma florente inclusa, latiuscula, juxta margines 2-carinata, interdum glumæ partem integram excedens. Stamina 3. Styli breves, distincti, stigmatibus plumosis. Caryopsis ovoidea v. oblonga, a dorso leviter compressa, glabra, gluma paleaque inclusa, libera.—Gramina perennia (v. rarius annua ?) cæspitosa, humilia v. elata, foliis angustis siccitate sæpius convolutis. Panicula dense spiciformis, simplex v. rarius ramosa v. subinterrupta, nunc longissima nunc fere in capitulum contracta, aristis numerosis sæpe subsericeo-plumosa.

Species vix 20, per regiones calidiores utriusque orbis late dispersæ. *Kunth, Enum. Pl.* i. 254. *Steud. Syn. Pl. Glum.* i. 199. *Benth. Fl. Austral.* vii. 600. *Fourn. Gram. Mex.* 133.

Genus in sectiones 2 sequentes, facile pro generibus propriis habendas dividitur:—

1. *Polyrhaphis*, Trin. Glumæ inferiores vacuæ, præter carinam enerves; glumæ florentis aristæ 13-23, inæquales, nonnullæ basi membranaceæ v. planæ, aliæ a basi tenues, brevissime barbellatæ v. serrulatæ nec plumosæ. Species paucæ, Americanæ tropicæ, inter se parum distinctæ. *Beauv. Agrostogr.* 82, *t.* 17, *f.* 1. *Vahl, Symb. t.* 51. *Kunth, Rev. Gram. t.* 131, 132. *Dœll in Mart. Fl. Bras.* ii. iii. *t.* 17. POLYRRHAPHIS (pro genere admissa), *Lindl. Veg. Kingd.* 115.

2. *Enneapogon*. Gluma vacua infima 3-5-nervis, secunda 5-7-nervis; glumæ florentis aristæ 9, parum inæquales, alternæ interdum basi latiores v. exteriores paullo breviores, omnes (nisi in *P. scabro*, Kunth) plus minus plumosæ. Species ad 16, pleræque gerontogeæ, 1 v. 2 Americanæ boreales. *Kunth, Rev. Gram. t.* 51. *Jaub. et Spach, Ill. Pl. Or. t.* 323, 324. *Wawra in Maxim. Reise, Bot. t.* 94. ENNEAPOGON, *Desv. Journ. Bot.* i. (1813) 70. *Beauv. Agrostogr.* 81, *t.* 16, *f.* 11.

Sect EURHAPHIS, Trin., pro genere proprio recepta in *Lindl. Veg. Kingd.* 115, excluso tamen synonymo *Corethrum*, Vahl, est *Boissiera*, Hochst. *Corethrum* potius ad *Boutelouam multisetam* referrimus.

198. **Cottea,** *Kunth, Rev. Gram.* i. 84, 281, *t.* 52; *Enum. Pl.* i. 256.—Spiculæ ∞- (2-6-) floræ, laxiuscule paniculatæ, rhachilla sub floribus fertilibus articulata; floribus hermaphroditis v. summo masculo. Glumæ 2 inferiores vacuæ, sub articulatione persistentes, membranaceæ, acutæ v. 3-dentatæ, 7-9-nerves; florentes 9-11-nerves, valde oblique et irregulariter 9-11-lobæ, lobis erectis plerisque aristiformibus, nonnullis (3-5) hyalino

dilatatis mucronatis v. 1–2-aristatis; palea latiuscula, juxta margines 2-carinata, glumæ partem integram subsuperans. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis ovata v. oblonga, a dorso leviter compressa, glabra, gluma paleaque parum rigescentibus inclusa, libera.—Gramen erectum, ramosum, foliis anguste linearibus planis. Panicula laxe oblonga, ramis vix ramulosis, spiculis omnibus pedicellatis erectis.

Species 1, in America calidiore a Brasilia usque ad Mexicum extensa, ad oras siccas maris Pacifici copiose crescens (*Spruce*). Genus vix non *Pappophori* sectio.

199. **Boissiera**, *Hochst. in Steud. Syn. Pl. Glum.* i. 200.—Spiculæ 2–3-floræ, lineares, in panicula brevi densa confertæ, rhachilla sub floribus articulata glabra, floribus hermaphroditis. Glumæ 2 inferiores vacuæ, persistentes, tenues, acutæ, spicula breviores, extima sæpius 3-nervis, secunda major, 5-nervis; florentes circa florem convolutæ, apice hyalinæ lobatæque, nervis 5–9 validis pone lobos in aristas longas rectas productis; glumæ superiores ∞ vacuæ, imbricatæ, 5–9-nerves aristatæque v. summæ depauperatæ; palea gluma florenti inclusa, hyalina, juxta margines 2-carinata. Stamina 3, filamentis abbreviatis, antheris ovatis v. breviter oblongis. Stylus brevissimus, membranaceo-dilatatus, sub-2-fidus, breviter penicillatus. Caryopsis linearis, antice sulcata, gluma inclusa, libera.—Gramen pumilum, annuum, basi ramosum, foliis planis.—Panicula densa, ovoidea, interdum dimidium plantæ efficiens, aristis numerosis longis erectis *Bromum* simulans.

Species 1, Orientalis. *Jaub. et Spach, Ill. Pl. Or. t.* 197.

In floribus e speciminibus variis examinatis stylum semper invenimus qualis in icone citata delineatur, ab omnibus Gramineis nobis notis diversum.

200. **Schmidtia**, *Steud. in J. A. Schmidt, Fl. Cap. Virid. Ins.* 144.—Spiculæ ∞- (4–6-) floræ, paniculatæ, rhachilla inter flores articulata, floribus hermaphroditis v. summo masculo, ultra flores glumam vacuam ferens. Glumæ 2 inferiores vacuæ, persistentes, carinatæ, acutæ, exaristatæ, 5–7-nerves, parum inæquales, spicula demum breviores; florentes 5-nerves, apice 2-seriatim 9-lobæ, lobis 4 interioribus hyalinis oblongis lanceolatisve mucronulatis, 5 exterioribus alternis longioribus aristiformibus rectis; palea lata, juxta margines 2-carinata. Stamina 3, antheris longiusculis. Styli 2, distincti, tenuissime capillacei, stigmatibus plumosis. Caryopsis a dorso leviter compressa, exsulca, glabra, gluma paleaque inclusa, libera.—Gramina (perennia?) multicaulia, adscendentia, pubescentia, foliis planis v. siccitate convolutis. Panicula pedunculata, angusta, laxior tamen quam in *Pappophoro*, spiculis multo longioribus.

Species 2, inter se valde affines, altera insularum Capitis Viridis incola, altera per Africam tropicam et australem late dispersa.

201. **Triodia**, *R. Br. Prod.* 182. (Uralepis, *Nutt. Gen. N. Amer. Pl.* i. 62, *err. typ.* Uralepsis.)—Spiculæ ∞-floræ, stricte v. laxe paniculatæ, rhachilla inter flores articulata pilosa v. glabra, floribus hermaphroditis v. summo masculo. Glumæ rigidulæ, 1–3-nerves, 2 inferiores vacuæ, carinatæ, acutæ, muticæ, cæteris longiores v. breviores; florentes imbricatæ, basi dorso rotundatæ, varie pilosæ v. glabræ, apice 3-lobæ v. 3-dentatæ, lobis æqualibus v. intermedio mucroniformi v. breviter aristiformi, lateralibus membranaceis v. breviter mucronatis nunc minimis; gluma summa interdum vacua v. paleam solam fovens; palea lata, tenuis, concava, carinis 2 fere marginalibus. Stamina 3. Styli breves, distincti, stigmatibus plumosis. Caryopsis glabra, a dorso compressa facieque sæpe concava, rarius subteres, gluma paleaque inclusa, libera.—Gramina perennia, sæpe dura, basi ramosa v. stolonifera, foliis angustis sæpius rigidis v. convoluto-teretibus interdum infauste pungentibus, rarius mollibus planis. Panicula terminalis, nunc angusta, subsimplex, paucispiculata, nunc ampla fere *Eragrostis* floribunda, v. tenuis laxissime effusa ramulis filiformibus. Spiculæ sæpissime erectæ.

Species ultra 20, Europæ, Americæ borealis et australis extratropicæ, Africæ australis et subtropicæ, Australiæ et Novæ Zelandiæ incolæ, in America tropica perpaucæ. *Beauv. Agrostogr.* 76, *t.* 15, *f.* 9. *Kunth, Enum. Pl.* i. 319. *Benth. Fl. Austral.* vii. 605.

Genus imprimis ad glumarum florentium formam in sectiones sequentes dividitur:—

1. *Isotria.* Glumæ florentes fere ad medium in lobos 3 anguste lanceolatas subæquales divisæ. Species 3 Australianæ: *T. Mitchelli*, Benth., *T. pungens*, R. Br., et *T. Cunninghamii*, Benth.

2. *Uralepis.* Glumarum florentium lobi v. dentes laterales sæpius membranacei latiusculi mutici, interdum minimi, medius mucroniformis v. breviter aristiformis. Species ad 16, Americanæ et Australasicæ cum una Europæa. *Host, Gram. Austr.* ii. *t.* 72 (*Poa*). *Reichb. Ic. Fl. Germ. t.* 71. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 51. *H. B. et K. Nov. Gen. et Sp. t.* 47, 48. *Kunth, Rev. Gram. t.* 67, 68 (*Uralepis*), *et t.* 135, 215 (*Leptochloa*). *Dœll in Mart. Fl. Bras.* ii. iii. *t.* 27 (*Uralepis*). *Fourn. Gram. Mex.* 110 (*Uralepis*). Sieglingia, *Bernh. Verz. Pfl. Erf.* 44, *ex Kunthio.* Merisachne, *Steud. Syn. Pl. Glum.* 117.

3. *Tricuspis.* Glumarum florentium lobus medius mucroniformis, laterales latiusculi ut in *Uralepide*, sed nervi laterales plus minus ad margines loborum lateralium in mucrones breves excurrentes. Species 3, boreali-Americanæ. *Jacq. Ecl. Gram. t.* 16. Tricuspis, *Beauv. Agrostogr.* 77, *t.* 15, *f.* 10. *Torr. Fl. N. York, t.* 156. Tridens, *Rœm. et Schult. Syst.* ii. 34. Windsoria, *Nutt. Gen. Pl. N. Amer.* i. 70.

Leptocarydion, *Hochst. in Pl. Schimp. exs. n.* 2308, est *T. plumosa*, Benth. (*Leptochloa plumosa*, Anders. in Peters Reise Mozamb. Bot. 557), species insignis panicula densa angusta fere spiciformi more *Trichloridis* mollissima, sed structura spicularum omnino *Triodiæ*. Folia sessilia, plana, lanceolata, mollia. *Leptochloa mollis*, Kunth, Rev. Gram, t. 135, huic affinis, a nobis non visa, ex icone differt inflorescentia laxiore fere *L. Lindleyanæ*.

Trichoneura, *Anders. in K. Vetensk. Akad. Stockh. Handl.* 1853, 148, est *Leptochloa Lindleyana*, Kunth, Rev. Gram. t. 215, species Galapagensis, *Diplachni fasciculari*, Beauv., habitu subsimilis, sed characteres potius *Triodiæ* ostendit.

Rhombolytrum, *Link, Hort. Berol.* ii. 296; *E. Desv. in C. Gay, Fl. Chil.* vi. 385, *t.* 81, est *T. filiformis*, Nees in Steud. Syn. Pl. Glum. i. 249, species Chilensis, duabus ex America boreali (*T. albescenti* et *T. trinerviglumi*, Munro) valde affinis, glumarum florentium lobis lateralibus minimis vix v. non mucronatis, intermedio brevissime mucroniformi. Illi etiam affinis videtur *Catabrosa antarctica*, Hook. f. Fl. Ant. i. 102, t. 56. *T. kerguelensis*, Hook. f. Fl. Ant. ii. 379, t. 138 (*Poa in tab.*), ab auctore in *Bot. Kerg. Isl. in Phil. Trans.* clxviii. 22, ad *Festucam* refertur.

202. **Diplachne,** *Beauv. Agrostogr.* 80, *t.* 16, *f.* 9.—Spiculæ ∞-floræ, angustæ, secus rhachin continuam spicarum seu ramorum paniculæ sessiles v. breviter pedicellatæ, erectæ, rhachilla supra glumas inferiores sæpeque inter flores articulata, floribus hermaphroditis v. summo masculo. Glumæ 2 inferiores vacuæ, sub articulatione persistentes, membranaceæ, carinatæ, acutæ, muticæ, inæquales; florentes paullo majores, 1-nerves, apice sæpius 2-dentatæ et inter dentes mucronatæ v. breviter aristatæ; palea parum brevior, hyalina, 2-nervis v. 2-carinata. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis oblongo-ovoidea, sub-3-quetra v. compressiuscula, gluma paleaque laxe inclusa, libera.—Gramina cæspitosa, sæpe elatiuscula, foliis angustis planis. Spicæ secus pedunculum elongatum plures, elongatæ, tenues, erectiusculæ, v. rarius spica unica terminalis, spiculis fere linearibus secus rhachin sparsis sæpe dissitis erectis subsecundis.

Species ad 14, per regiones calidiores utriusque orbis dispersæ. *Kunth, Enum. Pl.* i. 380 (*Moliniæ sp. n.* 2 *et* 3). *Reichb. Ic. Fl. Germ. t.* 71. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 74. *Ledeb. Ic. Fl. Ross. t.* 227 (*Molinia*). *Benth. Fl. Austral.* vii. 618. *Dœll in Mart. Fl. Bras.* ii. iii. *t.* 28 (*Uralepis et Diplachne*).

Genus cum *Triodia* v. cum *Leptochloa* sæpe confusum, et priori certe valde affine, nec semper facile distinguendum, a *Leptochloa* longius differt spicularum forma, glumis florentibus plus minus distincte dentatis habituque. *D. alopecuroides*, Hochst. ex Schweinf. Beitr. Pl. Æth. 299 (nomen tantum), est *Triodia plumosa*, Benth.

203. **Triplasis,** *Beauv. Agrostogr.* 81, *t.* 16, *f.* 10. (Diplocea, *Rafin. in Sillim. Journ.* i. 252.)—Spiculæ ∞-floræ, paniculatæ, rhachilla inter flores articulata, glabra, floribus hermaphroditis v. summo masculo. Glumæ 1–3-nerves, 2 inferiores vacuæ, carinatæ, acutæ, muticæ, cæteris breviores; florentes secus rhachillam dissitæ, basi dorso rotundatæ, profunde 3-lobæ, lobis glabris ciliatisve, lateralibus angustis acutissimis fere in aristas productis, intermedio longiore aristiformi sæpe subflexuoso-patente; palea brevior, lata, compressa, 2-carinata, carinis longe ciliatis. Stamina 3. Styli breves, distincti,

stigmatibus plumosis. Caryopsis . . .—Gramina perennia, foliis angustissimis convoluto-teretibus v. basi planis. Panicula tenuis, parum ramosa, spiculis breviter pedicellatis erectiusculis.

Species 2, boreali-Americanæ (*Uralepis cornuta*, Ell., et *U. purpurea*, Nutt.).
Triplasis setacea, Griseb. Pl. Lorentz, est *Diplachne spicata*, Dœll.

204. **Scleropogon,** *Philippi, Sert. Mendoc.* ii. 47. (Lesourdia, *Fourn. in Bull. Soc. Bot. Fr.* xxvii. 102, *t.* 3, 4.)—Spiculæ unisexuales, 2-∞-floræ, in panicula angusta paucæ, rhachilla utriusque sexus elongata. Spiculæ ♂ ∞-floræ, rhachilla inarticulata glabra. Glumæ paleaceæ, angustæ, acutæ, exaristatæ, 3-nerves, 2 inferiores vacuæ paullo minores inæqualesque; florentes interdum apice minute 3-dentatæ, dente medio mucroniformi; palea angusta, rigida, glumæ subæqualis, 2-carinata, 2-dentata. Stamina 3. Ovarii rudimentum 0. Spiculæ ♀ basi 1-∞-floræ, superne steriles, rhachilla sub floribus articulata stipitiformi pubescente, inter glumas steriles continua. Glumæ 2 inferiores vacuæ, persistentes, valde inæquales, quam in spiculis ♂ majores; florentes ∞, rigidæ, angustæ, circa florem convolutæ, costis 3 in aristas longissimas tenues rigidas sæpe subtortas productis, additis lobis brevibus lanceolatis hyalinis ad latera aristarum lateralium v. inter aristas; summæ steriles florentibus similes nisi tenuiores v. ad aristas tenues reductæ; palea rigidula, angustissima, gluma florente inclusa. Staminodia 0. Styli distincti, elongati, stigmatibus pilis brevibus subplumosis. Caryopsis angusta, elongata, gluma inclusa, libera.—Gramina perennia, cæspitosa v. repentia, basi ramosa v. stolonifera. Panicula stricta, parum breviterque ramulosa. Spiculæ paucæ, erectæ, masculæ et fœmineæ aspectu diversissimæ, in caulibus v. in plantis diversis v. in eodem pedunculo mixtæ dissitæque fere alternæ.

Species 4, quarum una Chilensis, cæteræ regionis Mexicano-Texanæ incolæ.

205. **Eremochloe,** *S. Wats. Bot. King Exped.* 382, *t.* 40.—Spiculæ 1-floræ, in panicula brevi densa confertæ, rhachilla supra glumas inferiores articulata longe pilosa ultra florem in stipitem glumiferum producta, flore hermaphrodito. Glumæ 2 inferiores vacuæ, sub articulatione persistentes v. sigillatim deciduæ, carinatæ, acutæ, membranaceæ, subscariosæ, præter carinam enerves, subæquales, 2 sequentes vacuæ, fertili arcte appressæ, 3-nerves, 3-fidæ, lobo medio aristiformi v. basi parum dilatato, lateralibus hyalinis denticulatis mucronatis v. breviter aristatis; florens inter illas sessilis, basi longe pilosa, carinata, fere hyalina, lobis 3 subæqualibus in aristas desinentibus; gluma summa vacua, anguste 3-partita, quasi ex aristis 3 constans; palea compressa, complicato-2-carinata, sæpe 2-partita. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis teres v. a dorso leviter compressa, palea glumisque inclusa, libera.—Gramina humilia, perennia, ramosa, foliis confertis brevibus rigidis convolutis, superioribus in caule brevi 2-3 longe vaginatis. Panicula paucispiculata, e vagina folii summi vix exserta, pilis mollibus nitens.

Species 2, Novo-Mexicanæ, et Californicæ.

206. **Triraphis,** *R. Br. Prod.* 185.—Spiculæ ∞-floræ, secus ramulos paniculæ angustæ subfasciculatæ, rhachilla inter flores articulata, floribus hermaphroditis v. summo masculo v. rudimentario. Glumæ 2 inferiores vacuæ, persistentes, angustæ, 1-3-nerves, acutæ v. mucronatæ, extima integerrima, secunda paullo longior, interdum ad latera mucronis minute dentata; florentes 3-∞-nerves, apice 3-lobæ, lobis a basi plana in aristas rectas rigidas productis, intermedia longiore, additis interdum lobis membranaceis brevibus inter aristas v. ad latera exteriorum; palea brevior, inclusa, juxta margines 2-carinata, sæpius 2-dentata. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis oblonga, gluma indurata v. membranacea inclusa, libera.—Gramina perennia, foliis angustis subulato-acuminatis v. a basi convoluto-teretibus. Panicula angusta, nunc densissima mollisque, nunc laxior sæpe valde elongata, spiculis erectis.

Species 5 v. 6, quarum una adhuc inedita Africæ australis incola, cæteræ omnes Australianæ. *Benth. Fl. Austral.* vii. 603.

Genus quoad paniculam et glumaram lobos polymorpha. In *T. molli*, Br., panicula mollissima,

dense multispiculata, glumæ florentes 3-nerves, lobis breviter membranaceis ad latera aristæ centralis; in specie Capensi panicula mollis sed laxior, glumæ lobi membranacei ad latera exteriora aristarum lateralium; in *T. pungente*, Br., et in *T. bromoide*, F. Muell., panicula laxa, glumæ florentes coriaceæ, basi vix nervosæ, superne plus minus distincte ∞-nerves, 3-aristatæ, absque lobis membranaceis; in *T. danthonioide*, F. Muell., panicula longa laxa, glumæ florentes coriaceæ, ∞-nerves, lobis membranaceis ut in specie Capensi ad latera exteriora aristarum exteriorum.

T. microdon, Benth. Fl. Austral., e genere forte removenda sed affinitas adhuc incerta. *T. capensis*, Nees, ad *Danthoniam* referenda, est eadem ac *D. radicans*, Steud.

207. ? **Gouinia**, *Fourn. Gram. Mex.* 103.—Spiculæ 4-floræ, paniculatæ, rhachilla inter flores articulata pilosa, ultra flores producta glumifera, floribus aliis hermaphroditis aliis unisexualibus. Glumæ 2 inferiores vacuæ, inæquales, spicula multo breviores, multinerves, setigeræ; florentes inter se distantes, 3–5-nerves, membranaceæ, dorso pilosæ, apice 2-dentatæ, inter dentes aristatæ; summa vacua; palea 2-carinata, acuta, integra v. 2-dentata. Stamina 3. Styli brevissimi, stigmatibus subsessilibus plumosis. Caryopsis ovata, pubescens, sulcata, libera.—Gramen cæspitosum (2–6-pedale), foliis planis. Spiculæ secus paniculæ radios alternos longos remotos primum erectos demum divaricatos appressæ, alternæ, breviter pedicillatæ, imæ et summæ fœmineæ, mediæ masculæ, v. fere omnes hermaphroditæ. (*Char. ex Fourn.*)

Species 1, Mexicana et Floridana, a nobis non visa.
Genus ex charactere dato potius *Triodiæ* quam *Arundini* affine videtur.

208. ? **Calamochloa**, *Fourn. in Bull. Soc. Bot. Fr.* xxiv. 178.—Spiculæ 2-floræ, spicatæ, spicis paniculatis, rhachilla sub floribus pilifera, ultra flores producta glumifera. Glumæ 2 inferiores vacuæ subæquales; florentes 5-lobæ, lobis 3 (lateralibus et centrali) subulatis; palea gluma brevior, truncata, plicata, obscure 2-dentata, basi et margine villosa.—Gramen strictum, foliis convolutis. Panicula apicalis, ovata, spiculis 3–4 spicatis, spicis strictis aggregatis. (*Char. ex Fourn.*)

Species 1, Mexicana, a nobis non visa. Genus quoad affinitates dubium, an ad *Pappophoreas* referendum?

209. **Gynerium**, *Humb. et Bonpl. Pl. Æquin.* ii. 112, *t.* 115.—Spiculæ dioicæ, laxe 2-∞-floræ, rhachilla inter flores sæpius elongata, in utroque sexu articulata, sæpe pilosa, pilis longis tamen flores ♀ cingentibus plerisque a glumis oriundis. Glumæ membranaceo-scariosæ v. hyalinæ, angustæ, 2 inferiores vacuæ spiculam sæpe æquantes, parum inæquales, 1–3-nerves v. fere enerves, acute acuminatæ; florentes 3-nerves, acumine plus minus in aristam producto, sub flore ♂ sæpius glabræ, sub flore ♀ basi dorso et margine pilis longis ciliatæ; palea in flore ♂ gluma parum brevior, in ♀ multo brevior, hyalina, 2-nervis v. 2-carinata, integra v. 2-dentata. Stamina in flore ♂ 3. Styli in flore ♀ breves, distincti, stigmatibus plumosis. Caryopsis anguste oblonga, gluma paleaque tenuibus arcte inclusa, libera, subteres, exsulca.—Gramina perennia, elata, basi sæpe sublignosa; foliis longissimis angustis ad basin caulis confertis. Panicula magna, densa v. demum laxior nutansque, argentea v. fuscescens, sæpe plucherrima.

Species 3, Americæ tropicæ et subtropicæ incolæ. *Beauv. Agrostogr.* 138, *t.* 24, *f.* 6. *Steud. Syn. Pl. Glum.* i. 197 (*excl. sp.* 5 *et* 6). *Dœll in Mart. Fl. Bras.* ii. iii. 49, *t.* 14, 15. Cfr. etiam ic. plures in diariis recentibus hortulanorum.

210. **Ampelodesma**, *Beauv. Agrostogr.* 78, *t.* 15, *f.* 11. (Ampelodesmos, *Link, Hort. Berol.* i. 136.)—Spiculæ 2-∞-floræ, ample paniculatæ, rhachilla supra glumas inferiores et inter flores articulata penicilloque pilorum instructa, floribus hermaphroditis v. summo masculo. Glumæ subcoriaceæ, 2 inferiores vacuæ, angustæ, parum inæquales, glabræ, acutæ v. acuminatæ, 3–5-nerves; florentes latiores, 5-nerves, apice breviter 2-fidæ, inter lobos mucronatæ, dorso pilosæ; palea gluma parum brevior, 2-carinata, apice 2-dentata v. 2-mucronata. Stamina 3. Styli breves, distincti, stigmatibus plumosis. Caryopsis

oblonga, apice villosa, gluma paleaque inclusa, libera.—Gramen perenne, elatum, foliis angustis longis plus minus convolutis et acumine longo tereti-subulato terminatis. Panicula longa, densa, secunda, subnutans.

Species 1 (v. 2?), regionis Mediterraneæ incola. *Kunth, Enum. Pl.* i. 249. *Desf. Fl. Atl. t.* 33, 34 (*Arundo*).

Genus *Arundini* quam maxime affine, differt glumis rigidioribus 5-nervibus, et ovario caryopsique apice hirsutis. Rhachilla inter flores penicillo pilorum instructa et styli breves etiam in *Arundine madagascariensi* observantur.

211. **Arundo**, *Linn. Gen. n.* 93, *pro parte.* (Donax, *Beauv. Agrost.* 77, *pro parte, t.* 16, *f.* 4, 5, *t.* 19, *f.* 1. Scolochloa, *Mert. et Koch, Deutschl. Fl.* i. 528. Amphidonax, *Nees in Lindl. Introd. Nat. Syst. ed.* 2, 449.)—Spiculæ 2-∞-floræ, ample paniculatæ, rhachilla supra glumas inferiores et inter flores articulata glabra v. penicillo brevi instructa, pilis longioribus e glumis ipsis oriundis, floribus hermaphroditis v. summo v. spicularum inferiorum masculis. Glumæ 2 inferiores vacuæ, angustæ, parum inæquales, glabræ, spiculæ vix v. non breviores, tenuiter v. interdum rigidule membranaceæ, acutæ v. acuminatæ, 3-nerves; florentes latiores, 3-nerves (v. rarius additis nervis tenuibus brevibus intermediis sub-5-nerves?), dorso pilosæ, plerumque apice plus minus 2-fidæ cum mucrone v. arista brevi inter lobos, infima tamen sæpe vacuis similior integraque; palea gluma brevior, hyalina, 2-carinata. Stamina 3. Styli distincti, elongati v. breves, stigmatibus plumosis. Caryopsis oblonga, gluma paleaque inclusa, libera, glabra.—Gramina perennia, elata, caule interdum basi sublignoso, foliis planis. Panicula densa, nunc longissima stricta, v. demum effusa.

Species nobis notæ 6 v. 7, quarum 1 v. 2 inter se valde affines per regionem Mediterraneam Indiam orientalem et Americam calidiorem latissime diffusæ in aliis terris interdum inquilinæ, tertia regioni Mediterraneæ propria, quarta Indiæ orientalis Archipelagi Malayani et Madagascariæ incola, 2 (v. unius varitates?) Novo-Zelandicæ, 2 v. 3 Americanæ andinæ v. antarcticæ. *Kunth, Enum. Pl.* i. 246; *Rev. Gram. t.* 48, 49. *Host, Gram. Austr.* iv. *t.* 38. *Reichb. Ic. Fl. Germ. t.* 109. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 36, *Ten. Fl. Nap. t.* 108. *Buchan. N. Zeal. Grass. t.* 27, 28. *H. B. et K. Nov. Gen. et Sp. t.* 688. *Brongn. in Duperr. Voy. Coq. Bot. t.* 6 (*Ampelodesmos*); *Dœll in Mart. Fl. Bras.* ii. iii. *t.* 13.

A. Gayana, E. Desv. in C. Gay, Fl. Chil. vi. 326, species nobis ignota, ex descr. auctoris ob aristam tortam e genere excludenda est. *A. Reynaudiana*, Kunth, e Pegu, gluma tertia vacua, est ex Munroio eadem ac *A. madagascariensis*, Kunth, cui tamen etiam in speciminibus Indicis florem plus minus perfectum in gluma tertia invenimus.

212. **Phragmites**, *Trin. Fundam. Agrostogr.* 134, *pro parte.* (Arundo, *Beauv. Agrostogr.* 60, *t.* 13, *f.* 2. Czernya, *Presl, Cyp. et Gram. Sicul.* 22, *ex Kunth.*)—Spiculæ 2-∞-floræ, ample paniculatæ, rhachilla inter flores articulata et pilis longis sericeis glumas fertiles circumdantibus instructa, flore infimo abortu masculo, cæteris hermaphroditis. Glumæ tenues, angustæ, carinatæ, infima brevis, vacua, sæpius 1-nervis, secunda pariter vacua, spicula vix brevior, 3- v. rarissime sub-5-nervis, acuta v. acute acuminata, tertia secundæ similis nisi longius acuminata florem masculum v. sterilem fovens, cæteræ florentes angustiores, acumine longiore tenuioreque sæpe aristiformi, summa interdum vacua v. abortiva, omnes glabræ nec ciliatæ; palea gluma multo brevior, hyalina, 2-carinata. Stamina 3. Styli distincti, breves nunc brevissimi, stigmatibus plumosis. Caryopsis oblonga, exsulca, gluma paleaque laxe inclusa, libera.—Gramina perennia, elata, foliis planis. Panicula ampla, pilis longis spicularum insignis, variat densissima erecta, v. laxe nutansque.

Species v. varietates insignes 2, per regiones temperatas et subtropicas utriusque orbis latissime dispersæ, inter tropicos rariores. *Kunth, Enum. Pl.* i. 250; *Rev. Gram.* 277, *t.* 50. *Host, Gram. Austr.* iv. *t.* 39. *Reichb. Ic. Fl. Germ. t.* 108. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 37.

Species communis magnopere variat statura 4–20-pedali, spicularum glumarumque magnitudine etc., et ab auctoribus in plures dividitur, omnes tamen unius varietates videntur. Kunth, Enum. l. c., et auctores plerique stylos *Phragmitidis* uti omnium *Arundinearum* elongatos dicunt, quod tamen in sola *Arundine Donace* observatur. Kunth ipse in Rev. Gram. l. c. stylos breves descripsit et delineavit.

P. macer, Munro in Trim. Journ. Bot. 1877, 350, species Japonica habitu tenui ab *Arundineis* discrepans, potius *Arundini* ipsi quam *Phragmiti* referenda videtur, nam gluma florens infima a vacuis distans florem hermaphroditum fovet; species etiam quodammodo *Ampelodesmo* affinis videtur. Genera hæc tria inter se valde affinia, facile in unum conjungenda.

TRICHOON, *Roth in Rœm. Arch.* i. iii. 37, est *Arundo Karka*, Retz, Obs. iv. 21, Roxb. Fl. Ind. i. 347, gramen in India orientali frequentissimum a *Phragmite communi* non distinguendum. Genus Rothii propositum fuit ad descriptionem Retzii, qui evidenter errorem commisit a Rothio l. c. Leersio attributum, 'corollam' nempe sive glumam florentem ob angustiam suam et lanuginis densitatem in qua residet prætermisit.

213. **Monanthochloe,** *Engelm. in Trans. Acad. Sc. St. Louis*, 1859, 436, *t.* 13, 14.—Spiculæ unisexuales, parum dissimiles, 2- rarius 3-floræ, in fasciculo foliorum sæpius geminæ sessiles occultæque, singulæ foliis nonnullis stipatæ, rhachilla brevi continua præsertim in ♂ ultra flores in stipitem interdum breviter glumiferum producta. Glumæ exteriores vacuæ, foliis floralibus subsimiles, gradatim minores, distichæ, basi membranaceæ vaginantes, superne lineares, patentes, rigidæ, ∞-nerves; florentes membranaceæ, rigide hyalinæ, obtusæ v. denticulatæ, paleam 2-nervem convolutam floremque involventes. Stamina in ♂ 3. Styli in ♀ distincti, longi, stigmatibus elongatis breviter barbellato-subplumosis. Caryopsis anguste oblonga, subtriquetra, gluma paleaque inclusa, libera.—Gramen repens v. stoloniferum, foliis ad nodos distiche confertis lamina brevi rigida convoluta. Spiculæ inter folia occultæ, utriusque sexus aspectu similes, sæpissime 2-floræ, sed in ♀ flos superior solus fertilis videtur.

Species 1, Texana, in Mexico nondum reperta.

214. **Munroa,** *Torr. Bot. Whipple Exped.* 102 (158), *errore* Monroa.—Spiculæ pauci- (3-) floræ, ad axillas foliorum floralium paucæ, subsessiles, rhachilla supra glumas inferiores articulata, floribus hermaphroditis, omnibus v. tertio solo fertilibus. Glumæ 2 inferiores vacuæ, sub articulatione persistentes, lanceolatæ, acutæ, hyalinæ, enerves; florentes 3 majores, 3-nerves, integræ retusæ v. 3-fidæ, nervo centrali v. omnibus in mucronem excurrentibus; superiores vacuæ 1–2, florentibus similes nisi minores angustioresque, v. unica ad aristas 3 reducta; palea hyalina, complicata, anguste 2-carinata, florem amplectens. Stamina 3. Styli distincti, elongati, stigmatibus laxe breviterque plumosis. Caryopsis ovata v. oblonga, a latere compressa, palea glumaque inclusa, libera.—Gramina annua, humilia, multicaulia, reptantia v. diffusa, rigidula, caulibus dichotomis v. fasciculato- v. subumbellato-ramosis, foliis ad basin v. ad ramificationes confertis brevibus rigidis interdum pungentibus, vaginis insigniter striatis. Spiculæ 2–4, inter foliorum fasciculos subsessiles et fere occultæ, glumis florentibus longe ciliatis v. in eodem fasciculo glabris.

Species 3 v. 4, quarum una regionis Mexicano-Texanæ, cæteræ Americæ australis extratropicæ incolæ. *Benth. in Hook. Ic. Pl. t.* 1372.

In specie typica Texana, flores in spicula 3 fertiles, rhachilla sub quoque flore plus minus elongata, ultra florem glumas 1–2 vacuas ferente, glumæ florentes angustæ 3-nerves, apice integræ v. parum dilatatæ, nervo medio solo in mucronem producto v. rarius lateralibus brevissime excurrentibus. Caryopsis in his anguste oblonga, palea tamen multo brevior. In *M. mendocina*, Philippi, a nobis non visa, structura ex descr. auctoris Sert. Mendoc. ii. 52, ei speciei typicæ bene confermis. In specimine tamen ad Cordovam Americæ meridionalis lecto et a Grisebachio sub nomine *M. mendocinæ* accepto, habitu simillimo, spiculas valde diversas vidimus. Omnes jam fructiferæ sunt staminibus stylisque delapsis, glumæ 2 inferiores vacuæ iis *M. squarrosæ*, Torr., similes, 2 sequentes quintæ arcte approximatæ, latissimæ, carinatæ, ultra medium 3-lobæ, lobis lateralibus erectis oblongo-ovatis nervo excentrico, intermedio angusto carinato mucronato, paleam angustam 2-nervem et ovarium sterile foventes; quinta fertilis inter illas sessilis, pariter 3-loba sed carina infra lobos late alata, lobis angustioribus, intermedio fere ad aristam reducto, rhachilla ultra flores producta aristis 3 terminata; palea floris fertilis gluma multo brevior lata, hyalina, anguste 2-carinata, caryopsin latiusculam arcte amplectens. Grisebach, Symb. Fl. Argent. 300, speciem alteram Argentinam a nobis non visam notis pluribus valde diversam descripsit. Genus tamen habitu ab omnibus distinctum videtur nulli nisi *Monanthochloi* accedens.

215. **Echinaria,** *Desf. Fl. Atl.* ii. 385. (Panicastrella, *Mœnch, Meth.* 205.)—Spiculæ 2–3-floræ, globoso-capitatæ, rhachilla brevissima supra glumas inferiores et inter flores articulata, ultra flores sæpius in stipitem interdum glumiferum producta, floribus hermaphroditis. Glumæ 2 inferiores vacuæ, sub articulatione persistentes, parum inæquales, hyalinæ, costa valida v. interdum in gluma secunda nervis 2 in mucronem v. aristam brevem productis; florentes basi turbinatæ, 5-fidæ, lobis aristato-acuminatis demum rigidis pungentibus patentibus, medio lateralibus majore; palea rigida, 2-carinata, lobis 2 iis glumæ similibus patentibusque v. paullo minoribus. Stamina 3. Styli distincti, filiformes, a basi papilloso-stigmatosi. Caryopsis ovoidea, subteres, exsulca, gluma paleaque basi induratis inclusa, libera.—Gramen humile, annuum, foliis angustis planis. Capitulum globosum, sæpius longe pedunculatum, glumarum lobis spinescentibus echinatum. Spiculæ nonnullæ ad basin capituli sæpius parvæ, steriles, glumis paucis parvis vacuis, v. ad glumam unicam reductæ.

Species 1 per regionem Mediterraneam late dispersa. *Beauv. Agrostogr.* 83, *t.* 17, *f.* 2. *Kunth, Enum. Pl.* i. 256. *Host, Gram. Austr.* iii. *t.* 8 (*Sesleria*). *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 38. *Reichb. Ic. Fl. Germ. t.* 56. *Sibth. Fl. Græc. t.* 100 (*Cenchrus*).

216. **Ammochloa,** *Boiss. Diagn. Pl. Or.* xiii. 51. (Cephalochloa, *Coss. et Dur. in Ann. Sc. Nat. ser.* 4, i. 229.)—Spiculæ ∞-floræ, globoso-capitatæ, rhachilla supra glumas inferiores et inter flores articulata, ultra flores sæpius glumifera, floribus hermaphroditis v. summo masculo. Glumæ 2 inferiores vacuæ, sub articulatione persistentes, parum inæquales, latæ, glabræ, 1-nerves, mucronulatæ v. obtusæ, carina præsertim in spiculis inferioribus plus minus lata; florentes alatæ, rigidulæ herbaceæ v. membranaceæ, nervis 3 apice in acumen seu mucronem unicum productæ, sæpeque ad latera acuminis hyalino-marginatæ subdenticulatæ; palea hyalina, gluma multo angustior, 2-nervis, 2-dentata. Stamina 3. Styli contigui v. basi subconnati, stigmatibus elongatis breviter barbellatis. Caryopsis ovata v. oblonga, a dorso compressa, pericarpio tenui ultra semen producto lanceolato (v. styli basi dilatata) rostrata.—Gramina annua, humilia v. nana, cæspitosa, foliis brevibus planis. Capitulum nunc pedunculo longiusculo fultum, nunc inter folia sessile, spiculis paucis numerosisve 9–15-floris. Spiculæ nonnullæ ad basin capituli steriles, glumis paucis vacuis v. ad glumam unicam reductæ, capitulum quasi involucrantes.

Species 2, Orientis et Africæ borealis incolæ. *Coss. et Dur. Fl. Alg. Glum.* 91. *Schreb. Beschr. Gräs. t.* 27, *f.* 1 (*Dactylis*). *Desf. Fl. Atl. t.* 16 (*Dactylis*).

Genus (præsertim *A. pungens*, Boiss.) habitu tam *Echinariam capitatum* quam *Sesleriam sphærocephalam* refert, characteribus tamen ab utraque bene distinctum.

217. **Urochlæna,** *Nees, Fl. Afr. Austr. Gram.* 437.—Spiculæ paucifloræ, in panicula capituliformi secunda densissima fasciculatæ, rhachilla abbreviata inter flores continua v. tardius articulata, floribus hermaphroditis v. summo masculo. Glumæ ovatæ, concavæ, membranaceæ, 5–7-nerves, acuminatæ, acumine in aristam patentem producto, 2 infimæ vacuæ; florentes subsimiles nisi paullo majores, superiores paullo minores, brevius aristatæ; palea glumis paullo brevior, hyalina, 2-carinata. Stamina . . . Styli distincti, stigmatibus longiusculis laxe subplumosis. Caryopsis breviter oblonga, glabra, palea glumaque laxe inclusa, libera.—Gramen humile, annuum, foliis setaceis, caulibus floriferis (seu pedunculis apice 1-foliatis) folia vix excedentibus. Spicularum capitulum unilaterale, intra vaginam folii floralis sessile, fructiferum cum folio florali a geniculo supremo articulatim deciduum. Spiculæ nonnullæ ad basin capituli et intra capitulum ad basin ramulorum brevissimorum steriles, glumis paucis vacuis angustis breviter acuminato-aristatis, spiculas fertiles quasi involucrantes.

Species 1, Africæ australis incola. Specimina nostra (Dregeana) jam fructifera staminibus delapsis orbata. *Benth. in Hook. Ic. Pl. t.* 1363.

218. **Sesleria,** *Scop. Fl. Carn. ex ejusd. ed.* 2, i. 63.—Spiculæ 2–6-floræ, in panicula spiciformi rarius interrupta cylindracea ovoidea v. globosa densissime confertæ, subsessiles

v. brevissime pedicellatæ, rhachilla supra glumas inferiores v. supra florem inferiorem articulata, floribus plerisque hermaphroditis. Glumæ 2 inferiores vacuæ, sub articulatione persistentes, membranaceæ interdum hyalinæ, latæ, carinatæ, subæquales, acutæ v. secunda brevissime mucronato-aristata; florentes secundæ subsimiles v. sæpius 3–5-nerves, apice 3–5-dentatæ v. irregulariter denticulatæ, dente centrali v. etiam lateralibus plus minus in mucrones v. in aristas breves productis; summa sæpe vacua parva; palea membranacea, lata, 2-carinata, 2-dentata, carinis sæpe ciliatis. Stamina 3. Styli basi v. alte connati, rarius a basi distincti, stigmatibus elongatis breviter barbellatis. Caryopsis ovata v. oblonga, glabra v. apice pubescens, erostris, gluma paleaque laxe inclusa, libera. —Gramina perennia, cæspitosa, foliis planis v. convoluto-teretibus. Panicula spiciformis, sæpius brevis cærulescens v. subargenteo-nitidula, interdum elongata, rarius spiculis dissitis v. fasciculatis interrupta, basi sæpissime bractea glumiformi v. spicula sterili ad glumam reducta stipata.

Species ad 8, Europæ et Asiæ occidentalis incolæ. *Beauv. Agrostogr.* 78, *t.* 16, *f.* 7. *Kunth, Enum. Pl.* i. 321. *Host, Gram. Austr.* ii. *t.* 97 *ad* 99, iv. *t.* 22. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 53. *Reichb. Ic. Fl. Germ. t.* 56, 57. *Jacq. Ic. Rar. t.* 20, 21 (*Cynosurus*). *Ten. Fl. Nap. t.* 103. *Vis. Fl. Dalm. t.* 2. *Sibth. Fl. Græc. t.* 72.

Psilathera, *Link, Hort. Berol.* i. 121, *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 54, est *S. tenella*, Host, Gram. Austr. ii. t. 100, cui spiculæ parvæ in capitulo parvo ovoideo-globoso, glumarum florentium dentibus 5 mucronato-aristatis.

219. **Elytrophorus**, *Beauv. Agrostogr.* 67, *t.* 14, *f.* 2. (Echinalysium, *Trin. Fundam. Agrost.* 142.)—Spiculæ ∞-floræ, parvæ, planæ, in fasciculis compositis subglobosis numerosæ, subsessiles, rhachilla glabra inter flores articulata, floribus hermaphroditis v. summo masculo. Glumæ 2 inferiores vacuæ, membranaceæ, carinatæ, breviter mucronato-acuminatæ, subæquales v. secunda paullo major; florentes paullo latiores, sub-3-nerves, evidentius mucronato-aristatæ; summæ 1–2 minores, vacuæ; palea gluma brevior, hyalina, lata, 2-dentata, complicato-2-carinata, carina utraque v. rarius una sola late alata. Stamen 1, anthera parva. Styli distincti v. basi subconnati, stigmatibus elongatis tenuissimis fugacissimis breviter barbellato-plumosis. Caryopsis ovoideo-oblonga, pericarpii apice membranaceo (v. styli basi dilatato) ultra semen breviter rostrata, gluma paleaque inclusa, libera.—Gramen annuum, erectum, strictum, foliis angustis longiusculis planis. Spicularum minimarum capitula aristis brevibus subechinata, secus pedunculum sessilia, spicam longam densam v. interruptam formant; spiculæ nonnullæ ad basin capituli cujusve minores ananthæ v. ad glumas 1–2 reductæ.

Species 1, inter tropicos Asiæ, Africæ et Australiæ late dispersa. *Kunth, Enum. Pl.* i. 391; *Rev. Gram. t.* 154. *Benth. Fl. Austral.* vii. 638.

220. ? **Fingerhuthia**, *Nees MS. ex Lehm. Cat. Sem. Hort. Hamb.* 1834.—Spiculæ 1- rarius 2-floræ, compressæ, in spica cylindracea confertæ, cum pedicello brevi articulatæ, rhachilla ultra florem producta stipitiformi v. glumifera, flore unico v. infero hermaphrodito, superiore dum adsit masculo. Glumæ 2 inferiores vacuæ, complicato-carinatæ, breviter aristatæ, parum inæquales; tertia florens vacuis similis nisi paullo latior rigidiorque, arista brevi nunc ad mucronem reducta; terminalis minor, vacua v. paleam solam rarius florem ♂ fovens; palea gluma paullo brevior, subhyalina, 2-carinata. Stamina 3. Styli distincti, elongati, stigmatibus filiformibus pilis brevibus papilloso-villosis. Caryopsis oblonga, lævis, gluma paleaque laxe inclusa, libera.—Gramen cæspitosum, erectum, rigidulum, foliis angustis planis v. convoluto-teretibus. Spica terminalis, longe pedunculata, ei *Phlei* subsimilis, spiculis infimis summisque diminutis vacuis v. ad glumas vacuas lineari-subulatas reductis.

Species 1, in Africa australi frequens, nuperque ab Aitchisono in Affghanistan lecta. *Benth. in Hook. Ic. Pl. t.* 1373.

Genus ab omnibus fere *Poaceis* differt pedicello sub spicula articulato, a *Paniceis* tamen bene distinguitur flore infero hermaphrodito supero masculo v. rudimentario. Species 2 a Neesio Fl. Afr. Austr. Gram. 136, 138, distinctæ vix pro varietatibus separandæ, glumis longius breviusve ciliatis.

221. **Lamarckia,** *Mœnch, Meth.* 201. (Chrysurus, *Pers. Syn. Pl.* i. 80. Pterium, *Desv. in Journ. Bot.* i. (1813) 75. Tinæa, *Garzia in Rel. Accad. Zelant. Aci Reale, ann.* 3-4, 24, *ex Parlat. Fl. Ital.* i. 332.)—Spiculæ dimorphæ, in panicula densa unilaterali fasciculatæ, terminalis cujusve ramuli 1-flora, inferiores 1-3 elongatæ, multiglumes, ananthæ. Spiculæ fertilis rhachilla vix articulata, ultra florem producta sæpe glumifera. Glumæ 2 inferiores vacuæ, angustæ, præter carinam enerves, acuminatæ v. breviter aristatæ, parum inæquales; florens latior, præter carinam enervis, arista sub apice dorsali recta; terminalis parva, vacua, longiuscule aristata v. ad aristam solam reducta; spiculæ steriles lineares, glumis vacuis brevibus complicatis muticis, eleganter distiche imbricatis; palea floris perfecti angusta, 2-carinata. Stamina 3. Styli breves, distincti, stigmatibus elongatis barbellatis. Caryopsis oblongo-elliptica, leviter compressa, gluma paleaque arcte inclusa, paleæ æquilonga, libera.—Gramen annuum, humile, multicaule, foliis planis. Panicula elegantissima, breviter pedunculata; spiculæ secundæ, confertæ, nutantes, fertiles a sterilibus fere occultæ, aristis solis prominentibus.

Species 1, in regione Mediterranea ab ins. Canariensibus usque ad Affghanistan frequens, in aliis terris interdum inquilina. *Beauv. Agrostogr. t.* 22, *f.* 5 (*Chrysurus*). *Kunth, Enum. Pl.* i. 389. *Host, Gram. Austr.* iii. *t.* 4 (*Cynosurus*). *Sibth. Fl. Gr. t.* 79 (*Cynosurus*). *Reichb. Ic. Fl. Germ. t.* 58 (*Chrysurus*). *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 77.

Genus *Cynosuro* arcte affine cui olim adscriptum nuperque a Willk. et Lange Prod. Fl. Hisp. i. 90, aliisque restitutum, habitu tamen, spicularum sterilium forma, spiculis fertilibus 1-floris aliisque notis satis distinctum videtur.

222. **Cynosurus,** *Linn. Gen. n.* 87, *pro parte.*—Spiculæ dimorphæ, in panicula dense spiciformi unilaterali fasciculatæ, terminalis cujusve fasciculi 2-3-flora, floribus hermaphroditis, inferiores 1-2 multiglumes ananthæ. Spiculæ fertilis rhachilla supra glumas inferiores sæpius articulata, glumæ 2 inferiores vacuæ, lineares v. sublanceolatæ, acutæ v. vix aristatæ, preter carinam enerves; florentes latiores membranaceæ, 1-3-nerves (rarius 5-nerves?), apice v. dorso sub apice mucronatæ v. aristatæ; terminalis angustior, vacua v. florem ♂ imperfectum fovens v. fere ad aristam reducta; spicularum sterilium glumæ eleganter distichæ, pectinatim patentes, omnes vacuæ, subæquales, lineari-subulatæ, 1-nerves, rhachilla continua; palea floris fertilis angusta, 2-carinata, 2-dentata. Stamina 3. Styli distincti, breves, stigmatibus barbellatis v. laxe plumosis. Caryopsis oblonga v. elliptica, gluma paleaque arcte inclusa, matura paleæ adnata.—Gramina annua v. perennia, cæspitosa, foliis planis. Panicula pedunculata, semper densissima secundaque, cæterum in diversis speciebus heteromorpha. Spiculæ fertiles sterilibus quasi involucratæ at perfecte distinctæ, rarius glumis nonnullis iis spicularum sterilium similibus in pedicello additis.

Species 3 v. 4, in Europa, Asia occidentali, Africa boreali v. ins. Canariensibus indigenæ, quarum una etiam in aliis regionibus reperta, verisimiliter inquilina. *Kunth, Enum. Pl.* i. 388. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 76.

Genus cum *Lamarckia* spicularum dimorpharum indole facillime dignoscendum, in sectiones 2 bene distinctas apud auctores nonnullos genera distincta dividitur:—

1. *Cynosurus.* Gramina perennia, panicula angusta spiciformi spicam *Chloridearum* simulante. Spicularum sterilium glumæ lineares, rigidæ, distichæ, pectinatim patentes. Spiculæ fertiles 2-3-floræ, glumis mucronato-acuminatis. Species v. varietates insignes 2. *Schreb. Beschr. Gräs.* 69, *t.* 8. *Beauv. Agrostogr.* 66, *t.* 14, *f.* 1. *Host, Gram. Austr.* ii. *t.* 96. *Reichb. Ic. Fl. Germ. t.* 7, *f.* 1351, 1352. *Munby, Fl. Alg. t.* 2.

2. *Phalona.* Gramina annua, panicula fasciculato-capituliformis v. longiuscula aristis echinata. Spicularum sterilium glumæ lineares, rigidæ, distichæ, pectinatim patentes, subaristatæ. Spiculæ fertiles 2-3-floræ glumis aristatis. Species 2 v. 3. *Host, Gram. Austr.* ii. *t.* 95. *Reichb. Ic. Fl. Germ. t.* 7, *f.* 1349, 1350. *Desf. Fl. Atl. t.* 17. *Sibth. Fl. Græc. t.* 78. *Dœll in Mart. Fl. Bras.* ii. iii. *t.* 37. FALONA, *Adans. Fam.* ii. 496. PHALONA, *Dumort. Agrost. Belg.* 86, 114.

223. **Kœleria,** *Pers. Syn. Pl.* i. 97. (Collinaria, *Ehrh. Beitr.* iv. 147, *absque char.*)—Spiculæ 2-5-floræ rarius 1-floræ, in panicula spiciformi cylindracea v. subinterrupta

confertæ, rhachilla supra glumas inferiores et inter flores articulata glabra v. vix minute pilosa, floribus hermaphroditis v. summo masculo. Glumæ 2 inferiores vacuæ, angustæ, acutiusculæ v. mucronatæ, parum inæquales, extima præter carinam enervis, margine scariosa, secunda paullo longior, florentibus similior, sæpe 3-nervis; florentes secundæ, paullo longiores v. breviores, plus minus hyalino-scariosæ, tenuiter 3- rarius 5-nerves, obtusiusculæ v. acutiusculæ, muticæ v. apice v. dorso sub apice mucronatæ v. breviter aristatæ; superiores gradatim minores, 1–2 sæpe vacuæ, v. rhachilla ultra florem summum producta stipitiformis; palea hyalina, acute 2-carinata, glumæ subæqualis v. sæpius brevior angustiorque, 2-dentata v. 2-mucronata. Stamina 3. Styli brevissimi, stigmatibus plumosis. Caryopsis oblonga v. fere linearis, gluma paleaque inclusa, libera.—Gramina annua v. perennia, cæspitosa, foliis angustis planis v. fere setaceis. Panicula sæpissime dense cylindracea, rarius elongata subinterrupta, glabra subnitens, v. glumarum pilis marginalibus v. dorsalibus hirsuta.

Species ad 12, pleræque Europæ, Asiæ temperatæ et Africæ borealis incolæ, quarum una etiam in America boreali v. australi extratropica et Africa australi frequens, et in aliis regionibus inquilina, quibus addantur 2 bene distinctæ, altera ex Africa australi, altera ex ins. Sandwicensibus. *Beauv. Agrostogr.* 84, *t.* 17, *f.* 4. *Kunth, Enum. Pl.* i. 380. *Brot. Phytogr. Lusit. t.* 98, 99 (*Bromus*). *Parlat. Fl. Ital.* i. 322. *Coss. et Dur. Fl. Alg. Glum.* 119. *Dœll in Mart. Fl. Bras.* ii. iii. 125. *Buchan. N. Zeal. Grass. t.* 38.

Genus sat naturale, haud tamen facile definitum, in sectiones 2 ab auctoribus nonnullis pro generibus propriis habitas dividitur:—

1. *Airochloa* (*Kœleria*, Reichb.). Glumæ acutæ v. obtusiusculæ, muticæ, florentes vix carinatæ, tenuissime 3-nerves. *Host, Gram. Austr.* ii. *t.* 75 (*Poa*). *Reichb. Ic. Fl. Germ. t.* 93. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 64. AIROCHLOA, *Link, Hort. Berol.* i. 126, ii. 276.

2. *Lophochloa* (*Kœleria*, Link). Glumæ florentes apice v. sub apice mucronatæ v. breviter aristatæ, tenuiter 3–5-nerves. *Host, Gram. Austr.* iii. *t.* 21 (*Festuca*). *Ten. Fl. Nap. t.* 201. *Desf. Fl. Atl. t.* 18 (*Cynosurus*) *et t.* 23 (*Festuca*). LOPHOCHLOA, *Reichb. Fl. Germ. Excurs.* 42; *Ic. Fl. Germ. t.* 73. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 63. ÆGIALITIS, *Trin. Fundam. Agrostogr.* 127, *t.* 9. ÆGIALINA, *Schult, Syst. Mant.* ii. 13, 222. Huc pertinent, præter species a Coss. et Dur. enumeratas, *K. Gerardi*, Munro, ex Africa australi, species primo aspectu præsertim colore infloresecentiæ *Lasiochloæ* accedens, sed infloresecentia characteresque *Lophochloæ*, et *K. glomerata*, Kunth, Rev. Gram. t. 219 (*K. vestita*, Nees in Steud. Syn. Pl. Glum. i. 294), ex ins. Sandwicensibus, species infloresecentia longa laxa insignis, in nostris tamen speciminibus densior est quam in icone delineatur.

WILHELMSIA, *C. Koch in Linnæa*, xxi. 400, est, fide Griseb., *K. phleoidis*, Pers., forma macra panicula depauperata.

224. **Avellinia,** *Parlat. Pl. Nov.* 59; *Fl. Ital.* i. 415.—Spiculæ pluriflloræ, anguste paniculatæ, rhachilla inter flores longiuscula tardius articulata, glabra, ultra flores in stipitem interdum glumiferum producta, floribus hermaphroditis v. summo masculo. Glumæ 2 inferiores vacuæ, extima brevis, angustissima, fere setiformis, secunda cæteris multo major latiorque, membranacea, 3-nervis, mucrone brevi terminata; florentes (sæpius 2–4) multo angustiores, circa flores convolutæ, tenuissime 1–3-nerves, dorso sub apice breviter aristatæ; palea multo brevior, angusta, 2-carinata. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis angusta, subteres, gluma inclusa, libera.—Gramen annuum, humile, habitu fere *Schismi*, foliis angustissimis. Panicula angusta, laxiuscula, ramulis erectis.

Species 1, regionis Mediterraneæ occidentalis incola. *Guss. Pl. Rar. t.* 10, *f.* 1 (*Avena*).

Planta a variis auctoribus ad genera diversa relata a Candolleo et nuper a Coss. et Dur. Fl. Alg. Glum. 120, sub *Kœleria* descripta, a qua nobis bene distincta videtur, tam infloresecentia quam glumarum indole nullique nisi *Eatoniæ* comparanda, et rite a Parlatoreo pro genere proprio accepta.

225. **Eatonia,** *Rafin. in Journ. Phys.* lxxxix. 104. (Reboulea, *Kunth, Rev. Gram.* 341, *t.* 84. Colobanthus, *Trin. in Mem. Acad. Petersb. ser.* 6, i. 66, *Triseti* sect. pro genere admissa a *Spach, Suites Buff.* xiii. 163, *non Bartl.*)—Spiculæ parvæ, sæpius 2-floræ, paniculatæ, rhachilla sub floribus articulata glabra, ultra flores in stipitem nudum producta,

floribus hermaphroditis. Glumæ 2 inferiores vacuæ, persistentes, membranaceæ, subscariosæ, extima angusta, 1-nervis, secunda omnibus multo latior, 3-nervis; florentes angustiores, sub-3-nerves, omnes obtusæ v. acutiusculæ, muticæ; palea angusta, prominule 2-nervis. Stamina 3. Styli distincti, breves, stigmatibus plumosis. Caryopsis anguste oblonga fere linearis, exsulca, gluma paleaque laxe inclusa, libera.—Gramina elatiuscula, foliis planis. Panicula densa v. laxiuscula, spiculis numerosis parvis nitentibus.

Species 2 v. 3, inter se valde affines, et in herbariis sæpe commixtæ, Americæ borealis incolæ. *Kunth, Enum. Pl.* i. 368 (*Reboulea*). *Torr. Fl. N. York, t.* 150 (*Kœleria*). *A. Gray, Man. Bot. N. U. St. ed.* 5, 625. *Fourn. Gram. Mex.* 111.

226. **Dissanthelium**, *Trin. in Linnæa,* x. 305. (Phalaridium, *Nees in Pl. Meyen.* 161. Stenochloa, *Nutt. in Journ. Acad. Philad. ser.* 2, i. 189.)—Spiculæ 2-4-floræ, anguste paniculatæ, rhachilla inter flores articulata glabra, ultra flores in stipitem minutum producta, floribus hermaphroditis. Glumæ 2 inferiores vacuæ, persistentes, angustæ, carinatæ, 1-3-nerves, acute acuminatæ, parum inæquales, spiculam æquantes v. superantes; florentes multo breviores, latiores, obtusiusculæ, obtuse carinatæ, 3-nerves, nervis lateralibus marginalibus, v. interdum obscuris, muticæ; palea gluma paullo brevior, 2-carinata, 2-dentata. Stamina 3. Styli brevissimi, distincti, stigmatibus sæpe longiusculis plumosis. Caryopsis oblonga, subtriquetra, antice vix v. non sulcata, gluma paleaque caducissimis inclusa, libera.—Gramina annua v. perennia, humilia v. tenuia, cæspitosa, foliis angustis planis. Panicula breviter pedunculata, laxiuscula v. densa, ramulis brevibus erectis, spiculis parvis.

Species 2 v. 3, Americæ andinæ a Bolivia usque ad Californiam incolæ. *Thurb. in S. Wats. Bot. Calif.* ii. 315 (*Stenochloa*). *Fourn. Gram. Mex.* 112. *Benth. in Hook. Ic. Pl. t.* 1374, 1375.

Genus pluribus notis *Schismo* affine, nec habitu longe diversum, sed glumæ florentes semper 3-nerves invenimus, etsi a Trinio 1-nerves, a Neesio 5-nerves dicuntur. Stamen unicum tantum vidit Fournier, verisimiliter in specie Mexicana a nobis non visa. In speciminibus Lechlerianis n. 1882 a Fourniero citatis 3 adsunt, uti in Bolivianis Mandonianis n. 1345 et 1346, et in Californicis.

227. **Molinia,** *Schrank, Baier. Fl.* i. 100, 334. (Enodium, *Gaud. Agrostogr. Helv.* i. 145.) —Spiculæ 2-4-floræ, anguste paniculatæ, rhachilla inter flores longiuscula articulata glabra, ultra flores sæpe producta, floribus hermaphroditis v. summo masculo. Glumæ 2 inferiores vacuæ, persistentes, obtusiusculæ v. acutæ, muticæ, præter carinam enerves, inæquales, spicula breviores; florentes paullo majores, rigidule membranaceæ, muticæ, dorso convexæ, 3-nerves, summa minor, florem ♂ fovens v. vacua, v. rhachilla supra florem stipitiformis nudaque; palea gluma vix brevior, obtusa, 2-carinata. Stamina 3. Styli breves, stigmatibus brevibus plumosis. Caryopsis oblonga, teretiuscula, facie (saltem immatura) late sulcata, gluma paleaque inclusa, libera.—Gramen perenne, cæspitosum, elatiusculum, nodis in caule prope basin paucis, foliis angustis planis. Panicula elongata, laxiuscula, ramulis strictis, spiculis parvulis sæpius numerosis erectis angustis laxe conicis.

Species 1, Europæ præsertim occidentalis et borealis incola. *Beauv. Agrostogr.* 68, *t.* 14, *f.* 6. *Kunth, Enum. Pl.* i. 379. *Coss. et Dur. Fl. Alg. Glum.* 136. *Host, Gram. Austr.* ii. *t.* 8 (*Melica*) et *t.* 92 (*Festuca*). *Reichb. Ic. Fl. Germ. t.* 78. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 61.

228. **Sphenopus,** *Trin. Fundam. Agrostogr.* 135.—Spiculæ 2-4-floræ, minimæ, cymoso-paniculatæ, rhachilla inter flores articulata glabra, ultra flores in stipitem parvum producta, floribus hermaphroditis. Glumæ 2 inferiores vacuæ, persistentes, hyalinæ, extima minuta, secunda lata rotundata v. truncata; florentes 2-3-plo longiores, latiusculæ, hyalinæ, integræ, muticæ, 3-nerves v. nervis lateralibus evanidis sub-1-nerves; palea gluma paullo brevior, 2-dentata, 2-carinata, carinis ciliolatis. Stamina 3. Styli breves, distincti, stigmatibus plumosis. Caryopsis oblongo-linearis, antice sulcata v. demum subteres, gluma paleaque inclusa, libera.—Gramen tenellum, annuum, foliis angustis sæpe filiformibus. Panicula gracillima, ramulis setaceis divaricatis ultimis subcymosis, pedicellis anguste clavatis spiculis ipsis fere æquilongis. Spiculæ nitidulæ.

Species 1, regionis Mediterraneæ incola, præsertim in maritimis salsisque frequens. *Coss. et Dur. Fl. Alg. Glum.* 144. *Reichb. Ic. Fl. Germ. t.* 81. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 68. *Gou. Ill. et Obs. Bot. t.* 2, *f.* 1 (*Poa*).

229. **Catabrosa,** *Beauv. Agrostogr.* 97, *t.* 19, *f.* 8.—Spiculæ 2- rarius 3-4-floræ, laxe paniculatæ, rhachilla inter flores articulata glabra. Glumæ 2 inferiores vacuæ, hyalino-membranaceæ, latæ rotundatæ v. obtusissimæ, vix venosæ, inæquales, florentibus multo breviores; florentes rigidule membranaceæ, obtusæ v. sub-3-dentatæ, prominenter 3-nerves, summa interdum minor, vacua v. florem imperfectum fovens; palea gluma vix brevior, prominenter 2-carinata. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis obovoideo-oblonga, subteres, exsulca v. antice angustissime sulcata.—Gramen perenne, a basi reptante v. subnatante erectum, foliis planis. Panicula effusa, pyramidata, ramis capillaribus ramulosis in fasciculis dissitis pseudoverticillatis. Spiculæ parvulæ, numerosæ, pedicellatæ.

Species 1, per Europam, Asiam temperatam et Americam borealem late dispersa. *Kunth, Enum. Pl.* i. 369. *Reichb. Ic. Fl. Germ. t.* 78 (*Glyceria*). *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 58. *Host, Gram. Austr.* ii. *t.* 41 (*Aira*).

Genus, ad speciem typicam (cum varietatibus ab auctoribus nonnullis speciatim distinctis) restrictum, venatione glumarum facile distinctum. Species plures Orientales a Trinio aliisque additæ ad *Colpodium* referendæ sunt, *C. antarctica*, Hook. f., ad *Triodiam* ?, *C. magellanica*, Hook. f., et *C. glaucescens*, Philippi, ad *Glyceriam* (*Atropem*).

230. **Eragrostis,** *Beauv. Agrostogr.* 70, *t.* 14, *f.* 11.—Spiculæ ∞-floræ, sæpius paniculatæ, rhachilla inter flores continua v. tardius articulata, articulis rarius cito solvendis, glabra v. rarissime pilosula, floribus hermaphroditis v. varie unisexualibus, summo sæpe et interdum infimo plus minus abortiente. Glumæ 2 inferiores vacuæ, inæquales, florentibus breviores, carinatæ, 1-nerves v. secunda 3-nervis; florentes membranaceæ v. rarius rigidulæ, carinatæ, 3-nerves, obtusæ acutæ v. rarius mucronato-acuminatæ, muticæ, integræ v. vix emarginatæ; palea gluma brevior, prominenter 2-nervis v. 2-carinata, sæpe incurva et post glumam delapsam in rhachilla persistens. Stamina 2-3. Styli distincti, breves, stigmatibus plumosis. Caryopsis globosa ovoidea v. oblonga, sæpe parvula, exsulca v. rarius antice late concava, gluma paleaque laxe inclusa, libera, sæpeque cum gluma a palea decidua.—Gramina annua v. perennia, humilia cæspitosa v. elata, interdum prostrata v. reptantia. Panicula sæpius laxa, stricta v. effusa, variat tamen capituliformis v. spiciformis. Spiculæ varie pedicellatæ v. subsessiles, sparsæ v. fasciculatæ, nunc minimæ numerosissimæ paucifloræ imo 1-2-floræ, nunc longæ angustæ floribus 20-30, nunc latæ planæque.

Species ad 100, per regiones calidiores temperatasque utriusque orbis latissime dispersæ, quarum 2 v. 3 fere cosmopolitanæ. *Kunth, Enum. Pl.* i. 327; *Rev. Gram. t.* 145 *ad* 149, 183 *ad* 189 (*omn. sub Poa*). *Schreb. Beschr. Gräs. t.* 38 (*Poa*) *et* 39 (*Briza*). *Host, Gram. Austr.* ii. *t.* 68, 69 (*Poa*), iv. *t.* 24. *Jacq. Ecl. Gram. t.* 3. *Cav. Ic. t.* 92, 93 (*Poa*). *Desf. Fl. Atl. t.* 14 (*Poa*). *Reichb. Ic. Fl. Germ. t.* 91. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 55. *Sibth. Fl. Gr. t.* 73 (*Poa*). *Grant in Trans. Linn. Soc.* xxix. *t.* 113. *Benth. Fl. Austral.* vii. 641, *et in Journ. Linn. Soc.* xix. 116. *Dœll in Mart. Fl. Bras.* ii. iii. 136, *t.* 41 *ad* 43. *Fourn. Gram. Mex.* 114. *Torr. Bot. Marc. Exped. t.* 19.

Genus quoad species plerasque naturale, a *Poa* cui olim adscriptum facile differt glumis florentibus 3-nervibus, formas tamen nonnullas præbet primo aspectu bene diversas; in sectiones sequentes dividitur:—

1. *Cataclastos*, Dœll. Spiculæ sæpius numerosissimæ, minimæ, paucifloræ, rhachilla more *Poæ* articulata, in *E. ciliata*, *E. peruviana* affinibusque in panicula spiciformi cylindracea v. interrupta densissima confertæ, in cæteris speciebus panicula longa laxa, angusta v. thyrsoidea, ramulis sæpius numerosissimis tenuibus ramulosis secus rhachin plus minus fasciculatis v. subverticillatis. Sectio a Fourniero ad *Poam* restituta. *Jacq. Ic. Rar. t.* 18, 304 (*Poa*).

Macroblepharus, *Philippi in Linnæa*, xxix. 100, ex descr. auctoris videtur *Eragrostis ciliaris*, Link, v. species quam maxime affinis.

2. *Plagiostachya.* Spiculæ ∞-floræ, planæ, angustæ v. latiusculæ, secus rhachin spicæ breviter

pedicellatæ more *Chloridearum* 2-seriatim subsessiles, rhachilla continua v. tardius subarticulata. Species sequentes inter se sat dissimiles: *E. bifaria*, Steud. (*Poa bifaria*, Kunth, Rev. Gram. t. 80), spica terminali longa simplici *Tripogonis*, glumis florentibus obtusis; *E. Schimperi*, Benth. (HARPACHNE *Hochst.*; *A. Rich. Fl. Abyss.* ii. 431), spica terminali simplici, glumis florentibus subdissitis acuminatis; *E. brevifolia*, Benth. in Hook. Ic. Pl. sub t. 1368 (*Dactylis*, Roxb., *Æluropus*, Trin., *Eleusine*, Br.), et *E. cœlachyrum*, Benth. l. c. (CŒLACHYRUM, Nees in Linnæa, xvi. 221), spicis paucis paucispiculatis in capitulum v. fasciculum terminale confertis, caule humili prostrato ramoso; *E. congesta*, Oliv. in Trans. Linn. Soc. xxix. 175, t. 115, spicis brevibus sessilibus secus rhachin terminalem dissite fasciculatis; *E. cynosuroides*, Rœm. et Schult., spicis brevibus sessilibus fasciculatis secus rhachin elongatam confertis numerosissimis.

3. *Myriostachya.* Paniculæ rami breves, dense spiciformes unilaterales, secus rhachin numerosissimi, paniculam longam angustam densam more *E. cynosuroidis* formantes, sed ipsi brevissime ramulosi. Spiculæ 3–6-floræ, omnes brevissime pedicellatæ, rhachilla ut in *Pteroëssa* continua, glumis inferioribus vacuis setaceo-acuminatis, florentibus acutissimis, palea sæpius persistente. Caryopsis immatura brevis, maturam non vidimus. Species unica, Indica. *Wall. Cat. Herb. Ind. n.* 3823 (*Leptochloa Wightiana*, Nees in Steud. Syn. Pl. Glum. i. 209). *Benth. in Hook. Ic. Pl. t.* 1381.

4. *Pteroëssa*, Dœll (*Eragrostes* genuinæ). Panicula varia laxissime effusa v. contracta. Spiculæ sæpius multifloræ, pedicellatæ v. sessiles fasciculatæque, rhachilla continua v. tardius subarticulata. Species numerosæ in series sequentes distribuendæ:—

a. *Cylindrostachyæ.* Spiculæ anguste lineares, subteretes, glumis arcte appressis, sessiles v. brevissime pedicellatæ, fasciculatæ. Species 3 v. 4, Australianæ v. insularum maris Pacifici incolæ. *Gaudich. in Freyc. Voy. Bot. t.* 25.

b. *Leptostachyæ.* Spiculæ lineares, planæ at angustæ tenuesque, pedicellatæ, panicula effusa, ramis pedicellisque capillaribus, glumis sæpe laxe imbricatis. Huc *E. pilosa*, Beauv., species fere cosmopolitana affinesque.

c. *Megastachyæ.* Spiculæ planæ, angustæ v. latæ, sessiles v. pedicellatæ, panicula varia, glumis sæpius distiche imbricatis, sulcum longitudinalem in utraque facie spiculæ sæpe relinquentibus, interdum vero spicula planissima. Species in utroque orbe imprimis in America numerosæ, ipsa *E. megastachya*, Link, et forte *E. Brownei*, Nees, sub variis nominibus fere cosmopolitanæ.

MEGASTACHYA, *Beauv. Agrostogr.* 74, *t.* 15, *f.* 5, genus propositum fuit imprimis ad *Poam mucronatam*, ejusd. Fl. Ow. et Ben. i. 5, t. 4, quæ potius ad *Centothecam* referenda videtur, cui addidit species plures *Eragrostis* (*Pteroëssæ*) glumis plus minus acutis v. mucronulatis. Fournier, Mex. Gram. 118, genus MEGASTACHYAM condidit ad species plures e sectionibus *Pteroëssæ* v. *Platystachyæ* spiculis plus minus dioicis, quod in *E. reptante*, Mich., fere constans est, character tamen in aliis speciebus valde variabilis videtur.

5. *Platystachya.* Spiculæ ∞-floræ, planæ, ovatæ v. rotundatæ, rhachilla inter flores articulata. Glumæ florentes rigide paleaceæ, distiche imbricatæ. Species paucæ Africanæ v. Asiaticæ hinc *E.* (*Pteroëssæ*) *unioloidi*, hinc *Demazeriis* nonnullis subsimiles. *Benth. in Hook. Ic. Pl. t.* 1370. *Briza geniculata*, Thunb., a Munroio ad *Eragrostim* transfertur ob glumas 3-nerves, etsi a cæteris *Platystachyis* paullum differt glumarum carinis obtusis, spicula ipsa minus complanata, et fere medium tenet inter *Eragrostim* et *Brizam*.

6. *Sclerostachya.* Spiculæ ∞-floræ, planæ, lanceolatæ v. angustæ, rhachilla inter flores articulata. Glumæ florentes rigidæ paleaceæ. Species 3, Africanæ v. Asiaticæ, perennes, rigidæ, foliis nunc longis junciformibus nunc brevibus divaricatis rigidis pungentibusque. *Vahl, Symb.* i. *t.* 2 (*Festuca*). *Kunth, Rev. Gram. t.* 190 (*Poa*). *Wall. Cat. Herb. Ind. n.* 8898 (*Brizopyrum mucronatum*, Nees).

231. ? **Ipnum,** *Philippi, Sert. Mendoc.* ii. 53.—Spiculæ ∞-floræ, cylindraceæ, secus paniculæ ramos simplices distichæ, rhachilla inter flores articulata. Glumæ 2 vacuæ, membranaceæ, 1-nerves, infima lanceolata, secunda ovata major; florentes a dorso compressæ, 3-nerves, breviter mucronatæ, apice et margine superiore scariosæ hyalinæ; palea ovata, glumæ æquilonga, 2-carinata. Stamina . . . Stylus . . . Caryopsis obovata, a dorso valde compressa.—Gramen cæspitosum, foliis planis. Panicula seu spica composita, ramulis pluribus angulo aperto patentibus plurispiculatis. (*Char. ex Philippi.*)

Species 1, e Mendoza Americæ australis extratropicæ, a nobis non visa. Ex auctoris descriptione ab *Eragrostis* sect. *Pteroëssæ* speciebus cylindrostachyis differt imprimis rhachilla fragili et inflorescentia.

232. **Cutandia,** *Willk. in Bot. Zeit.* 1860, 130.—Spiculæ ∞- (3–13-) floræ, paniculatæ, rhachilla inter flores articulata, glabra, floribus hermaphroditis. Glumæ angustæ, rigidæ,

2 inferiores vacuæ, inæquales, 1–3-nerves, muticæ, florentibus breviores ; florentes prominenter 3-nerves, carinatæ, integræ v. 2-dentatæ, muticæ v. inter dentes mucronulatæ v. rarius aristatæ ; palea gluma brevior, angusta, 2-carinata. Stamina 3. Styli breves, stigmatibus plumosis. Caryopsis oblonga, subteres v. a dorso compressa, antice late sulcata, gluma paleaque inclusa, libera (v. paleæ leviter adhærens ?).—Gramina annua, erecta v. decumbenti-multicaulia, foliis angustis planis v. setaceo-convolutis. Panicula densa, plus minus secunda, primum erecta densaque, ramulis brevissimis paucispiculatis demum sæpe divaricatissimis sub spiculis incrassatis. Spiculæ angustæ, glumis laxe imbricatis, v. planæ glumis dissitis.

Species 6, Europæ et totius regionis Mediterraneæ incolæ, præsertim in maritimis obviæ. Huc pertinent præter *Festucam memphiticam*, Boiss., quæ species typica : *C. scleropoides*, Willk. ; *F. divaricata*, Desf. Fl. Atl. t. 22 ; *F. maritima*, DC., Reichb. Ic. Fl. Germ. t. 58, f. 1519 ; *F. lanceolata*, Forsk. ; *F. philistæa*, Boiss., omnes glumis exaristatis. *F. incrassata*, Salzm., a cæteris distinguitur glumis florentibus aristatis et *Festucæ* (*Vulpiæ*) quacum jungunt auctores plures accedit, sed habitu et præsertim glumis insigniter carinatis affinitatem maximam cum *Cutandia* offert.

Genus certe *Sclerochloæ*, Beauv., et *Festucæ* sect. *Scleropoæ* proxime affine, et huic iterum jungit Boissier, nobis tamen bene distinctum videtur glumis florentibus a basi prominenter carinatis 3-nervibus. Caryopsin etiam in speciminibus examinatis a palea liberam invenimus.

233. **Oreochloa,** *Link, Hort. Berol.* i. 44.—Spiculæ pauciflores, secus rhachin simplicem inflorescentiæ spiciformis breviter pedicellatæ, distichæ, rhachilla supra glumas inferiores et inter flores articulata, floribus hermaphroditis. Glumæ membranaceæ, latiusculæ, præter carinam subenerves, muticæ, 2 inferiores vacuæ, glabræ ; florentes subsimiles nisi paullo majores pubescentesque ; summæ 1–3 minores paleam solam foventes v. vacuæ ; palea latiuscula, 2-carinata, carinis ciliatis. Stamina 3. Styli distincti, stigmatibus longiusculis barbellatis vix plumosis. Caryopsis oblonga, a dorso compressiuscula, gluma paleaque inclusa, libera.—Gramen perenne, humile, cæspitosum, foliis angustissimis planis v. convolutis. Inflorescentia spiciformis ovata v. oblonga, pedunculo terminali longiusculo ; spiculæ steriles v. bractea glumiformis *Sesleriæ* omnino desunt.

Species 1, montium Pyrenæorum et Alpium Europæ incola. *Kunth, Enum.* i. 323 (*Sesleria*). *Jacq. Ic. Rar. t.* 19 (*Poa*). *Host, Gram. Austr.* ii. *t.* 76 (*Poa*). *Reichb. Ic. Fl. Germ. t.* 12. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 52. In iconibus nonnullis glumæ ∞-nerves delineatæ, sed in speciminibus examinatis carinam solam conspicuam vidimus, nervis lateralibus, si adsint, tenuissimis v. obscuris.

234. **Ectrosia,** *R. Br. Prod.* 185.—Spiculæ pauciflores, anguste paniculatæ, rhachilla supra glumas inferiores articulata, floribus 1 rarius 2 inferioribus hermaphroditis, 2–∞ superioribus masculis v. rudimentariis. Glumæ angustæ, 2 inferiores vacuæ, persistentes, acutæ, breves, parum inæquales ; florentes rigidulæ, 1–3-nerves, acutæ mucronatæ v. in aristam tenuem productæ ; superiores flores ♂ foventes v. vacuæ, sæpius minores haud raro tamen longius tenuiusque aristatæ ; palea gluma brevior, angusta, 2-carinata. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis anguste oblonga v. fere linearis, subteres, gluma paleaque inclusa, libera.—Gramina cæspitosa, annua v. perennia, foliis angustis interdum setaceis. Panicula terminalis, nunc longa angusta dense floribunda, ramulis numerosis erecto-appressis, nunc laxior, interrupta, ramulis brevibus patentibus. Spiculæ nunc angustæ tenuesque, nunc parvæ agrostoideæ, aristis tenuibus semper numerosis.

Species 4, Australianæ. *Benth. Fl. Austral.* vii. 633. *Kunth, Rev. Gram. t.* 69.

235. **Heterachne,** *Benth. Fl. Austral.* vii. 634.—Spiculæ planæ, pauciflores, in panicula anguste spiciformi densa v. subinterrupta fasciculatæ, rhachilla supra glumas inferiores articulata, inter superiores valde flexuosa continua, floribus 1 rarissime 2 inferioribus (hermaphroditis ?) fertilibus, 1–2 superioribus (masculis ?) sterilibus. Glumæ 2 inferiores vacuæ, persistentes, complicato-cymbiformes, parum inæquales, præter carinam enerves v. utrinque 1-nerves ; tertia et interdum quarta florem fertilem foventes, late complicato-cymbiformes, incurvæ, apice obtuse subdentatæ, muticæ, præter carinam utrinque

2-nerves; superiores 2-∞ gradatim minores angustioresque, quarum 1-2 verisimiliter florem ♂, cæteræ paleam solam foventes v. omnino vacuæ; palea floris fertilis incurva, 2-carinata, carinis late alatis. Stamina . . . Styli breves, distincti, stigmatibus plumosis. Caryopsis incurva v. oblique obtuseque acuminata, gluma paleaque inclusa, libera.—Gramina (annua?) humilia, multicaulia, erecta, cæspitosa, foliis angustis convolutis. Spiculæ parvæ, molles, ovatæ v. orbiculatæ, nunc in panicula terminali anguste spiciformi densa v. interrupta fasciculatæ, nunc (interdum in eodem specimine) in capitulum ovoideum crassum intra folii vaginam subsessile confertæ.

Species 2, Australianæ. *Benth. in Hook. Ic. Pl. t.* 1250.

236. **Anthochloa,** *Nees in Lindl. Introd. Nat. Syst. ed.* 2, 450, *et in Pl. Meyen.* 164 (Antochloa).—Spiculæ paucifloræ, secus rhachin simplicem inflorescentiæ brevis subcapituliformis singulæ v. inferiores 2-3-næ, breviter pedicellatæ, rhachilla inter flores articulata, floribus hermaphroditis. Glumæ latæ, hyalino-scariosæ, albæ, muticæ, 2 inferiores vacuæ, inæquales; florentes majores, a basi brevissime cucullata latissime expansæ, fere flabellatæ, breviter sub-5-nerves; superiores 1-2 minores vacuæ, sub-3-nerves; palea angusta, hyalina, alte 2-4-fida. Stamina 3. Styli breves, distincti, stigmatibus plumosis. Caryopsis (immatura) ovoidea, intra basin glumæ paleæque inclusa, libera.—Gramina humilia, cæspitosa, foliis angustis planis. Paniculæ laxe capituliformes, inter folia sessiles v. pedunculo brevi exsertæ, glumis scarioso-petaloideis albis insignes, *Helichrysi* cujusdam capitula v. corollas plenas simulant.

Species editæ 2, forte ad unam reducendæ, Andium Peruviæ et Boliviæ incolæ. *Steud. Syn. Pl. Glum.* i. 292. *Benth. in Hook. Ic. Pl. t.* 1363.

237. **Melica,** *Linn. Gen. n.* 82.—Spiculæ 1-2- rarius ∞-floræ, anguste v. laxe paniculatæ, rhachilla continua v. tardius supra glumas inferiores articulata, ultra flores producta, glumifera, floribus hermaphroditis v. summo masculo. Glumæ 2 inferiores vacuæ, membranaceæ sæpe hyalinæ, obtusæ v. acutæ, muticæ, parum inæquales, 3-5-nerves v. secunda rarius 7-nervis, florentes majores, tenues v. rigidiores 5-∞- (sæpius 7-9-) nerves, nervis lateralibus sæpius infra apicem evanidis, carina interdum in mucronem v. aristam excurrente; superiores 2-∞ vacuæ, gradatim minores semetque involventes, massam clavatam oblongam v. obovoideam interdum demum induratam formantes v. rarius laxiusculæ; palea lata, gluma brevior, 2-carinata. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis oblongo-fusiformis, a dorso compressiuscula, lævis, gluma paleaque inclusa, libera.—Gramina perennia, erecta, interdum elatiuscula, foliis planis v. convolutis. Panicula nunc angusta coarctata longe floribunda v. subsimplex oligostachya fere racemiformis, nunc effusa ramulis filiformibus paucispiculatis. Spiculæ sæpe majusculæ, coloratæ v. subscariosæ, demum sæpe nutantes; in *M. imperfecta*, Trin. (*M. poœoide* et *M. panicoide*, Nutt.), parvæ numerosæ fere *Poæ*. Glumæ florentes nunc margine longe denseque ciliatæ nunc brevissime ciliatæ v. omnino nudæ. Lodiculæ variant connatæ v. liberæ.

Species fere 30, Europæ, Asiæ temperatæ, Africæ extratropicæ et Americæ borealis andinæ v. australis extratropicæ incolæ. *Beauv. Agrostogr.* 68, *t.* 14, *f.* 4, 5. *Kunth, Enum. Pl.* i. 375; *Rev. Gram. t.* 89. *Schreb. Beschr. Gräs. t.* 6, 54. *Trin. Spec. Gram. t.* 355. *Cav. Ic. t.* 472, 473. *Host, Gram. Austr.* ii. *t.* 9 *ad* 12, iv. *t.* 23. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 60. *Reichb. Ic. Fl. Germ. t.* 72. *Boiss. Voy. Hisp. t.* 177. *Sibth. Fl. Græc. t.* 70, 71. *Viv. Fl. Lib. Spec. t.* 25, *f.* 1. *Dcne. in Jacquem. Voy. Bot. t.* 175. *H. B. et K. Nov. Gen. et Sp. t.* 693. *Dœll in Mart. Fl. Bras.* ii. iii. 126, *t.* 38.

In speciebus typicis *Melicæ*, spiculæ sæpius nutantes v. pendulæ, floribus rarius plus quam 2, glumæ florentes margine plus minus scariosæ nec unquam aristatæ, et glumæ superiores vacuæ in massam clavatam v. obovoideam confertæ. Sectio *Bromelica*, Thurb. in S. Wats. Bot. Calif. ii. 304, species 4 continet ex America boreali-occidentali, spiculis erectis 3-8-floris, glumis florentibus rigidioribus interdum mucronatis v. aristatis, summis vacuis angustioribus minus confertis. Sectio tam habitu quam characteribus quodammodo *Diarrhenæ* accedit, sed mediante *M. stricta*, Boland., arcte cum *Melicis* typicis connectitur.

CHONDRACHYRUM, *Nees in Lindl. Introd. Nat. Syst. ed.* 2, 449, species Brasiliensis a nobis non visa, ex descriptione characteres omnino *Melicæ* ostendit, et nescimus qua ratione auctor dicit 'vera indole proprius accedere videtur *Paniceis*,' a quibus floribus 2 perfectis cum gluma summa vacua claviformi longissime recedit.

238. **Diarrhena** (Diarina), *Rafin. in Journ. Phys.* lxxxix. 104. (Korycarpus, *Zea in Act. Matr.* 1806, *ex Lag. Elench. Hort. Matr. Nov. Gen. et Sp.* 4. Corycarpus, *Zea, ex Kunth.* Rœmeria, *Zea in Rœm. et Schult. Syst.* i. 61, 287.)—Spiculæ ∞- (3-5-)floræ, paniculatæ, rhachilla inter flores articulata fragillima, ultra flores producta glumifera, floribus hermaphroditis. Glumæ 2 inferiores vacuæ, infima angusta, acuta, sæpius 1-nervis, secunda major, latior, carinata, 5-nervis, acuminata v. mucronata; florentes latiores, acuminatæ v. mucronatæ, dorso rotundatæ, demum coriaceæ nitidæque, 3-nerves; summæ 2-4 gradatim angustiores, vacuæ, semet involventes; palea tenuis, latiuscula, 2-carinata. Stamina 2, rarius 1. Styli breves, distincti, stigmatibus plumosis. Caryopsis oblique ovoidea, crassa, a latere compressiuscula, paleam glumamque sæpe superans, pericarpio membranaceo apice supra semen incrassato.—Gramen erectum, elatiusculum, foliis longis planis. Panicula elongata, angusta, stricta, ramulis paucis distantibus erectis paucispiculatis v. spiculæ singulæ secus axin sparsæ. Spiculæ florentes angustæ fere lineares, glumis imbricatis, fructiferæ quasi interruptæ, caryopsibus prominentibus insignes.

Species 2, una boreali-Americana, altera Japonica. *Beauv. Agrostogr.* 142, *t.* 25, *f.* 2. *Kunth, Enum. Pl.* i. 425. *Mich. Fl. Bor. Amer. t.* 10 (*Festuca*). *Jacq. Ecl. Gram. t.* 29.

ONŒA, *Fr. et Sabat. Enum. Pl. Jap.* ii. 178, species a nobis non visa, ab auctoribus ipsis ibid. 603 ad *Diarrhenam* refertur.

239. **Centotheca**, *Desv. in Nouv. Bull. Soc. Philom.* ii. (1810), 189, *et in Journ. Bot.* i. (1813), 70.—Spiculæ ∞-floræ, ample paniculatæ, rhachilla supra glumas inferiores tardius articulata longiuscula glabra, supra flores stipitiformis, floribus hermaphroditis. Glumæ membranaceo-herbaceæ, 2 inferiores vacuæ, carinatæ, acutæ, 3-5-nerves, parum inæquales; florentes paullo majores, dorso rotundatæ, 5-7-nerves, acutæ v. mucronatæ, exaristatæ, superne dorso setis reversis e tuberculo oriundis echinatæ v. nudæ, summa interdum ad apicem stipitis parva vacua; palea gluma vix brevior, prominenter 2-nervis v. 2-carinata. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis oblonga, crassiuscula, subteres, gluma paleaque laxe inclusa, libera.—Gramina elata, erecta, foliis planis lanceolatis inter venas transverse venulosis. Panicula terminalis, ramis longiusculis parum ramulosis erectis v. demum patentibus, spiculis breviter pedicellatis.

Species 2 v. 3, Africæ et Asiæ tropicæ et insularum maris Pacifici incolæ. *Kunth, Enum. Pl.* i. 366; *Rev. Gram. t.* 70. *Beauv. Agrostogr.* 69, *t.* 14, *f.* 7. *Trin. Spec. Gram. t.* 298 (*Uniola*). *Griff. Ic. Pl. Asiat. t.* 152.

Icones supra citatæ speciem referunt typicam spiculis 2-4-floris, glumis nonnullis sæpissime setis reversis echinatis. Illi tamen congener videtur *Poa mucronata*, Beauv. Fl. Ow. et Ben. i. 5, t. 4, spiculis ∞-floris, glumis nudis, quæ species typica MEGASTACHYÆ, *Beauv. Agrostogr. t.* 15, *f.* 5, a cæteris speciebus ei adjunctis pluribus notis discrepans.

240. **Orthoclada**, *Beauv. Agrostogr.* 69, *t.* 14, *f.* 9.—Spiculæ 1-2-floræ, laxe paniculatæ, rhachilla continua inter flores longiuscula, floribus hermaphroditis v. unisexualibus. Glumæ carinatæ, rigidule membranaceæ, 2 inferiores vacuæ, acutæ, extima sæpius 3-nervis, secunda paullo major 5-nervis; florentes paullo majores, acutæ v. mucronulatæ, 5-7-nerves, v. summa minor vacua; palea gluma vix brevior, prominenter 2-nervis v. 2-carinata. Stamina 2-3. Styli distincti, stigmatibus longiusculis plumosis. Caryopsis oblique oblonga, crassa, a latere compressiuscula, gluma paleaque arcte inclusa, libera.—Gramen erectum, validum, foliis planis petiolatis ample lanceolatis inter venas transverse venulosis. Panicula ampla, ramis numerosis longis tenuibus secus rhachin fasciculatis ramulosis, primum erectis confertis demum late patentibus. Spiculæ in quoque ramulo paucæ, pedicellis capillaribus.

Species 1, Americæ tropicæ a Brasilia usque ad Indiam occidentalem et Mexicum incola. *Kunth, Enum. Pl.* i. 423; *Rev. Gram. t.* 71. *Dœll in Mart. Fl. Bras.* ii. iii. *t.* 35.

Genus *Centothecæ* et *Lophatheræ* affine. Florem in spicula sæpe unicum fertilem, invenimus, gluma superiore vacua v. paleam solam fovente, interdum tamen flores 2 fertiles adsunt, gluma vacua ad apicem rhachillæ minuta v. 0. Stamina 2 dicuntur sed certe interdum adsunt 3. Spiculæ in aliis speciminibus fœmineæ videntur, in aliis hermaphroditæ v. interdum masculæ.

241. **Lophatherum,** *Brongn. in Duperr. Voy. Coq. Bot.* 49, *t.* 8. (Acroelytrum, *Steud. in Flora*, 1846, 20. Alletotheca, *Steud. Syn. Pl. Glum.* i. 117.)—Spiculæ 1-floræ, secus paniculæ ramulos simplices sparsæ, rhachilla supra glumam infimam subarticulata ultra florem producta apice ∞-glumifera, flore hermaphrodito. Glumæ 2 inferiores vacuæ, latiusculæ, obtusæ, membranaceæ, 5-nerves, extima sæpe persistens, secunda similis nisi major; tertia florens adhuc major, 5–7-nervis, haud raro arista brevi terminata; plures ad apicem rhachillæ vacuæ v. paleam parvam foventes, gradatim minores et semet involventes, paucinerves, breviter aristatæ, cristam unilateralem parvam e spicula exsertam formantes; palea glumæ subæqualis, angusta, hyalina, 2-carinata, carinis plus minus alatis. Stamina 3. Styli basi brevissime connati, stigmatibus elongatis tenuiter plumosis. Caryopsis oblonga, gluma inclusa, libera.—Gramen elatiusculum, erectum, habitu *Centothecæ*, foliis planis lanceolatis inter venas transversim venulosis. Panicula longa, ramis sparsis dissitis, nunc elongatis spiculis distichis, nunc abbreviatis spiculis confertis. Spiculæ subteretes, lineares v. rarius latiusculæ crassioresque, subsessiles.

Species 1 v. 2, inter se valde affines, Indiæ orientalis, Archipelagi Malayani, Chinæ et Japoniæ incolæ. *Kunth, Enum. Pl.* i. 390; *Steud. Syn. Pl. Glum.* i. 300.

242. **Streptogyne,** *Beauv. Agrostogr.* 80, *t.* 16, *f.* 8.—Spiculæ pauci- (1–4-)floræ, lineariteretes, in spica unilaterali subsessiles, rhachilla inter flores sæpius longiuscula articulata, floribus saltem inferioribus hermaphroditis. Glumæ 2 inferiores vacuæ, extima parva, secunda longior, latiuscula, convoluta, ∞-nervis, acuta, mutica; florentes longiores, rigidiores, arcte convolutæ, ∞-nerves, in aristam tenuem rectam productæ, summæ 1–3 vacuæ, gradatim minores; palea gluma arcte inclusa, angusta, membranacea, breviter 2-fida, 2-carinata, genitalia involvens. Lodiculæ angustæ 2 (v. 3?). Stamina 2–3. Styli 2–3, basi breviter connati, stigmatibus longissime filiformibus breviter papillosis demum spiraliter tortis. Caryopsis linearis, teres, exsulca, gluma paleaque leviter induratis arcte inclusa, libera.—Gramen erectum elatiusculum, foliis longis planis in vaginam longe angustatis, venulis transversis tessellatis. Spica terminalis, longa, rigida. Spiculæ longæ, nunc dissitæ rhachi adpressæ, nunc numerosæ, confertæ, semper secundæ.

Species 1, Indiæ orientalis, Africæ tropicæ, Americæ tropicæ et civitatum australium Americæ borealis incolæ. *Kunth, Enum. Pl.* i. 427. *Dœll in Mart. Fl. Bras.* ii. iii. 171, *t.* 46.

Specimina Americana, Africana et Indica, inter se simillima, omnia variare videntur florum numero in spicula, stylis staminibusve 2 v. 3. Genus pluribus notis *Lophatheræ* affine, abunde differt inflorescentia, spiculis longis, stigmatibus longissimis tortis, etc.

243. **Zeugites,** *Schreb. Gen. Pl.* 810. (Senites, *Adans. Fam.* ii. 39, *char. manco.* Despretzia, *Kunth, Rev. Gram.* ii. 485, *t.* 157. Krombholzia, *Fourn. in Bull. Soc. Bot. Belg.* xv. 463.)—Spiculæ ∞-floræ, paniculatæ, rhachilla continua v. vix sub flore fertili articulata supra florem fertilem sæpe elongata, flore inferiore fœmineo superioribus masculis. Glumæ tenuiter membranaceæ, multinerves, 2 inferiores vacuæ, latissimæ, parum inæquales, apice rotundatæ v. truncatæ, sæpe subdentatæ, muticæ, inter nervos sæpius transversim venulosæ; tertia florem ♀ fovens vacuis similis nisi paullo major, interdum mucronulata; superiores 2–5 flores ♂ foventes angustiores sæpeque mucronulatæ, venulis transversis raris; palea angusta, hyalina, 2-carinata. Stamina in flore ♂ 3. Styli in flore ♀ distincti, stigmatibus longiusculis laxe plumosis. Caryopsis oblonga, gluma paleaque inclusa, libera.—Gramina nunc debilia basi decumbentia ramosa, nunc elatiora valida, foliis planis petiolatis v. sessilibus ovatis v. ovato-lanceolatis, inter venas transverse

venulosis. Panicula terminalis, nunc laxa effusa spiculis paucis nutantibus, nunc dense floribunda.

Species 5 v. 6, Americæ tropicæ a Columbia usque ad Indiam occidentalem et Mexicum dispersæ. *Beauv. Agrostogr.* 110, *t.* 12, *f.* 9. *Fourn. Gram. Mex.* 121. *P. Br. Hist. Jam. t.* 4, *f.* 3 (*Apluda*).

244. **Pleuropogon,** *R. Br. in App. Parr. Voy. Suppl.* 289, *t.* D. (Lophochlæna, *Nees in Ann. Nat. Hist. ser.* 1, i. 283.)—Spiculæ ∞- (8–14-)floræ, secus rhachin simplicem racemosæ, rhachilla supra glumas inferiores et inter flores articulata, floribus hermaphroditis v. summo masculo. Glumæ 2 inferiores vacuæ, membranaceæ, subhyalinæ, 1-nerves v. secunda sub-3-nervis, muticæ, inæquales; florentes longiores, membranaceæ v. rigidulæ, 7-nerves, apice breviter hyalinæ, integræ v. emarginato-bifidæ, nervo medio in mucronem v. aristam excurrente, lateralibus gluma brevioribus; palea gluma vix brevior, hyalina, 2-carinata, carinis elevatis cristatis v. appendice lineari instructis ciliatisque. Stamina 3. Styli breves, stigmatibus plumosis. Caryopsis oblonga, crassiuscula, gluma paleaque inclusa, libera.—Gramina erecta, mollia, foliis planis. Racemus simplex, breviter pedunculatus, laxus, interdum elongatus. Spiculæ majusculæ, dissitæ, breviter pedicellatæ, erectiusculæ v. pendulæ.

Species 3, quarum una Arctica, 2 Californicæ. *Kunth, Enum. Pl.* i. 368. *Thurb. in S. Wats. Bot. Calif.* ii. 306 (*Lophochlæna*). *Hook. et Arn. Bot. Beech. Voy. t.* 95 (*Lophochlæna*).

245. **Brylkinia,** *F. Schmidt, Reise Amurl. Bot.* 199, *t.* 8.—Spiculæ 1-floræ, secus pedunculum simplicem racemosæ, secundæ, rhachilla sub flore demum articulata glabra, ultra florem in stipitem producta, flore hermaphrodito. Glumæ 4 inferiores vacuæ, extima angusta, 1–3-nervis, acutissima, sequentes gradatim majores, 5-nerves, mucronato-acuminatæ v. aristatæ; quinta sola florens, cæteris longior longiusque aristata, 5–7-nervis; palea angusta, 2-carinata, gluma inclusa. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis longe oblonga, crassiuscula, exsulca.—Gramen perenne, flaccidum, longe ascendens, foliis planis. Racemus simplex, ei *Pleuropogonis* subsimilis, spiculis majusculis breviter pedicellatis pendulis.

Species 1, Japoniæ et ins. Sachalin incola.

246. **Uniola,** *Linn. Gen. n.* 85. (Trisiola, *Rafin. in Journ. Phys.* lxxxix. 104. Chasmanthium, *Link, Hort. Berol.* i. 159.)—Spiculæ ∞- (3–20-)floræ, planæ, paniculatæ, rhachilla inter flores demum articulata, floribus hermaphroditis v. summo masculo. Glumæ complicato-carinatæ, rigidæ, multinerves, acutæ v. rarius obtusiusculæ, muticæ, carina interdum anguste alata, 3–6 inferiores vacuæ, gradatim auctæ; florentes vacuis similes nisi paullo majores, summa sæpius iterum minor florem ♂ fovens v. vacua; palea rigidula, 2-carinata, carinis anguste alatis. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis oblonga, crassiuscula, a latere compressa, gluma paleaque laxe inclusa, libera. —Gramina erecta, sæpe elata, foliis planis v. convolutis. Panicula nunc elongata, stricta, subsimplex, spiculis secus axin fasciculatis v. sparsis, nunc ampla, laxa v. densa. Spiculæ in ordine insigniter latæ planæque interdum magnæ; glumæ rigidæ, herbaceæ v. coriaceæ, nervis interdum tenuissimis 1–2 utrinque evidentioribus semper tamen revera numerosis, in *U. paniculata* glumæ 6 inferiores, in cæteris speciebus 4 v. interdum 3 vacuæ.

Species nobis notæ genuinæ boreali-Americanæ 4, quarum una etiam in America centrali et australi andina v. extratropica invenitur. *Beauv. Agrostogr.* 74, *t.* 15, *f.* 6. *Kunth, Enum. Pl.* i. 424; *Rev. Gram. t.* 72. *Linn. Amœn. Acad.* vii. *t.* 3, *f.* 40 (*spicula U. paniculatæ*). *Benth. in Journ. Linn. Soc.* xix. 122. His dubie additur *U. racemiflora*, Trin. (*U. virgata*, Griseb. Fl. Brit. W. Ind. 531), ex India occidentali, inflorescentia fere *Leptochloæ*; spicæ numerosæ breves omnino *Chloridearum* secus pedunculum longum densissime confertæ secundæ, sed spiculæ, etsi minimæ, omnino *Uniolæ*.

Species 3, Mexicanæ, a Fourniero editæ, nobis ignotæ, ex charactere dato a genere differunt glumis vacuis 2 tantum et caryopsi lineari-elongata.

247. **Distichlis,** *Rafin. in Journ. Phys.* lxxxix. 104. (Brizopyrum, *Presl, Rel. Hænk.* 280, *non Link.*)—Spiculæ ∞-floræ, stricte v. abortu dioicæ, in panicula contracta spiciformi v. oblonga subsessiles, rhachilla in ♂ continua in ♀ inter flores articulata. Glumæ 2 inferiores vacuæ, angustæ, carinatæ, acutæ, florentibus breviores; florentes latiores, carinatæ, multinerves, acutæ, exaristatæ, rigidule membranaceæ v. subcoriaceæ; palea complicato-2-carinata, carinis interdum anguste alatis. Stamina in fl. ♂ 3, ovarii rudimento raro; staminodia in fl. ♀ rara, parva. Styli in fl. ♀ ima basi incrassati contigui at distincti (ovarium apice 2-fidum apud auct. nonnull.) longiusculi, stigmatibus plumosis. Caryopsis obovoidea v. elliptica, gluma paleaque inclusa, libera, pericarpio (an semper?) superne incrassato subspongioso.—Gramina rigida, repentia v. basi decumbentia, caulibus adscendentibus vaginis foliorum obtectis, foliis rigidis planis v. convolutis superne sæpe subulatis interdum pungentibus. Spicæ densæ paucispiculatæ, breviter v. longiuscule pedunculatæ, utriusque sexus parum dissimiles, spiculæ tamen in planta ♂ plures quam in ♀, rigidulæ, compressæ, faciebus præsertim in ♀ medio longitudinaliter sulcatis, floribus 8–16, glumis paleaceis arcte imbricatis.

Species v. varietates insigniores 4 v. 5, Americæ borealis et Australis andinæ v. extratropicæ incolæ, præsertim maritimæ, quarum una etiam in maritimis Australiæ obvia. *E. Desv. in C. Gay, Fl. Chil.* vi. 395. *Benth. Fl. Austral.* vii. 637. *E. Fourn. Gram. Mex.* 120 (*Brizopyrum*). *Labill. Pl. Nov. Holl. t.* 24 (*Uniola*). *Kunth, Rev. Gram. t.* 81, 82, 144, 181, 182 (*Poa*). *Trin. Spec. Gram. t.* 299, 300 (*Uniola*). *Torr. Bot. Marc. Exped. t.* 20 (*Uniola*).

248. **Æluropus,** *Trin. Fundam. Agrostogr.* 143. (Calotheca, *Spreng. Syst.* i. 347, *pro maxima parte non Desv.* Chamædactylis, *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 66.)—Spiculæ ∞-floræ, secus rhachin spicæ v. paniculæ spiciformis brevis v. interruptæ subsessiles, dense confertæ, rhachilla sub floribus articulata, floribus hermaphroditis v. summo masculo. Glumæ 2 inferiores vacuæ, membranaceæ, 1–3-nerves, parum inæquales; florentes paullo longiores, latiores, 7–9-nerves, apice latiusculæ, interdum denticulatæ, mucronatæ; palea gluma sublongior, hyalina, lata, 2-carinata. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis ovata, a dorso compressiuscula, gluma paleaque inclusa, libera.—Gramina perennia, repentia v. prostrata, rigida, ramosissima, caulibus foliatis abbreviatis v. elongato-ascendentibus, foliis brevibus patentibus rigidis interdum pungentibus. Spicæ breves, densæ, nunc solitariæ, nunc sæpius capitato-glomeratæ v. secus rhachin sessiles sparsæ v. fasciculatæ, spicam compositam seu paniculam spiciformem continuam v. interruptam formantes.

Species bene distinctæ 3, ab auctoribus varie multiplicatæ, regionis Mediterraneæ, Asiæ mediæ et Indiæ orientalis incolæ, sæpius maritimæ. *Parlat. Fl. Ital.* i. 460. *Host, Gram. Austr.* iv. *t.* 28 (*Dactylis*). *Reichb. Ic. Fl. Germ. t.* 59, *f.* 1520 (*Dactylis*). *Desf. Fl. Atl. t.* 15 (*Dactylis*). *Sibth. Fl. Græc. t.* 80, 81 (*Festuca*).

249. **Dactylis,** *Linn. Gen. n.* 86.—Spiculæ paucifloræ, in fasciculis densis compositis secundis brevissime pedicellatæ, rhachilla inter flores continua v. vix demum articulata glabra, floribus hermaphroditis v. summo masculo. Glumæ 2 inferiores vacuæ, rigidulæ, hyalinæ, carinatæ, mucronatæ, inæquales, secunda majore interdum 3-nervi; florentes vacuis majores, rigidiores, 5-nerves, carina ciliolata in mucronem v. aristam brevem producta; palea gluma vix brevior, 2-carinata. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis a dorso compressa, antice cava v. late sulcata, gluma paleaque inclusa, libera.—Gramen perenne, interdum elatum, foliis planis. Spicularum fasciculi capituliformes, secundi, nunc ad apicem pedunculi confertissimi, nunc secus rhachin subsessiles, spicam interruptam formantes v. ad apices ramorum paniculæ conferti.

Species 1, per Europam, Asiam temperatam et Africam borealem late dispersa et in aliis regionibus inquilina. *Beauv. Agrostogr.* 85, *t.* 17, *f.* 5. *Kunth, Enum. Pl.* i. 385. *Host, Gram. Austr.* ii. *t.* 94. *Reichb. Ic. Fl. Germ. t.* 59 (*excl. f.* 1520). *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 65. *Parlat. in Webb, Phytogr. Canar. t.* 249.

D. cæspitosa, Hook. f., ex insulis Falklandicis infra sub *Poa* citatur.

250. **Lasiochloa,** *Kunth, Rev. Gram.* ii. 555, *t.* 192 *ad* 194.—Spiculæ 2–3-floræ, in panicula densa spiciformi cylindracea v. interrupte subramosa fasciculatæ, rhachilla brevissima supra glumas inferiores et inter flores demum articulata, glabra, floribus hermaphroditis v. summo masculo. Glumæ 2 inferiores vacuæ spiculam subæquantes, 5–7-nerves, acutæ v. breviter mucronatæ, sæpissime e tuberculis hispidæ; florentes breviores, tenuiores, interdum scarioso-subhyalinæ, 7–9-nerves, muticæ; palea 2-carinata. Stamina 3. Styli breves, stigmatibus pilis brevibus plumosis. Caryopsis oblonga, gluma paleaque inclusa, libera.—Gramina cæspitosa, annua (v. perennia ?), foliis angustis planis v. sæpius convoluto-teretibus setaceisve. Spiculæ parvæ, pilis rigidis glumarum inferiorum conspicuarum hispidæ, paniculis sæpius fuscescentibus irregulariter ovatis v. subramosis, interdum dense cylindraceis.

Species 3 v. 4, Africæ australis incolæ. *Nees, Fl. Afr. Austr. Gram.* 430.

Genus *Kæleriæ* (*Lophochloæ*) quodammodo accedit quacum mediante *K. Gerrardi*, Munro, connectitur sed inflorescentia et glumæ ∞-nerves potius cum *Dactyli* comparandæ. Spiculæ etiam sæpe æqualiter 2-floræ *Aireas* referunt.

251. **Demazeria,** *Dumort. Comment. Bot.* 26. (Brizopyrum, *Link, Hort. Berol.* i. 159.)—Spiculæ ∞-floræ, compressæ, distiche spicatæ v. inferiores subfasciculatæ, rhachilla inter flores articulata, floribus hermaphroditis v. summo imperfecto. Glumæ coriaceæ, carinatæ, obtusæ v. mucronato-acutæ, muticæ, 2 inferiores vacuæ, persistentes, 3–5-nerves, florentibus minores; florentes imbricatæ, 7-nerves; palea rigidula, gluma vix brevior v. sublongior, juxta margines 2-carinata. Stamina 3. Styli breves, distincti, stigmatibus plumosis. Caryopsis oblonga, a dorso compressiuscula, antice concava, gluma paleaque inclusa, libera.—Gramina annua v. perennia, foliis angustis sæpius convolutis. Spiculæ nunc majusculæ, secus pedunculum dissitæ, regulariter distichæ, nunc minores secus rhachin confertæ, bifariam imbricatæ, spica unica terminali v. rarius 2–3 in axillis superioribus additæ. Glumæ florentes basi dorso v. ad margines pubescentes v. ciliato-pilosæ.

Species nobis notæ 4, quarum 1 regionis Mediterraneæ cæteræ Africæ australis incolæ. *Jacq. Ic. Rar. t.* 303 (*Poa*). *Nees, Fl. Afr. Austr. Gram.* 369 (*Brizopyrum*, excl. *B. cyperoide*).

Character Linkianus imprimis ad *D. siculam*, regionis Mediterraneæ eductus fuit. *Brizopyrum americanum*, Link, spiculis dioicis, est typus generis *Distichlis*, Rafin. (*Brizopyri*, Presl).

252. **Sclerochloa,** *Beauv. Agrostogr.* 97, *pro parte, t.* 19, *f.* 4.—Spiculæ ∞- (3–6-) floræ compressæ, in panicula secunda confertæ, rhachilla sub floribus articulata incrassataque, floribus hermaphroditis v. summo imperfecto. Glumæ 2 inferiores vacuæ, extima brevis acutiuscula, secunda major, latior, obtusissima, 3–5-nervis; florentes longiores, complicato-carinatæ, rigide sub-5-nerves, apice membranaceæ, truncatæ v. emarginatæ, costa rarius in mucronulam excurrente, nervis lateralibus minoribus; palea gluma paullo brevior, 2-carinata. Stamina 3. Styli breves, distincti, stigmatibus plumosis. Caryopsis oblonga, subteres v. a latere compressiuscula, exsulca, gluma paleaque inclusa, libera.—Gramen annuum, humile, foliis planis. Panicula brevis, unilateralis, spiculis breviter pedicellatis, superioribus solitariis, inferioribus in ramulis brevissimis 2–3-nis.

Species 1, Europæ australis et Asiæ occidentalis et mediæ incolæ. *Host, Gram. Austr.* ii. *t.* 73 (*Poa*). *Reichb. Ic. Fl. Germ. t.* 58, *f.* 1516.

Genus a *Festuca* (*Scleropoa*) glumis florentibus a basi carinatis facile distinctum, ad *S. duram*, Beauv., limitatur; *S. philistæa*, Boiss., potius ad *Cutandiam* referenda est.

253. **Briza,** *Linn. Gen. n.* 84.—Spiculæ ∞-floræ, paniculatæ, rhachilla inter flores articulata glabra, floribus hermaphroditis v. summo imperfecto. Glumæ scarioso-membranaceæ, valde concavæ v. vesiculosæ, 2 inferiores vacuæ, persistentes, 3–5-nerves, parum inæquales; florentes imbricatæ, appressæ v. patentes, vacuis latiores, obtusæ acutæ v. breviter aristatæ, 5–∞-nerves, nervo medio interdum evanescente, summa sæpe multo angustior vacua v. floris rudimentum fovens; palea lata et sæpe gluma multo minor, hyalina, plana, prope margines 2-carinata v. 2-nervis. Stamina 3. Styli distincti, stig-

matibus plumosis. Caryopsis ovata, a dorso compressa, gluma paleaque inclusa, paleæ marginibus inflexis amplexa sed libera, v. rarius siccitate leviter adhærens.—Gramina annua v. perennia, foliis planis v. anguste convolutis interdum setaceis. Panicula nunc effusa ramulis capillaceis, nunc angusta stricta fere spiciformis.

Species ad 10, Europæ, Africæ borealis, Asiæ temperatæ et Americæ australis incolæ. *Beauv. Agrostogr.* 67, *t.* 14, *f.* 3. *Kunth, Enum. Pl.* i. 371. *Dœll in Mart. Fl. Bras.* ii. iii. 129.

Sectiones sequentes ab auctoribus nonnullis pro generibus propriis habentur :—

1. *Eubriza.* Spiculæ latæ, in panicula laxa a ramulis pedicellisque capillaribus nutantes v. pendulæ. Glumæ florentes obtusæ v. obtusiusculæ, muticæ, nervis lateralibus a medio distantibus distinctis v. in unum latum obscurum confluentibus marginibus scariosis enervibus. Species Europææ, quarum una in aliis regionibus inquilina nunc late dispersa. *Trin. Spec. Gram. t.* 290 *ad* 292. *Host, Gram. Austr.* ii. *t.* 23 *ad* 30. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 59. *Reichb. Ic. Fl. Germ. t.* 92. *Sibth. Fl. Gr. t.* 74 *ad* 77. *Bot. Mag. t.* 357.

B. spicata, Sibth. Fl. Gr. t. 77, Trin. Spec. Gram. t. 293, species orientalis ab *Eubriza* parum differt spiculis ovatis in panicula angusta brevissime pedicellatis erectis.

2. *Chascolytrum.* Panicula densiuscula, glumarum florentium nervi 5–7 prominuli, ad apicem glumæ conniventes, et interdum in mucronem brevem producti, marginibus glumæ anguste scariosis ; paleæ carinæ sæpe ciliatæ. Species 2 v. 3, austro-Americanæ, ab auctoribus varie multiplicatæ, quarum una a Chile et Bonaria usque ad Mexicum extensa. *Beauv. Agrostogr. t.* 17, *f.* 6 (*Calotheca*). *Trin. Spec. Gram. t.* 294. *Dœll in Mart. Fl. Bras.* ii. iii. *t.* 39. CHASCOLYTRUM, *Desv. in Nouv. Bull. Soc. Philom.* ii. (1810) 190, *et in Journ. Bot.* i. (1813) 72. *Kunth, Rev. Gram. t.* 86, 87.

3. *Calotheca.* Panicula laxa, patens. Glumarum florentium nervi 5–7 prominentes, ad apicem glumæ conniventes, plus minus in aristam producti, marginibus scariosis latissimis apice intra aristam subdorsalem plus minus productis. *Trin. Spec. Gram. t.* 289. *Dœll in Mart. Fl. Bras.* ii. iii. *t.* 40. CALOTHECA, *Desv. in Nouv. Bull. Soc. Philom.* ii. (1810) 190, *et in Journ. Bot.* i. (1813) 71. *Kunth, Rev. Gram. t.* 88. *Beauv. Agrostogr. t.* 17, *f.* 7.

B. geniculata, Thunb., ex Africa australi, a Munroio ob glumas florentes distincte 3-nerves ad *Eragrostim* (*Platystachyam*) refertur.

254. **Schismus,** *Beauv. Agrostogr.* 73, *t.* 15, *f.* 4. (Electra, *Panz in Denkschr. K. Acad. Wiss. Münch.* 1813, 299. Hemisacris, *Steud. in Flora,* 1829, 490.)—Spiculæ ∞-floræ, anguste paniculatæ, rhachilla inter flores articulata fragillima, floribus hermaphroditis v. summo imperfecto. Glumæ 2 inferiores vacuæ, persistentes, membranaceæ, acutæ, 3–5-nerves, parum inæquales, spiculam æquantes v. vix breviores ; florentes multo breviores, imbricatæ, latæ, hyalinæ, tenuissime 5–9-nerves, apice 2-fidæ, muticæ v. inter lobos minute mucronatæ ; palea paullo brevior, hyalina, superne dilatata, carinis 2 basi subcontiguis superne late divergentibus. Stamina 3, antheris brevibus. Styli distincti, stigmatibus plumosis. Caryopsis obovoidea, gluma paleaque laxe inclusa, libera.—Gramina annua, cæspitosa, sæpius humilia, foliis angustis interdum setaceis. Panicula angusta, densa v. laxiuscula, ramulis erectis. Spiculæ ob glumarum margines subscariosos sæpe nitidulæ.

Species 3 v. 4, quarum una per regionem Mediterraneam ab ins. Canariensibus usque ad Affghanistan et Arabiam latissime dispersa, 2 v. 3 Africæ australi propriæ. *Kunth, Enum. Pl.* i. 384. *Coss. et Dur. Fl. Alg. Glum.* 137. *Nees, Fl. Afr. Austr. Gram.* 420. *Cav. Ic. t.* 44 (*Festuca*).

255. **Nephelochloa,** *Boiss. Diagn.* v. 72, *non Griseb.*—Spiculæ ∞-floræ, parvæ, paniculatæ, rhachilla inter flores articulata glabra, floribus hermaphroditis. Glumæ 2 inferiores vacuæ, persistentes, membranaceo-hyalinæ, vix venosæ, obtusæ, muticæ, inæquales ; florentes longiores, vix carinatæ, basi 5- rarius 7-nerves, apice scariosæ 2-fidæ, arista inter lobos tenui recta lobis longiore ; palea hyalina, 2-dentata, 2-carinata. Stamina 3. Styli brevissimi, stigmatibus brevibus plumosis. Caryopsis (vix matura) ovoidea, exsulca, glabra, gluma paleaque inclusa, libera.—Gramen annuum, erectum, gracile, sæpius simplex, foliis paucis brevibus setaceo-convolutis. Panicula elegantissima, oblongo-thyrsoidea, ramulis more *Airæ involucratæ,* Cav., verticillatis pedicellisque capillaribus, spiculis parvis nitidulis.

Species 1, Orientalis. *Benth. in Hook. Ic. Pl. t.* 1369. Species a Grisebachio in Ledeb. Fl. Ross. *Nephelochloæ* additæ 'charactere reformato,' nobis omnino ad *Poam* restituendæ videntur.

256. **Poa,** *Linn. Gen. n.* 83.—Spiculæ pauci- (sæpius 2–6-)floræ, in panicula laxa v. rarius spiciformi pedicellatæ, rhachilla inter flores articulata glabra v. rarius pilosula, floribus hermaphroditis, v. præsertim in speciebus austro-Americanis polygamis summo sæpe imperfecto. Glumæ membranaceæ, carinatæ, acutæ v. obtusæ, exaristatæ, 2 inferiores vacuæ, persistentes, 1–3-nerves, florentibus vulgo breviores; florentes obtusæ v. rarius acutæ, 5- rarius 7-nerves, nervis sæpius apice conniventibus; palea gluma parum brevior, prominenter 2-nervis v. 2-carinata. Stamina 3. Styli breves, nunc brevissimi, distincti, stigmatibus plumosis. Caryopsis ovoidea oblonga v. fere linearis, compressiuscula, exsulca v. rarius late sulcata, glabra, gluma paleaque inclusa, libera v. siccitate paleæ plus minus adhærens.—Gramina nunc humilia, annua, nunc elatiora perennia, foliis planis v. convolutis. Panicula sæpius effusa, spiculis parvis v. mediocribus, floribus in paucis speciebus ad 1–2 reductis, rarissime usque ad 7 v. 8.

Species ad 80, apud auctores nonnullos ultra 200, per orbem terrarum latissime dispersæ, in temperatis præsertim hemisphærii borealis frequentissimæ, inter tropicos paucæ. *Beauv. Agrostogr.* 70, *t.* 14, *f.* 10. *Kunth, Rev. Gram. t.* 83, 150 *ad* 153; *Enum. Pl.* i. 324 (*quoad sect.* a). *Steud. Syn. Pl. Glum.* i. 249. *Host, Gram. Austr.* ii. *t.* 61 *ad* 67, 70, 71; iii. *t.* 13 *ad* 16; iv. *t.* 26, 27. *Jacq. Ecl. Gram. t.* 36. *Reichb. Ic. Fl. Germ. t.* 81 *ad* 90. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 56. *Coss. et Dur. Expl. Alg. t.* 40. *Labill. Pl. Nov. Holl. t.* 35 (*Arundo*). *Hook. f. Fl. Tasm. t.* 164. *Benth. Fl. Austral* vii. 650. *Buchan. N. Zeal. Grass. t.* 42 *ad* 53. *Torr. Fl. N. York, t.* 155. *Fourn. Gram. Mex.* 112 (*excl. sp. n.* 6). *Dœll in Mart. Fl. Bras.* ii. iii. 118, *t.* 36.

Genus quoad species plerasque naturale et glumis florentibus a basi carinatis 5-nervibus, nervis conniventibus ab *Eragrosti*, *Glyceria* et *Festuca* bene distinctum, species tamen nonnullæ quasi intermediæ limites incertos reddunt, nec adhuc in sectiones naturales divisum, sequentes a variis auctoribus propositæ v. pro generibus distinctis habitæ male definitæ evadunt.

Pseudopoa, C. Koch in Linnæa, xxi. 409, includit *P. persicam*, Poir., cum speciebus 2 Asiaticis ei affinibus. Annuæ sunt, habitu gracili *Nephelochloæ*, cui adjunxit Grisebach etsi characteribus minime conveniant. C. Koch sectionem in *Festuca* includit ob caryopsin paleæ adhærentem, quod tamen observatur in *Pois* pluribus genuinis e.g. in *P. Billardieri*, Steud., sæpeque in ipsa *P. pratensi*; characteres cæteri *Pseudopoæ* omnino *Poæ*.

Leucopoa, Griseb. in Ledeb. Fl. Ross. iv. 383, est *P. albida*, Turcz., species spiculis solito majoribus, glumis subscarioso-nitentibus, quod tamen plus minus observatur in aliis speciebus, e.g. in *P. chilensi* affinibusque ex America australi extratropica.

Dioicopoa, E. Desv. in C. Gay, Fl. Chil. vi. 413 (*Dispar*, Dœll), continet *P. chilensem*, Trin., *P. lanuginosam*, Poir., affinesque ex America australi extratropica, spiculis sæpius abortu dioicis. Paniculæ tamen ♂ et ♀ inter se vix aliter differunt, et certe in speciminibus nonnullis *P. chilensi* valde affinibus flores hermaphroditos invenimus. His affines sunt *Dactylis cæspitosa*, Hook. f. Fl. Ant. t. 136, Hook. Lond. Journ. ii. t. 9, *Festuca foliosa*, Hook. f. Fl. Ant. t. 55, et *F. Cookii*, Hook. f. l.c. t. 139, species antarcticæ ad *Poam* translatæ ab Hook. f. in Bot. Kerg. Isl. 22, in Phil. Trans. clxviii.

Poidium, *Nees in Lindl. Introd. Nat. Syst. ed.* 2, 450, species Brasiliensis, est fide Dœllii *Poæ* species vera, floribus sæpe nec semper in quaque spicula ad 2 v. 1 reductis.

257. **Colpodium,** *Trin. Fund. Agrost.* 119.—Spiculæ 1–2-floræ, rarissime 3-floræ, laxe paniculatæ, rhachilla supra glumas inferiores et inter flores articulata, floribus hermaphroditis. Glumæ muticæ, 2 inferiores vacuæ, tenuiter membranaceæ, interdum hyalinæ, enerves v. 1-nerves, obtusæ v. acutiusculæ, parum inæquales; florentes tenuiter membranaceæ, apice saltem sæpius hyalinæ, interdum latissimæ, obtusæ, plus minus 5-nerves, nervis lateralibus tamen brevibus v. fere obsoletis; palea gluma vix brevior, hyalina, 2-nervis. Stamina 3. Styli breves, distincti, stigmatibus plumosis. Caryopsis oblonga, exsulca, gluma inclusa a palea libera.—Gramina annua v. perennia, tenella v. rarius elatiora debiliaque, foliis angustis planis v. fere setaceis. Panicula gracilis, effusa, pyramidalis, ramulis capillaribus subfasciculatis. Spiculæ sæpius parvulæ, haud raro coloratæ.

Species ad 10, Orientis et Asiæ centralis et montanæ incolæ. *Griseb. in Ledeb. Fl. Ross.* iv. 384 (*quoad sect. Eucolpodium*). *Ledeb. Ic. Fl. Ross. t.* 226.

Genus vix a *Poa* distinguendum. *C. latifolium*, Br., est *Arctagrostis*, Griseb., ad *Agrostideas* relatum.

258. **Graphephorum**, *Desv. in Nouv. Bull. Soc. Philom.* ii. (1810) 189, *et in Journ. Bot.* i. (1813), 71.—Spiculæ ∞- (3-5-) floræ, anguste v. ample paniculatæ, rhachilla sub floribus articulata pilosa, ultra flores in stipitem nudum v. minute glumiferum producta; floribus hermaphroditis. Glumæ membranaceæ v. subscariosæ, muticæ, 2 inferiores vacuæ, plus minus distincte carinatæ, parum inæquales, florentibus æquilongæ v. vix breviores, basi saltem 3-5-nerves v. extima præter carinam subenervis; florentes dorso rotundatæ, apice denticulatæ v. laceræ, 5-7-nerves, nervis præsertim lateralibus apicem non attingentibus; palea glumam æquans v. interdum superans, angusta, juxta margines 2-carinata, carinis ciliolatis. Stamina 3. Styli distincti, stigmatibus plumosis. Caryopsis oblonga, a dorso compressiuscula, antice concava, appendicula brevi subspongiosa sæpe coronata, cæterum glabra, gluma paleaque inclusa, libera.—Gramina erecta, sæpe elata, rarius humilia, foliis planis. Panicula junior sæpe angusta, erecta, stricta, demum effusa, ramulis brevibus v. elongatis patentibus v. pendulis, interdum secundis.

Species ad 8, boreales, Americanæ Europææ v. Asiaticæ. *A. Gray in Ann. Bot. Soc. Canada*, 1861, 55. *Fourn. Gram. Mex.* 111.

Genus a *Glyceria* imprimis rhachilla evidentius pilosa differt, quare interdum *Arundineis* associatur, in sectiones sequentes ab A. Grayio dividitur:—

1. *Scolochloa.* Gramina elata, panicula ampla laxa. Glumæ rigidulæ. Ovarii callus terminalis villosus, stigmatibus subsessilibus. Species 2. *Hook. Fl. Bor. Amer. t.* 231 (*Festuca*). Scolochloa, *Link, Hort. Berol.* i. 136. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 62. *Reichb. Ic. Fl. Germ. t.* 71. *F. Schmidt, Reise Amurl. Bot. t.* 8. Fluminia, *Fries, Summ. Veg. Scand.* 247.

2. *Eugraphephorum.* Gramen elatum, panicula demum ampla laxa. Spicularum rhachilla undique ciliata. Glumæ tenues, subscariosæ. Ovarii callus terminalis glaber, stigmatibus subsessilibus. *Beauv. Agrostogr.* 76, *t.* 15, *f.* 8.

3. *Dupontia.* Gramina humilia, panicula angusta rarius demum effusa. Spicularum rhachilla præter pilos sub floribus glabra. Glumæ membranaceæ, sæpe coloratæ. Ovarium glabrum. Dupontia, *R. Br. App. Parr. Voy.* 190.

4. *Arctophila.* Gramina elatiuscula, debilia, panicula laxa, spiculis parvis. Rhachillæ pili sub floribus breves. Glumæ latæ, venis præter centralem fere obsoletis. Ovarium glabrum, stylis brevibus. Caryopsis subteres, fere acuminata, exsulca. Species 3, *Glyceriæ* valde affines.

259. **Glyceria**, *R. Br. Prod.* 179.—Spiculæ ∞-floræ, in panicula angusta v. effusa pedicellatæ, rhachilla inter flores articulata glabra v. rarissime pilosula, floribus hermaphroditis v. summo imperfecto. Glumæ 2 inferiores vacuæ, obtusæ v. acutæ, muticæ, florentibus breviores, parum inæquales, nunc enerves v. 1-nerves, nunc 3-5-nerves; florentes obtusæ, muticæ, apice plus minus hyalinæ, rotundatæ v. denticulatæ, dorso convexæ nec carinatæ, 5-9-nerves, nervis omnibus ante apicem evanescentibus interdum brevissimis et ad 3 reductis; palea gluma vix brevior, 2-carinata. Stamina 3. Styli brevissimi, distincti, stigmatibus varie plumosis. Caryopsis glabra, ovoidea v. oblonga, teres v. a dorso compressiuscula, antice anguste v. late sulcata v. exsulca, gluma paleaque inclusa, libera v. siccitate paleæ leviter adhærens.—Gramina perennia v. rarius annua, sæpe elata, haud raro aquatica, foliis sæpius planis angustis rarius rigidis convolutisque. Panicula nunc longa, angusta, ramulis brevibus erectis paucispiculatis, nunc effusa floribunda. Spiculæ nunc longæ, angustæ, multifloræ, nunc parvulæ.

Species ad 30, per regiones temperatas utriusque orbis tam australes quam boreales late dispersæ, inter tropicos paucæ. *Kunth. Enum. Pl.* i. 366. *Benth. Fl. Austral.* vii. 656.

Genus habitu polymorphum, a *Poa* differt glumis florentibus minime carinatis, a *Festuca* glumis obtusioribus latioribus, caryopsi latiore sæpissime libera, ab utroque genere glumarum nervis abbreviatis; in sectiones 2 dividitur, ab auctoribus nonnullis pro generibus propriis habitas:—

1. *Hydrochloa.* Lodiculæ subcarnosæ truncatæ sæpius connatæ sæpe tamen facile separabiles v. demum sponte solutæ nunc brevissimæ v. obsoletæ. Caryopsis crassa, vix compressa, obtusissima, sulco angustissimo v. obsoleto. Huc pertinent *G. fluitans*, Br., species typica fere cosmopolitana, panicula longa angusta, spiculis angustis multifloris; *G. aquatica*, Sm., species Europæa et Asiatica,

a priore habitu dissimilis, panicula effusa, spiculis numerosis brevibus; *G. nervata*, Trin., et *G. pallida*, Trin., species boreali-Americanæ, *G. aquaticæ* affines, quibus lodiculæ sæpe vix conspicuæ. *Beauv. Agrostogr.* 96, *t.* 19, *f.* 7. *Host, Gram. Austr.* ii. *t.* 60 (*Poa*), *et t.* 77 (*Festuca*). *Kunth, Rev. Gram. t.* 85. *Reichb. Ic. Fl. Germ. t.* 80, *f.* 1614, 1615. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 57, *f.* 1–19. Hydrochloa, *Hartm. Gram. Skand.* 8, *ex Endl.* Porroteranthe, *Steud. Syn. Pl. Glum.* i. 287. Exydra, *Endl. Fl. Poson.* 119.

2. *Atropis.* Lodiculæ tenues, distinctæ. Caryopsis crassa v. a dorso compressa, facie cava v. late, interdum obscure sulcata, siccitate rarius paleæ subadhærens. Species utriusque orbis boreales v. australes, extratropicæ, habitu vario. Panicula sæpius angusta, interdum fere spiciformis, rarius effusa, spiculis angustis multifloris v. minoribus paucifloris. *Reichb. Ic. Fl. Germ. t.* 79, 80, *f.* 1613. *Host, Gram. Austr.* iii. *t.* 17 (*Poa*). *Hook. f. Fl. Tasm. t.* 162. Atropis, *Rupr. Fl. Samoied.* 61 (*Poæ sect.*). *Griseb. in Ledeb. Fl. Ross.* iv. 388 (*gen. propr.*). Puccinellia, *Parlat. Fl. Ital.* i. 366. Huc etiam pertinet (ex ic. et descr.) *Catabrosa tenuifolia*, Presl; C. Gay, Fl. Chil. t. 81.

G. ramigera, F. Muell., et *G. australasica*, Steud., species Australianæ, insignes sunt caulibus elatis more fere *Bambusearum* fasciculato-ramosis.

260. **Festuca,** *Linn. Gen. n.* 88.—Spiculæ ∞-floræ, varie paniculatæ, rhachilla supra glumas inferiores et inter flores articulata, floribus hermaphroditis v. summo rarius pluribus masculis. Glumæ 2 inferiores vacuæ, sub articulatione persistentes, parum v. valde inæquales, acutæ, carinatæ, extima 1-nervis, secunda sæpius 3-nervis; florentes angustæ, membranaceæ v. paleaceæ, acutæ v. in aristam productæ rarius obtusæ, dorso rotundatæ, nervis sæpius 5 tenuibus interdum vix conspicuis, costa parum prominula v. superne tantum cariniformi; superiores rarius vacuæ; palea gluma parum brevior, 2-carinata. Stamina 1–3. Ovarium glabrum v. apice pilosulum; styli brevissimi, distincti, stigmatibus plumosis. Caryopsis oblonga v. linearis, glabra, antice sæpius late sulcata, palea arcte amplexa eique siccitate sæpius plus minus adhærens, aqua macerata tamen facillime solvenda, rarius omnino libera, v. more *Bromi* arcte adnata.—*Gramina* sæpissime perennia, cæspitosa, humilia v. elata, foliis planis v. convolutis interdum setaceis. Panicula nunc angusta stricta v. secunda spiculis erectis, non vero spiciformis, sæpe laxa, interdum ampla effusa spiculis longe pedicellatis pendulis. Glumæ spicularum juniorum interdum imbricato-appressæ, demum sæpius distiche patentes.

Species bene distinctæ vix 80, apud auctores nonnullos ultra 230 per orbem terrarum latissime dispersæ, in regionibus temperatis tamen quam inter tropicos copiosiores. *Kunth, Enum. Pl.* i. 391. *Steud. Syn. Pl. Glum.* i. 301. *Beauv. Agrostogr.* 99, *t.* 19, *f.* 9, 10. *Dœll in Mart. Fl. Bras.* ii. iii. 111. *Fourn. Gram. Mex.* 123. *Hackel, Monographia Festucarum Europæarum, 8vo, cum tabb.* 4, *Kassel*, 1882.

Genus a variis botanicis ad limites valde diversos circumscriptum, a *Poa* potius glumarum venatione quam caryopsi paleæ adnata distinctum, nam caryopsis certe libera in *F. pratensi* affinibusque et in *Pois* haud paucis paleæ plus minus adhæret. In sectiones a Coss. et Dur. bene dividitur, a quibus tamen *F. lanceolatam*, *F. incrassatam* affinesque genus *Cutandiam*, Willk., formantes excludimus ob glumas a basi carinatas prominenter 3-nervibus; sectiones sequentes admittendæ videntur:—

1. *Vulpia.* Panicula secunda, sæpius angusta densa. Spiculæ perfectæ sæpius superne latiores. Glumæ inferiores vacuæ sæpius valde inæquales, infima parva 1-nervis interdum minuta v. vix conspicua, secunda 3-nervis, florentes 5-nerves aristatæ. Stamen interdum unicum. *Schreb. Beschr. Gräs. t.* 31 (*Bromus*). *Host, Gram. Austr.* ii. *t.* 93; iv. *t.* 64, 65. *H. B. et K. Nov. Gen et Sp. t.* 691. Vulpia, *Gmel. Fl. Bad.* i. 8. *Reichb. Ic. Fl. Germ. t.* 60. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 71. *Hackel in Flora*, 1880, 467. Mygalurus, *Link, Enum. Hort. Berol.* i. 92.

F. inops, Delile, species humilis, ægyptiaca, insignis est flore infimo solo cujusve spiculæ fertili, glumis cæteris vacuis v. paleam solam foventibus; a Hackelio in Flora, 1880, 467, 475, pro subsectione (*Spirachne*) *Vulpiæ* distinguitur.

F. ulochæta, Dœll in Mart. Fl. Bras. ii. iii. 115, *t.* 33 (*Vulpia ulochæta*, Nees), et *F. leptothrix*, Trin. ex Dœllio a *Vulpiis* cæteris differunt panicula laxa.

Loretia, *Duv. Jouv. in Rev. Sc. Nat. ser.* 2, ii. 38, est genus propositum ad *F. setaceam*, Guss., *F. ligusticam*, Bertol., aliasque paucas quas a *Vulpia* distinguit auctor imprimis antheris magnis post anthesin expulsis nec ut in *Vulpiis* veris post anthesin retentis, character valde incertus nec, ut

jam monet Hackel, in eadem specie constans. Hackel *Loretiam* pro subsectione *Vulpiæ* admittit. Uterque auctor in *Loretiis* includit *F. incrassatam*, Salzm., speciem habitu alieno quam ad *Cutandiam* referrimus. Spiculæ a basi latæ nec more *Vulpiæ* superne latiores; et venatio glumarum omnino *Cutandiæ*.

2. *Eufestuca*. Panicula stricta v. laxa, sæpe subsecunda. Glumæ inferiores vacuæ parum inæquales, florentes acutæ mucronatæ v. rarius aristatæ. Stamina 3. *Host, Gram. Austr.* ii. *t.* 26 (*Triticum*), ii. *t.* 78, 80 *ad* 91; iii. *t.* 18 *ad* 20; iv. *t.* 60 *ad* 63. *Reichb. Ic. Fl. Germ. t.* 61 *ad* 69. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 72. *Brot. Phyt. Lusit. t.* 100 (*Bromus*), 101. *Boiss. Voy. Hisp. t.* 179. *Guss. Pl. Rar. Ic. t.* 6. *Desf. Fl. Atl. t.* 20, 24. *Hook. Fl. Bor. Amer. t.* 230, 232, 233. *Buchan. N. Zeal. Grass. t.* 55. *Hook. f. Fl. Ant.* ii. 379, *t.* 138 (*Triodia v. Poa*); *Bot. Kerg. Isl. in Phil. Trans.* clxviii. *t.* 22.

Ovarium in plerisque speciebus glaberrimum in nonnullis tamen a Grisebachio pro sectione distinctis sub nomine *Phæochloæ* ovarium apice pilosulum, character in *F. sylvatica*, *F. varia* affinibusque valde variabilis. *F. ampliflora*, Dœll in Mart. Fl. Bras. ii. iii. *t.* 34, e Brasilia (quæ eadem videtur ac *F. amplissima*, Rupr. e Mexico) ab auctore pro sectione sub nomine *Mallopetali* distinguitur ob lodiculas apice villosas, sed lodiculas apice pariter pilis longis fimbriatas invenimus in *F. fimbriata*, Nees, quam Dœll in *Festucis* legitimis lodiculis glabris collocat.

Helleria, *Fourn. Gram. Mex.* 128, est *Bromus lividus*, H. B. et K. Nov. Gen. et Sp. vii. *t.* 689, rite a Sprengelio et a Kunthio ipso Enum. i. 399, ad *Festucam* translata. Caryopsis in speciminibus nostris anguste oblonga, a dorso compressiuscula, antice lata leviterque sulcata paleæ subadhærens et apice glabra omnino *Festucæ*, etsi habitu varietatibus nonnullis *Bromi tectorum* potius quam *Festucis* typicis accedat. Spiculæ demum sæpe insigniter divaricato-subnutantes.

3. *Schedonorus*. Gramina sæpius elata, panicula stricta v. laxa. Glumæ inferiores vacuæ parum inæquales, florentes more generis basi rotundatæ, 5-nerves, superne tamen distincte carinatæ, muticæ v. breviter mucronatæ. Stamina 3. Caryopsis sæpius (nec semper) a palea libera, obtusissima. *Schreb. Beschr. Gräs.* 34, *t.* 2. *Host, Gram. Austr.* ii. *t.* 79. *Reichb. Ic. Fl. Germ. t.* 70, *f.* 1565 *ad* 1568. *Trin. Spec. Gram. t.* 351 (*Arundo*). *Labill. Pl. Nov. Holl. t.* 27. *Hook. f. Fl. Tasm. t.* 165. *Buchan. N. Zeal. Grass. t.* 54. Festucæ Bovinæ, *Fries.* Schedonorus, *Beauv. Agrostogr.* 99, *t.* 19, *f.* 2. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 73, *non Fries. Benth. Fl. Austral.* vii. 654. Sectio mediante *F. silvatica*, Vill., cum *Eufestuca* arcte connectitur.

Amphigenes, *Ianka in Linnæa*, xxx. 619, est *Festuca* (*Schedonorus*) *nutans*, Wahlenb. (non Spreng.) quam Kunth a *F. nutante*, Host, distinguit. Wahlenberg tamen synonymon Hostii citat.

Accuratissimus Hackel, in Monographia fusiore Festucarum Europearum supra citata, genus limitat ad sectiones nostras *Eufestucam* et *Schedonorum*, et a *Poa* aliisque distinguit imprimis macula hili fere totam v. saltem dimidium caryopsidis æquante nec punctiformi. Character in variis generibus in speciebus constans, nobis tamen pro generibus separandis rarius sufficere videtur. *Festuca rhætica*, Sut. (*Poa variegata*, Lam., ex herb. J. Gay. *Poa violacea*, Bell.) a Hackelio ob maculam hili parvam ad *Poam* relata, species inter hæc genera quasi medium tenens, nobis tamen quoad habitum spiculas glumasque melius sub *Festuca* militare videtur.

Hackel *Festucas* Europæas suas in sectiones 6 satis naturales distribuit quæ tamen cum speciebus exoticis ulterius comparandæ.

4. *Catapodium*. Spiculæ subsessiles v. superiores sessiles, secus rhachin simpliciem alternæ solitariæ v. inferiores in ramulo brevissimo 2–3-næ, rhachi spicæ tamen non excavata. Glumæ florentes muticæ v. brevissimæ aristatæ, inferiores vacuæ nunc breves nunc spiculam subæquantes. *Host, Gram. Austr.* ii. *t.* 27 (*Triticum*). *Jacq. Ecl. Gram. t.* 35 (*Triticum*). *Boiss. Voy. Hisp. t.* 178, *f.* b (*Nardurus*). Catapodium, *Link, Hort. Berol.* i. 44. *Coss. et Dur. Expl. Alg. Bot. t.* 41 *bis* (*v.* 42). *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 69. *Reichb. Ic. Fl. Germ. t.* 15. Micropyrum, *Link in Linnæa*, xvii. 397.

Nardurus, *Reichb. ex Godr. Fl. Lorr. ed.* 2, ii. 458 (Festucaria, *Link in Linnæa*, xvii. 398) est *F. unilateralis*, Schrad., Reichb. Ic. Fl. Germ. t. 15 (*Brachypodium*), a sect. *Catapodio* parum distincta glumis florentibus mucronato-acutis v. breviter aristatis.

Castellia, *Tin. Pl. Rar. Sic.* 17, est *F.* (*Catapodium*) *tuberculata*, Coss. et Dur. Fl. Alg. Glum. 189, a *Catapodiis* typicis (*F. Poa* et *F. loliacea*) parum diversa statura majore, inflorescentia sæpius breviter ramosa et glumis florentibus extus minute tuberculosis.

Nardurus montanus, Boiss. et Reut. Pug. Pl. Nov. 129, vix a *F.* (*Vulpia*) *delicatula*, Lag., differre videtur. *F. cynosuroidem*, Desf., potius ad *Vulpiam* quam ad *Catapodium* referrimus. *F. Lolium*, Balansa in Coss. et Dur. Fl. Alg. Glum. 187, spica tenui tereti rhachi ad nodos leviter excavata fere medium tenet inter *Festucam* (*Catapodium*) et *Lolium*; glumæ vacuæ 2 laterales omnino

Catapodii. F. uniloides, Kunth, a Coss. et Dur. inter *Catapodia* enumerata, est *Demazeria sicula*, Dumort., a nobis pro genere proprio accepta. *Catapodium filiforme*, Nees, ex India orientali, est eadem ac *Tripogon bromoides*, Nees, characteres veros *Tripogonis* præbens.

5. *Scleropoa.* Gramina annua sæpe humilia, panicula secunda, ramulis brevibus rigidulis pauci-spiculatis. Glumæ florentes superne subcarinatæ muticæ. Macula hili (*ex Hack.*) punctiformis. *Host, Gram. Austr.* ii. *t.* 74 (*Poa*). SCLEROCHLOA, *Reichb. Ic. Fl. Germ. t.* 58, *f.* 1517, 1518. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 67, *non Beauv.* SCLEROPOA, *Griseb. Spicil. Fl. Rum.* ii. 431.

261. ? **Pantathera**, *Philippi in Bot. Zeit.* 1856, 649.—Spiculæ ∞-floræ, paniculatæ, planæ, rhachilla supra glumas inferiores et inter flores articulata, floribus hermaphroditis v. summo imperfecto. Glumæ 2 inferiores vacuæ, lineares, complicato-carinatæ, 3-nerves, in aristam longam productæ; florentes latiores, complicato-carinatæ, rigidulæ, sub-5-nerves, nervis tamen lateralibus sæpe tenuissimis v. vix conspicuis, apice integerrimæ, in aristam demum divaricato-patentem desinentes; palea gluma vix brevior, 2-carinata, carinis ciliatis. Stamina 3, antheris longis. Ovarium (an semper ?) glabrum. Caryopsis . . .—Gramen (perenne ?), laxe adscendens, elatiusculum, ramosum, foliis planis. Panicula laxiuscula, subsecunda, spiculis majusculis.

Species 1, ins. Juan Fernandez incola.

Genus *Bromo* (*Ceratochloæ*) affine, sed glumarum forma et venatione distinctum videtur et verisimiliter etiam ovario caryopsique glabris. Specimen unicum vidimus staminibus perfectis et ovario adhuc minimo forteque abortiente, in aliis pluribus speciminibus a Philippio, Berteroio aliisque collectis flores omnes intra glumas a larva quadam comesi omnino destructi, uti jam observavit ipse Philippi.

262. **Podophorus**, *Philippi in Bot. Zeit.* 1856, 648.—Spiculæ angustæ, 1-floræ, paniculatæ, rhachilla sub flore brevissima articulata pilosa, ultra florem in stipitem longum cum gluma vacua aristiformi continuum producta, flore hermaphrodito. Glumæ 2 inferiores vacuæ, persistentes, anguste lineares, acute acuminatæ, sub-3-nerves, parum inæquales; florens longior, rigidula, linearis, subteres, ecarinata, tenuiter 5-nervis, in aristam longam divergentem desinens; palea parum brevior, angusta, obtusa v. brevissime 2-dentata, 2-carinata, carinis puberulis. Stamina 3. Ovarium glabrum; styli breves, distincti, stigmatibus tenuiter plumosis. Caryopsis . . .—Gramen (perenne ?) laxe adscendens, pubescens, habitu fere *Bromi*. Panicula laxiuscula, subsecunda, spiculis majusculis.

Species 1, ins. Juan Fernandez incola.

Genus quoad glumas floresque *Festucæ* potius quam *Bromo* affine, ab utroque uti ab omnibus affinibus differt flore unico in spicula, et rhachilla ultra florem longe stipitiformi ut in *Gymnopogone*.

263. **Bromus**, *Linn. Gen. n.* 89.—Spiculæ ∞-floræ, varie paniculatæ, rhachilla supra glumas inferiores et inter flores articulata glabra, floribus hermaphroditis v. summo imperfecto. Glumæ 2 inferiores vacuæ, sub articulatione persistentes, angustæ, acutæ v. secunda breviter mucronato-aristata, 1–5-nerves, plus minus inæquales; florentes longiores, 5–9-nerves, carinatæ v. dorso rotundatæ, apice sæpius breviter 2-fidæ v. 2-dentatæ, sub apice dorso 1–3-aristatæ v. rarius muticæ, arista sæpe recurvo-divaricata et interdum leviter torta; palea gluma parum brevior, 2-carinata, carinis rigide v. longiuscule v. brevissime ciliatis. Stamina 3, v. rarius pauciora. Ovarium appendicula villosa integra v. breviter 2–3-fida plus minus distincte coronatum, styli ad basin appendiculæ distincti, brevissimi, stigmatibus brevibus plumosis. Caryopsis oblonga v. linearis, a dorso sæpius compressiuscula, antice late sulcata v. subplana, appendicula villosa persistente v. evanida, paleæ saltem siccitate arcte adhærens.—Herbæ annuæ v. perennes interdum elatæ, foliis planis. Panicula nunc densa oblonga fere spiciformis, nunc laxa interdum laxissima ramulis elongatis nutantibus. Spiculæ sæpius in ordine magnæ v. majusculæ, erectæ v. pendulæ, lineares lanceolatæ v. fere ovatæ, aristis sæpe longissimis interdum brevibus v. ad setas minutas reductis.

Species ad 40, per regiones temperatas hemisphærii borealis late dispersæ, nonnullæ Americæ australis extratropicæ incolæ, inter tropicos paucæ præsertim montanæ. *Beauv. Agrostogr.* 86, *t.* 17, *f.* 9. *Kunth, Enum. Pl.* i. 412. *Reichb. Ic. Fl. Germ. t.* 73 *ad* 77. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 75. *Dœll in Mart. Fl. Bras.* ii. iii. 107, *t.* 32. *Fourn. Gram. Mex.* 126.

Genus *Festucæ* valde affine, differt sæpius habitu, spiculis majoribus, glumis florentibus apice evidentius 2-fidis et ovario apice villoso-appendiculato, sed character nullus in omnibus speciebus constans. Sectiones sequentes, a nonnullis genera propria nuncupatæ, quoad species plerasque inter se bene distinctæ, omnes tamen speciebus intermediis connexæ.

1. *Festucoides,* Coss. et Dur. (*Schœnodorus,* Griseb. Spicil. Fl. Rum. ii. 247). Gramina perennia sæpius elata, panicula laxa spiculis erectis v. nutantibus. Glumæ laxe imbricatæ v. dissitæ, extima angusta 1-nervis, secunda sæpius 3-nervis, florentes 5–7-nerves, arista sæpius brevi nunc brevissima. Caryopsis quam in *Stenobromo* brevior, appendicula terminali interdum brevissima v. evanida. *Schreb. Beschr. Gräs. t.* 11, 13. *Host, Gram. Austr.* i. *t.* 6 *ad* 10. *C. Gay, Fl. Chil. t.* 82.

SCHEDONORUS, *Beauv. Agrostogr.* 99, *t.* 19, *f.* 2, species plures includit glumis florentibus minute 2-dentatis quarum paucæ ad *Bromum* (*Festucoidem*), pleræque (an omnes?) ad *Festucam* ipsam pertinent. SCHEDONORUS, Fries et Anderson, includit *Festucoidem* et *Stenobromum.*

2. *Stenobromus,* Griseb. Gramina annua v. rarius perennia, panicula densa v. laxiuscula, spiculis angustis sæpius longis erectis v. vix demum nutantibus. Glumæ imbricatæ, angustæ, extima angustissima 1–3-nervis, secunda 3–5-nervis, florentes sæpius 7-nerves, aristis longis nunc longissimis. Caryopsis linearis, appendice terminali villosa integra v. 2-dentata. *Host, Gram. Austr.* i. *t.* 15 *ad* 18. *Jacq. Ecl. Gram. t.* 14. *Desf. Fl. Atl. t.* 26. *Guss. Pl. Rar. Ic. t.* 8, *f.* 2. *Sibth. Fl. Gr. t.* 82, 83. *Ten. Fl. Nap. t.* 105, 106. *Delile. Fl. Eg. t.* 11. *Cav. Ic. t.* 45.

ANISANTHA, *C. Koch in Linnæa,* xxi. 394, est ex Griseb. *Bromi tectorum* forma flore infimo solo fertili, cæteris sterilibus.

B. scoparius, Linn. (*B. confertus,* Bieb.), et *B. alopecurus,* Poir., Bory, Exped. Morée, t. 5, spiculis angustis erectis in panicula oblonga dense confertis fere medium tenent inter *Stenobromum* et *Zeobromum.*

3. *Zeobromus,* Griseb. Gramina annua v. perennia. Spiculæ lanceolatæ ovato-lanceolatæ v. oblongæ, crassiusculæ. Glumæ quam in *Stenobromo* latiores, extima 3–5-nervis, secunda 5–7-nervis, florentes 7–9-nerves, imbricatæ, dorso obtusæ v. vix carinatæ, arista sub apice integro v. 2-fido demum sæpius recurvo-divaricata, interdum siccitate leviter torta, longa v. brevis, in *B. brizæformi,* Fisch. et Mey. Sert. Petrop. t. 10, ad setam minutam reducta. *Schreb. Beschr. Gräs.* 60, *t.* 6. *Host, Gram. Austr.* i. *t.* 11 *ad* 14, 19. *Jacq. Ecl. Gram. t.* 15. *Desf. Fl. Atl. t.* 19, 25. *Guss. Pl. Rar. Ic. t.* 8, *f.* 1. *Torr. Fl. N. York, t.* 157. *Cav. Ic. t.* 589, 590, 591, *f.* 1. *Buchan. N. Zeal. Grass. t.* 56. *Bory, Exped. Morée, t.* 4. SERRAFALCUS, *Parlat. Pl. Nov.* 75; *Fl. Ital.* i. 387.

LIBERTIA, *Lejeune, in Nov. Act. Nat. Cur.* xii. 755, *t.* 65 (MICHELARIA, *Dumort. Agrostogr. Belg.* 77, *t.* 16), est *B.* (*Zeobromus*) *arduennensis,* Kunth, species *B. secalino* affinis, glumarum florentium lobis lateralibus in aristas tenues breves abeuntibus.

TRINIUSA, *Steud. Syn. Pl. Glum.* i. 328, est *B. Danthoniæ,* Trin. Spec. Gram. t. 353, species *B.* (*Zeobromo*) *macrostachyo,* Desf., affinis, glumis florentibus præsertim superioribus sub apice aristis 3 contiguis demum recurvo-divaricatis instructis.

4. *Ceratochloa.* Gramina sæpius perennia, elata. Spiculæ lanceolatæ, planæ v. demum medio incrassatæ. Glumæ complicato-carinatæ, rigidulæ, ∞-nerves, vacuæ florentibus paullo minores cæterum similes, florentes imbricatæ, apice interdum vix dentatæ, arista brevi tenui. Species 3 v. 4, Americanæ, extratropicæ boreales v. australes v. andinæ. *Willd. Hort. Berol. t.* 3 (*Festuca*). CERATOCHLOA, *Beauv. Agrostogr.* 75, *t.* 15, *f.* 7, *simulque DC. Cat. Hort. Monsp.* 92. *Hook. Fl. Bor. Amer. t.* 234, 235.

Fournier, Gram. Mex. 127, *B.* (*Ceratochloam*) *purgantem,* Linn. (*B. Hookeri,* Fourn.) in *Bromo* retinuit, et *Ceratochloam unioloidem,* DC. (*C. festucoidem,* Beauv.) generice distinxit imprimis ob lodiculas lateraliter connatas. In speciminibus tamen pluribus tam indigenis quam cultis lodiculas vidimus lata basi affixas sed inter se liberas v. vix ima basi brevissime connatas.

264. **Brachypodium,** *Beauv. Agrostogr.* 100, *pro parte, t.* 19, *f.* 3. (Hemibromus, *Steud. Syn. Pl. Glum.* i. 317.)—Spiculæ ∞-floræ, compressæ v. subteretes, in spica simplici paucæ, subsessiles v. brevissime pedicellatæ, rhachilla inter flores articulata glabra, floribus hermaphroditis v. superioribus imperfectis. Glumæ 2 inferiores vacuæ, floren-

tibus minores et brevius aristatæ v. muticæ, cæterum similes; florentes rigidulæ, angustæ, dorso rotundatæ, 7–9-nerves, integræ, in aristam rectam interdum longam v. in mucronem brevem desinentes; palea gluma vix brevior, latiuscula, 2-carinata, carinis ciliatis. Stamina 3, rarius 2. Ovarium apice ciliato-villosum v. appendicula brevi villosa coronatum; styli brevissimi, stigmatibus plumosis. Caryopsis linearis v. anguste oblonga, a dorso compressa, antice late sulcata v. concava, siccitate paleæ plus minus adhærens.—Gramina perennia v. annua, erecta, foliis planis v. convoluto-teretibus. Spica terminalis, rhachi non articulata et vix ad nodos excavata. Spiculæ paucæ, sæpius distantes suberectæ, interdum ad unam terminalem reductæ, sæpius majusculæ, floribus sat numerosis.

Species 5 v. 6, Europæ et Asiæ temperatæ v. montanæ incolæ, quarum 1 v. 2 etiam in Africa tropica et australi Colombia et Mexico obviæ. *Kunth, Enum. Pl.* i. 445 (*Tritici sect.*). *Coss. et Dur. Fl. Alg. Glum.* 189. *Reichb. Ic. Fl. Germ. t.* 16 *ad* 18. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 70. *Host, Gram. Austr.* i. *t.* 20 *ad* 22, iv. *t.* 17 *ad* 19 (*Bromus*). *Sibth. Fl. Gr. t.* 84 (*Bromus*). *Guss. Pl. Rar. Ic. t.* 7 (*Festuca*). *Boiss. Voy. Hisp. t.* 180. *Ten. Fl. Nap. t.* 104, *f.* 2.

Genus *Festucam* cum *Agropyro* arcte connectit.

Trachynia, *Link, Hort. Berol.* i. 42, *Reichb. Ic. Fl. Germ. t.* 14, est *B. distachyum*, Rœm. et Schult., species a cæteris parum diversa caule annuo, spiculis sæpius 1–2, glumis minus imbricatis fere pectinatis.

Tribus XII. Hordeeæ.

265. **Lolium,** *Linn. Gen. n.* 95.—Spiculæ ∞-floræ, in spica simplici (v. abnorme ramosa) ad excavationes rhacheos solitariæ, sessiles, alternæ, distichæ, compressæ, margine (glumarum dorso) rhachin spectantes, rhachilla inter flores articulata, floribus hermaphroditis v. summo imperfecto. Glumæ rigidæ, 5–7-nerves, dorso rotundatæ, ecarinatæ, obtusæ acutæ acuminatæ v. aristatæ, nervis superne conniventibus v. in aristam confluentibus, infima spicularum lateralium et 2 inferiores spiculæ terminalis vacuæ, florentibus longiores, angustæ; florentes breves, latiusculæ, imbricatæ; palea gluma parum brevior, angusta, 2-carinata. Stamina 3. Styli distincti, brevissimi, stigmatibus plumosis. Caryopsis oblonga, glabra, paleæ siccitate adhærens.—Gramina annua v. perennia, foliis planis. Spica terminalis, sæpius elongata, spiculis alternatim dissitis erectis, rhachi ad nodos interdum articulata.

Species apud auctores nonnullos ultra 20, ab aliis melius ad 2 v. 3 reductæ, in Europa, Africa boreali et Asia temperata indigenæ, in variis regionibus Americæ, Africæ et Australiæ inquilinæ. *Beauv. Agrostogr.* 102, *t.* 20, *f.* 3. *Kunth, Enum. Pl.* i. 435; *Rev. Gram. t.* 220. *Schreb. Beschr. Gräs. t.* 36, 37. *Host, Gram. Austr.* i. *t.* 25, 26, iii. *t.* 25. *Reichb. Ic. Fl. Germ. t.* 4 *ad* 6. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 78. *Vis. Fl. Dalmat. t.* 3. *Dœll in Mart. Fl. Bras.* ii. iii. *t.* 58.

Genus *Festucæ* (*Catapodio*) potius quam *Agropyro* affine, ab omnibus spicularum quoad rhachin directione facile differt. De Rouville (Monogr. Lol., Montpellier, 1853, cum tabb. 3) species auctorum priorum rejecit et stirpes primarias 3 agnovit characteribus novis definitas et nominibus novis signatas.

Cræpalia, *Schrank, Bair. Fl.* i. 102, 382, est *L. temulentum*, Linn., cui gluma secunda etiam in spiculis lateralibus sæpe vacua cæteris minor.

Arthrochortus, *Lowe in Hook. Kew Journ.* viii. 301, est *Lolii* species v. varietas insignis, *L. rigido*, Gaud. (*L. stricto*, Presl), et varietatibus nonnullis *L. temulenti*, Linn., valde affinis.

266. **Agropyrum,** *J. Gærtn. ex Beauv. Agrostogr.* 101, *t.* 20, *f.* 1, 2. (Elytrigia, *Desv. in Nouv. Bull. Soc. Philom.* ii. (1810) 190; *et in Journ. Bot.* i. (1813), 74.)—Spiculæ ∞-floræ, compressæ, in spica simplici ad excavationes rhacheos sessiles, alternæ, distichæ, compressæ, facie (glumarum latere) rhachin spectantes v. obliquæ, rhachilla inter flores sæpius articulata, floribus hermaphroditis v. summo imperfecto. Glumæ 2 inferiores vacuæ, florentibus angustiores, nervis paucioribus; florentes rigidæ, dorso rotundatæ, vix v. non carinatæ, 5–7-nerves, obtusæ acuminatæ v. in aristam productæ, nervis apice conniventibus v. in aristam confluentibus, summa minor sæpe vacua v. florem imperfectum fovens; palea gluma parum brevior, 2-carinata, carinis sæpius ciliatis. Stamina 3.

Styli brevissimi, distincti, stigmatibus plumosis. Caryopsis anguste oblonga, a dorso compressiuscula, antice sæpe concava, apice plus minus villosa, siccitate paleæ adhærens v. libera.—Gramina perennia v. annua, foliis planis v. convoluto-teretibus. Spica terminalis, sæpius rigidula, spiculis majusculis.

Species ad 20, per regiones temperatas utriusque orbis late dispersæ, Americanæ ab Europæis vulgatioribus vix v. non distinctæ sæpeque evidenter inquilinæ. *Kunth, Enum.* i. 440, *et Steud. Syn. Pl. Glum.* i. 342, *utraque pro sectione Tritici. Benth. Fl. Austral.* vii. 664.

Genus a nonnullis cum *Tritico* jungitur, ab aliis in genera 3 v. 4 dividitur. Sectiones sequentes bene distinctæ videntur:—

1. *Agropyrum.* Gramina sæpius perennia rhizomate haud raro longe repente. Spica elongata spiculis erecto-appressis dissitis v. rarius approximatis. Glumæ rigidæ, vacuæ sæpe inæquilateræ, a basi arcte appressæ, nec carinatæ. Species paucæ, quarum 2 fere cosmopolitanæ. *Host, Gram. Austr.* ii. *t.* 21 *ad* 23, 25, iii. *t.* 33. *Kunth, Rev. Gram. t.* 90. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 80. *Reichb. Ic. Fl. Germ. t.* 19 *ad* 23. *Schreb. Beschr. Gräs. t.* 26 (*Triticum*). *Per. in Bull. Soc. Bot. Fr.* xviii. *t.* 3. *Brot. Phytogr. Lusit. t.* 97. *Boiss. Voy. Hisp. t.* 181. *Sibth. Fl. Gr. t.* 99. *Jaub. et Spach, Ill. Pl. Or. t.* 190. *Ledeb. Ic. Fl. Ross. t.* 245 *ad* 248. *Buchan. N. Zeal. Grass. t.* 56 B, 57 (*ic. plures sub Tritico*).

Rœgneria, *C. Koch in Linnæa*, xxi. 413, est ex Griseb. *Agropyri* species *A. canino* affinis.

A. scabrum, Beauv. (*Festuca scabra*, Labill. Pl. Nov. Holl. t. 26; Anthosachne, *Steud. Syn. Pl. Glum.* i. 237), ex Australia, *A. semicostatum*, Nees, ex India orientali et *A. longearistatum*, Boiss., ex Oriente, species inter se valde affines, insignes sunt spicis densiusculis, glumis angustis in aristas longas demum divergentes desinentibus.

A. pectinatum, Beauv. (*Festuca pectinata*, Labill. Pl. Nov. Holl. t. 25), ex Australia, quoad inflorescentiam inter *Agropyrum* et *Eremopyrum* subintermedia, insignis est spiculis demum reflexis.

2. *Eremopyrum.* Gramina sæpius annua. Spicæ breves, densæ, spiculis arcte approximatis distichis. Glumæ inferiores vacuæ, angustissimæ, subæquilaterales, carinatæ, v. lanceolatæ evidentiusque inæquilaterales, basi sæpius curvulæ subangustatæ. Spiculæ nonnullæ ad basin v. ad apicem spicæ interdum steriles ad glumas 1–2 reductæ. *Jacq. Hort. Vind.* iii. *t.* 44 (*Secale*). *Reichb. Ic. Fl. Germ. t.* 19, *f.* 1382. *Schreb. Beschr. Gräs. t.* 23, *f.* 2. *Host, Gram. Austr.* ii. *t.* 24. Eremopyrum, *Ledeb. Fl. Alt.* i. 112 (*Tritici sect.*), *gen. propr. Jaub. et Spach, Ill. Pl. Or.* iv. 26, *t.* 319, 320. Costia, *Willk. in Bot. Zeit.* 1858, 377. Cremopyrum, *Schur, Enum. Pl. Transsylv.* 807.

Secale villosum, Linn. (Haynaldia, *Schur, Enum. Pl. Transsylv.* 807), et *Agropyrum hordeaceum*, Boiss., sectionem *Dasypyrum*, Coss. et Dur., seu *Pseudosecale*, Gren. et Godr., formantes, et ab auctoribus ad *Triticum* relatæ, nobis tamen potius ad *Agropyri* sect. *Eremopyrum* pertinere videntur, ubi *A. orientali*, Koch, prope accedunt, differunt glumis vacuis magis inæqualibus, nervo uno præter carinam prominente ciliatoque, glumam æqualiter v. inæqualiter 2-carinatam efficientibus. *Host, Gram. Austr.* ii. *t.* 47, iv. *t.* 9, 10. *Reichb. Ic. Fl. Germ. t.* 24 (*Triticum*). *Sibth. Fl. Gr. t.* 97 (*Secale*).

Heteranthelium, *Hochst.*; *Jaub. et Spach, Ill. Pl. Or.* iv. 24, *t.* 318, ex Oriente, est species ab *A.* (*Eremopyro*) *orientali* parum diversa, glumis inferioribus vacuis adhuc angustioribus, florentibus post anthesin insigniter papilloso-scabris v. verrucosis; spica densa, villosa, spiculis sterilibus imperfectis ad basin et apicem pluribus interdumque inter fertiles mixtis.

267. **Secale,** *Linn. Gen. n.* 97.—Spiculæ sæpissime 2-floræ, in spicam cylindraceam confertæ, ad excavationes alternas rhacheos solitariæ, sessiles, compressæ, facie interiore plana rhachi adpressa, exteriore convexa, rhachilla sub floribus brevissima ultra flores in stipitem tenuem producta. Glumæ rigidulæ, 2 inferiores vacuæ, anguste lineares, complicato-carinatæ, acute acuminatæ v. subaristatæ; florentes latiores, absque aristis vix longiores, complicato-carinatæ, in aristam desinentes, 5-nerves, nervis in aristam conniventibus, faciei interioris spiculæ tenuibus, exterioribus prominentibus; palea gluma paullo brevior, angusta, 2-carinata. Stamina 3. Styli brevissimi, distincti, stigmatibus plumosis. Caryopsis oblonga, subteres, antice sulcata, apice pilosa, gluma paleaque inclusa, libera v. vix paleæ adhærens.—Gramina annua, erecta, foliis planis. Spica terminalis, densa, rhachi fragili ad nodos articulata, articulis sub spiculis complanatis sæpius pilosis.

Species (v. unius varietates?) 2, spontaneæ per regionem Mediterraneam late dispersæ, formæ cereales in regionibus temperatis hemisphærii borealis jam diu cultæ. *Beauv. Agrostogr.* 105, *t.* 20,

f. 6. *Host, Gram. Austr.* ii. *t.* 48, iv. *t.* 11. *Reichb. Ic. Fl. Germ. t.* 24. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 81. *Vis. Fl. Dalm. Suppl. t.* 1.

Genus *Agropyri* sect. *Eremopyro* quam maxime affine.

268. **Triticum,** *Linn. Gen. n.* 99.—Spiculæ pauci- (2-5-)floræ, distiche spicatæ, ad excavationes rhacheos solitariæ, sessiles, compressiusculæ, a latere rhachin spectantes, rhachilla inter flores sæpe articulata, floribus 1–2 inferioribus hermaphroditis, superioribus sæpius masculis v. imperfectis. Glumæ rigidæ, 2 inferiores vacuæ, florentibus breviores sæpeque angustiores, haud raro inæquilaterales, paucinerves, breviter aristatæ v. muticæ; florentes ventricosæ v. oblongæ, dorso rotundatæ v. superne carinatæ, apice sæpius dentatæ, muticæ v. dente centrali v. omnibus in aristas productis, 5–9-nerves, nervis lateralibus cum centrali non confluentibus, ad apicem glumæ non attingentibus v. ad dentes laterales extensis; palea gluma brevior, 2-carinata, carinis ciliatis. Stamina 3. Styli brevissimi, stigmatibus plumosis. Caryopsis ovoidea v. oblonga, apice sæpius villosa, antice anguste sulcata, gluma paleaque inclusa, libera v. paleæ siccitate adhærens.—Herbæ annuæ v. biennes, erectæ, foliis planis. Spica terminalis, cylindracea v. elongata, rhachi flexuosa alternatim excavata continua v. rarius articulata.

Species silvestres vix 10, regionis Mediterraneæ et Asiæ occidentalis incolæ, formæ cultæ jam diu per regiones temperatas utriusque orbis latissime extensæ. Genera sequentia auctorum pro sectionibus parum distinctis habenda videntur:—

Tritica cerealia jam a temporibus antiquissimis culta, statu sylvestri ignota sunt, distinguuntur imprimis glumis vacuis sæpius valde inæquilateralibus, florentibus superne v. a basi carinatis, apice sæpius obliquis muticis v. 1-aristatis. *Beauv. Agrostogr.* 103, *pro parte, t.* 20, *f.* 4. *Kunth, Enum. Pl.* i. 438 (*T. legitima*). *Delile, Fl. Eg. t.* 14. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 79. *Host, Gram. Austr.* iii. *t.* 26 *ad* 31, iv. *t.* 5 *ad* 8.

Crithodium, *Link in Linnæa,* ix. 132, *t.* 3, est *T. monococcum,* Linn.; Host, Gram. Austr. iii. t. 32 (*T. bœoticum,* Boiss.), species Orientalis interdum culta, flore unico perfecto, glumis vacuis parum inæquilateralibus, florentibus rigidis carinatis non ventricosis 1-aristatis. Ad eandem sectionem referendum videtur *T. bicorne,* Forsk., Delile, Fl. Eg. t. 15, f. 1.

Ægilops, *Linn. Gen. n.* 1150, species silvestres includit glumis dorso rotundatis ventricosis v. oblongis nunquam carinatis, vacuis parum inæquilateralibus, florentibus apice truncato-dentatis dentibus nonnullis spicularum superiorum v. omnium in aristas longas productis v. rarius omnibus muticis. Species editæ ultra 40 quas Munro ad 7 v. 8 reduxit, quarum 2 v. 3 facile formas hybridas gignunt cum *Triticis* cultis et a nonnullis pro typis primordialibus *Triticorum* habentur. *Beauv. Agrostogr.* 104, *t.* 20, *f.* 5. *Kunth, Enum. Pl.* i. 457. *Schreb. Beschr. Gräs.* 80, *t.* 10, *t.* 27, *f.* 2. *Reichb. Ic. Fl. Germ. t.* 8. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 85; *Host, Gram. Austr.* ii. *t.* 5 *ad* 7. *Cav. Ic. t.* 90. *Sibth. Fl. Græc. t.* 93 *ad* 95. *Vis. Fl. Dalm. t.* 1, *et Suppl. t.* 1. *Jaub. et Spach, Ill. Pl. Or. t.* 200, 309 *ad* 317.

In *Æ. loliacea,* Jaub. et Spach, et *Æ. mutica,* Boiss. (*Æ. tripsacoide,* Jaub. et Spach), glumæ muticæ obtuse dentatæ, vacuæ in priore glabræ, in illa dorso dense pilosæ.

269. **Lepturus,** *R. Br. Prod.* 207.—Spiculæ 1-2-floræ, in spica simplici ad excavationes rhacheos solitariæ, sessiles, alternæ, angustæ, rhachilla brevissima supra glumas inferiores articulata, ultra flores in stipitem brevem producta, floribus hermaphroditis v. superiore dum adsit sæpe imperfecto. Glumæ 1–2 inferiores vacuæ, persistentes, angustæ, rigidæ, acutæ, 5-nerves; florentes multo breviores, tenues, hyalinæ; palea hyalina, 2-nervis. Stamina 3 v. pauciora. Styli breves, distincti, stigmatibus plumosis. Caryopsis angusta, glabra, glumis inclusa, libera.—Gramina annua humilia v. rarius elatiora et forte perennia, basi ramosa v. multicaulia, foliis angustis. Spica terminalis, elongata, rigida at tenuis, recta v. incurva, primum cylindracea, spiculis alternis dissitis in rhachi excavata quasi inclusis, gluma una e vacuis per anthesin sæpe patente.

Species nobis notæ 6, 5 Europæ, Africæ borealis et Asiæ temperatæ incolæ, quarum una etiam in Australia aliisque regionibus hinc inde in maritimis occurrit, sexta in maritimis Australiæ, Novæ Zelandiæ et ins. maris Pacifici indigena.

In *L. cylindrico,* Trin. (*L. subulato,* Kunth, *Ophiuro subulato,* Link, Nees, Gen. Fl. Germ.

Monocot. i. n. 88 (*Monerma*), Reichb. Ic. Fl. Germ. t. 3) gluma vacua 1, flos 1, stipite rhachillæ brevi nudo. In *L. repente*, Br.; Brongn. in Duperr. Voy. Coq. t. 16, gluma vacua 1, flos perfectus 1, stipite rhachillæ glumam paleamque vacuas ferente. In *L. persico*, *L. incurvato* et *L. filiformi*, Trin. Reichb. Ic. Fl. Germ. t. 2, Host, Gram. Austr. i. t. 23 (*Rottboellia*), *Sibth.*, *Fl. Gr. t.* 91 (*Rottboellia*), glumæ vacuæ 2, flos 1, stipite rhachillæ brevi nudo. In *L. pannonico*, Kunth (PHOLIURO, *Trin. Fundam. Agrostogr.* 131, *Reichb. Ic. Fl. Germ. t.* 3; ROTTBOELLIA, *Host, Gram. Austr.* i. *t.* 24, *Ophiuro pannonico*, Nees, Gen. Fl. Germ. Monocot. i. *n.* 89), glumæ vacuæ 2, flores perfecti 2.

Genus *Hordeaceas* cum *Rottboellieis* connectit. De speciebus boreali-Americanis ad *Lepturum* relatas, cfr. supra sub *Schedonnardo*, p. 1168.

270. **Psilurus,** *Trin. Fundam. Agrost.* 93. (Monerma, *Beauv. Agrostogr.* 116, *pro parte, t.* 20, *f.* 10. Asprella, *Host. Gram. Austr.* iv. 17, *t.* 29, *non Willd.*)—Spiculæ angustæ, 1-floræ v. rarissime 2-floræ, secus rhachin inarticulatam spicæ tenuis solitariæ sessiles, rhachilla basi articulata sub gluma florente brevissima, ultra florem in stipitem nudum v. rarius glumiferum producta, flore hermaphrodito. Glumæ 2, rarissime 3, inferior vacua, minima, squamiformis, sub articulatione persistens; florens angusta, in aristam rectam desinens, summa dum adsit minor, vacua v. paleam rarissime florem ♂ fovens; palea linearis, 2-nervis. Stamen 1. Styli brevissimi, stigmatibus plumosis. Caryopsis linearis, gluma rigescente inclusa, libera.—Gramen annuum, tenue, multicaule, foliis breviter subulatis. Spica elongata, tenuissima, sæpe incurva, rhachi ad quamque nodum leviter excavata, gluma persistente sæpe ad dentem brevem reducta. Spiculæ adpressæ, non secundæ; rhachillæ continuatio semper adesse videtur, sæpius setiformis, in spiculis paucis apice glumifera v. rarissime florens.

Species 1, Europæ australis incola, in Oriente usque ad Affghanistan extensa. *Kunth, Enum. Pl.* i. 461. *Reichb. Ic. Fl. Germ. t.* 1. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 87. *Cav. Ic. t.* 39 (*Rottboellia*).

271. **Nardus,** *Linn. Gen. n.* 69.—Spiculæ 1-floræ, angustæ, ad dentes rhacheos spicæ unilateralis sessiles, solitariæ, rhachilla brevissima intra dentem articulata, ultra florem non producta, flore hermaphrodito. Gluma (præter dentem rhacheos) nulla vacua, florens angusta, acuminata v. breviter aristata, rigidula, marginibus hyalinis involutis; palea angusta, inclusa, 2-nervis. Stamina 3. Stylus elongatus, indivisus, stigmate elongato breviter papilloso. Caryopsis linearis, glabra, apice in styli basin attenuata, gluma inclusa, libera (v. ex auct. nonnullis paleæ adhærens).—Gramen perenne, humile, dense cæspitosum, foliis setaceis rigidulis. Spica tenuis, simplex, longe pedunculata, rhachi inarticulata. Spiculæ 2-seriatim alternæ sed dissitæ secundæque uniseriatæ apparent, erectæ v. subpatentes.

Species 1, Europæ imprimis occidentalis a terris Arcticis usque ad regionem Mediterraneam incola, in Asia temperata rarior videtur. *Beauv. Agrostogr.* 117, *t.* 20, *f.* 11. *Kunth, Enum. Pl.* i. 460. *Schreb. Beschr. Gräs.* 65, *t.* 7. *Host, Gram. Austr.* ii. *t.* 4. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 86. *Reichb. Ic. Fl. Germ. t.* 110. *Cav. Ic. t.* 204.

Genus quoad affinitates valde dubium. Ob glumarum vacuarum defectum situs articulationis rhachillæ v. pedicelli incertum est, nisi pro glumæ rudimento dentem persistentem rhacheos spicæ haberes. Stylus *Sesleriearum*; inflorescentia fere *Chloridearum* v. potius *Hordeearum*.

272. **Kralikia,** *Coss. et Dur. in Bull. Soc. Bot. Fr.* xiv. 89.—Spiculæ 2-floræ, in spica simplici ad excavationes rhacheos solitariæ, rhachilla brevi sub floribus villosa, ultra flores in stipitem brevem producta, floribus hermaphroditis. Glumæ inferiores vacuæ 2, acuminatæ, muticæ, inæquales, lanceolatæ, carinatæ; florentes paullo longiores, membranaceæ, carinatæ, 3-nerves, nervo medio in aristam brevem mucroniformem producto, lateralibus brevius mucronatis; palea glumæ subæqualis, 2-carinata. Stamina 3. Ovarium glabrum, stipitatum. Styli elongati, filiformes, stigmatibus plumosis. Caryopsis . . . —Gramen perenne, cæspitosum, caulibus gracilibus, foliis filiformibus fasciculatis dense pulvinatis. Spica subfiliformis, rigidula, recta v. subincurva, spiculis minimis dissitis. Glumæ glabræ v. scabræ. (*Char. ex Coss. et Dur.*)

Species 1, Algeriensis, a nobis non visa.

273. **Oropetium,** *Trin. Fundam. Agrostogr.* 98, *t.* 3.—Spiculæ 1-floræ, in spica simplici ad excavationes rhacheos solitariæ, sessiles, rhachilla brevissima supra glumas inferiores articulata, sub flore longe pilosa, ultra florem in stipitem minutum producta, flore hermaphrodito. Glumæ 2 inferiores vacuæ, extima rhachin versus parva membranacea, secunda rigida, lineari-lanceolata, acuta; florens paullo brevior, membranaceo-hyalina, latiuscula, carinata; palea angusta, 2-nervis. Stamina 3. Styli distincti, stigmatibus brevibus plumosis. Caryopsis oblonga, gluma paleaque inclusa, libera.—Gramen nanum, dense multicaule, foliis brevibus subulatis. Spica tenuis, spiculis parvis distiche immersis subteres, rhachi sub-4-gona leviter flexuosa.

Species 1, Indiæ orientalis incola. *Kunth, Enum.* i. 463. *Roxb. Corom. Pl. t.* 132 (*Rottboellia*).

274. **Hordeum,** *Linn. Gen. n.* 98.—Spiculæ 1-floræ, in spica simplici ad nodos v. excavationes rhacheos 2–3-næ, collateraliter sessiles v. brevissime stipitatæ, rhachilla brevi supra glumas inferiores articulata, ultra florem in setam longam tenuem v. superne in glumam angustissimam dilatatam producta, floribus hermaphroditis v. spicularum lateralium imperfectis. Glumæ 2 inferiores vacuæ, subulatæ v. angustissime lineares, rigidæ, persistentes, spicularum omnium cujusve nodi subexternæ involucrum simulantes; florens lanceolata, dorso rotundata, ecarinata, superne 5-nervis, in aristam rectam v. divergentem desinens; palea gluma parum brevior, 2-carinata. Stamina 3. Styli brevissimi, distincti. Caryopsis ovoideo-oblonga v. angusta, apice breviter villosa, antice sulcata, paleæ siccitate adhærens v. rarius libera.—Gramina erecta, annua v. rarius perennia, foliis planis. Spica cylindracea, sæpius densa, glumarum aristis elongatis obtecta, v. rarius tenuior aristis ad setas breves reductis.

Species spontaneæ ad 12, Europæ, Africæ borealis, Asiæ temperatæ et Americæ extratropicæ tam australis quam borealis incolæ.

Beauv. (Agrostogr. 114, t. 21, f. 1) genus HORDEUM restrinxit ad *H. vulgare*, Linn., formasque affines diu cultas quibus spiculæ laterales haud raro fertiles evadunt. *Host, Gram. Austr.* iii. *t.* 34 *ad* 37. Inter illas CRITHO, *E. Mey.! Ind. Sem. Hort. Regiomont.* 1848, *ex Ann. Sc. Nat. ser.* 3, xi. 253, *et Linnæa*, xxiv. 195 (*H. ægiceras*, Royle, Illustr. Fl. Himal. t. 97, Hensl. in Hook. Kew Journ. i. t. 2, 3), insignis est glumis florentibus latis apice 3-fidis lobis lateralibus divaricato-reversis, intermedio majore apice cucullato. Species spontaneæ in sectiones sequentes distribuuntur:—

1. *Zeocriton.* Spiculæ sæpissime ternæ, centrali sola perfecte fertili, lateralibus (sæpius breviter stipitatis) sterilibus v. ad glumas vacuas reductis. *Schreb. Beschr. Gräs. t.* 17. *Host, Gram. Austr.* i. *t.* 32 *ad* 34; iii. *t.* 31 *ad* 33; iv. *t.* 12. *Reichb. Ic. Fl. Germ. t.* 11, 12. *Nees, Gen. Fl. Germ. Monocot.* i. *n.* 83. *Trin. Spec. Gram. t.* 3, 4. *Desf. Fl. Atl. t.* 37. *Sibth. Fl. Græc. t.* 98. *Guss. Ic. Pl. Rar. t.* 11. *Willk. Ill. Fl. Hisp. t.* 1. *Dœll in Mart. Fl. Bras.* ii. iii. 228, *t.* 57. ZEOCRITON, *Beauv. Agrostogr.* 114, *t.* 21, *f.* 2. CRITESION, *Raf. in Journ. Phys.* lxxxix. 103.

2. *Erithopsis.* Spiculæ sæpissime geminæ, utraque fertili, centrali deficiente v. rarius e glumis vacuis constante. ELYMI species (sect. *Medusather*, Griseb.), *Schreb. Beschr. Gräs. t.* 24, *f.* 1, 2. *Host, Gram. Austr.* i. *t.* 27. *Reichb. Ic. Fl. Germ. t.* 9. *Sibth. Fl. Græc. t.* 96. *Delile, Fl. Eg. t.* 13. CRITHOPSIS, *Jaub. et Spach, Ill. Pl. Or.* iv. 30, *t.* 321.

3. *Cuviera.* Spiculæ sæpissime ternæ, omnes fertiles. Species unica, *H. sylvaticum*, Huds. (*Elymus europæus*, Linn.; Host, Gram. Austr. i. t. 28; Reichb. Ic. Fl. Germ. t. 9; Nees, Gen. Fl. Germ. Monocot. i. n. 82). CUVIERA, *Kœl. Gram. Gall. et Germ.* 328.

275. **Elymus,** *Linn. Gen. n.* 96.—Spiculæ 2–6-floræ, in spica simplici ad nodos plus minus excavatos rhacheos 2–6-næ, collateraliter sessiles, rhachilla sub floribus articulata, floribus hermaphroditis v. summo sæpius imperfecto v. ad glumam vacuam reducto. Glumæ 2 inferiores vacuæ, rigidæ, anguste lineares, 1–3-nerves, in aristam brevem productæ v. sæpius aristiformes, persistentes, spicularum omnium cujusve nodi subexterni involucrum simulantes, rarius in aristas plures divisæ; florentes breviores, oblongæ v. lanceolatæ, dorso rotundatæ, ecarinatæ, 5-nerves, obtusæ v. acutæ, muticæ v. in aristam desinentes; palea gluma parum brevior, 2-carinata. Stamina 3. Styli brevissimi, distincti, stigmatibus plumosis. Caryopsis oblonga, apice parce villosa, antice sulcata

paleæ siccitate adhærens.—Gramina elata, foliis planis v. rigide convolutis. Spicæ terminales, nunc more *Hordei* cylindraceæ, densæ, aristis numerosis obtectæ, rhachi fragili v. continua, nunc elongatæ, floribundæ, densæ v. subinterruptæ.

Species ad 20, regionum temperatarum Europæ, Asiæ et Americæ borealis incolæ. *Kunth, Enum. Pl.* i. 449. *Steud. Syn. Pl. Glum.* i. 348. *Griseb. in Ledeb. Fl. Ross.* iv. 329.

Genus *Hordeo* valde affine, vix differt nisi spiculis 2–8-floris, v. si rarissime florem unicum tantum fertilem continet rhachilla gluma vacua v. flore imperfecte terminatur. In sectiones sequentes dividitur :—

1. *Sitanion.* Glumæ vacuæ longe aristiformes sæpius in aristas 2–∞ fere ad basin divisæ et glumæ florentes sæpe 2–3-aristatæ, aristis omnibus longissimis haud raro divergentibus v. intricatis. Spicæ rhachis fragillima. Habitus cæterum ei *Hordei jubati* similis. Species 1, Americæ borealis occidentalis incola. Sitanion, *Rafin. in Journ. Phys.* lxxxix. 103. Polyantherix, *Nees in Ann. Nat. Hist. ser.* 1, i. 284.

2. *Clinelyna,* Griseb. Spiculæ sæpissime geminæ. Glumæ integræ, vacuæ breviter, florentes sæpius longe, aristatæ. Species Asiaticæ v. Americanæ. *Schreb. Beschr. Gräs. t.* 21, *f.* 1.

3. *Psammelyna,* Griseb. Spiculæ 2–6-næ. Glumæ omnes muticæ v. vix brevissime mucronato-aristatæ. Gramina sæpe elata rigida spica longa, rarius habitu *Clinelynis* similia. Species Asiaticæ, quarum una etiam Europæa et Americana, et forte una Americæ propria. *Schreb. Beschr. Gräs. t.* 40. *Beauv. Agrostogr.* 106, *pro parte, t.* 20, *f.* 7. *Jacq. Ecl. Gram. t.* 19, 37 *ad* 39. *Host, Gram. Austr.* iv. *t.* 12. *Ledeb. Ic. Fl. Ross. t.* 229, 249 *ad* 251. *Reichb. Ic. Fl. Germ. t.* 10.

276. **Asprella,** *Willd. Enum. Hort. Berol.* 132. (Hystrix, *Mœnch, Meth.* 294. Gymnostichum, *Schreb. Beschr. Gräs.* ii. 127, *t.* 47.)—Spiculæ 2–∞-floræ, in spica simplici ad nodos excavatos rhacheos geminæ rarius ternæ, collateraliter sessiles, rhachilla sub floribus articulata, floribus hermaphroditis v. summo imperfecto. Glumæ vacuæ 0 v. in spiculis infimis 1–2 parvæ subulatæ ; florentes anguste lanceolatæ, convolutæ, rigidæ, dorso rotundatæ, superne 5-nerves, in aristam desinentes ; palea gluma parum brevior, 2-carinata. Stamina 3. Styli brevissimi, distincti, stigmatibus plumosis. Caryopsis anguste oblonga, apice parce villosa, antice sulcata, paleæ siccitate adhærens.—Gramina elatiuscula, foliis planis. Spicæ terminales, quam in *Elymo* longiores laxiores tenuioresque.

Species 3, quarum 2 Americæ borealis, tertia Novæ Zelandiæ, incolæ. *Beauv. Agrostogr. t.* 20, *f.* 9 (*Elymus*). *Kunth, Enum. Pl.* i. 454. *Jacq. Ic. Rar. t.* 305 (*Elymus*). *Hook. f. Fl. Nov. Zel. t.* 70 (*Gymnostichum*). *Buchan. N. Zeal. Grass. t.* 58 (*Gymnostichum*).

Opus Schreberi in titulo annum fert 1769, sed pars iii. *Gymnostichum* continens, anno 1810 edita fuit. Nomen Mœnchianum in Zoologia nimis familiare, a botanicis rite prætermissum est.

Tribus XIII. Bambuseæ.

277. **Arundinaria,** *Mich. Fl. Bor. Amer.* i. 73. (Miegia, *Pers. Syn. Pl.* i. 101. Ludolfia, *Willd. in Gesellsch. Nat. Fr. Berlin Mag.* ii. 320. Triglossum, *Fisch, Cat. Jard. Pl. Gorenki,* 1812, *cum ic. ex Rœm. et Schult.* Macronax, *Raf. in N. York Med. Rep.* v. 350, *ex Munroio.*)—Spiculæ ∞-floræ, sæpe longæ, compressæ, varie racemosæ v. paniculatæ, rhachilla sub floribus tardius articulata, floribus hermaphroditis v. summis imperfectis (inferiore rarius masculo ?). Glumæ inferiores vacuæ 1–2, inæquales, extima minore interdum deficiente ; florentes longiores, membranaceo-herbaceæ, ecarinatæ, multinerves, obtusiusculæ acuminatæ v. brevissime mucronato-aristatæ ; palea gluma vix brevior, prominenter 2-carinata. Lodiculæ 3. Stamina 3. Ovarium apice sæpe pilosum ; styli 2 v. 3, basi breviter connati, stigmatibus longiusculis laxe plumosis. Caryopsis ovali- v. anguste oblonga, antice sulcata, gluma paleaque inclusa, libera.—Gramina elata, suffruticosa raro arborescentia, ramis interdum ad nodos fasciculatis subverticillatis, foliis breviter petiolatis cum vagina articulatis planis, venulis transversis obscuris v. conspicuis. Inflorescentia plerumque terminalis, nunc simplex racemo 1–4-spiculato, nunc laxe paniculata v. e racemis fasciculatis v. subverticillatis composita. Spiculæ majusculæ, virides v. coloratæ, interdum glumis dissitis elongatis.

Species ad 24, Asiæ et Americæ inter tropicos incolæ v. in America boreali Himalaya et Japonia ultra

tropicos extensæ. *Beauv. Agrostogr.* 144, *t.* 25, *f.* 7. *Munro in Trans. Linn. Soc.* xxvi. 13. *Rupr. in Mem. Acad. Sc. Petersb. ser.* 6, v. *t.* 1 *ad* 3. *Kunth, Rev. Gram. t.* 155, 156. *Trin. Spec. Gram. t.* 349, 350. *Kurz, For. Fl. Brit. Burm.* ii. 549, *et in Journ. Asiat. Soc. Beng.* xlii. 249. *Dœll in Mart. Fl. Bras.* ii. iii. 163, *t.* 44, 45.

A. acuminata, Munro, species Mexicana, insignis est spiculis tenuibus glumis membranaceis fere hyalinis, vacuis in aristam tenuem productis.

Thamnocalamus, *Munro in Trans. Linn. Soc.* xxvi. 33, genus propositum fuit imprimis ad *A. spathifloram*, Rupr., speciem Himalayensem bracteis spathaceis demum caducis spiculas plerasque subtendentibus. Huic addita fuit *T. Falconeri*, Munro, species pariter Himalayana *A. falcatæ*, Nees, valde affinis, bracteis quam in *A. spathiflora* minoribus caducissimis. Genus *Thamnocalamus*, Falcon. mss., est ipsa *A. falcata*, ubi interdum bracteæ nonnullæ observantur. Species omnes nostro sensu rite a Ruprechtio in *Arundinaria* inclusæ.

278. **Arthrostylidium,** *Rupr. in Mem. Acad. Sc. Petersb. ser.* 6, v. 117, *t.* 3–5.—Spiculæ ∞- (2–7-)floræ, in spicis racemisve secundæ, rhachilla sub floribus articulata, floribus hermaphroditis v. summo imperfecto. Glumæ inferiores 3–4 vacuæ, extima parva interdum setiformis, sequentes gradatim florentibus similiores; florentes membranaceæ v. coriaceæ, sæpe acuminatæ, exaristatæ, ecarinatæ, multinerves; palea gluma vix brevior, angusta, 2-carinata. Lodiculæ 3. Stamina 3. Ovarium glabrum; styli 2, distincti, stigmatibus breviter pilosis v. distincte plumosis. Caryopsis ubi nota oblonga, gluma paleaque inclusa, libera.—Gramina arborescentia v. suffruticosa, interdum scandentia, foliis vix petiolatis cum vagina articulatis planis, venulis transversis inconspicuis. Racemi v. potius ramuli racemiferi basi interdum foliati, ad nodos sæpius densissime fasciculati, simplices v. rarius parce ramosi. Spiculæ angustæ, interdum elongatæ, nunc subsessiles unilateraliter confertæ, nunc dissitæ v. longiuscule pedicellatæ.

Species ad 12, Americæ tropicæ incolæ. *Munro in Trans. Linn. Soc.* xxvi. 39, *t.* 1. *Dœll in Mart. Fl. Bras.* ii. iii. 172, *t.* 47.

A. racemiflorum, Steud., e Mexico, a Fourniero, Gram. Mex. 131, ad *Merostachym* transfertur, ob florem in spicula sæpe unum tantum fertilem. Specimina nostra (Liebmanniana) spiculas juniores tantum exhibent, sed interdum flores 2 perfectos invenimus. In *A. pubescente*, Rupr., racemi rhachis insigniter flexuosa est. In *A. longifloro*, a Munroio l. c. t. 1, optime illustrata (*Guadua excalata*, Dœll in Mart. Fl. Bras. ii. iii. 181) spiculæ valde elongatæ, glumis dissitis subcoriaceis, sed stamina certe 3 *Arthrostylidii*, nec 6 *Guaduæ*.

Aulonemia, *Goudot in Ann. Sc. Nat. ser.* 3, v. 75, *t.* 5, species Colombiana, characteres omnino *Arthrostylidii* præbet, nec nisi inflorescentia laxiore a speciebus typicis distincta. Paniculæ rami tenues, apice spiculas 2–6 longas fere *A. longiflori* ferentes, glumis tamen densius imbricatis. Inflorescentia pariter laxa occurrere videtur in *A. Hænkei*, Rupr., specie nobis non nisi ex icone descriptioneque auctoris nota.

279. **Phyllostachys,** *Sieb. et Zucc. in Abhandl. Akad. Wiss. Münch.* iii. 745, *t.* 5.—Spiculæ pauci- (1–4-)floræ, breviter subspicatæ, singulæ v. geminæ bractea spathacea involutæ, rhachilla inter flores articulata, ultra flores in stipitem sæpius glumiferum producta, floribus hermaphroditis. Glumæ inferiores 2 v. interdum 3 vacuæ, extima parva 3–5-nervis, secunda et tertia dum adsit florentibus similes nisi minores; florentes membranaceæ, acuminatæ, exaristatæ, ecarinatæ, 7-∞-nerves; palea gluma inclusa qua vix brevior, angusta, 2-carinata, tenuiter ∞-nervis. Lodiculæ 3. Stamina 3. Ovarium glabrum, longe stipitatum; styli 3, basi longiuscule connati, stigmatibus elongatis serrulato-subplumosis. Caryopsis . . .—Gramina arborescentia, caule semitereti, nodis prominentibus, ramulis foliiferis fasciculatis subverticillatis, foliis breviter petiolatis cum vagina articulatis planis venulis transversis tessellatis. Spicæ densæ v. laxæ, in panicula laxa sæpius numerosæ. Bracteæ sub ramulis paniculæ sæpius breves v. caducæ, intra spicas spiculas involventes majores sæpe imbricatæ.

Species 4 v. 5, Japoniæ et Chinæ incolæ. *Munro in Trans. Linn. Soc.* xxvi. 35. *Hance in Trim. Journ. Bot.* 1876, 295.

280. **Athroostachys,** *Benth. in Journ. Linn. Soc.* xix. 134 (*err. typ.* Achroostachys).—Spiculæ 1-floræ, in capitulum globosum densissime confertæ, rhachilla supra glumam

infimam articulata pubescente, ultra florem producta glumifera, flore hermaphrodito. Gluma infima vacua ad basin rhachillæ persistens (an bractea glumiformis ?), angusta, acuminata, 2 sequentes vacuæ ab infima distantes florenti appressæ, breves, setaceo-acuminatæ ; florens multo longior, latiuscula, rigidule membranacea, complicata, multinervis, rostrato-acuminata v. mutica, margine ciliata ; terminalis multo angustior, plurinervis, vacua v. floris rudimentum fovens ; palea glumæ æquilonga, lata, carinis 2 ciliatis valde prominentibus. Lodiculæ 3. Stamina 3. Ovarium glabrum ; styli 2, basi connati, stigmatibus breviter plumosis. Caryopsis . . .—Gramen suffruticosum, scandens, ramis floridis fasciculatis foliatis, foliis cum vagina articulatis planis, venulis transversis obsoletis, vagina apice setis longis numerosis fimbriata. Capitulum globosum, intra folia summa sessile, spiculis majusculis densissime confertis, revera sessilibus, sed ob rhachillam supra glumam infimam productam pedicellatæ apparent.

Species 1, Brasiliensis, *A. capitata*, Benth. (*Merostachys capitata*, Hook. Ic. Pl. t. 273, Munro in Trans. Linn. Soc. xxvi. 50).

281. **Merostachys,** *Spreng. Syst. Veg.* i. 132.—Spiculæ 1-floræ, in spica unilaterali sessiles, rhachilla infra florem brevissima tardius articulata, supra florem longe stipitiformi v. lineari, nuda v. minute glumifera. Glumæ inferiores 3–4 vacuæ, ab extima minima ad superiorem florenti subsimilem gradatim auctæ ; florens membranacea, latiuscula, ecarinata, mutica, tenuiter multinervis, costa interdum superne prominente ; palea ampla, gluma fere latior, 2-carinata, ∞-nervis. Lodiculæ 3. Stamina 3. Ovarium glabrum ; styli distincti, longiusculi, stigmatibus tenuissime plumosis. Caryopsis . . .—Gramina arborescentia, ramis fasciculatis, foliis planis cum vagina articulatis, venulis transversis obscuris. Spicæ simplices, ad apices ramorum longæ densæ v. in ramulis fasciculatis minores. Spiculæ confertæ, stricte secundæ.

Species 8 v. 9, Brasiliæ, Paraguay et Peruviæ incolæ. *Munro in Trans. Linn. Soc.* xxvi. 46 (*excl. M. capitata*). *Kunth, Rev. Gram. t.* 79. *Rupr. in Mem. Acad. Sc. Petersb. ser.* 6, v. 126, *t.* 10 (cujus sp. 2 a Munroio casu omissæ). *Dœll in Mart. Fl. Bras.* ii. iii. 207, *t.* 55.

282. **Chusquea,** *Kunth, Syn. Pl. Æquin.* i. 254. (Rettbergia, *Raddi, Agrostogr. Bras.* 17. Dendragrostis, *Nees in Linnæa*, ix. 487.)—Spiculæ 1-floræ, varie paniculatæ, rhachilla brevissima supra glumas inferiores articulata, ultra florem non producta, flore hermaphrodito. Glumæ 2 inferiores vacuæ persistentes parvæ v. angustæ, 2 sequentes pariter vacuæ florenti similiores eique appressæ, sæpe acuminatæ ; florens membranacea, lata, 5–∞-nervis, obtusa v. acuta, mutica ; palea glumæ æquilonga, lata, membranacea, superne plus minus distincte 2-carinata. Lodiculæ 3. Stamina 3. Ovarium glabrum, sæpius acuminatum ; styli 2, a basi distincti, v. rarius stylus indivisus, stigmatibus tenuibus laxe plumosis. Caryopsis oblonga, sæpe angusta, a dorso compressa v. subteres, gluma paleaque inclusa, libera.—Gramina suffruticosa v. arborescentia, interdum scandentia, foliis in tribu sæpe parvulis, planis, cum vagina articulatis, venulis transversis obscuris v. rarius conspicuis. Panicula terminalis, nunc longe denseque spiciformis v. in capitulum globosum v. oblongum contracta, nunc thyrsoidea v. pyramidalis, floribunda v. laxe effusa, v. in ramulis brevibus numerosæ racemiformes paniculam foliatam densam secundam formantes.

Species ad 30, omnes Americanæ. *Munro in Trans. Linn. Soc.* xxvi. 52, *t.* 2. *Ernst in Trim. Journ. Bot.* 1872, 262. *Kunth, Rev. Gram. t.* 77, 78, 191. *Trin. Spec. Gram. t.* 339, 340. *E. Desv. in C. Gay, Fl. Chil. t.* 83. *Dœll in Mart. Fl. Bras.* ii. iii. 194, *t.* 54. *Fourn. Gram. Mex.* 131.

Spicularum rhachilla in *C. tenella* aliisque ex Dœllio ultra florem producta quod tamen in speciminibus nostris non vidimus.

283. **Planotia,** *Munro in Trans. Linn. Soc.* xxvi. 70. (Platonia, *Kunth, Rev. Gram.* i. 139, 327, *t.* 76, *non Mart.*)—Spiculæ 1-floræ, paniculatæ, rhachilla brevissima continua ultra florem non producta, flore hermaphrodito. Glumæ inferiores vacuæ 4, sæpius mucronato-acuminatæ v. subaristatæ, ab infima parva v. longa angustaque gradatim mutatæ, superiore interdum florenti subsimili ; florens ovata, dorso rotundata v. sub-

ventricosa, ecarinata, rigidule membranacea v. subcoriacea, obtusa v. vix mucronata, exaristata, tenuiter multinervis; palea glumæ subæqualis, obtusa, apicem versus obscure 2-carinata. Lodiculæ 3. Stamina 3. Styli breves, distincti, stigmatibus plumosis. Caryopsis ubi nota ovoidea v. oblonga (interdum rostrata ?), gluma paleaque inclusa, libera. —Gramina herbacea, elata, foliis longis sæpe multipedalibus in vaginam longe angustatis nec articulatis planis, venulis transversis obscuris v. conspicuis. Panicula sæpius longissima, dense floribunda, anguste thyrsoidea v. pyramidata, rarius brevior laxior ramulis elongatis effusis. Spiculæ parvæ, subsessiles, sæpius numerosissimæ.

Species 5, montium Americæ australis tropicæ incolæ.

Genus a *Bambuseis* cæteris recedit caule non lignoso et foliis cum vagina continuis, characteribus nonnullis quodammodo *Paniceis* anomalis accedit, spicularum tamen structura, glumæ palea et lodiculæ omnino *Bambusearum*.

284. **Nastus**, *Juss. Gen. Pl.* 34. (Stemmatospermum, *Beauv. Agrostogr.* 144, *t.* 25, *f.* 5.)—Spiculæ 1-floræ, anguste paniculatæ v. subcapitatæ, rhachilla sub flore brevi vix articulata ultra florem in stipitem longum apice nudum v. glumæ rudimentum ferentem producta, flore hermaphrodito. Glumæ rigide membranaceæ v. coriaceæ, muticæ, multinerves, inferiores vacuæ ∞ (sæpius 6–10) ab extima minima in summam florenti simillimam gradatim auctæ; palea glumæ æquilonga, lata, 2-dentata, 2-carinata. Lodiculæ 3, longæ. Stamina 6. Ovarium glabrum; styli 2–3, basi connati v. stylus elongatus apice 2–3-fidus, stigmatibus tenuiter plumosis. Caryopsis 'ovato-conica basi indurata' v. oblonga, pericarpio membranaceo.—Gramina arborescentia, ramulis floriferis foliatis ad nodos fasciculato-verticillatis, foliis *Bambusæ*. Panicula nunc stricta breviter parceque ramosa at laxiuscula, nunc densa fere in capitulum contracta. Spiculæ erectæ.

Species 2 v. 3, ins. Mascarensium incolæ, typica Borbonica; altera Madagascariensis *N. capitatus*, Kunth, Rev. Gram. 325, t. 75, a Munroio ad *Beesham* refertur. Spiculæ in speciminibus nostris omnes juniores v. vacuæ, sed Kunthii icon et descr. nobis potius *Nastum* quam *Ochlandram* referre videntur. *N. barbatus*, Rupr., ex obs. recentioribus Munroi est *Guaduæ* species.

285. **Guadua**, *Kunth, Syn. Pl. Æquin.* i. 252.—Spiculæ 2–∞-floræ, rarius 1-floræ, varie capitatæ glomeratæ v. subspicatæ, parum v. vix compressæ, rhachilla sub floribus sæpius articulata, floribus hermaphroditis v. varie polygamis. Glumæ rigide membranaceæ v. subcoriaceæ, muticæ v. rarius breviter mucronatæ, multinerves, inferiores vacuæ 2–6 ab extima parva in superiorem florentibus similem gradatim auctæ; palea glumæ subæqualis, sæpius tenuior carinis 2 valde prominentibus sæpissimeque membranaceo-alatis. Lodiculæ 3. Stamina 6. Ovarium apice villosum; styli 2–3, basi subconnati, stigmatibus varie plumosis. Caryopsis ovali-oblonga v. fere linearis, apice pubescens v. hirsuta, gluma paleaque inclusa, libera, pericarpio semini adhærente.—Gramina arborescentia, sæpe aculeata v. spinifera, foliis brevissime petiolatis cum vagina articulatis planis, venulis transversis obsoletis. Spiculæ nunc magnæ, elongatæ, in apicibus ramulorum paucæ subspicatæ v. glomeratæ, erectæ v. reversæ, nunc minores v. angustæ, secus ramos paniculæ amplæ capitatæ v. glomeratæ.

Species ad 15, Americæ tropicæ incolæ. *Munro in Trans. Linn. Soc.* xxvi. 76. *Rupr. in Mem. Acad. Sc. Petersb. ser.* 6, *v. t.* 14 *ad* 16. *Humb. et Bonpl. Pl. Æquin. t.* 20, 21 (*Bambusa*). *Trin. Spec. Gram. t.* 337 (*Bambusa*). *Dœll in Mart. Fl. Bras.* ii. iii. *t.* 48, 49 *et t.* 52 (*Bambusa*) *et t.* 53 (*Nastus*). *Fourn. Gram. Mex.* 129.

Dœll *G. capitatam*, Munro, ad *Bambusam* transfert, sed paleæ carinæ in speciminibus nostris certe latiusculæ alatæ omnino *Guaduæ*. *G. exalata*, Dœll, est *Arthrostylidium longiflorum*, Munro, staminibus 3 nec 6. *G. pallescens*, Dœll l. c. 186, t. 50, e 'Rio Janeiro Glaziou n. 2832' verisimiliter in horto botanico culta, est *Bambusa pallida*, Munro, species Indica haud raro culta, characteres omnino *Bambusæ* ostendens. Genera cæterum *Bambusa* et *Guadua* inter se valde affinia sunt.

286. **Bambusa**, *Schreb. Gen. Pl.* 236. (Bambos, *Retz, Obs.* v. 24. Ischurochloa, *Büse in Pl. Jungh.* 389.)—Spiculæ 2–∞-floræ, secus ramos paniculæ dissite glomeratæ, rhachilla

sub floribus articulata, floribus hermaphroditis v. superiore masculo, inferioribus interdum sterilibus. Glumæ rigide membranaceæ v. subcoriaceæ, muticæ v. breviter mucronato-acuminatæ, tenuiter multinerves, inferiores 3–4 vacuæ ab extima parva in superiorem florentibus subsimilem gradatim auctæ; florentes longiores, summa sæpius angusta vacua; palea glumæ subæqualis, sæpe angusta, carinis 2 acutis ciliatis valde prominentibus vix tamen vere alatis. Lodiculæ 3. Stamina 6, filamentis liberis. Ovarium apice hirsutum; stylus elongatus, indivisus v. varie 2–3-fidus, stigmatibus breviter plumosis. Caryopsis oblonga, facie plana v. leviter sulcata, gluma paleaque inclusa, libera, pericarpio tenui semini adhærente, humectato tamen facile solubili.—Gramina arborescentia v. rarius suffruticosa v. scandentia, interdum spinifera, foliis breviter petiolatis cum vagina articulatis planis venulis transversis obscuris v. conspicuis. Panicula in caule inferne foliis denudato interdum quam maxime decomposita, rarius simplex. Spiculæ quam in *Guadua* sæpius minores, secus ramos elongatos sæpissime fasciculatæ semi-verticillatæ sessilesque.

Species bene notæ ad 24, Asiæ tropicæ v. subtropicæ incolæ, quarum una etiam in America tropica late dispersa, sæpissime tamen culta. His a variis auctoribus adduntur ultra 50 quarum flores fructusque adhuc ignoti et ideo valde dubiæ remanent. *Munro in Trans. Linn. Soc.* xxvi. 87. *Rupr. in Mem. Acad. Sc. Petersb. ser.* 6, v. 137, *t.* 11 *ad* 13. *Kurz, Bamb.* 54; *For. Fl. Brit. Burm.* ii. 550. *Beauv. Agrostogr. t.* 25, *f.* 3 (*Nastus*). *Wendl. Collect. t.* 47, *male. Kunth, Rev. Gram. t.* 73, 74. *Roxb. Corom. Pl. t.* 79. *Bedd. Fl. Sylv. t.* 321.

B. nana, Roxb., a cæteris speciebus differt inflorescentia multo simpliciore, panicula brevi, spiculis paucis vix fasciculatis. *B. pubescens*, Dœll in Mart. Fl. Bras. ii. iii. 189, t. 51, ex ins. Santa Catherina Brasiliæ, nobis ignota est. *B. capitata*, Trin.; Dœll l. c. 190, t. 52, ex obs. recentioribus Munroi, et ex speciminibus nostris, certe *Guaduæ* nec *Bambusæ* species.

287. **Gigantochloa,** *Kurz MS.; Munro in Trans. Linn. Soc.* xxvi. 123.—Spiculæ oblongæ, superne parum attenuatæ, ∞-floræ, secus ramos elongatos paniculæ dissite glomeratæ, rhachilla demum sæpius articulata, floribus hermaphroditis v. abortu unisexualibus. Glumæ rigidule membranaceæ, multinerves, muticæ v. mucronato-acuminatæ, inferiores 3–5 vacuæ ab extima parva in superiorem florentibus subsimilem gradatim auctæ; florentes longiores, summa sæpius angusta vacua; palea glumis subæqualis, angusta, carinis 2 superne prominulis ciliatis. Lodiculæ 3 v. pauciores (rarius 0?). Stamina 6, filamentis in tubum primum ovarium vix superantem demum longum tenuem connatis. Ovarium apice hirsutum; stylus elongatus, indivisus v. superne breviter 2–3-fidus, stigmatibus tenuibus breviter pilosis. Caryopsis (ubi nota) oblonga v. angusta, antice sæpius sulcata, gluma paleaque inclusa, libera, pericarpio membranaceo.—Gramina arborescentia, habitu *Bambusæ*. Paniculæ rami sæpe longissimi, spicularum glomerulis densis subglobosis numerosis.

Species 4 v. 5, Indiæ orientalis et Archipelagi Malayani incolæ. *Kurz, For. Fl. Brit. Burm.* ii. 555 (excl. *G. albociliata*); *Bamb.* 58.

288. **Oxytenanthera,** *Munro in Trans. Linn. Soc.* xxvi. 126.—Spiculæ elongato-conicæ densissime capitatæ v. glomeratæ (rhachilla vix articulata?) flore unico terminali hermaphrodito additis interdum 1–3 inferioribus (masculis v. sterilibus?). Glumæ ∞ (6–10) ab infima brevi lata ad superiores longas semet arcte involventes gradatim auctæ, rigide membranaceæ, acutæ v. mucronulatæ, multinerves, omnes præter summam vacuæ v. 1–3 superiores florentes; in flore terminali palea 0, nisi pro palea glumam intimam sequenti simillimam haberes. Lodiculæ 0. Stamina 6, filamentis in tubum primum ovarium vix excedentem demum longum tenuem connatis. Stylus elongatus, apice 2–3-fidus, stigmatibus brevissime pilosis. Flores inferiores dum adsint omnino *Gigantochloæ*, palea normali 2-carinata. Caryopsis floris terminalis ubi nota lineari-oblonga, glumis laxe inclusa, libera, pericarpio membranaceo, florum lateralium non vidimus.—Gramina arborescentia habitu *Gigantochloæ*.

Species ad 6, quarum 5 Indiæ orientalis v. Archipelagi Malayani incolæ, *Bedd. Ic. Pl. Ind. Or. t.* 234, *Fl. Sylv. t.* 322, habitu et inflorescentia *Gigantochloam* referunt, quacum junxit Kurz; ab illa differunt et *Schizostachyo* accedunt spiculis superne attenuatis flore terminali (solo fertili?) epaleaceo.

Species sexta, per Africam tropicam late dispersa, sectionem format *Scirpobambos*, A. Rich. Fl. Abyss. ii. 439, sub *Bambusa*; insignis est capitulo magno globoso inter folia summa sessili solitario v. pluribus in spica simplici interrupta, spiculis maximis glumis sæpissime omnibus præter terminalem vacuis alternatim imbricatis sed potius spiraliter dispositis quam distichis. Harum flores laterales non vidimus. In speciminibus Abyssinicis Schimperi, et in Æthiopicis Schweinfurthii, spiculæ sæpe undique ananthæ. Caryopsin vidimus inter fragmenta in herb. Munro servata e specimine Welwitschiano. Specimina occidentalia Barteri et Vogelii folia sola præbent et ideo incerta remanent.

289. **Dendrocalamus,** *Nees in Linnæa*, ix. 476.—Spiculæ 2-∞-floræ, secus ramos elongatos paniculatæ dissite glomeratæ, rhachilla vix articulata ultra flores sæpe producta in stipitem nudum v. glumiferum, floribus plerisque hermaphroditis, uno solo tamen sæpius fertili. Glumæ membranaceæ v. rigidulæ, multinerves, muticæ v. breviter aristato-mucronatæ, inferiores vacuæ 2-∞, ab extima brevi in superiorem florentibus similem gradatim auctæ; palea gluma vix brevior, angusta, 2-carinata, carinis sæpius ciliatis. Lodiculæ 0 v. rarius rudimenta 1-2. Stamina 6, filamentis liberis. Ovarium apice hirsutum; stylus elongatus (indivisus?) v. apice breviter 2-3-fidus. Caryopsis parvula, ovoidea v. subglobosa, styli basi sæpius acuminata v. rostrata, glumis inclusa, libera, pericarpio crustaceo v. indurato a semine libero.—Gramina fruticosa v. arborescentia, foliis *Bambusæ*. Paniculæ rami valde elongati, glomerulis seu capitulis numerosis dissitis multispiculis dense globosis v. minoribus.

Species 9, Indiæ orientalis Archipelagi Malayani et Chinæ incolæ. *Munro in Trans. Linn. Soc.* xxvi. 146, *t.* 6. *Kurz For. Fl. Brit. Burm.* ii. 558, *et in Journ. Asiat. Soc. Beng.* xlii. 250. *Bedd. Fl. Sylv. t.* 325.

Species typica est *Bambusa stricta*, Roxb., in India frequens, icon tamen, Roxb. Corom. Pl. t. 80, ex Munroio *Oxytenantheram Thwaitesii*, Munro, refert, etsi in analysi filamenta libera delineantur.

290. **Melocalamus,** *Benth. in Journ. Linn. Soc.* xix. 134.—Spiculæ parvæ, 2-floræ, secus ramos elongatos paniculæ dissite glomeratæ, rhachilla inter flores brevi continua, ultra flores in stipitem glumiferum producta, floribus hermaphroditis, infimo solo fertili. Glumæ inferiores vacuæ 2, membranaceæ, latæ, muticæ, multinerves; florentes similes vix v. non majores, terminalis vacua parva, ovoideo-globosa; palea glumæ æquilonga, latissima, membranacea, prominenter 2-carinata. Lodiculæ 3, magnæ. Stamina 6. Ovarium glabrum, acuminatum; styli 3, breves, basi connati, stigmatibus plumosis, Caryopsis mox exserta, demum fide Kurzii valde aucta, subglobosa, basi glumis stipata, pericarpio haud crasso rigide coriaceo, semine magno carnoso intra pericarpium libero.—Gramen arborescens, foliis *Bambusæ*. Inflorescentia *Dendrocalami flagelliferi*, Munro, spiculis adhuc minoribus. Fructum juniorem tantum vidimus, maturus a Kurzio pollicem diametro excedens dicitur.

Species 1, Martabanica (*M. compactiflorus*, Benth.). *Kurz, For. Fl. Brit. Burm.* ii. 567; *Bamb. t.* 2, *f.* 13 (*Pseudostachyum compactiflorum*).

Genus pluribus notis *Dendrocalamo* affinius videtur quam *Pseudostachyo*, ab utroque differt fructu magno fere *Melocannæ*, semine ipso tamen nec pericarpio carnoso-incrassato.

291. **Pseudostachyum,** *Munro in Trans. Linn. Soc.* xxvi. 141, *t.* 4.—Spiculæ parvulæ, 1-floræ, secus ramos paniculæ laxe spicatæ, varie bracteatæ, rhachilla sub flore brevi ultra florem producta sæpe glumifera, flore hermaphrodito. Gluma inferior vacua florenti similis nisi minor; florens lata, membranacea, convoluta, multinervis, mutica v. mucronulata; terminalis parva, globosa v. oblonga, vacua v. floris rudimentum includens; palea glumæ æquilonga, lata, convoluta, carinis 2 superne prominentibus. Lodiculæ 3 (v. 4?) majusculæ. Stamina 6. Ovarium glabrum; stylo rigidulo complanato rostrata. Caryopsis depresso-globosa, glabra, glumas paleamque persistentes non v. vix excedens, pericarpio crustaceo a semine libero.—Gramen subarborescens, foliis *Bambusæ*. Paniculæ rami nunc breves incurvi densissime fasciculati, spiculis florentibus parum distantibus,

nunc elongati incurvi v. flexuosi spiculis nunc dissitis angustis sterilibus glabris, nunc ut videtur morbosis sterilibusque valde incrassatis villosis irregulariter globosis v. e glumis numerosis imbricatis elongatis v. falcatis.

Species 1, Himalayensis, altera a Kurzio addita genus nostrum *Melocalamum* format.

292. **Greslania,** *Balansa in Bull. Soc. Bot. Fr.* xix. 319.—Spiculæ 1-floræ, in ramulis paniculæ spicatæ v. subcymoso-confertæ, rhachilla sub flore brevi, ultra florem in stipitem sæpe glumiferum producta, flore hermaphrodito. Glumæ rigide membranaceæ v. coriaceæ, latæ, muticæ, multinerves, 2 inferiores vacuæ, infima parva; florens vacuis longior, summa vacua angusta tenuisque v. ad rudimentum reducta; palea glumæ æquilonga, multinervis, apice obscure 2-carinata. Lodiculæ 3. Stamina 6. Styli 3, distincti, stigmatibus plumosis. Caryopsis fide Balansæ tereti-oblonga, pericarpio crasso celluloso, semine libero.—Gramina elata, foliis *Bambusæ* v. rigidis brevibusque. Panicula terminalis, ampla, ramulis sæpe foliatis. Spiculæ nunc angustæ secus ramulos ultimos paucæ subspicatæ, nunc parvæ rigidæ ad apices ramulorum numerosæ, fere in cymulas densas confertæ. Bracteæ sub ramulis spiculisque parvæ.

Species 3, Novo-Caledonicæ. Genus *Pseudostachyo* et *Teinostachyo* valde affine, quæ omnia forte in unum jungenda.

293. **Teinostachyum,** *Munro in Trans. Linn. Soc.* xxvi. 142, *t.* 3.—Spiculæ 1-floræ, secus ramulos paniculæ irregulariter subspicatæ bracteatæ, rhachilla sub flore brevi subarticulata ultra florem in stipitem glumiferum producta, flore hermaphrodito. Glumæ membranaceæ, sæpe mucronatæ, multinerves, inferiores 1–2 vacuæ, florens subsimilis nisi longior, lata, arcte convoluta, terminalis vacua, angusta; palea glumæ æquilonga, lata, multinervis, arcte convoluta, carinis 2 apicem versus valde prominentibus ciliatis. Lodiculæ 2–3, majusculæ. Stamina 6. Ovarium glabrum; stylus elongatus, rigidus, apice breviter 2–3-fidus, stigmatibus . . . Caryopsis (immatura) ovoidea, acuminato-rostrata, haud magna, pericarpio crassiusculo a semine soluto.—Gramina fructicosa arborescentia v. subscandentia foliis *Bambusæ*. Paniculæ rami spiciformes, nunc breves paucispiculati (errore pro spiculis ∞-floris descripti), nunc longiores multispiculati plus minus compositi sed ob ramulos virgatos angusti. Bracteæ spathaceæ fere glumiformes sub spicarum ramulis et spiculis ipsis interdum glumæ gemmiparæ dicuntur.

Species 3, Indiæ orientalis incolæ, *Bedd. Fl. Sylv. t.* 323.

Genus a Kurzio, For. Fl. Brit. Burm. ii. 566, cum *Cephalostachyo* jungitur, a quo differt tamen inflorescentia notisque nonnullis spicularum structuræ.

294. **Cephalostachyum,** *Munro in Trans. Linn. Soc.* xxvi. 138.—Spiculæ 1-floræ, in capitulo globoso terminali numerosæ v. in glomerulis capituliformibus secus rachin dissitis bracteis glumiformibus spiculisque imperfectis intermixtæ, rhachilla brevissima, basi articulata, ultra florem in stipitem nudum interdum longum producta, flore hermaphrodito. Glumæ præter bracteas glumiformes 2–3, membranaceæ, latæ, convolutæ, multinerves, muticæ, 1–2 inferiores vacuæ, superior florens longior; palea glumæ æquilonga, lata, convoluta, multinervis, apice prominule 2-carinata, 2-dentata v. 2-mucronata. Lodiculæ 2–3, magnæ. Stamina 6. Stylus elongatus, apice breviter 2–3-fidus, stigmatibus plumosis. Caryopsis (adhuc immatura haud magna) glabra, oblonga, rostrata, pericarpio crassiusculo a semine libero.—Gramina fruticosa v. arborescentia, foliis *Bambusæ*. Capitula ad apices ramulorum fasciculatorum sæpius solitaria, dense globosa, in speciebus paucis secus rhachin seu paniculæ ramum elongatum inter se distantia et minus densa. Spiculæ in capitulis ad 3–5 fasciculatæ; bracteæ sub fasciculis fere spathaceæ; sub spiculis minores, interdum plures vacuæ v. spicularum rudimenta foventes (glumæ gemmiparæ dictæ), interdum omnes setaceo-acuminatæ capitulo subechinato.

Species 5 v. 6, Indiæ orientalis et Madagascariæ incolæ. *Kurz, For. Fl. Brit. Burm.* ii. 563, *excl. sp. n.* 5 *et* 6. *Griff. Ic. Pl. Ind. Or. t.* 151 (*Schizostachyum*).

Bambusa virgata, Trin. Spec. Gram. t. 338, a Munroio ad *Melocannam* relata, a Kurzio rectius ad

Cephalostachyum transfertur. *C. Griffithii*, Kurz, ad *Teinostachyum* restituendum. *Bambusa schizostachyoides*, Kurz, a Munroio dubie inter *Melocannas* recensita, a Kurzio primum ad *Teinostachyum* et serius ad *Cephalostachyum* relata, est ex speciminibus Kurzianis e Horto Calcuttensi acceptis vera species *Bambusæ*.

295. **Schizostachyum,** *Nees, Agrostogr. Bras.* 535.—Spiculæ 1-floræ, secus rhachin seu ramos paniculæ dissite glomeratæ, rhachilla vix articulata ultra florem in stipitem capillarem nudum v. minute glumiferum producta, flore hermaphrodito. Glumæ ∞ (6–10) inferiores vacuæ, ab infima parva ad superiores longiores convolutas gradatim auctæ, ecarinatæ, muticæ, multinerves, summa sub flore terminali (v. palea ?) vix minor, pariter multinervis, ecarinata ; palea cæterum 0. Lodiculæ 2–3, angustæ. Stamina 6, filamentis liberis. Stylus elongatus, apice 2-3-fidus, stigmatibus breviter pilosis. Caryopsis ubi nota parvula, ovoidea v. subglobosa, glumis persistentibus stipata v. inclusa, libera, pericarpio crustaceo v. indurato haud crasso a semine libero.—Gramina fructicosa v. arborescentia, foliis *Bambusæ*. Paniculæ parum ramosæ v. pedunculus simplex, spicularum glomerulis paucis v. numerosis non secundis. Spiculæ nunc parvulæ nunc longiusculæ, sæpius tenues.

Species ad 8, Archipelagi Malayani, Chinæ et ins. maris Pacifici incolæ. *Munro in Trans. Linn. Soc.* xxvi. 135. *Kurz in Journ. Asiat. Soc. Beng.* xxxix. 88 ; *Bamb.* 63.

S. parvifolium, Munro, e Madagascaria, a genere recedit inflorescentia subunilaterali, spiculis tenuissimis, glumis virentibus membranaceis prominenter 7–9-nervibus, florente fere carinata, palea 2-carinata. Fructus ignotus, genus igitur incertum nobis tamen *Nasto* affinius quam *Schistostachyo* apparet.

Chloothamnus, *Büse in Pl. Jungh.* 386, species Javensis nobis ignota, a Munroio dubie ad *Nastum* relata, a Kurzio ad *Schizostachyum* absque dubio transfertur. A priore pluribus notis recedit et etiam a *Schizostachyo* ex descriptione Büsei differre videtur spiculis secundis cernuis.

296. **Dinochloa,** *Büse in Pl. Jungh.* 387.—Spiculæ 1-floræ, minimæ, secus ramos elongatos paniculæ dissite glomeratæ, rhachilla brevi inarticulata ultra florem non producta, flore hermaphrodito. Glumæ inferiores vacuæ 3–4, latæ, obtusissimæ, multinerves, ecarinatæ, muticæ, ab infima brevi in summam florentem gradatim auctæ ; florens vacuis subsimilis, latissima, valde convoluta, apice margine ciliata ; paleam nullam vidimus. Lodiculæ 0. Stamina 6. Ovarium glabrum ; styli breves. Caryopsis, a nobis non visa, bacciformis intus carnosa dicitur.—Gramina frutescentia altissime scandentia, foliis *Bambusæ*, panicula supra-decomposita, ramis tenuibus elongatis. Spiculæ in tribu minimæ, numerosissimæ, fasciculis seu glomerulis sessilibus subglobosis, interdum in ramulos breves excrescentibus.

Species nobis nota 1, Archipelagi Malayani incola. *Munro in Trans. Linn. Soc.* 153, *t.* 5 (quoad analysem f. 4 et 5 erronea). Huic addidit Kurz (For. Fl. Brit. Burm. ii. 570) 2, quarum una Andamanica ex descr. evidenter congener, altera floribus fructuque ignotis affinitatis dubiæ.

297. **Melocanna,** *Trin. in Spreng. Neue Entd.* ii. 43.—Spiculæ 1-floræ, in spicis unilateralibus dense confertæ, 2–3-natim fasciculatæ bracteatæque, rhachilla inarticulata ultra florem non producta, flore hermaphrodito. Glumæ ∞ (6–10) membranaceæ, mucronato-acuminatæ, ecarinatæ, multinerves, ab infima brevi in superiorem convolutam gradatim auctæ ; summa sub flore (v. palea ?) cæteris similis nisi paullo minor, pariter ∞-nervis, ecarinata ; palea cæterum 0. Lodiculæ 2, angustæ. Stamina 6, filamentis liberis v. irregulariter cohærentibus. Ovarium glabrum ; stylus elongatus, apice 2–4-fidus, stigmatibus breviter pilosis. Caryopsis maxima, globosa v. ovoidea, basi glumis persistentibus stipata, acumine crasso recurvo sæpius rostrata, pericarpio crassissimo carnoso a semine libero.—Gramen arboreum, foliis *Bambusæ*. Panicula longa, angusta, virgata, ramulis seu spicis numerosis brevibus sessilibus secundis ; spicularum fasciculi sessiles, secundi, secus ramulos conferti. Bracteæ glumaceæ numerosæ, subimbricatæ, ramulorum bases et spicularum fasciculos amplectentes.

Species 1, Indiæ orientalis incola, in Mauritio culta. *Munro in Trans. Linn. Soc.* xxvi. 131 (excl. sp. omnibus præter *M. bambusoideam*). *Roxb. Corom. Pl. t.* 243 (*Bambusa*).

Kurz in For. Fl. Brit. Burm. ii. 569, speciem novam addidit, quæ tamen floribus fructuque ignotis valde dubia remanet.

298. **Ochlandra,** *Thw. Enum. Pl. Zeyl.* 376. (Beesha, *Munro in Trans. Linn. Soc.* xxvi. 144.)—Spiculæ 1-floræ, secus pedunculum simplicem cum sterilibus minoribus glomeratæ v. in capitulum unicum terminale confertæ, rhachilla inarticulata ultra florem sæpius in stipitem brevem nudum v. minute glumiferum producta, flore hermaphrodito. Glumæ vacuæ ∞ (3–7), subcoriaceæ, mucronulatæ v. muticæ, ecarinatæ, multinerves, ab infima brevi lata in supremam elongatam convolutam gradatim auctæ; summa florens (v. palea?) vacuis similis nisi paullo minor florem involvens; palea cæterum 0. Lodiculæ? irregulares inæquales, interdum fere gluniformes, ima basi v. altius cum filamentis plus minus coalitæ. Stamina ∞ (6–30), filamentis nunc in tubum primum brevissimum demum glumas superantem sed facillime fissum coalitis, nunc subliberis v. irregulariter hinc inde glumaceo-dilatatis. Ovarium longe acuminatum, glabrum; stylus elongatus, breviter 4–6-fidus, stigmatibus serrulato-pilosis. Caryopsis maxima (sæpe ∞-pollicaris), ovoideo-conica, acuminato-rostrata, glumis persistentibus stipata, pericarpio crassissimo carnoso a semine subgloboso libero.—Gramina arborea v. fruticosa, foliis *Bambusæ*. Spicularum capitula v. glomeruli nunc spicam densam subinterruptam formant nunc capitulum magnum terminale. Spiculæ ipsæ longiusculæ, antheris exsertis sæpius numerosis insignes.

Species 3, Indiæ orientalis peninsulæ et Zeylaniæ incolæ. *Bedd. For. Man. Bot.* 234; *Fl. Sylv. t.* 324.

Beesha, Rheede, Hort. Malab. v. t. 60, speciem refert pro genere non definitam. Beesha, *Kunth in Journ. Phys.* xcv. 151, est genus spurium imprimis ad *Bambusam bacciferam*, Roxb. (*Melocannam*) descriptum, quacum junxit plantam Rheedii ad quam Munro genus *Beesham* limitavit, quod tamen Thwaites jam prius sub nomine *Ochlandri* bene descripsit.

ADDENDA ET CORRIGENDA

IN VOLUMINE TERTIO.

Pag.

v *in Conspectu Ordinum* CLVII. Elæagnaceæ, *lin.* 2, *lege* Stamina numero loborum æqualia v. dupla.

vi CLXIII. Ceratophylleæ, *lin.* 3, *loco* Radicula supera, *lege* Radicula infera.

Ordo CXXVIII. **NYCTAGINEÆ.**

3 *in Conspectu, post* 17. Pisoniam, *insere:*

17*a*. Eggersia. Flores solitarii, minuti, hermaphroditi. Stamina 7–8, inclusa. Stigma terminale. —*Ins. S. Thomas, Indiæ occid.*

1. **Mirabilis,**

Sect. 1. *Eumirabilis*, lin. 4, dele *Torr. Bot. Emory Exped. t.* 48.

4 2. **Oxybaphus,** *in charactere generico, lin.* 3, *pro* Involucrum 1–3-florum, *lege* involucrum 1–5-florum.

sect. 2, lin. 3, post (*Mirabilis*, A. Gr.), adde: *Torr. Bot. Emory Exped. t.* 48.

ad calcem generis adde:

Characteres quibus *Oxybaphum* a *Mirabili* distinximus, imprimis e perianthii et involucri fructiferi forma, parum constantes evadunt, nec certiores videntur illi quos A. Gray ex anthocarpio deduxit, et *Oxybaphus* melius pro sectione *Mirabilis* habendus est.

6 lin. 2, pro *Boerhaavia erecta*, lege *Boerhaavia stricta*.

8 14. **Boldoa,**

in habitatione, pro Species 2 Mexicanæ quarum una etiam Cubensis, *lege* Species 1 Mexicana; *et citatis adde*: Boldoa, Lag. Elench. Hort. Matr. Nov. Gen et Sp. 10, quoad characterem genericum et speciem unam; species 2 cæteræ auctoris cum illa Cubensi supra memorata ad *Cryptocarpum* referendæ videntur. Cfer. Hemsl. in Biol. Centr. Amer. iii. 8.

9 *post* 17. **Pisoniam,** *insere:*

17*a*. **Eggersia,** *Hook. f. in Ic. Pl. t.* 1401.—Flores minuti, solitarii, hermaphroditi, 3-4-bracteolati. Perianthium urceolare, ore 5-dentato, dentibus erectis induplicato-valvatis. Stamina 7–8, inclusa, filamentis inæquilongis breviter filiformibus basi in tubum brevem connatis; antheræ didymæ. Ovarium ovoideum, in stylum brevem subterminalem attenuatum, stigmate punctiformi. Fructus . . .—Frutex glaberrimus, ramulis strictis elongatis. Folia parva, solitaria v. in ramulis abbreviatis fasciculata, sessilia, obovato-oblonga, apice rotundata, coriacea, enervia. Flores pedunculati, pedunculo foliis multo breviore hirtello; bracteolæ sub flore minutæ. Perianthium hirtellum.

Species 1, insulæ S. Thomas Indiæ occidentalis incola.

Ordo CXXIX. **ILLECEBRACEÆ.**

Pag.

15 5. **Achyronychia,**

in adnot. lin. 3, pro *A. Palmeri*, Hook. f., lege *A. Parryi*, Hemsl.

16 8. **Siphonychia,**

ad calcem generis adde: Chapman, in Fl. S. U. St. 47, species *Siphonychiæ* distinguit 4.

Ordo CXXX. **AMARANTACEÆ.**

20 *in char. ordinis par.* 2, *lin.* 3, *post foliorum descriptionem adde:* Stipulæ 0.

21 *in Conspectu n.* 2, *pro* Melanocarpum, *lege* Pleuropetalum.

24 *n.* 2, *pro* **Melanocarpum,** *Hook. f. gen. nov.*, *lege* **Pleuropetalum,** *Hook. f. in Trans. Linn. Soc.* xx. 221; *in Hook. Lond. Journ.* v. *t.* 2; *et in Bot. Mag. t.* 6674 (Allochlamys, *Moq. in DC. Prod.* xiii. ii. 463), *et in lin.* 3, *pro* Stamina 5, *lege* Stamina 5–8, *et post* basi *adde* v. alte.

ad calcem generis adde: Genus *Pleuropetalum*, nobis ex specimine manco diu imperfecte cognitum, supra i. 157, dubie inter Portulaceas collocavimus, hodie melius notum pro *Melanocarpo* nostro agnovimus, et cum Moquinio ad *Amarantaceas* referrimus. Species 2, Mexici, Ecundoriæ et ins. Galapagorum incolæ. *Hemsley in Biolog. Centr. Amer.* iii. 11. *Hook. f. Bot. Mag. t.* 6674.

25 4. **Celosia,**

in citatis, lin. 2, dele *S. Wats. Bot. Calif.* ii. *ined.*

38 39. **Telanthera,**

sect. 1, lin. 1, pro *Bucholtzia*, lege *Bucholzia*; et lin. 4, pro Bucholtzia, lege Bucholzia.

Ordo CXXXI. **CHENOPODIACEÆ.**

45 in Conspectu, post 18. Ceratocarpum, insere:

*** *Genus* Cyclolobearum *anomalum.*

18*a*. Pleuropterantha. Flores 3-ni, intermedius ☿ perianthio fructifero immutato, 2 laterales abortivi, perianthio demum in alam reticulatam orbicularem expanso.—*Terr. Somali.*

48 *in Generibus exclusis*, Pugionium, Gærtn., *pro* **Caryophyllea,** *lege* **Crucifera.**

55 *ad calcem paginæ adde:*

18*a*. **Pleuropterantha,** *Franch. Sert. Somal.* 59, *t.* 5.—Flores interrupte spicati, ad axillas bractearum minimarum 3-ni, sessiles, 2 laterales abortivi 1-bracteolati, ad perianthium mox in alam orbicularem amplam reticulatam expansum reducti; intermedius hermaphroditus, ebracteolatus. Perianthii segmenta 5, 2 exteriora paullo majora, ovata, concava; 3 interiora obovata, plana, membranacea, post anthesin immutata. Stamina 5, hypogyna, inclusa, filamentis basi in annulum connatis; antheræ latæ, mediofixæ. Discus 0. Ovarium obovoideum; stylus brevis, stigmate crasso; ovulum leviter campylotropum. Utriculus orbicularis, compressus, perianthii segmentis inclusus, et inter alas florum abortivorum invicem appressas immersus, pericarpio crasso. Semen erectum, albumine copioso; embryo annularis, radicula hilum spectante.—Herba indurata, glabra, divarica-

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tim ramosa, ramis gracilibus. Folia alterna, linearia. Flores minimi, ad apices ramorum v. in axillis superioribus spicati, ternationibus secus rhachin tenuem dissitis. (*Char. ex auctoris descr. et ic.*)

Species 1, terræ Somali Africæ tropicæ orientalis incola, a nobis non visa.

60 31. **Kochia,**

habitationi adde: Australia.

77 78. **Ullucus,** lin. 1, pro *Senan.*, lege *Seman.*

78 80. **Anredera,** *lin.* 2, *synonymis adde:* Siebera, *Presl in Oken, Isis* xxi. 295. Beriesa, *Steud. Nom. Bot.*

Ordo CXXXII. **PHYTOLACCACEÆ.**

87 19. **Agdestis,**

ad calcem adde: Fructus sæpius 3–4-locularis 3–4-spermus, ex Hemsl. in Biol. Centr. Amer. iii. 30.

Ordo CXXXIV. **POLYGONACEÆ.**

91 in Conspectu, 25, Brunnichia, lin. 3, habitationi adde: *Afr. trop. occid.*

99 15. **Polygonum,**

ad calcem generis adde:

In *P. Weyrichii*, F. Schmidt, nux perianthio 3–4-plo longior, angulis alatis, sed embryo *Polygoni* nec *Fagopyri*.

102 *lin.* 12 *loco* omnino aphyllis, *lege* aphyllis v. novellis paucifoliatis.

103 24. **Antigonon,**

in citatis, lin. 3, post *Fl. des Serres*, dele (*quoad fructus male*).

25. **Brunnichia,**

habitationi, post australiorum, *adde* et Africæ tropicæ occidentalis.

Ordo CXXXV. **PODOSTEMACEÆ.**

108 *in Conspectu, post* 19. Oserya, *insere:*

19*a*. Potamobryon. Squamellæ exteriores 4. Filamentum liberum. Stigmata linearia.—*Mexico.*

114 *post* 19. **Oserya,** *insere:*

19*a*. **Potamobryon,** *Liebm. in Forhandl. Skandin. Naturf.* 1847, 513.—Flores hermaphroditi. Squamellæ exteriores 4, membranaceæ. Stamen 1, filamento filiformi libero ; anthera ovato-sagittata, 2-locularis. Ovarium sessile ; stigma 3-fidum (an potius 2-fidum?), lobis filiformibus divaricatis. Capsula 2-locularis, valvis 2 inæqualibus, majore persistente elastice deorsum involuta, altera minore decidua ; dissepimentum placentiforme, longitudinale, dehiscentia valvarum liberum, deciduum.—Plantula aquatica, *Jungermanniæ* facie, radice minuta callosa saxis affixa, cæspitoso-ramosa, foliosa, ramis

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alternis irregularibus. Folia amplexicaulia 2–4-stiche imbricata, adnata, integerrima. Spathæ plures, alternæ, pedunculum vaginantes. (*Char. ex Liebm.*)

Species 1, Mexicana, a nobis non visa. Genus evidenter *Oseryæ* valde affine et forte melius notum ei adjungendum.

Ordo CXXXVII. **CYTINACEÆ.**

118 1. **Cytinus,**

in sect. 3, lin. 1, pro *Bdallophyton*, lege *Scytanthus*; *pro* floribus 4–5-meris, *lege* floribus 4–9-meris; et lin. 2, ante Bdallophyton, insere *Hemsl. in Biol. Centr. Amer.* iii. 40. Scytanthus, *Liebm. in Forhandl. Skand. Naturf. Kjobenh.* 1847, 183.

Ordo CXXXVIII. **ARISTOLOCHIACEÆ.**

5. **Aristolochia,**

125 *ad calcem generis adde:*

Guaco. *Liebm. in Forhandl. Skandin. Naturf.* 1844, 203, frutex scandens, Mexicanus, trunco arboreo, a nobis non visus, ex charactere dato in omnibus cum *Aristolochia* (*Gymnolobo*) convenit exceptis stylis, qui 2 dicuntur terminales filiformes in ovario 6-loculare, hic tamen verisimiliter latet error quidam.

Ordo CXXXIX. **PIPERACEÆ.**

127 *lin.* 20, pro **Alismaceas,** *lege* **Naiadaceas.**

132 7. **Peperomia,**

citatis adde: *Casimir DC. in Mém. Soc. Phys. Gen.* xxvii. 305, *cum tabb.* 15.

Ordo CXL. **CHLORANTHACEÆ.**

134 1. **Chloranthus;** sect. 2, *Tricercandra. lin.* 1, *loco* Andrœcium 2-lobum, *lege* Andrœcium 3-lobum.

post 1. **Chloranthum,** *insere:*

1*a*. **Circæaster,** *Maxim. in Bull. Acad. Imp. Sc. Petersb.* xxvii. 556; *Mel. Biol.* xi. 345.—Flores hermaphroditi (an more *Chloranthi* pseudo-hermaphroditi, masculo cum fœmineo in receptaculo contiguis at liberis ?). Sepala (an bracteæ ?) 2, rarius 3, minuta, squamiformia, membranacea, persistentia. Petala 0. Stamina 1–2, sepalis alterna, filamento lineari anguste complanato; anthera terminalis, minima, subglobosa, loculis 2 oblique divergentibus. Ovarium lineare, basi attenuatum, nudum; stigma sessile, oblique oblongum; ovulum ordinis. Fructus parvus, oblongus, apice v. fere a medio pilis rigidulis uncinatis quasi glochidiatus, pericarpio membranaceo. Semen in speciminibus nostris immaturum, ex Maximowiczio fructum arcte explens, testa tenui a pericarpio vix separabili; albumen copiosum, extus corneum, intus carnosum; embryo axilis, majusculus, teres, radicula infera; cotyledones lineares, arcte parallelæ, radiculæ æqui-

longæ et vix latiores.—Herba annua, humilis, tenerrima, caule simplice filiformi, fasciculo foliorum coronato. Folia revera subopposita, sed paribus pluribus arcte approximatis quasi verticillata, petiolata, membranacea, spathulata, tenuia, margine mucronato-serrata. Flores minuti, in axillis pedicellati, pedicellis brevissimis mox parum elongandis (1–2 lin. longis) in racemulum dispositis, rhachi communi tamen haud v. vix evoluta racemulus ad fasciculum reducitur. Bracteæ ad basin pedicellorum minimæ squamiformes. Fructus infra 2 lin. longi, pro flore tamen majusculi.

Species 1, Asiæ montanæ incola. Specimina nostra a Przewaldskio in regione Kansu Chinæ borealis lecta communicavit Maximowicz cum notis fusioribus, et speciem eandem v. ei valde affinem olim legerunt Strachey et Winterbottom in montibus Himalayæ et descripsit delineavitque J. D. Hooker, specimina tamen cum notis iconeque e collectione Kewensi hodie amissa. Genus distinctissimum, sed nobis characteribus essentialibus *Chlorantho* affine videtur et etiam habitu speciminibus nonnullis *C. japonici*, Sieb., quodammodo accedit; differt caule annuo tenerrimo, racemulis ad fasciculum reductis, floribus (an revera?) hermaphroditis, pericarpio haud drupaceo, et embryone longiore cotyledonibus linearibus parallelis. Cotyledones in cæteris generibus sæpius divaricatæ, interdum minimæ vix prominentes.

ORDO CXLII. MONIMIACEÆ.

141 6. **Ephippiandra,** *lin.* 1, *loco* Flores dioici, *lege* Flores monoici v. dioici.

ORDO CXLIII. LAURINEÆ.

147 par. 3, lin. 3, ante *Berberideis*, insere *Combretaceis* (*Gyrocarpeis*).

149 *in Conspectu*, 29. UMBELLULARIA, *lin.* 1, *loco* ordinis quarti, *lege* ordinis tertii.

152 5. **Apollonias,**

in habitione, loco Zeylanica, *lege* Indica.

ORDO CXLIV. PROTEACEÆ.

176 25. **Persoonia.** Characteri generico adde: Embryonis lobi interdum plus quam 2. (*Cfr. Benth. Fl. Austral.* v. 397.)

ORDO CXLV. THYMELÆACEÆ.

196 22. **Drapetes,**

3. DAPHNOBRYON, *loco* Novo-Zelandicæ *lege* Borneensis.

ORDO CL. BALANOPHOREÆ.

233 post CONSPECTUM GENERUM, adde:

GENUS NON SATIS NOTUM.

HACHETTEA, *Baill. in Bull. Soc. Linn. Par.* 1879, 229. Flores dioici. Fl. ♂: Perianthii segmenta

3, concava, valvata. Stamina 2, filamentis liberis brevibus crassis; antheræ terminales, reniformes, 1-loculares, rima superne dehiscentes. Fl. ♀: Perianthium crassum, tubulosum, 3-lobum, lobis valvatis. Ovarium inferum; stylus elongatus, clavatus, papillosus; ovula . . . Fructus . . .—Herba carnosa, rubra. Caulis squamosus. Flores ♂ racemosi ♀ spicati, bracteati, racemis spicisque ad axillas squamarum sessilibus. (*Char. ex descr. auctoris.*)

Species 1, Novæ Caledoniæ incola, a nobis non visa. Genus verisimiliter ad *Eubalanophoreas* referendum, etsi differat filamentis liberis et antheris 1-locularibus.

Ordo CLI. **EUPHORBIACEÆ.**

244 *in Conspectu, ante* 18. Sarcococcam, *insere:*

17*a*. Notobuxus. Fl. ♂. Sepala 4. Stamina 6, filamentis brevissimis. Ovarii rudimentum 0. Frutex foliis oppositis integerrimis. Flores ad axillas ternatim fasciculati, ♀ unicus inter 2 ♂.—*Afr. austr.*

245 *in Conspectu, post* 33, Cluytiandram, *insere:*

33*a*. Reverchonia. Sepala basi nuda. Stamina in fl. ♂ 2, ovarii rudimentum 0. Fl. ♀: Pistillum 3-merum; styli breves stigmatibus emarginato-2-lobis; ovula amphitropa. Semina adscendentia, cotyledonibus vix radicula latioribus. Herba annua, parva.—*Texas.*

245 *in Conspectu, post* 44. Hemicycliam, *insere:*

44*a*. Sibangea. Stamina 3, circa discum latum concavum affixa. Ovarium 1-loculare; stigma crassum, peltatum, stylo brevi fultum. Arbor dioica.—*Afr. trop.*

253 *in Conspectu, dele* 161. Phyllobotryum, *genus ad* **Bixaceas** *referendum.*

262 6. **Poranthera,**

habitationi adde Nova Zelandia ubi species 2 nuper detectæ. *Hook. Ic. Pl. t.* 1366 B.

266 *ante* 18. **Sarcococcam,** *insere:*

17*a*. **Notobuxus,** *Oliv. in Hook. Ic. Pl.* xiv. 78, *t.* 1400.—Flores monoici, apetali. Discus 0. Sepala in utroque sexu 4, 2-seriatim imbricata. Fl. ♂: Stamina 6, quorum 2 sepalis exterioribus opposita, 4 per paria sepalis interioribus anteposita, filamentis brevissimis; antheræ juxta basin dorsifixæ, oblongæ, loculis introrsum longitudinaliter dehiscentibus. Ovarii rudimentum 0, toro inter stamina plano. Fl. ♀: Ovarium 3-loculare; styli 3, breves, crassi, divergentes, introrsum fere a basi stigmatosi; ovula in loculis gemina, ab apice pendula. Capsula oblonga, triquetra, stylis persistentibus 3-cornuta, loculicide 3-valvis, valvis (ob stylos dehiscentia 2-partitos) 2-cornutis. Semina oblonga, testa crustacea nigra nitida, strophiolo minimo v. obsoleto.—Frutex glaberrimus. Folia opposita, brevissime petiolata, elliptica, integerrima, tenuiter coriacea. Flores ad axillas fasciculati, fasciculis subsessilibus v. brevissime pedicellatis, 3-floris, flore centrali ♀, lateralibus ♂. Bracteæ sub fasciculo 2, basi brevissime connatæ, flores æquantes v. breviter superantes.

Species 1, Natalensis. Genus *Buxo* affine sed imprimis flore ♂ bene distinctum. Florum structura in fasciculo unico scrutata, quoad notas nonnullas minores ulterius confirmanda.

272 *ante* 34. **Phyllanthum,** *insere:*

33*a*. **Reverchonia,** *A. Gray in Proc. Amer. Acad.* xvi. 107.—Flores monoici v. dioici, apetali. Fl. ♂: Sepala 4, distincta, spathulato-oblonga, subherbacea, leviter imbricata. Discus obscurus. Stamina in centro floris 2, filamentis brevibus distinctis; antherarum loculi distincti, paralleli, introrsum in longitudinem dehiscentes. Ovarii rudimentum 0. Fl. ♀: Sepala 6, iis marium similia. Discus pateriformis, 6-crenatus. Ovarium 3-loculare; styli breves, discreti; stigmatibus brevibus crassis emarginato-2-lobis; ovula in

loculis gemina, amphitropa, medio affixa. Capsula 3-locularis, globosa, primum subcarnosa, demum in coccos 2-valves dissiliens. Semina in loculis 2, supra basin hilo parvo affixa, adscendenti-erecta, sectione transversa 3-gona, dorso convexa, estrophiolata, testa crustacea; embryo in albumine carnoso parum incurvus, teres, radicula supera gracili quam cotyledones parum latiores longior.—Herba annua, tenuis at rigidula, glabra, patentim ramosa. Folia alterna, brevi-petiolata, oblonga v. angustiora, integerrima, crassiuscula; stipulæ minimæ, lato-subulatæ, scariosæ. Flores parvi, ♀ breviter pedicellati, in axillis solitarii v. cum masculis paucis fasciculati.

Species 1, Texana. Genus quoad embryonem ad *Stenolobieas* accedit, sed habitus et characteres cæteri affinitatem maximam cum *Phyllantho* indicant.

279 *ante* 45. **Cyclostemon,** *insere:*

44*a*. **Sibangea,** *Oliv. in Hook. Ic. Pl.* xv. *t.* 1411.—Flores dioici, apetali. Fl. ♂: Sepala 4–5, imbricata, inæqualia. Stamina 3, circa discum centralem latum carnosum concavum margine leviter undulatum affixa, filamentis liberis; antheræ ovatæ, loculis parallelis longitudinaliter dehiscentibus. Ovarii rudimentum 0. Fl. ♀: Calyx maris. Discus hypogynus planus, annularis. Ovarium ovoideum, 1-loculare, in stylum brevem crassum attenuatum; stigma crassum, obliquum, late peltatum; ovula in loculo gemina. Fructus (immaturus) parvus, globosus, stylo brevi stigmateque coronatus, abortu 1-spermus, maturus ignotus.—Arbor parva. Folia alterna, breviter petiolata, integerrima, chartacea. Flores parvi, ad nodos defoliatos ramorum annotinorum dense fasciculati, fasciculis breviter pedunculatis v. sessilibus, floribus in fasciculo sessilibus.

Species 1, ad fl. Gaboon Africæ occidentalis a Soyauxio lecta. Genus *Hemicycliæ* valde affine, differt staminum numero, fructibus in fasciculo ♀ numerosis parvis, stylo breviter evoluto.

283 58. **Baccaurea,**

ad calcem generis adde:

Coccomelia, *Reinw. in Syll. Pl. Soc. Ratisb.* ii. 5, e Java, genus ab auctoribus recentioribus prætermissum, est, ex charactere dato, *Baccaureæ* species.

habitationi generis adde: Africa tropica.

295 84. **Croton,**

lin. 15, *adde:* Comatocroton, *Karst. in Koch, Wochenschr.* 1859, 6, species Colombiana, ab auctore a *Barhamia* distinguitur imprimis petalorum fl. ♀ absentia, quod tamen in speciebus perplurimis *Crotonis* observatur.

299 92. **Trigonostemon,**

lin. 1, *synonymis sectionis Tylogyne, adde:* Enchidium, *Jack in Mal. Misc.* ii. vii. 89.

325 *genus* 161. **Phyllobotryum,** *ex* Euphorbiaceis *deleatur, ad* **Bixaceas** *translatum; confer Oliv. in Hook. Ic. Pl.* xiv. 38, *t.* 1353.

336 188. **Sebastiania,**

sect. 2, *Microstachys, adde ad calcem:* Tragiopsis, *Karst. in Koch, Wochenschr.* 1859, 5, species Colombiana, ex charactere dato verisimiliter ad hanc sectionem *Sebastianiæ* pertinet.

Ordo CLII. **BALANOPSEÆ.**

341 1. **Balanops,**

ad calcem generis adde:

Balanopsis speciem novam ex Australia tropica descripsit F. Mueller in Fragm. Phytogr. Austral. x. 114.

Ordo CLIII. URTICACEÆ.

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347 *in Conspectu, post* 47. Pseudolmediam, *insere:*

47*a*. Olmediella. Stamina numerosa, squamis glanduliformibus intermixta, filamentis filiformibus antheris parvis. Florum capitula pauca in racemum disposita (in *Pseudolmedia* filamenta antheris breviora, capitula solitaria v. gemina, sessilia). Fl. ♀ ignoti.—*Brasilia.*

368 39. Ficus, *sect.* 3. Eusyce, *lin.* 10, *ante* Caprificus, *insere:*

Plagiostigma, *Zucc. in Fl. Jap. Fam. Nat.* ii. 98, *in adnot.*, nomen tantum; genus nunquam in Verhandl. Acad. Wiss. Baier. ulterius definitum ut in animo auctoris fuit et ab ipso aliisque incaute citatum.

et citatis adde: Bot. Mag. t. 6675.

372 *post* 47. Pseudolmediam, *insere:*

47*a*. **Olmediella**, *Baill. in Bull. Soc. Linn. Par.* 252.—Flores dioici; ♂ globoso-capitati, receptaculo bracteis minimis 1- v. pauci-seriatis basi connatis involucrato. Stamina (flores singuli v. in flore quoque 2–3 ?) numerosa, receptaculo subplano imposita, squamellis nonnullis glanduliformibus v. virescentibus intermixta, filamentis longe exsertis rigide filiformibus; antheræ parvæ, ovatæ, juxta basin dorsifixæ. Fl. ♀ et fructus ignoti.—Frutices v. arbores iliciformes, glabri, succo non lacteo. Folia alterna, breviter petiolata, oblongo-ovata v. elliptica, coriacea, nitidula, spinoso-serrata, pennivenia et reticulato-venulosa; stipulæ minimæ v. obsoletæ. Florum ♂ capitula in racemis axillaribus pauca, breviter pedicellata.

Species 2 (Brasilianæ?) quarum una in horto botanico Napolitano culta, altera, a nobis non visa, in horto Parisiensi. Genus, planta ♀ ignota, adhuc valde incertum remanet.

377 59. **Clarisia**,

ad calcem adde: in fructibus *Soaresiæ ilicifoliæ*, Glaz., semen invenimus a basi loculi erectum nec ab apice pendulum ut in *Clarisia* et in *Soaresia* delineatur. Folia iis *Olmediellæ Cesatianæ*, Baill., simillima. Affinitates speciei, floribus ♂ ignotis, dubiæ remanent.

379 64. Musanga, *lin.* 2, *loco* ♂ *lege* ♀ (in massam conferti).

Ordo CLIX. CUPULIFERÆ.

408 7. **Quercus**,

sect. 3 *Pasania*, citatis adde, *Hance in Trim. Journ. Bot.* 1875, 136.

410 10. **Fagus**,

in linea penultima, pro cadiva, *lege* caduca.

Ordo CLXIII. CERATOPHYLLEÆ.

415 *in char. ordinis, lin.* 11, *loco* anatropum, *lege* orthotropum; *lin.* 18, *loco* radicula supera, *lege* radicula infera.

Ordo CLXIV. GNETACEÆ.

418 1. **Welwitschia**, *Characteri generico adde:* Folia persistentia, quæ ex auctoritate Welwitschii e cotyledonibus accreta diximus, sunt revera folia primaria supra cotyledones evoluta.

ORDO CLXV. **CONIFERÆ.**

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421 lin. 13 a basi, post *Taxodio* adde *Ginkgo.*

lin. 6 *a basi, pro* floris ♂, *lege* floris ♀.

430 11. **Athrotaxis,**

habitationi post Tasmanicæ *adde* et Victoriæ incolæ.

432 15. **Ginkgo,** *in char. generis lin.* 11, *dele* sempervirens.

lin. 13, *post* Folia, *insere* decidua.

438 26. **Pinus,**

libris citatis adde: Engelmann, Rev. Gen. Pinus in Trans. Acad. Sc. St. Louis, iv. 161, t. 1 ad 3.

ORDO CLXVII. **HYDROCHARIDEÆ.**

450 1. **Hydrilla,**

habitationi adde: Europa orientalis.

451 5. **Blyxa,** *adde synonymon:* SAIVALA, *Wall. Cat. Herb. Ind. n.* 5047, *nomen tantum.*

453 9. **Ottelia,** *adde synonymon:* HYMENOTHECA, *Salisb. in Trans. Hort. Soc.* i. 268, *absque char.*

454 11. **Stratiotes,**

habitationi adde: Asia altaica.

ORDO CLXIX. **ORCHIDEÆ.**

481 *in Conspectu, n.* 241, *loco* VRYDAGZENIA, *lege* VRYDAGZYNIA.

485 *in Conspectu, n.* 290, *loco* LEUCORCHIS, *lege* DIDYMOPLEXIS.

490 *ad calcem generis* 1. **Pleurothallis,** *insere:*

Opusculum nuper accepimus a Botanico Brasiliano J. Barbosa Rodrigueso sub titulo 'Genera et Species Orchidearum Novarum,' descriptiones continens specierum 144 *Pleurothallearum* Brasiliensium. De harum valore et affinitatibus absque speciminibus judicare nequimus. Auctor eas pro maxima parte ad genera *Pleurothallem, Lepanthem, Stelim* et *Octomeriam* refert, et genera 3 nova sequentia proponit:

CHÆTOCEPHALA, *Barb. Rodr. Orch. Nov.* 37, charactere dato omnino *Pleurothalli* convenire videtur, excepta anthera pilosa, quod in genere vasto adhuc quantum scimus non indicatur.

ANATHALLIS, *Barb. Rodr. Orch. Nov.* 72, species 9 continet; pro characteribus tamen genericis quibus a *Pleurothalli* distinguuntur, auctor ad fasciculum anteriorem opusculi sui refert nobis adhuc ignotum.

CRYPTOPHORANTHUS, *Barb. Rodr. Orch. Nov.* 79, species 3 continet ex charactere dato *Pleurothalli purpureæ*, Lindl. (*Masdevalliæ fenestratæ*) affines etsi parvifloras. Sectionem verisimiliter distinctam formant, sepalo postico cum lateralibus connato, lateraliter vero fenestras præmittentibus.

496 *ad calcem generis* 14. **Liparis,** *adde:*

ANDROCHILUS, *Liebm. in Forh. Skand. Naturf. Möde,* iv. 197, herba est Mexicana terrestris a nobis non visa; ex descriptione fusiore in omnibus generi *Liparidi* convenire videtur, excepto

Pag. stamine, quod anticum dicitur in fovea columnæ impressum, filamento distincto subulato ¾ lin. longo instructum, quod nec in *Liparide* nec in ullo alio genere *Orchidearum* adhuc observarimus.

504 *ad calcem generis* 24. **Bulbophylli**, *adde:*

Barbosa Rodrigues, Gen. et Sp. Orch. Nov. 110, species 12 novas Brasilianas *Bulbophylli* describit, inclusis 7 ad *Didactylem* relatis.

588 215. **Podochilus**, *lin.* 2, *loco* Plocostigma, *lege* Placostigma.

598 *n.* 241, *loco* **Vrydagzenia**, *lege* **Vrydagzynia.**

616 *dele lin.* 15 *et* 16 (obs. de Didymoplexi).

n. 290, *loco* **Leucorchis**, *Blume*, lege : **Didymoplexis**, *Griff. in Calc. Journ.* iv. 383, *t.* 17 (Leucorchis, *Blume*, . . . *et characteri generico adde:* Pedicellus post anthesin valde elongatur. Capsula oblongo-linearis, erecta. (*Cfer. Hemsl. in Journ. Linn. Soc.* xx., *fasciculo mox edituro.*)

620 299. **Orchis**,

in habitatione, lin. 2, *pro* Mascarensium, *lege* Canariensium.

623 306. **Bartholina**, *adde synonymon* : Lathrisia, *Swartz, Annot. Bot.* 49, *fide Endlicheri.*

Ordo CLXX. SCITAMINEÆ.

638 *in Conspectu, post* 20. Alpinium, *insere:*

20*a*. Riedelia. Racemus terminalis. Corolla calycem non excedens. Filamentum longiusculum ; antheræ connectivum angustissimum, loculis contiguis brevius.—*Archip. Malay.*

648 *post* 20. Alpiniam, *insere:*

20*a*. **Riedelia**, *Oliv. in Hook. Ic. Pl. t.* 1419.—Calyx tubulosus, apice attenuatus, 3-dentatus v. brevissime 3-fidus, demum spathaceo-fissus. Corollæ tubus brevissimus ; lobi anguste lanceolati postico paullo latiore, calycem non excedentes. Staminodia lateralia linearia, inæqualia, labello breviora, uno interdum minimo v. obsoleto, altero basi plus minus labello adnato v. a basi libero ; labellum angustum, 2-fidum, corolla brevius ; filamentum longiusculum ; antheræ loculi distincti at contigui, connectivo angustissimo loculis breviore. Ovarium 3-loculare, loculis ∞-ovulatis ; stylus filiformis, stigmate parum dilatato ciliato ; stylodia crassa, carnosa, obtusa, erecta, styli basin non incrassatam includentia. Fructus . . .—Caulis erectus, foliatus. Flores in racemo terminali recurvo numerosi, breviter pedicellati. Bracteæ minutæ, squamiformes, bracteolis 0. Perianthium cum andrœcio post anthesin caducissimum stylo diu persistente.

Species 1, in ins. Buru Archipelagi Malayani a Riedelio lecta.

650 *ad calcem generis* 24. **Stromanthis**, *adde:*

Kerchovea, *Jorissenne in Belg. Hortic.* 1882, 201, *t.* 8, ex icone et descriptione est evidenter planta Brasiliana a Gardnero sub n. 5638, distributa, quam ad *Stromanthem Porteanam*, Gris. in Ann. Sc. Nat. ser. 4, ix. 187, t. 6, referrimus, nec characteres ullos præbet quibus a *Stromanthi* distinguenda. In pluribus *Scitamineis* staminodia plus minus variant, etiam in diversis floribus ejusdem speciminis.

Ordo CLXXIII. IRIDEÆ.

699 29. **Sisyrinchium**,

sect. 2. *Echthronema*, synonymis adde : Glumosia, *Herb. in Bot. Reg.* 1843, *Misc.* 85 (*S. palmifolium*, Linn.).

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Ordo CLXXIV. **AMARYLLIDEÆ.**

731 *ad calcem generis* 41. **Eucharitis,** *adde:*

Mathieua, *Klotzsch in Allgem. Gartenz.* 1853, 337, species Peruviana a nobis non visa, ex descriptione fusiore charactere nullo generico ab *Eucharite* separanda videtur. Flores in umbella sessiles et membrana petaloidea filamentorum tubo perianthii omnino adnata observantur etiam in *E. Sanderii*, Baker in Bot. Mag. t. 6676, a qua hæc species differt omnibus partibus minoribus, perianthii lobis conniventibus et staminibus breviter exsertis.

731 42. **Calliphruria,** *lin. ultima, pro* Eucharidem, *lege* Eucharitem.

738 60. **Agave,**

sect. 3 *Manfreda*, adde synonymon: Allibertia, *Marion in Rev. Hort. Bouch. Rhone, Nov.* 1882, *cum ic.*

Ordo CLXXVII. **ROXBURGHIACEÆ.**

747 1. **Stemona,** *post char. genericum adde:*

Nomen genericum **Roxburghia,** etsi recentius, ab omnibus fere botanicis Loureiriano præpositum, forte etiam posthac commoditatis causa retinendum. Nomen ordinis, a Wallichio bene stabilitum, nequaquam in *Stemonaceas* mutandum ut vult Kurz.

Ordo CLXXVIII. **LILIACEÆ.**

754 *in Conspectu, n.* 52, *pro* Paradisea, *lege* Paradisia.

755 *in Conspectu, n.* 68, *pro* Bottinæa, *lege* Bottionea.

780 *lin.* 4, *dele* cum una Brasiliana.

809 122. **Litanthus,**

post habitationem adde: *Bot. Mag. t.* 5995.

820 142. **Gagea,** *ad calcem adde:*

Plecostigma, *Turcz.*; *Trautv. Pl. Fl. Ross. Imag.* 9, *t.* 2, est *Gagea pauciflora*, Turcz., cujus stigma quam in cæteris speciebus evidentius 3-fidum, lobis breviter linearibus. Regel, post Ledebourium, hanc speciem in genere *Gagea* retinuit.

836 186. **Zygadenus,**

sect. 3. *Amianthium*, synonymis adde: Endocles, *Salisb. Gen. Pl. Fragm.* 51.

Ordo CLXXXIII. **COMMELINACEÆ.**

847 4. **Commelina,** *synonymis adde:* Omphalotheca, *Hassk. in Bull. Congr. Bot.* 1865, 13, *fide Clarkei.*

ORDO CLXXXVII. **PALMÆ.**

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879 *in Conspectu, n.* 91, *pro* SERENÆA, *lege* SERENOA.

926 *genus n.* 91, *pro* **Serenæa,** *lege* **Serenoa.**

ORDO CXCI. **AROIDEÆ.**

964 5. **Pistia,** *lin.* 1, *pro* Zara, *lege* Zala.

ORDO CXCV. **NAIADACEÆ.**

1013 5. **Aponogeton,** *synonymis adde:* LIMNOGETON, *Edgew. in Lindl. Veg. Kingd.* 210, *nomen tantum.*

ORDO CC. **GRAMINEÆ.**

1079 *in Conspectu, n.* 43, *loco* HYGRORHIZA, *lege* HYGRORYZA.

1083 *in Conspectu, n.* 101, *loco* TETRARHENA, *lege* TETRARRHENA.

1084 *in Conspectu, n.* 104, *loco* HIEROCHLOA, *lege* HIEROCHLOE.

1095 *in Conspectu, n.* 294, *loco* CEPHALOSTIGMA, *lege* CEPHALOSTACHYUM.

1097 GENERIBUS DUBIIS *adde:*

CHAUVINIA, *Steud. Syn. Pl. Glum.* i. 362, planta Chilensis, est verisimiliter *Deyeuxiæ* species. STENOSTACHYS, *Turcz. in Bull. Soc. Imp. Nat. Mosq.* ii. 330, si revera planta Novo-Zelandica, est verisimiliter sub alio nomine jam in Flora Novæ Zelandiæ recepta, sed a botanicis recentioribus haud recognita. Cfer. *Hook. f. Handb. N. Zeal. Fl.* 344.

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79 m.

LONDINI

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